CHAPTER 2

Project Description

2.1 Project Background

Development on the project site has been the subject of ongoing environmental review related to proposed developments since 2006. On May 22, 2006, an NOP and Initial Study were distributed to the State Clearinghouse (SCH), interested agencies, and the public for a 30-day public review period. The SCH issued a project number for the previous EIR (SCH No. 2006051110) and a public scoping meeting was held on June 1, 2006. Between circulation of the NOP in 2006 and August 2008, the project applicant reduced the proposed project from an original 213 single-family residential units to between 165 and 169 single-family residential units. As a result, the NOP was re-issued and another public scoping meeting was held on August 18, 2008. Prior to circulation of the Draft EIR, the project applicant decided to suspend the previous project in response to a downturn in the residential housing market. Therefore, the Draft EIR was not circulated for public review, finalized, nor considered by the County for approval.

The project has since been redesigned and is smaller than the previously proposed project, as described in detail in Section 2.5, *Project Design Characteristics* below. The project no longer proposes residential development within Riverside County. Because several years have passed since commencement of the previous CEQA documentation, and because various details of the proposed project have been revised, new CEQA documentation (this Draft EIR) has been prepared.

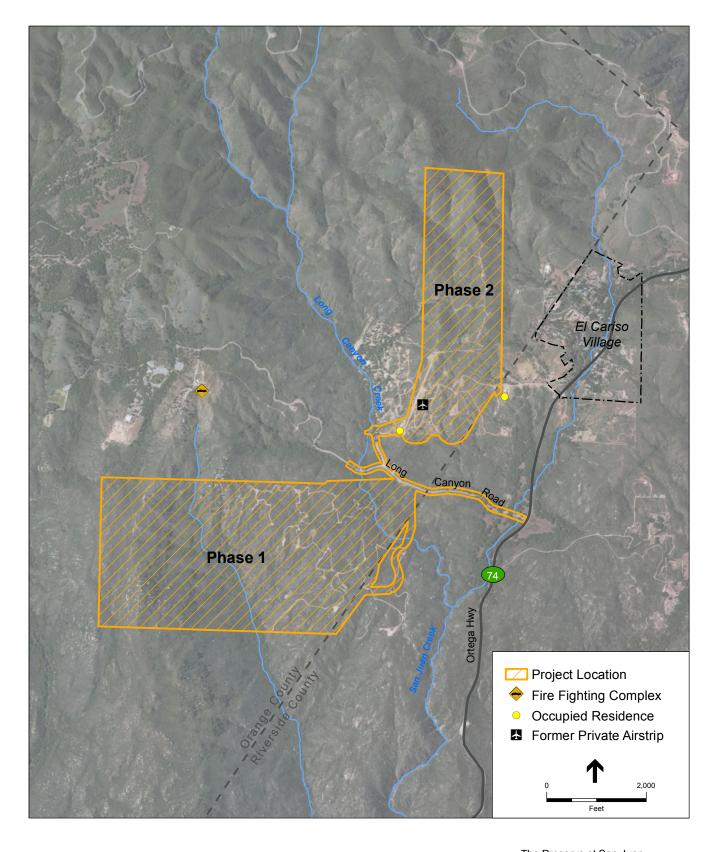
2.2 Project Location

The proposed project site consists of two non-contiguous parcels located in the southeastern portion of unincorporated Orange County, between 2,300 feet and 2,970 feet west of Ortega Highway, respectively, and separated by Long Canyon Road. The project site is situated on private property in the Santa Ana mountains. The project is approximately 1,500 feet west of El Cariso Village, a small rural residential area, six miles southwest of the City of Lake Elsinore in Riverside County and approximately 6.25 miles east of the City of Rancho Santa Margarita in Orange County (see **Figure 2-1**). Phase 1 (south parcel) is approximately 389.6 acres and is located between 2,300 feet and 2,970 feet west of Ortega Highway. The 194.5-acre Phase 2 (north parcel) is located approximately 122 feet north of Phase 1 (south parcel), and is between 2,240 and 2,670 feet west of Ortega Highway. **Figure 2-2** illustrates the project site in its local setting.



The Preserve at San Juan

Figure 2-1 Regional Location



SOURCE: ESRI.

The Preserve at San Juan

Figure 2-2

Project Location

2.3 Site Characteristics and Adjacent Uses

The project site is made up of two non-contiguous parcels of land that are separated by a parcel of land that is part of the Cleveland National Forest and Long Canyon Road. The project site is located within an undeveloped and densely vegetated part of the Santa Ana Mountains within the unincorporated southeastern portion of Orange County. The natural topography of the area is diverse and consists of steep terrain, ridgelines, and areas of level ground. For example, the northern portion of the project site has a steep ridgeline and the southernmost area has a deep canyon, and elevations range from approximately 3,300 feet above mean sea level (amsl) in the northeast portion of the project site to approximately 2,025 amsl in the southern portion in the canyon. Most of the area proposed for development is between 2,400 and 2,900 feet amsl.

The project site has an existing Orange County General Plan land use designation of Open Space (OS) and a zoning designation of General Agricultural (A1).

Phase 1 (south parcel) is 389.6 acres and is located west of Ortega Highway. The site consists of gently sloping terrain in the southern portion of the parcel and steep, rugged terrain in the northern portion of the parcel. The majority of Phase 1 (south parcel) is undisturbed and supports dense chaparral, densely vegetated hills, and scattered patches of oak woodland. Long Canyon Creek crosses the southwest corner of the parcel.

Existing disturbance areas are generally located in the northeastern portion of the Phase 1 (south parcel) and includes a network of dirt roads and trails, one abandoned residence with a shed containing a water well and cistern.

Phase 2 (north parcel) is 194.5 acres and is located approximately 122 feet north of Phase 1 (south parcel), and is also west of Ortega Highway. The Phase 2 (north parcel) consists of gently sloping terrain in the northeast portion of the parcel and steep, rugged terrain throughout the remainder of the parcel. The majority of the parcel is undisturbed and supports dense chaparral with large rock outcroppings and areas of oak woodland. Long Canyon Creek crosses the northeast corner of the parcel and an unnamed stream bisects the center of the parcel from north to south.

Existing disturbance areas are located in the southern portion of the parcel and include a network of dirt roads and trails throughout the parcel, and an occupied residence in the southwest corner of the parcel that would be vacated prior to the start of construction. This portion of site is connected to the electricity grid and contains two active water wells and several water storage tanks (one of them 8,000 gallons). Additionally, various cleared graded areas exist where structures had previously been built.

The southwestern portion of the Phase 2 (north parcel) contains the previously used McConville Airstrip (FAA Identifier CA42) that has a gravel surface, is approximately 1,000 feet long, and lies in a northeast to southwest direction on a slope. (see Figure 2-2). The airstrip was previously used for training of landing small aircraft in rural areas. A hangar/maintenance structure, bunker, and a shed that contains tools, equipment and various oils and lubricants is located adjacent to the airstrip.

In addition, several areas within Phase 2 (north parcel) are being used to store numerous dilapidated vehicles and debris piles. The parcel also contains two trash pits were used up until the 1950s or 1960s, and are now that are covered by soil and vegetation.

Adjacent Uses. Land uses adjacent to the project area are described below:

- **Between Phase 1 and 2.** An undeveloped parcel that is part of the Cleveland National Forest separates the two project phases, and consists of gently sloping terrain in the northern portion of the parcel; and steep, rocky, rugged terrain in the southern portion. The parcel is undisturbed (except for the paved Long Canyon Road right-of-way), and supports dense chaparral, as well as scattered patches of oak woodland.
- North: Undeveloped, densely-vegetated Cleveland National Forest lands are located to the north of both Phase 1 (south parcel) and Phase 2 (north parcel).
 - The nearest structures to the north of Phase 1 (south parcel) include a residence near Long Canyon Road that is 1,340 feet from the project site, the U.S. Forest Service El Cariso Hotshot Camp (forest service fire-fighting complex) that is approximately 1,400 feet from the site; the Cleveland National Forest Blue Jay Campground (with 50 campsites), which is farther than 1,500 feet from the site; and the Los Pinos Conservation Camp (1,500 feet northwest of the site), which is a residential education center that is owned by the Cleveland National Forest and operated by the California Conservation Corps (CCC).
 - No structures are located to the north of Phase 2 (north parcel). Further to the east of these facilities are single-family rural residences. There are no structures north of Phase 2 (north parcel).
- **East:** Undeveloped, densely-vegetated Cleveland National Forest lands are located to the east of both phases.
 - o There are no structures in proximity to the east of the Phase 1 (south parcel). The closest structure to the east of Phase 1 (south parcel) is Ortega Highway, which is located between 2,300 feet and 2,970 feet to the east.
 - O The nearest structures to the east of the Phase 2 (north parcel) are rural residential structures that exists on the perimeter of the small rural community of El Cariso Village that is located approximately 1,500 feet east of Phase 2 (north parcel), in Riverside County.
- South: Undeveloped densely vegetated Cleveland National Forest lands are located to the south of Phase 1 (south parcel). There are no structures in proximity to the south of Phase 1 (south parcel). An area containing Long Canyon Road and an undeveloped parcel that is part of the Cleveland National Forest is located to the south of the Phase 2 (north parcel), which is in between the two project phases. In addition, a residence is located approximately 160 feet from the southeastern boundary of the Phase 2 (north parcel).
- West: Undeveloped densely vegetated Cleveland National Forest lands are located to the west of Phase 1 (south parcel). There are no structures in proximity to the west of Phase 1

(south parcel). The Mystic Oaks Retreat that includes various cabins for visitors is located to the west of the Phase 2 (north parcel).

2.4 Project Objectives

The proposed project is intended to provide for the development and maintenance of a single-family residential neighborhood in conjunction with limited vineyard uses. The following objectives have been established by the applicant to serve as a basis for comparing the alternatives, and for the evaluation of associated environmental impacts.

- To provide a residential community that is compatible with the surrounding residential and natural areas.
- To mitigate impacts to existing blue-line streams and California coastal live oaks.
- To ensure that current infrastructure and public services would not be lessened or burdened by project implementation but would be improved. This includes water capacity, fire safety, and storm-water runoff quality, and road safety.
- To ensure that lot coverage and density do not have impacts upon the site which cannot be mitigated in accordance with the County of Orange land use policies and development standards.
- To provide mitigation to the satisfaction of the County of Orange, California Department
 of Fish and Wildlife, and the U.S. Fish and Wildlife Service for any impacts to habitat or
 blue-line streams.
- To provide a residential community that incorporates a wildland fire-safe design that
 protects the proposed homes from potential wildland fires in accordance with the
 standards set forth by the Orange County Fire Authority.
- To provide a residential community that is uniquely different by integrating with and being sensitive to the environmental constraints of the existing terrain, geology, blue line streams, and the California live oak trees and that offers a large lot and remote lifestyle in a natural setting that is not commonly found within Orange County.

2.5 General Plan Land Use Amendment and Zone Change

The existing Orange County General Plan designation for the project area is Open Space (OS), which allows for limited land uses that do not require a commitment of significant urban infrastructure. The existing zoning designation is General Agricultural (A1), which allows residential development at a maximum density of 0.25 dwelling unit per acre (or four acres per dwelling unit), and other low intensity uses that have a primarily open space character.

The project proposes to change the General Plan Land Use designation of the project area to Rural Residential (1A), which allows a minimum density of 0.25 to 0.5 dwelling units per acre, (or two to four units per acre). The project also proposes to change the zoning designation to

Residential Agricultural (AR). The AR zone provides for single-family residential neighborhoods in conjunction with agricultural and outdoor recreational uses and requires a minimum residential lot size of 7,200 square feet. The proposed residential development is designed to be consistent with the AR development regulations pursuant to Section 7-9-59.8 (AR District) of the County of Orange County Zoning Code.

2.6 Water Districts Annexations

The project site is adjacent to the Elsinore Valley Municipal Water District (EVMWD) service area, and an existing out of boundary water distribution pipeline runs adjacent to the project site. Water supplies to the proposed project would be supplied through this pipeline, and the portions of the project site that would require potable water (Approximately 133.4 acres) would be annexed into the EVMWD service area. Areas of the project site that would remain in natural open space, or fuel modification areas that do not require irrigation, would not be annexed into the water service area.

EVMWD is wholly within the boundaries of Western Municipal Water District (Western), which is wholly within the boundaries of Metropolitan Water District (MWD) which provides water supplies. Because of this arrangement, the area to be included in the EVMWD service area would also be annexed into the boundaries of Western and MWD. These service area boundary changes require approval by Riverside County Local Agency Formation Commission (Riverside LAFCO).

2.7 Project Design Characteristics

The proposed project would develop 72 single-family residential lots on the project site, as well as, internal circulation, external access improvements, on-site wastewater treatment systems, internal landscaping, fuel modification zones, and dedicated open space. The proposed project has been designed to provide:

- Ecosystem planning, which preserves a large block of open space that is contiguous to
 other large blocks of open space, thereby providing greater connectivity and linkages to
 foster wildlife movement;
- Oak tree mitigation which relies on preservation/restoration/enhancement of on-site oak trees through sustainable tree plantings (as well as native tree planting);
- Wildland planning that utilizes sophisticated fire behavior modeling to provide a fire safe design to protect residents and structures, by including fuel modification zones and defendable spaces around residences; and
- Water quality and hydromodification features that efficiently utilize the project's infiltration capacity along with low impact development techniques and preservation of natural processes within drainages for water treatment.

2.7.1 Residential and Hardscape Elements

The project would develop 72 single-family residential lots under a proposed "Rural Residential" (1A) General Plan Land Use designation and "Agricultural Residential" (AR) zoning. The project would be developed in two phases (Phase 1 [south parcel] and Phase 2 [north parcel]) and would include large areas of open space. A summary of the project development area is provided in **Table 2-1** and shown in **Figure 2-3** for Phase 1 (south parcel) and **Figure 2-4** for Phase 2 (north parcel).

The proposed project would cluster development toward Long Canyon Road on the portions of the parcels where the natural terrain is conducive to development. Open space would be concentrated in the western and northern portions of the project site to create a buffer between the proposed residential uses and the adjacent Cleveland National Forest lands; which would buffer the residential uses and reduce or avoid potential environmental edge effects of development. The areas of project disturbance are shown in **Figure 2-5**.

TABLE 2-1
PROJECT DEVELOPMENT AREA SUMMARY

Land Use	Gross Acres	Single-Family Units
Phase 1 (south parcel)		_
Residential Building Pads	42.7	43
Roadways	7.6	
Landscape, Fuel Modification, Vineyards	58.3	
Total Developed Phase 1 (south parcel)	108.6	
Phase 2 (north parcel)		
Residential Building Pads	32.0	29
Roadways	8.2	
Landscape, Fuel Modification, Vineyards	20.7	
Total Developed Phase 2 (north parcel)	60.9	
Open Space		
Phase 1 (south parcel)	281.0	
Phase 2 (north parcel)	133.6	
Total Open Space	414.6	
Total Project Acreage	584.1	72

Source: The Preserve at San Juan Area Plan Document, 2017.

As shown in **Table 2-1**, Phase 1 (south parcel) of the project would develop 43 single-family residences on approximately 108.6 acres and 281 acres would be dedicated to open space. Phase 2 (north parcel) would develop 29 single-family residences on approximately 60.9 acres and 133.6 acres would be dedicated to open space. The total onsite project area (both Phase 1 [south parcel] and Phase 2 [north parcel]) includes 584.1 acres and the project proposes improvements to 169.5 of those acres. The remaining 414.6 acres (71 percent of the project area) would remain undeveloped open space. No improvements, including landscaping, would occur in the open space portions of the project site. Areas that are designated for open space by the proposed project would be preserved in the existing natural condition.







The Preserve at San Juan

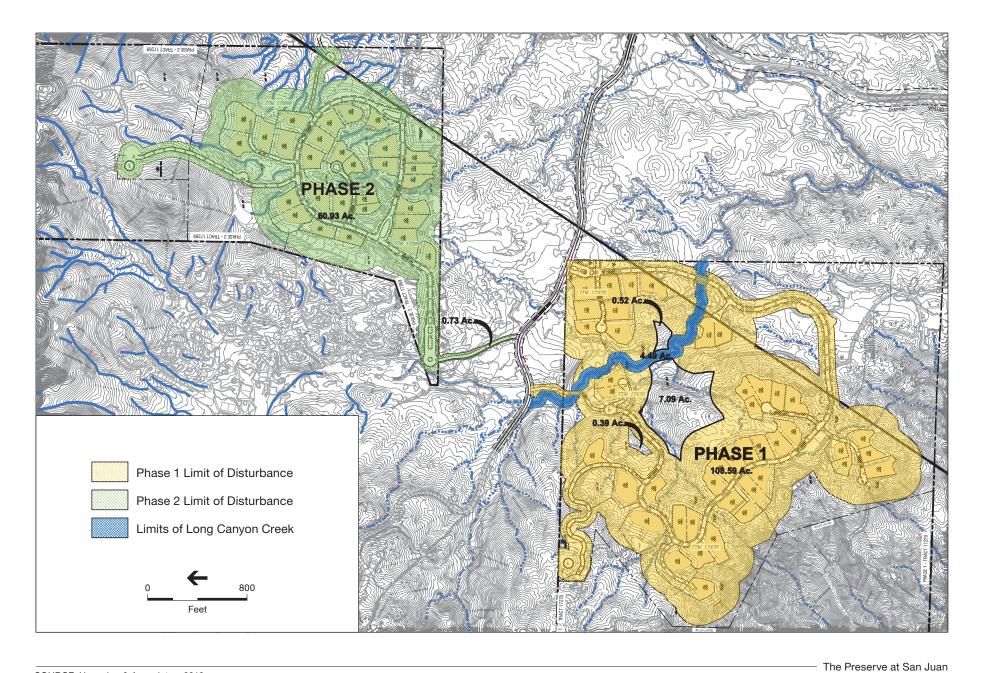


Figure 2-5
Areas of Disturbance

Residential lot sizes would average 23,997 square feet for Phase 1 (south parcel) and 23,667 square feet for Phase 2 (north parcel). The maximum height of all residential development would be two stories (less than 35 feet).

Proposed hardscape elements include project entry monuments for each Phase, and walls and fences proposed for the individual lots. The heritage for the area is Spanish in nature with the Mission San Juan Capistrano and Rancho Mission Viejo having the biggest influence on structural design. Materials, colors, and textures relating to this design theme would be translated by including slumpblock masonry with either a mortarwash finish or left unfinished in an adobe color. The mortar-washed slumpblock is proposed at the project entries as it has a more refined appearance, while the adobe colored slumpblock is proposed as the individual residential lots. The proposed fencing consists of precast concrete two-rail fencing with low mortar-washed slumpblock pilasters or high tubular steel fencing. The two-rail fencing and low pilasters is proposed at the project entries. See **Figure 2-6** through **Figure 2-9** for the fencing and wall plans for each phase.

2.7.2 Vehicular Circulation

Access to both phases of the project would be provided from Long Canyon Road via Ortega Highway (SR-74), which are both public roadways. Long Canyon Road is designated as a 66-foot right-of-way public road that branches off of Ortega Highway (State Route 74). Long Canyon Road was improved in 2016 and currently provides a paved width of 24-feet with a curb and gutter.

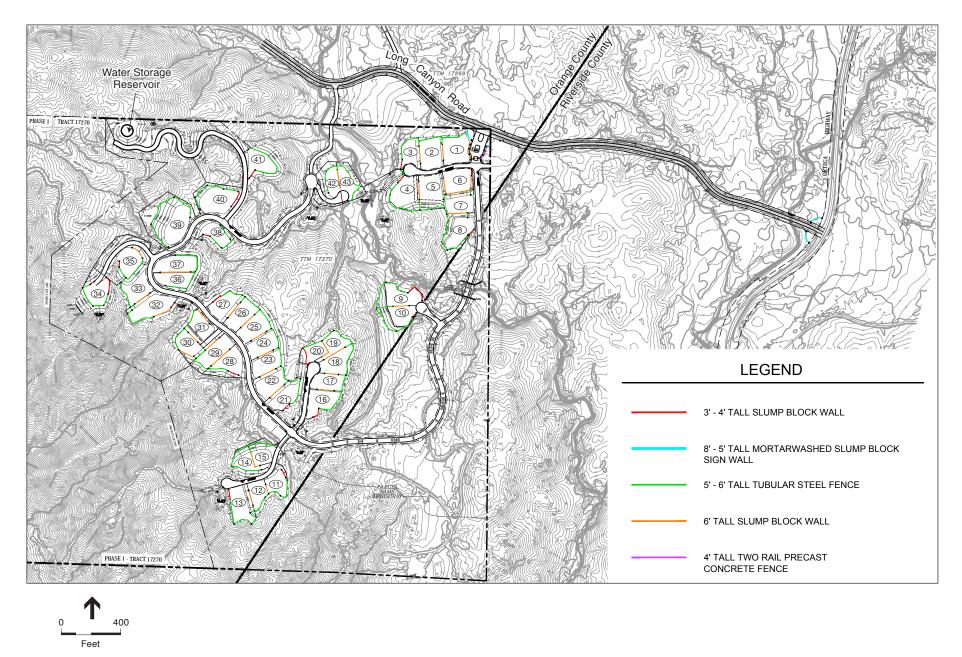
The onsite roads throughout both phases would loop through the proposed development areas and would be designed pursuant to both the Orange and Riverside Counties' (depending on roadway location) rural street standards, and would have features such as rolled curbs, no sidewalks, culde-sacs, and landscaped planter islands.

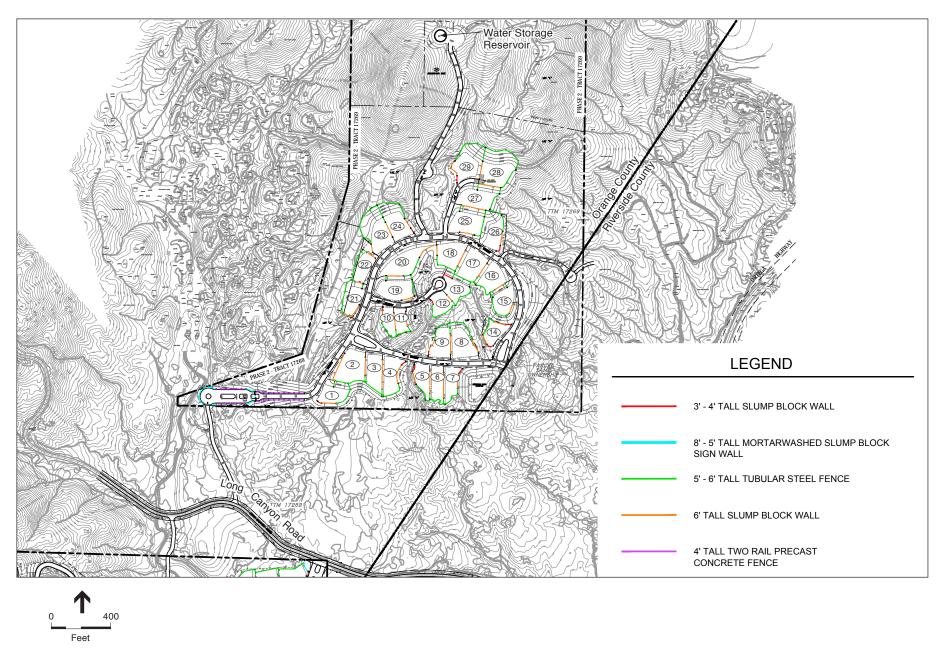
Phase1 (south parcel)

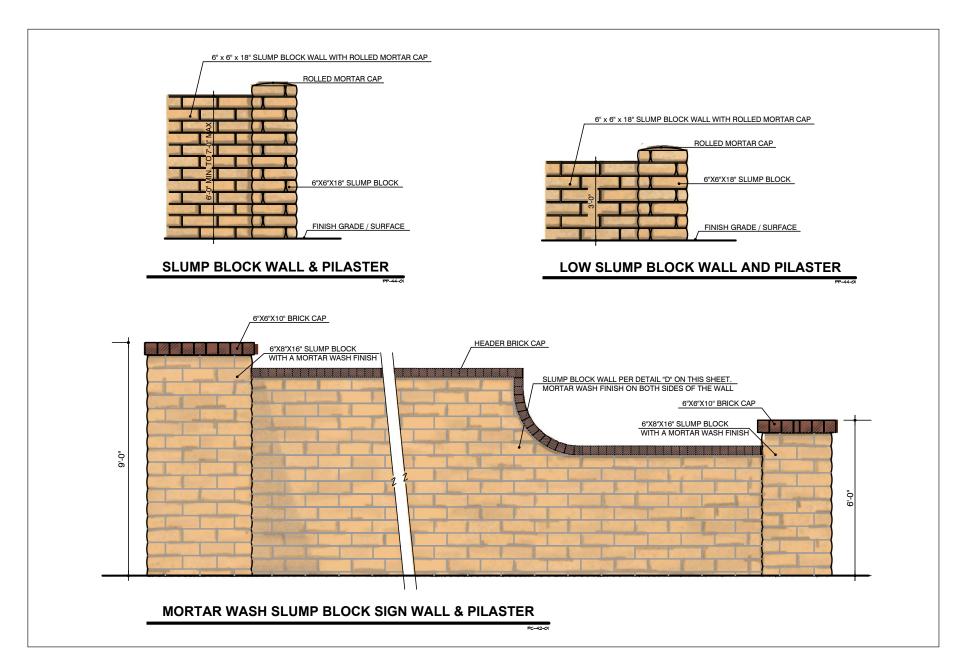
The Phase1 (south parcel) would be accessed directly from Long Canyon Road via gated entries that would be setback from Long Canyon Road at a minimum of 100 feet from the curb line of Long Canyon Road, to provide adequate vehicle stacking space (per Orange County Standard Plan No. 1107). Stop signs, stop bars, and stop legends would be installed at the intersection of Long Canyon Road for vehicles exiting the site.

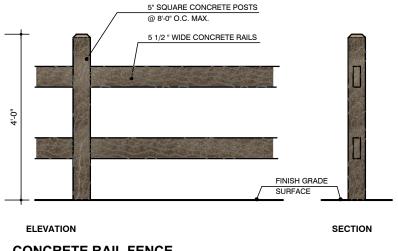
A portion of the onsite roadway would cross Long Canyon Creek in the northern portion of Phase 1 (south parcel). The roadway creek crossing would consist of an arch span bridge of concrete or steel with a natural bottom that was designed to minimize potential impacts to the creek and its related biological resources.

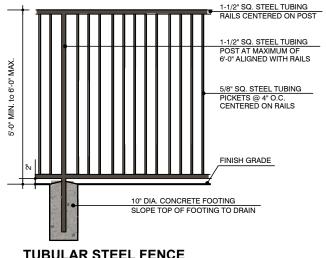
The Phase 1 (south parcel) roadway would connect back to Long Canyon Road to the west of the entrance gate, via an existing off-site roadway that would be improved (approximately 0.5-acre off-site improvement area) to existing Orange County standards, that would be used as a secondary exit and a restricted entrance. The secondary exit would be limited to residents leaving





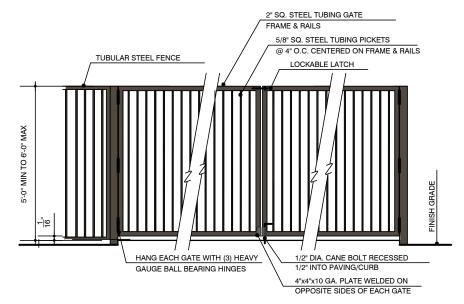






CONCRETE RAIL FENCE

TUBULAR STEEL FENCE



TUBULAR STEEL GATE

(departures only), and the restricted access would be for emergency responders only. The secondary entrance gate would be locked, and a "knox box" would be installed to provide emergency entry for Sheriff and Fire Department personnel. Knox boxes are small mounted safes that hold keys or access cards for fire and police departments to use in emergency situations. The proposed circulation Phase 1 (south parcel) is shown in Figure 2-3.

Due to the topographical constraints of the Phase 1 (south parcel) an 8-acre portion of the onsite roadway is within Riverside County. Roadway improvement permits for development of this portion of the onsite private roadway would be required by the Riverside County Transportation Department to ensure improvements are consistent with private roadway improvement requirements.

Phase 2 (north parcel)

Phase 2 (north parcel) would be accessed from Long Canyon Road via an existing 0.73-acre offsite roadway area that would be improved for the project. Improvements would include pavement and installation of stop signs, stop bars, and stop legends at the intersection of Long Canyon Road for exiting vehicles. Gated entries would be installed at the entrance to the Phase 2 (north parcel).

The secondary exit and a restricted entrance for Phase 2 (north parcel) would also be gated and would be limited to residents leaving the site and restricted access for emergency responders only. The entrance gate at the secondary access would be restricted by the use of a "knox box" that would provide for Sheriff and Fire Department entry, as needed. The secondary exit/restricted access would connect to Monte Vista Street in Riverside County. The connection roadway to Monte Vista Street would be improved pursuant to Riverside County's roadways standards. The proposed circulation for the Phase 2 (north parcel) is shown in Figure 2-4.

Off-Site Roadway Improvements

The off-site roadway improvements that would occur for the Phase 1 (south parcel) include paving and grading 0.5-acres of an existing unpaved roadway to provide secondary access. The off-site roadway improvements for Phase 2 (north parcel) includes grading, paving, installation of street lights, a water line, and dry utilities (electricity, cable, telephone), which would occur on a 0.73-acre off-site currently unpaved roadway that connects to Long Canyon Road. The Phase 2 (north parcel) secondary improvements include grading and paving to Monte Vista Street, in addition to installation of street lights, water line, and dry utilities.

In addition, improvements would occur within the paved right-of-way on Ortega Highway at the Long Canyon Road intersection to provide enhanced access to both phases of the project. The improvements consist of installing a northbound 12-foot wide acceleration lane and a northbound 12-foot wide left turn lane on Ortega Highway; and installing a minimum 22-foot wide southbound deceleration lane on Ortega Highway from Long Canyon Road to 160 feet to the north. The Ortega Highway improvements would require an encroachment permit and coordination with the California Department of Transportation (Caltrans) to ensure that the roadway improvements are implemented pursuant to Caltrans standards.

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2.7.3 Landscape Elements and Vineyards

The landscaped areas within the proposed project are all located within the development area identified in **Table 2-1**, and broken down into the following general categories that are visually depicted in the conceptual landscape plans shown in **Figures 2-10** and **2-11**.

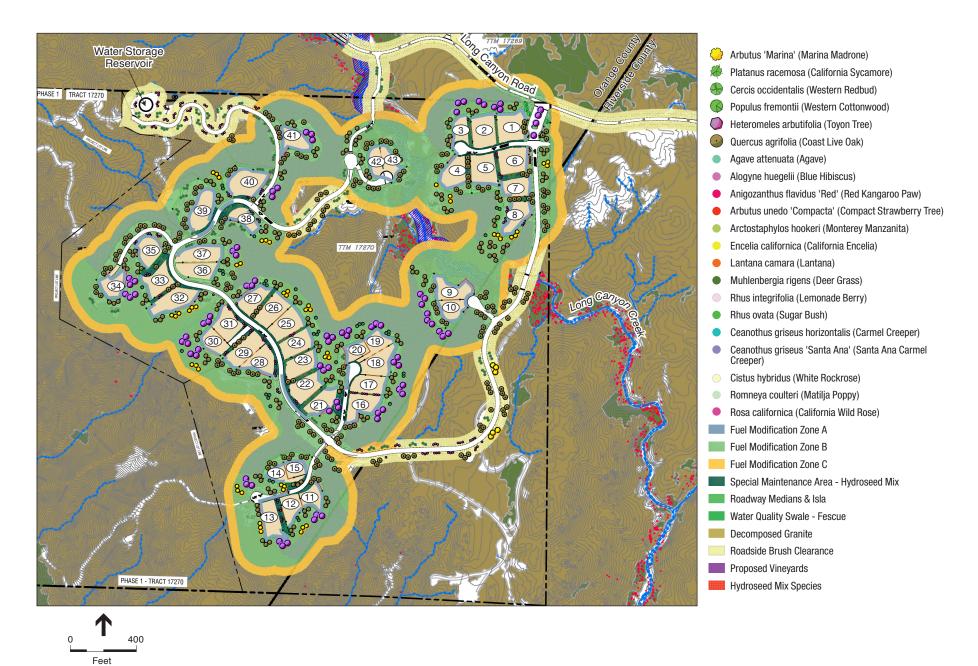
- Vegetated Swales
- Project Entries
- Fuel Modification Zone A
- Fuel Modification Zone B, which includes vineyards and manufactured slopes
- Fuel Modification Zone C

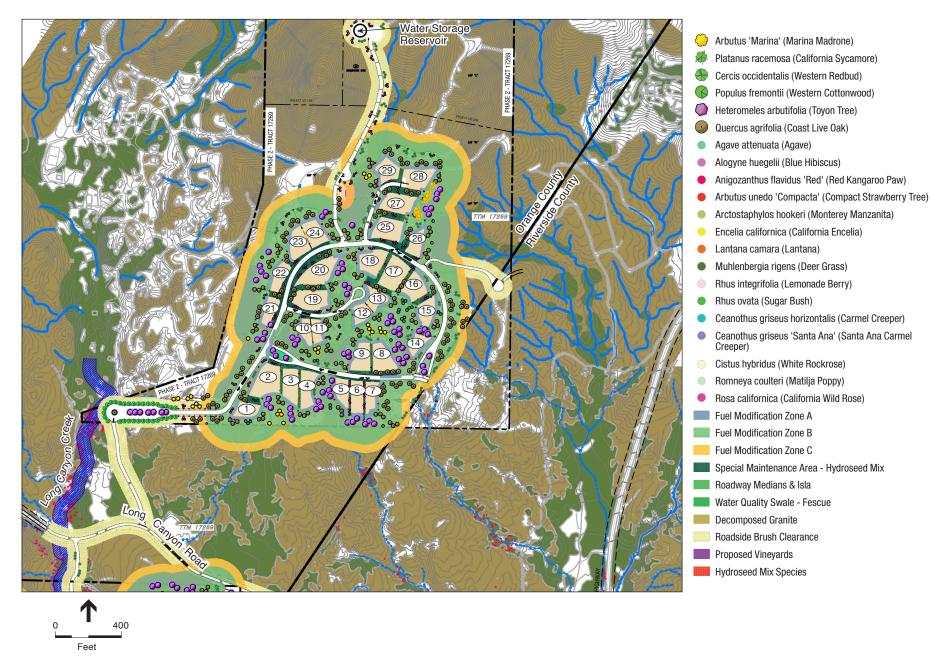
The plant palette for each category meets the following criteria:

- The plant is appropriate for the climatic zone of the project site, both in altitude and location.
- All of the plant material is rated as either 'LOW' or "VERY LOW" in the State of California's Water Use Classifications of Landscape Species (WUCOLS); except for the treated effluent dispersal areas of Fuel Modification Zone 'B' which would contain "MODERATE" water use plant material.
- Native plant material would be used extensively throughout the project.
- All plant material was reviewed by the project biologist to verify that none of the plants would be detrimental to the existing natural vegetation.
- No plants are proposed that are listed as being invasive to native habitat.
- All plants proposed for fuel modification zones have been utilized in a manner consistent with like applications for density, amounts and location.
- All of the plant material is available from localized wholesale sources.

Vegetated Swales

Vegetated swales are landscaping features that also provide storm water treatment and conveyance to infiltration basins that would capture and retain the difference in runoff flow rates (and volume) between the site's natural and proposed conditions. Vegetated swales would be located throughout the project site, and would vary in width and have a meandering path to create a more natural appearance. The feature would be planted with a hydroseed mix of a blend of Fescue grasses. The materials would be self-maintaining other than the need for watering and possible scalping of the grass every few years to eliminate thatch buildup. The swales would be water efficient with a rating of moderately low water consumption, and designed per the County of Orange requirements to control and treat runoff.





Project Entries

The project entries are intended to identify the project entrance from the surrounding area and provide an aesthetically positive image of the project. Areas of mown Fescue turf would be located on each corner with a backdrop of layered shrubs and poplar trees. To coordinate with the natural environment of Long Canyon Creek, native California Sycamores would be planted in the medians that split the entry drive area.

Fuel Modification Zone A

A fuel modification zone is an area of land where combustible vegetation has been removed and/or the area is modified with drought-tolerant, fire-resistant plants to provide protection from fires. Fuel modification Zone A would be located on the flat pad portions of the residential lots and would vary from 15 to 100 feet in width, depending on the size, location and configuration os each residential lot. This area would not be developed or improved by developer. However, landscaping in this area would be restricted to specific guidelines per the Fuel Modification Plan, and an approved plant palette would be provided with plants having either a Low or Moderate water use rating, which would be included in the project's CR&Rs that would be implemented by the Homeowners Association.

Fuel Modification Zone B

Fuel modification Zone B would be the primary fuel modification zone, and would extend a minimum of 150 feet from the end of Zone A. Zone B would include manufactured slope areas, natural open space, and/or vineyards. This zone would be irrigated, and landscaping would be installed in accordance with the Fire Marshal's criteria. The plant material would be selected from two different plant palettes approved by the Fire Marshal and plants would be installed in a manner and density consistent with the Fuel Modification Plan's requirements.

The two different planting palettes would be utilized. The area of Fuel Modification Zone 'B' closest to the residences would be mostly irrigated with subsurface drip irrigation lines and treated effluent from the onsite wastewater treatment systems that would be located on each residential lot. The plant palette would be comprised of moderate water use plants, which would provide for the disposal of the treated effluent. During warmer months when treated effluent quantity may not be sufficient to meet irrigation needs, supplemental irrigation with domestic water supply would be provided to ensure proper plant health, vitality and moisture content in conformance with this zone's fuel modification requirements.

The Fuel Modification Zone 'B' areas that are farther from residences and would not treat effluent would utilize domestic water for irrigation purposes, and would be landscaped with a plant palette of 'Low' water use plants, which would conserve water and meet the Fuel Modification requirements.

Trees within the Fuel Modification Zone 'B' areas would be grouped in clusters of no more than three, with a 30-foot separation from the projected mature canopy of the cluster to any other tree and/or cluster. Shrubs would be planted in clusters of no more than three with a minimum 10-foot separation from the projected mature canopy of the cluster to any other tree and/or shrub cluster.

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Draft Environmental Impact Report

The ground cover would consist of existing plant material that has been thinned as required by the Fire Marshal or a hydroseeded mix of low ground cover plantings that have low fuel content as approved by the Fire Marshal.

Vineyards

The Fuel Modification Zone 'B' area includes 34.5 acres of vineyards throughout both phases of the project that would provide fuel modification while contributing to the aesthetic quality and character of the site. The vineyards would be planted on the existing natural terrain of the project site. The land would be substantially cleared and vines would be planted in rows at 12-feet on center with vines at every six feet along a steel and wire trellis element. The vines would be irrigated by means of the drip or bubbler system providing efficient irrigation. The ground plane would be kept virtually bare, with only low growing grasses and ground cover so as not to compete with the vines nor inhibit tending the vines. In addition, vineyard related service roads and paths would be developed, which would provide unimpeded emergency access to these areas.

The vineyards would not include wine making facilities. Grapes grown onsite would be harvested and sold. The vineyards would be owned, operated/maintained by the project's homeowner's association (HOA). HOA fees and funds from grape sales would pay for the operation and maintenance of the vineyards. Homeowners would not be individually responsible for vineyards, other than through payment of HOA fees. It is estimated that five employees would be needed on a year-round basis (daily) to oversee the vineyard production, with peaks of up to 25 employees needed during harvest season.

Manufactured Slopes

All manufactured slopes would be planted and irrigated to help stabilize the slope area and retain the appropriate moisture content, and would be part of the Fuel Modification Zone B area. The plant material would be selected from a plant palette approved by the Fire Marshal and the plants would be installed in a manner and density consistent with the Fuel Modification Plan requirements. Five and/or 15-gallon trees would be grouped in clusters of no more than three plants with a 30-foot separation from the projected mature canopy of the cluster to any other tree and/or cluster. Shrubs would be planted in clusters of no more than three with a minimum 10-foot separation from the projected mature canopy of the cluster to any other tree and/or shrub cluster. The ground cover would be hydroseeded with a mix of low-growing ground cover plantings that have low fuel content to them that would be approved by the Fire Marshal.

Fuel Modification Zone C

This zone consists of the last 50 feet of fire protection that would be between 150 and 200 feet from the proposed residences. No new plantings or irrigation are proposed for these areas; however, existing plant material would be thinned per the Fuel Modification Plan. No vineyards, new plantings, or irrigation would be installed in Zone C area, unless it falls within a manufactured slope area. When this occurs, the landscaping would be consistent with the proposed approach and treatment for manufactured slope areas described below.

Roadside Fuel Modification

Roadside fuel modification areas would consist of a 50-foot wide alignment on both sides of the streets and roads within the project site that would be in accordance with the Fuel Modification Plan. The roadside areas would be selectively thinned. In addition, many roadside areas would be disturbed due to project grading operations that would require vegetation removal or the development of graded slopes, swales, and other such improvements. In these instances, the areas would be treated it in the same manner as the vegetated swale or the manufactured slopes categories. If any new trees or shrubs are planted, it would be done in the clusters and spacing previously described under Fuel Modification Zone B.

2.7.4 Open Space

As described above, development of the proposed residential uses and onsite street system would be clustered in tracts close to Long Canyon Road, and in areas where existing topography is suitable for development. Large portions of the project site would be dedicated for undeveloped open space. As shown in **Table 2-1**, the project includes 414.6 acres (71 percent of the project area) of open space, which does not include vineyards, landscaping, and fuel modification areas. The open space portion of the project includes large areas of chaparral habitat, over 30 acres of coast live oak woodland and coast live oak forest, and two USGS blueline streams. The residences would be clustered to minimize the area of grading and fuel modification. In addition, the vineyards, landscaping, and fuel modification provide additional open space areas (included in the development area statistics and not included in the 414.6 acres) and a vegetative buffer between the development and preserved open space areas, that would be comprised of non-invasive species, many of which would be native.

2.7.5 Fire Protection

Since the project site is located within an Adopted Very High Fire Hazard Area (Calfire, 2011) a fuel modification plan is required. Per Guideline C-05 of the OCFA, which complies with the requirements of Section 317 of the California Fire Code, development within high fire hazard areas are required to incorporate fuel modification zones into site plans. In addition, the Riverside County Municipal Code Chapter 8.32, Fire Code, provides requirements to reduce the potential of fires that include vegetation management. Thus, a Fire Behavior Analysis Report, a Fuel Modification Plan, and a Fire Master Plan were prepared to cover all fire-related issues for the project area into one comprehensive document, which was approved in September 2016 by the Orange County Fire Authority (OCFA).

The Fuel Modification Plan and a Fire Master Plan identifies areas in both Orange and Riverside Counties where combustible vegetation would be removed or modified with drought-tolerant, fire-resistant plants to provide protection from wildlands fires. The minimum width of the fuel modification areas is 170 feet, and in some cases, the width increases due to type of terrain and/or type and mass of vegetation. As described previously, the Fuel Modification Plan designates three fire zones throughout the project area and is consistent with the California Fire Code, OCFA Guideline C-05, and Riverside County Municipal Code Chapter 8.32, Fire Code. Figure 2-10 and

2-23

Figure 2-11 show the fuel modification zones on Phase 1 (south parcel) and Phase 2 (north parcel).

2.7.6 Water Services

Water service for potable use, irrigation, and fire flow would be supplied by the Elsinore Valley Municipal Water District (EVMWD). As described above, approximately 133.4 acres of the project site (portions of the site needing domestic water service) would be annexed into the EVMWD, Western Municipal Water District, and MWD service areas. Areas of the project site that would remain in natural open space, and Fuel Modification Zone C areas, and other areas that would not be irrigated would not be annexed into the water service area.

Water would be provided to serve the residential uses and irrigated landscaping areas. Water for construction activities would be provided by an existing well on the project site. **Tables 2-2** and **2-3** show estimated water demand rates for construction and operation, respectively.

TABLE 2-2
PROPOSED PROJECT CONSTRUCTION WATER DEMAND

Project Phase	Approximate Maximum Water Demand (gallons)	
Phase 1 (south parcel)	3,608,700	
Phase 2 (north parcel)	2,549,550	
Total	6,158,250	

TABLE 2-3
PROPOSED PROJECT OPERATIONAL WATER DEMAND

	Approximate Maximum Water Demand (gallons per	
Development	day)	
Phase 1 (south parcel)		
Roadway medians, swales, and slopes	60,211	
Fuel modification zones (A and B)	78,743	
Vineyards	42,169	
Residential Water (43 lots)	25,800 ¹	
Subtotal	206,923	
Phase 2 (north parcel)		
Roadway medians, swales, and slopes	41,610	
Fuel modification zones (A and B)	43,467	
Vineyards	26,728	
Residential Water (29 lots)	17,400 ¹	
Subtotal	129,205	
Total Water Demand	336,128	

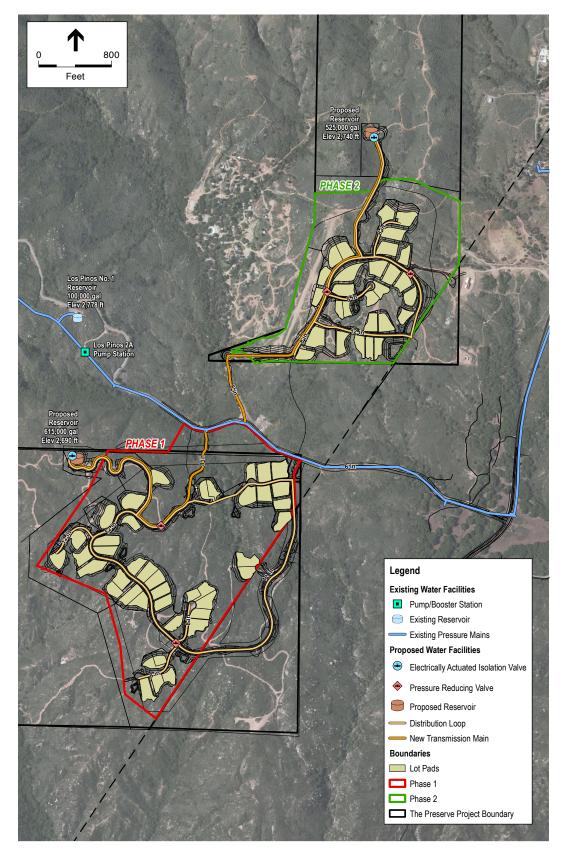
Calculated based on a generation rate of 600 gallons per day (gpd) per lot per EVMWD recommendations.
Source: Robert, 2014; PACE, 2014.

The proposed project includes on-site and off-site improvements to the EVMWD infrastructure system. All of the off-site water distribution improvements would occur within the existing EVMWD right-of-way adjacent to the existing six-inch water transmission main. The existing six inch main starts from the Tomlin No. 1 Booster Station, which is west of the City of Lake Elsinore, and travels southwest to provide potable water to communities along Ortega Highway, including El Cariso Village. The existing transmission main runs adjacent to the north portion of the project site along Ortega Highway, and then intersects the project site as it travels west along Long Canyon Road to its terminus at the 100,000 gallon Los Pinos No. 2 Reservoir, located west of the project site at an elevation of approximately 3,500 feet.

The new on-site water distribution facilities would include a 12-inch distribution line that would be constructed throughout the developed portions of the project site during each construction phase. In addition, a 615,000-gallon and a 525,000-gallon water storage tank would be installed (in each phase) to provide emergency water and fire suppression supplies. The size of the tanks has been coordinated with OCFA and EVMWD to ensure appropriate capacity to meet potential demands. The reservoir site on the Phase 1 (south parcel) would be 615,000 gallons and would be located in the northwestern-most portion of the Phase 1 (south parcel) development area. The reservoir in the Phase 2 (north parcel) would be 525,000 gallons and would be located at the far northern end of the Phase 2 (north parcel). **Figure 2-12** shows the proposed water distribution system for the project, including the water storage tanks, which would be sited at elevations sufficient to provide water to their respective development phases, in order to minimize the use of booster stations. New distribution mains from each reservoir would be installed to provide water to their respective development phases, and would be sufficiently sized based on peak flow demand and fire-flow requirements.

2.7.7 Wastewater Systems

Wastewater generated by the project would be treated and disposed of through the use of onsite wastewater treatment systems located on each lot. The onsite wastewater treatment systems installed on each lot would consist of three components: (1) a 1,500-gallon septic tank; (2) three modular peat fiber biofilters; and (3) a 300-gallon water reuse pump station. In addition, a 1,500-gallon emergency storage tank would be part of the water reuse pump station. The septic tank would provide primary treatment of the wastewater and settle out solids. From the septic tank, effluent would flow to a dosing tank and be pumped to the biological peat filtration system for secondary treatment via an aerobic attached growth process (contaminants would be physically absorbed onto the peat fiber and digested by naturally-occurring microbes). Treated effluent would then flow by gravity to the water reuse pump station, and then be pumped to subsurface dispersal irrigation fields on fill slopes and natural areas to irrigate portions of the Zone B fuel modification area. Approximately 320 gallons per day would be emitted for irrigation of approximately 13,100 square feet; treated effluent would be supplemented with freshwater to meet this irrigation demand when necessary.



The proposed septic tanks were sized based on the number of bedrooms serve per the California Plumbing Code (1,500-gallon tank sizes are based on Code requirements for five bedroom units). The septic tanks, biofilters, reuse water pump stations and emergency storage tanks would be setback pursuant to existing regulations of the California Plumbing Code, State Water Resources Control Board (SWRCB) Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems, San Diego Regional Water Quality Control Board (RWQCB), Orange County Regulations for Wastewater Treatment and Disposal Systems, and Orange County On-Site Sewage Absorption System Guidelines that provide specific setbacks, such as a minimum of 100 feet between streams and graywater irrigation areas, 15 feet from slopes of two feet or more, and 10 feet from property lines. In addition, these regulations provide regulations related to soil conditions in areas where onsite wastewater systems are used.

High water alarms would be included in each system to alert homeowners and the HOA of high water level conditions prior to a potential overflow event. In addition, an emergency storage tank (to ensure overflows would not occur) would be part of each system. A description of the onsite wastewater treatment systems and compliance with federal, state, RWQCB, and County standards is provided in Section 3.9, *Hydrology and Water Quality* of this EIR.

2.7.8 Home Owners Association Services

The project includes development of a Home Owners Association (HOA) that would be established to provide maintenance for and fund the following:

- Onsite roadways
- Open space areas
- Landscaping within common areas
- Oak trees
- Fuel modification zones
- Vineyards
- Irrigation facilities and grey water irrigation areas
- Community and neighborhood entries and signage
- Community perimeter walls and fencing
- Landscape of slopes internal to the development areas
- Common area lighting
- Implementation of CR&Rs

Covenants, Conditions, and Restrictions (CC&Rs) would be implemented by the HOA as a means of ensuring and enforcing quality design during development and the level of maintenance of common areas, such as the vineyards and fuel modification zones. To appropriately maintain all fuel modification areas CC&R's would include an Orange County Fire Authority (OCFA) approved annual self-inspection procedure and certification of the HOA by an outside consultant

to ensure adequate and timely maintenance of all fuel modification zones as well as oversight by OCFA. This would include an approved plant palette for residential homeowners to use.

2.8 Project Design Features

The proposed project has been designed to incorporate a number of Project Design Features that would prevent or lessen potentially significant environmental impacts associated with the proposed project (see **Table 2-4**). These Project Design Features will be included in the Mitigation Monitoring and Reporting Program and would be monitored to ensure completion, in the same manner as project mitigation measures.

TABLE 2-4 PROJECT DESIGN FEATURES

No.	Design Feature	
PDF-1	Open space within the Preserve accounts for 414.6 acres or approximately 71 percent of the project site, which will be offered for dedication to the U.S. Forest Service.	
PDF-2	space would be concentrated in the western and northern portions of the project site and the project site and the standing residences would be clustered toward Long Canyon Road to create a buffer between the ential uses and the Cleveland National Forest lands to avoid or minimize potential environmental cts.	
PDF-3	The project has been designed to develop the flatter portions of the project site. However, some hills will be lowered and some valleys raised to create level building pads. This design will maintain similar topographic characteristics as the existing condition.	
PDF-4	A conceptual landscape plan for the project has been prepared by a licensed landscape architect pursuant to the County's Standard Plans for landscape areas, adopted plant palette guides, OCFA requirements, and water conservation measures. The conceptual landscape plan has been designed to preserve open space areas and provide landscaping that would assist in carbon intake and minimize surface water runoff, incorporate the use of native/drought tolerant plant materials, avoid the use of invasive plants, and utilize only a small percentage of turf in the common landscape areas.	
PDF-5	In accordance with the Tree Management Preservation Plan that was prepared by certified arborists, oak tree relocations will be within the project site, and monitoring will be performed following all tree plantings and relocations for a period of seven years. Oak trees will be maintained by the Homeowners Association as part of the project's covenants, conditions and restrictions.	
PDF-6	Interior private streets have been designed to rural street standards, with no sidewalks and rolled curbs (except at the main entry where standard curbs will be used to control drainage). The paved widths of interior streets have been designed to have a minimum paved width of 28 feet to 32 feet.	
PDF-7	The project has been designed to include an eastbound left-turn lane (300-foot storage length), a westbound right-turn lane (320-foot storage length), and a westbound acceleration on Ortega Highway at the intersection of Long Canyon Road.	
PDF-8	Roads within the project site will be privately owned and maintained. Stop signs, stop bars, and stop legends will be provided for vehicles exiting the project phases at the intersection of Long Canyon Road. The gated entries to both Phases will be constructed and setback from Long Canyon Road at a distance that complies with the Orange County Standard Plan No. 1107, which is a minimum of 100 feet from the curb line of Long Canyon Road, to provide adequate vehicle stacking space.	
PDF-9	The project circulation has been designed to be consistent with the County's design components of the General Plan-adopted Viewscape Typical Section including: an enlarged parkway, a hiking trail, and a lack of curbs.	
PDF-10	The project includes a Fuel Modification Plan that is required to provide a landscape transition area along the interface between residential development and adjacent onsite open space areas to provide wildfire protection. Plant species for landscaping will be in accordance with the Orange County Fire Authority plant palettes and use predominantly native species.	

- PDF-11 The project includes a Fire Master Plan that was reviewed and approved by the Orange County Fire Authority. The Fire Master Plan provides enhanced construction features, requirements for fuel modification zones, and requirements for enhanced fire sprinkler systems per California Building Code Chapter 7A.
- PDF-12 In order to minimize project hazards relative to vector control and public health concerns and comply with the Municipal Separate Storm Sewer System permit, the infiltration basins will be designed for a maximum 72-hour draw down period for retained runoff. The infiltration basins will employ approved vector control treatment measures as specified in the California Department of Public Health's recommendations for best management practices for mosquito control in collaboration with the Orange County Vector Control District to mitigate potential vector issues.
- PDF-13 The project has been designed to mimic the hydrological characteristics of the site in its natural, undeveloped state through clustering the residential sites, controlling development flows (runoff) with vegetated swales; infiltration basins; the incorporation of low impact development principles; and preserving the site's main drainage along the easterly boundary; thereby adhering to hydromodification requirements established by the current Municipal Separate Storm Sewer System Permit.
 - The project has been designed so that the design capture volume will be collected and infiltrated on-site. This amount will be retained and would not discharge off-site.
 - The design capture volume would remain within the basin; any volume in excess of infiltration basin capacity would be allowed to discharge from the basins via the spillway.
 - For areas where vegetated swales alone can account for the hydromodification, the downstream basins only capture and infiltrate the design capture volume.
- PDF-14 The project has been designed to implement the following Low Impact Development techniques:
 - · Conservation of natural areas, including existing trees, other vegetation and soils.
 - Keeping streets at minimum widths and eliminating paved sidewalks in parkways.
 - · Minimizing the impervious footprint of the project.
 - · Minimizing disturbances to natural drainages.
 - Providing vegetated swales for water quality purposes.
- PDF-15 The project has been designed to include the following Best Management Practices to promote infiltration and slow down surface flows:
 - Impervious area dispersion.
 - Inclusion of native drought-tolerant landscaping/efficient irrigation.
 - Providing vegetated swales for hydromodification purposes.
- PDF-16 The project includes a Hydrology Analysis that demonstrates that the proposed development would not overload existing drainage facilities downstream of the project site or exceed existing runoff velocities and peak discharge at discharge points for the 2-, 5-, 10-, 25-, and 100-year storm events.
- PDF-17 The project includes a Conceptual Water Quality Management Plan (WQMP) that has been prepared to identify preliminary best management practices (BMPs), to control pollutant runoff. The WQMP has been based on the Orange County Drainage Area Management Plan, Model WQMP, Technical Guidance Manual, and the County's WQMP template. The WQMP includes the following:
 - Detailed site and project description.
 - A description of potential stormwater pollutants.
 - · Post-development drainage characteristics.
 - Low impact development BMP preliminary selection and analysis.
 - Preliminary structural and non-structural source control BMPs.
 - · Preliminary site design and drainage plan.
 - · GIS coordinates for all proposed LID and treatment control BMPs.
 - Preliminary Operation and Maintenance Plan that: (1) describes the long-term operation and
 maintenance requirements for BMPs; (2) identifies the entity that will be responsible for longterm operation and maintenance of the referenced BMPs; and (3) describes the mechanism for
 funding the long-term operation and maintenance of the referenced BMPs.

- PDF-18 Approximately 133.4 acres of the project site (portions of the site needing domestic water service) would be annexed into the Elsinore Valley Municipal Water District, Western Municipal Water District, and Metropolitan Water District service areas to provide water services. Areas of the project site that would remain in natural open space or are within the fuel modification areas that do not require irrigation, would not be annexed into the water service area.
- PDF-19 The project includes two water storage tanks (one 615,000-gallon tank and one 525,000-gallon tank), to provide emergency storage to the residents of the project. The tanks will be visually screened with native/drought-tolerant landscaping and will be painted a neutral tone to blend with the surrounding environment.
- PDF-20 Best management practices will be incorporated into the project to ensure that indirect impacts (i.e., edge effects) are avoided or minimized to the maximum extent possible. Utilization of "night sky friendly" light fixtures shall be used, lighting will be pointed away from offsite areas, and ambient light levels will be minimized to the maximum extent practicable.
- PDF-21 Construction activities will be limited to the hours between 7:00 a.m. to 8:00 p.m., Monday through Saturday, excluding federal holidays, per the County's Noise Ordinance (Section 4-6-7). Additionally, the following measures will be implemented to reduce construction-related noise:
 - Construction activities will be limited to the hours between 7:00 a.m. to 5:00 p.m., Monday through Saturday, excluding federal holidays, which is consistent with the County's Noise Ordinance.
 - During all excavation and grading on-site, the construction contractors will equip all
 construction equipment, fixed or mobile, with properly operating and maintained mufflers,
 consistent with manufacturers' standards to reduce construction equipment noise to the
 maximum extent practicable. The construction contractor will place all stationary construction
 equipment so that emitted noise is directed away from noise sensitive receptors.
 - The construction contractor will stage equipment and material stockpiles in areas that will
 create the greatest distance between construction-related noise sources and noise sensitive
 receptors during project construction.
 - The construction contractor will limit haul truck deliveries to the same hours specified for construction equipment.
 - Electrically powered equipment to be used instead of pneumatic or internal combustion powered equipment, where feasible.
 - Unnecessary idling of internal combustion engines (e.g., in excess of 5 minutes) will be prohibited.
 - The use of noise-producing signals, including horns, whistles, alarms, and bells, will be for safety warning purposes only
- PDF-22 Protection measures for oak trees include fencing and protection of oak trees adjacent to construction areas. Placement of fill, storage of equipment, and grading will be prohibited within the dripline of any tree proposed for preservation. Retaining walls will be used to protect oaks proposed for preservation from surrounding cut and fill and any retaining walls will be placed outside of the root zone of the oak tree to be preserved.

2.9 Construction Activities and Schedule

Construction activities for the proposed project would occur in the following stages on Phase 1 (south parcel) first, and then on Phase 2 (north parcel) site): (1) site preparation; (2) grading and excavation; (3) construction of drainage, utilities, and subgrade infrastructure; (4) building construction; and (5) paving and application of architectural coatings. Grading for the project would be balanced on-site, meaning that no import or export of excavated soil would be required. Phase 1 (south parcel) would require 313,800 cubic yards of cut and fill and Phase 2 (north parcel) would require 221,700 cubic yards of cut and fill. Total excavation over both phases is estimated at 535,500 cubic yards, with 10,000 cubic yards to be excavated on a maximum day.

Table 2-5 shows the anticipated construction schedule and effort for the proposed project. Construction activities for Phase 1 (south parcel) are anticipated to take 18 months from beginning to end.

At the completion of Phase 1 (south parcel) construction, activities would commence on Phase 2 (north parcel). Each of the construction phases would be the same, but would be shorter in duration. Construction activities for Phase 2 (north parcel) are anticipated to take 14 months from beginning to end. However, build out of Phase 1 (south parcel) is dependent on economic factors including housing market conditions at the time of construction. Construction activities would be limited to the hours allowable by the Orange County Municipal Code Section 4-6-7, which are between 7:00 a.m. to 8:00 p.m., Monday through Saturday, excluding federal holidays, as included in Project Design Feature PDF-21.

TABLE 2-5
CONSTRUCTION STAGES AND DURATION

Construction Stage	Workers (Max)	Duration (Work Days)			
Phase 1 (south parcel)					
Site Preparation	5	45			
Grading/Excavation	15	120			
Drainage/Utilities/Sub-Grade	10	90			
Building Construction	50	120			
Paving	6	30			
Architectural Coatings	4	30			
Phase 2 (north parcel)					
Site Preparation	5	30			
Grading/Excavation	15	90			
Drainage/Utilities/Sub-Grade	10	70			
Building Construction	50	90			
Paving	6	20			
Architectural Coatings	4	20			

2.10 Project Approvals and Intended Uses of the EIR

The proposed project includes a request for approval of the following discretionary and other implementing approvals, which are provided in the order in which they would occur:

- Area Plan to be approved by the County of Orange.
- General Plan land use designation amendment change from Open Space (OS) to Rural Residential (1A) to be approved by the County of Orange.
- Zone change from "General Agriculture" (A1) to "Agricultural Residential" (AR) to be approved by the County of Orange.
- Annexation of 133.4 acres of the project site into the Elsinore Valley Municipal Water District, Western Municipal Water District, Metropolitan Water District to be approved by Riverside LAFCO.

- Vesting Tentative Tracts 17269 and 17270 for subdivision of the project site to be approved by the County of Orange.
- Grading Permit(s) (required prior to clearance of vegetation and earthwork on the project site) to be approved by the County of Orange.
- Building and roadway permits required and to be approved by the County of Orange.

In addition to the County of Orange, Other agencies that may utilize this EIR to provide permits and approvals that may be required include the following:

- Riverside County LAFCO water district annexations
- EVMWD for annexation
- Western for annexation
- MWD for annexation
- Riverside County: Grading and Roadway Development Permits
- U.S. Army of Corps of Engineers (USACE): Clean Water Act (CWA) Section 404 Permit
- U.S. Fish and Wildlife Service (USFWS): Endangered Species Act Section 7
 Consultation
- California Department of Fish and Wildlife (CDFW): Streambed Alteration Agreement
- California Regional Water Quality Board (RWQCB): Construction General Permit, CWA Section 401 Permit
- California Department of Transportation (Caltrans): Rights-of-Way Encroachment Permit