CHAPTER 3.0 ENVIRONMENTAL EFFECTS FOUND NOT TO BE SIGNIFICANT

3.1 Effects Found Not Significant as Part of the ~~DEIR~~FEIR Process

3.1.1 Visual Resources

The following analysis of possible visual impacts from the Proposed Project is based on information provided in the *Visual Resources Impact Report for Hoskings Ranch Log. No. 03-10-005*, by TRS Consultants, dated July 2013. The report was authored by Jerelyn Dilno, who is on the County of San Diego's list of individuals approved to prepare visual studies. The report is included as Appendix E to this ~~DEIR~~FEIR.

3.1.1.1 *Existing Conditions*

Visual Character

Onsite:

The Proposed Project consists of ~~of~~ rolling terrain vegetated with native habitat that is mostly undisturbed. The property is bounded by State Route 78/79 (SR 78/79) to the north, and the south and west areas of the site encompass ~~corner contains~~ a portion of the Cleveland National Forest (CNF), as shown in Figure 1-5. Approximately 680 acres of the CNF are within the project boundary. Orinoco/Temescal Canyon Creek traverses the site in the south.

Offsite:

The surrounding area is primarily rural in character, with scattered large lots to the north and east. Pine Hills is a rural residential development to the south. Open land, agriculture, and scattered residential uses are the main feature of lands to the north. The southwest portion of the property is within the Cleveland National Forest, which extends beyond the site to the south and west.

The site is located in the Julian Community Plan Area and is located one mile southwest of the unincorporated town of Julian. The section of SR 78/79 adjacent to the property is designated a second priority scenic highway in the Scenic Highway Element of the San Diego County General Plan. The general location is shown in Figure S-1, "Regional Vicinity Map," and the relation of the Proposed Project to the nearby town of Julian and the surrounding environs is shown in Figure 1-5, "USGS Quadrangle Map."

Scenic Resources

The Proposed Project Site consists of a varied terrain. Salient features include a prominent knoll near the northeast corner of the site, surrounded by rolling hills. Moving west, moderate to steep slopes descend from north to south, supporting a plateau of varying width along parts of the northern boundary. Most of the southern boundary consists of steep slopes and supports segments of Orinoco/Temescal Canyon Creek. In the southwest, the steep hillsides turn northwest, leaving a broad relatively flat area that encompasses the entire southwest boundary.

Key Views

Figure 3-1-1, "Topographic Viewshed," shows the surrounding areas from which the existing topography affords views onto the Proposed Project Site.

Nine key views were selected for the assessment of any visual impacts the Proposed Project may have. These key views consist of two types: traveling views (for motorists traveling by on SR 78/79), and static views (representing views from stationary locations). Figure 3-1-2, "Key View Index," identifies the perspective of each view. All of the key views were chosen based on their location within the viewshed, and the likelihood that viewing the subject property from the particular vantage point would actually take place. Views were reviewed by the Department of Planning and Development Services for relevance.

Key Views 1, 2, and 3

See Figure 3-1-3, "Key Views 1 and 2: SR 78/79 Plan and Profile, Looking East," and Figure 3-1-4, "Key View 3: SR 78/79 Looking West" show key Views 1, 2, and 3. Key Views 1 and 2 are taken along SR 78/79 from the point of view of travelers headed east along the roadway, and Key View 3 illustrates the view as travelers approach the site headed west. With the exception of orientation, the analysis of these key views, as seen by the primary viewer group, are similar. The northern border of the site is formed by approximately one mile of SR 78/79.

Key View 4

Key View 4 (Figure 3-1-5, "Key View 4: Looking North from Pine Hills Residential Area") is located to the south of the property on Eagle Peak Road, with a northern view onto the lots in the east central area of the site. Lots 7 through 9 are called out to the reader, as is the existing off-site building visible in the middle ground, which is approximately one half mile from the viewer. This is a static viewpoint, generally representing possible views from the Pine Hills community. Several home sites exist near this location, the nearest of which is at least one mile from the southern boundary of the Hoskings Ranch property. These homes are well landscaped, with the area between them and the Proposed Project containing a heavy concentration of natural vegetation.

Key View 5

Key View 5 (Figure 3-1-6, "Key View 5: From Southeast Corner of Project Looking North on Pine Hills Road") is a perspective of Lot 8 taken from the southeast corner of the property at the intersection of Pine Hills Road with Deer Lake Park Road. The view is to the northwest from travelers heading north on Pine Hills Road. The road reaches the top of a grade near this point and the proposed pad is located approximately 0.5 miles from the roadway. The existing natural terrain would not be disturbed and any future pad and building would be partially obscured by the natural landscape. Additionally, the area supports natural vegetation that would screen a potential pad from view. Many trees actually border the roadway, blocking the view westward.

Key View 6

Key view 6, (Figure 3-1-7, "Key View 6: Looking Northwest from Pine Hills Road") is taken from Pine Hills Road, approximately 600 feet north of the southeast corner of the property. A proposed pad on Lot 7 is approximately 0.3 miles from the roadway. Terrain and vegetation would screen the view of travelers. Additionally, any improvements to the lot would be screened by landscaping consisting of natural vegetation. As the traveler moves north, trees and other vegetation bordering the roadway become denser. The pad would not require any cut or fill slopes.

Key View 7 and 8

Key Views 7 and 8 (Figure 3-1-8, "Key Views 7 and 8: From Pine Hills Road") represent potential views of Lot 5 from Pine Hills Road for travelers headed north (see Key View 7) or south (see Key View 8) along the western boundary of the property. As noted in other views, the vegetation bordering Pine Hills Road is very dense and would effectively screen the view of any incidental structures on Lots 8, 7, and 5 to drivers going north. Key View 8 indicates a break in the natural vegetation along Pine Hills Road. The pad is located approximately 400 feet from Pine Hills Road. A cut slope of two feet would be visible to drivers going south. The fill slope is located on the south side of the pad and would not be visible from Pine Hills Road. The slopes would be revegetated to blend with the natural terrain.

Key View 9

Key View 9 (Figure 3-1-9, "Key View 9: Looking West from Van Duesen Road") is illustrative of the view of residents to the east of the proposed project. Heavy existing vegetation on both sides of Pine Hills Road form a visual barrier, Additionally, the existing homesites to the east of the proposed project have mature landscaping that visually screens their views of the roadway.

~~*Fire Station Location*~~

~~Figure 3-1-10, "Fire Station Location, Looking West along SR 78/79," provides a photosimulation of the proposed fire station. Landscaping would be in conformance with the County Landscape Ordinance requiring 100 percent screening within two years. Figure 3-1-11, "Fire Station Location, Plan View," demonstrates the location of the building in relationship to the surrounding lots.~~

Sensitive Viewers

Stationary Viewers

Stationary viewers living in the surrounding areas would have a static view of the property. The intensity of the view would be dependent on the distance from the site, and the denseness and height of the intervening vegetation. The aforementioned Key Views 3 and 4 were chosen to represent views for stationary viewers from the two areas in the vicinity in which existing home sites might have views onto the Proposed Project.

Traveling Viewers

The second group of likely viewers is visitors who are either visiting the local area, or are traveling to or from another of the nearby attractions or the desert beyond the Julian mountain range. The view for these viewer groups would be transitory and would change as the location of the viewer moved through the viewshed. At times the view may be shielded by vegetation or other impediments to the line of sight.

Regulatory Framework

Visual analysis of the Proposed Project concluded that the Proposed Project would comply with all applicable existing policies and plans, listed as follows. Effects to scenic highways and public viewpoints are evaluated in Section 3.1.1.2:

- San Diego County Historic General Plan – Scenic Highway Element: this plan declares SR-78/79 a Second Priority Scenic Route.

- San Diego County Zoning Ordinance – S – Scenic Area Regulation: this ordinance regulates development in areas of high scenic value both to assure exclusion of incompatible uses and structures and to preserve and enhance the scenic resources present in adjacent areas.
- San Diego County Zoning Ordinance – D-Design Review Area Regulation: this ordinance was adopted to insure that future structures and development of a site would complement not only the site to be developed but also the surrounding areas and existing development
- Julian Community Plan (JCP): this plan calls for the protection of the existing variety of open spaces, the minimization of the removal of natural vegetation, encourages the conservation of natural resources, and protects natural terrain. Resource Protection Ordinance (RPO): this plan calls for the avoidance of steep slopes, floodplains, and the protection of sensitive lands and prehistoric and historic resources, and minimized impacts to wetlands.

Board of Supervisor's Policy I-78 (Hillside Development): the purpose of this policy is to minimize disturbance of natural terrain and provide for created design for hillside developments.

3.1.1.2 *Analysis of Project Effects and Determination of Significance*

Guidelines for the Determination of Significance

The guidelines for aesthetics were derived from Appendix G of the CEQA Guidelines. The Proposed Project would result in significant impacts if it:

1. Would have a substantial adverse effect on a scenic vista.
2. Would substantially degrade the existing visual character or quality of the site and its surroundings.
3. Would the project substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a State scenic highway.

Analysis – Scenic Vistas and Visual Character

Guideline 1: Would the project have a substantial adverse effect on a scenic vista.

Guideline 2: Would substantially degrade the existing visual character or quality of the site and its surroundings.

As stated previously, the nine key views chosen for the analysis of possible visual impacts from the Proposed Project consist of two types: traveling views (for motorists traveling by on SR 78/79), and static views (representing views from stationary locations). See Figure 3-1-2, "Key View Index" for an overview of key view locations. All of the key views were chosen based on their locations within the viewshed, and the concentration of viewers within known inhabited areas in the surroundings.

Key Views 1 and 2

Drivers approaching the site from the west would have a view approaching the northwest corner of the site as shown in Figure 3-1-3, "Key Views 1 and 2: SR 78/79 Plan and Profile, Looking East". The approximate locations of Lots 1, 2 and 3 are shown in the photo. The building pads of Lots 1 and 3 would be below the line of sight of the traveler. The location of the building pad for Lot 1 is screened by a small

knoll. The profile views in Figure 3-1-3 demonstrates the topography and sight lines from the Highway. The views are both taken from point B_1 on Highway 78/79.

The pad for Lot 2 is designed at grade and is approximately 1,700 feet (0.32 mi.) from SR 78/79. The line of terrain, as shown on the profile line B_1 to B_3, from the roadway gradually slopes upward to an elevation approximately 60 feet above the roadway. From there the grade gently levels out to the pad location at a proposed grade of 3,986 feet, which is approximately 20 feet below the sight line from the roadway. Any future incidental structure placed on the pad would be 35 feet or less in height. The dashed line at Lot 2 in the profile view demonstrates the low profile of approximately 10 feet that is potentially in view of the observer on SR 78/79. The proposed fill bank is six feet high and well below the line of sight. Any future structure would be in view for approximately 30 seconds at maximum speed. Existing vegetation would remain; thereby, screening any future structure from view. As a result, any structures on the site would not impact the view of passing motorists. Viewer response would be minimal and visual impacts would be below a level of significance.

The pad for Lot 3 is at a proposed elevation of 4,010 feet at a distance of 2,250 feet (0.42 mi) and is approximately 30 feet below the sight line shown along profile line B_1 to B_3 in the profile view. Any incidental structure on the pad would be a maximum of 35 feet in height, leaving approximately five to seven feet in potential view of the highway. The cut and fill slopes for the pad are located on the east and west sides of the pad and are not in the line of sight. The fill slope is approximately 12 feet at its maximum and the cut slope is approximately 10 feet. Existing vegetation would remain; thereby, screening any future structure from view. Viewer response would be minimal and visual impacts would be below a level of significance.

The pad for Lot 1 is designed at an elevation of 3,988, at a distance of 2,100 feet (0.41 mi), requiring only two feet of fill above grade; the profile line of B_1 to B_2 shows the pad to be approximately 40 feet below the sight line as shown on the profile view of Figure 3-1-3. Any future incidental structures on Lot 1 would not be visible to viewers along Hwy 78/79, additionally the site would retain the existing vegetation.

Figure 3-1-~~12~~10, “Key Views Photosimulation Looking East on SR 78/79,” shows the locations of Lots 1, 2 and 3. The proposed pad elevations are slightly below the line of sight from the roadway.

Any potential development of the site would not be visible from this vantage point. The existing topography and Proposed Project design would minimize visual impact to the viewer to below a level of significance. Guidelines 1 and 2 are not exceeded and impacts are not significant. No mitigation is required.

Key View 3

Drivers approaching the site from the east would encounter a predominant knoll at the intersection of Pine Hills Road and SR 78/79, which is the northeast corner of the Proposed Project, as shown in Figure 3-1-4, “Key View 3: SR 78/79 Looking West”. Along this portion of SR 78/79 the roadway is bordered by natural vegetation that would remain. Any potential development of the site would not be visible from this vantage point. Viewer response to this view would be low to moderate. The existing topography and distance from the road would minimize the visual impact to the viewer to a level below significance. Guidelines 1 and 2 are not exceeded and impacts are not significant. No mitigation is required.

Key View 4

This view represents the perspective of the residential viewer group to the south of the Proposed Project. See Figure 3-1-5, “Key View 4: Looking North from Pine Hills Residential Area.” The view looks northwesterly into the Proposed Project from the nearest point of the residential viewer group in the development of Pine Hills. Home sites within the area are scattered, with the closest residence being approximately one mile from the area of the site proposed for building pads. The terrain is hilly, dipping into depressions and rising to the flatter areas of the Proposed Project Site.

The locations of Lots 7, 8 and 9 are noted in the panoramic view from Eagle Peak Road in Figure 3-1-~~13~~11, “Key View 4: Photosimulation”.

In the foreground of the view photograph in Figure 3-1-~~13~~11,the top of an existing residence is barely visible. This home site is approximately one-half mile from the viewpoint and labeled. All of the proposed pad locations are at or slightly below grade with respect to the existing topography, and range from 0.8 tenths of a mile to just over a mile distant from the nearest point in Pine Hills. The profile view demonstrates that the pad proposed for Lot 8 is well below the line of sight. The cut slope would be approximately six feet and the fill slope is proposed at four feet in height. The pad is approximately forty feet below the line of sight. At this distance, combined with the existing native vegetation and the pad grading design, any incidental buildings on the Proposed Project Site would be less visible than the existing residence seen in the foreground. No visual impacts are anticipated to this viewer group. Guidelines 1 and 2 are not exceeded and impacts are not significant. No mitigation is required.

Key View 5

Key View 5 is a perspective of Lot 8 taken from the southeast corner of the property at the intersection of Pine Hills Road with Deer Lake Park Road. Figure 3-1-6, “Key View 5: From Southeast Corner of Project Looking North on Pine Hills Road,” provides a line of sight view and photo of the view. The view is to the northwest from travelers heading north on Pine Hills Road. The road reaches the top of a grade near this point and the proposed pad is located approximately 0.5 miles from the roadway. The existing natural terrain would not be disturbed and any future pad and building would be partially obscured by the existing landscape. Many trees border the roadway, blocking the view westward.

The speed limit is approximately 45 mph on Pine Hills Road. The visual screening of the proposed lot from the roadway begins at approximately 125 feet from the intersection with Deer Lake Road. The proposed pad would be in the potential view of motorist for about four seconds, which would not significantly impact the view.

The inset in Figure 3-1-6 demonstrates the distance the proposed pad from existing residences to the east. The presence of existing vegetation around the established homes screens the view of the pad location. No visual impacts are anticipated to viewer groups. Guidelines 1 and 2 are not exceeded and impacts are less than significant. No mitigation is required.

Key View 6

Key View 6, as shown on Figure 3-1-7, “Key View 6: Looking Northwest from Pine Hills Road,” is taken from Pine Hills Road, approximately 600 feet north of the southeast corner of the property. A proposed pad on Lot 7 is approximately 0.3 miles

from the roadway. Terrain and vegetation would screen the view of travelers. Additionally, any improvements to the lot would be screened by landscaping consisting of natural vegetation. As the traveler moves north, trees and other vegetation bordering the roadway become denser. The pad would not require any cut or fill slopes. Guidelines 1 and 2 are not exceeded and impacts are not significant. No mitigation is required.

Key Views 7 and 8

Key Views 7 and 8 are shown on Figure 3-1-8, "Key Views 7 and 8: From Pine Hills Road." They represent potential views of Lot 5 from Pine Hills Road for travelers headed north (see Key View 7) or south (see Key View 8) along the western boundary of the property. As noted in other views, the vegetation bordering Pine Hills Road is very dense and would effectively screen the view of any incidental structures on Lots 8, 7, and 5 to drivers going north. Key View 8 indicates a break in the natural vegetation along Pine Hills Road. A cut slope of two feet would be visible to drivers going south. The fill slope is located on the south side of the pad and would not be visible from Pine Hills Road in direction. The slopes would be revegetated in accordance with the County of San Diego Grading Ordinance and would blend with the natural terrain. The pad is located approximately 400 feet from Pine Hills Road. The residence and surrounding pasture and open land and agriculture would not significantly contrast or conflict with the surrounding area. Guidelines 1 and 2 are not exceeded and impacts are not significant. No mitigation is required.

Key View 9

This view is from the perspective of the residential viewer group to the east of the Proposed Project. See Figure 3-1-9, "Key View 9: Looking West from Van Duesen Road." The view looks directly west into the Proposed Project from an area of scattered residences. Heavy existing vegetation on both sides of Pine Hills Road form a visual barrier. Additionally, the existing homesites to the east of the proposed project have mature landscaping that visually screens their views of the roadway. This intervening vegetation would therefore reduce any visual impacts to below a level of significance. Guidelines 1 and 2 are not exceeded and impacts are not significant. No mitigation is required.

Analysis –Scenic Resources

Guideline 3: Would the project substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a State scenic highway.

The Proposed Project proposes a subdivision along a State scenic highway SR 78/79. Although the project site can be seen from the State scenic highway, the project would not substantially damage scenic resources. The project proposes large lots, residential pads located away from the roadway, and would be generally screened by existing vegetation and topography. Grading has been designed to minimize landform alteration. New roads follow existing roads where possible and pads would be generally placed on the flatter portions of the site.

Key features noted earlier in the analysis, specifically the prominent knoll in the northeast part of the site and Orinoco/Temescal Canyon Creeks in the south, would be preserved in open space by the Proposed Project's design. Further, the project would not remove any significant trees from the Proposed Project Site, nor would it damage any historic buildings; therefore, no impacts to scenic resources are

anticipated. Guideline 3 is not exceeded and impacts are not significant. No mitigation would be necessary.

3.1.1.3 *Cumulative Impact Analysis*

The cumulative boundaries selected for Hoskings Ranch are the limits of the viewshed. Figure 3-1-~~14~~12, "Cumulative Projects Map," shows the location of past, present and reasonably anticipated projects in the area that have been determined to have a visual impact. The listed projects are:

1. MUP 06-016 – cell tower
2. MUP 92-005 – cell tower
3. MUP 00-044 – cell tower
4. TM 4489 – 41 lot subdivision

Of the projects listed, only MUP 06-016 is within the cumulative boundary of the Proposed Project.

The visual impacts of the Proposed Project and MUP 06-016 are less than significant and therefore their cumulative effect is anticipated to be of a similarly low significance. The effects of a large lot agricultural project are not cumulative to that of a cell tower. They present very different visual effects. Additionally, MUP 06-016 and the Proposed Project are generally not visible at the same time. From SR 78/79, MUP 06-016 comes into view either before or after the Proposed Project Site is in view. When viewed from Pine Hills community, a home approximately a mile away is readily visible. The cell tower, as shown in Figure 3-1-5, is approximately two miles beyond the home would not be visible. Therefore, cumulative projects would not seen simultaneously and cumulative impacts are not significant, no mitigation is required.

3.1.1.4 *Significance of Impacts Prior to Mitigation*

There are no significant visual impacts from the Proposed Project.

3.1.1.5 *Conclusions*

A visual analysis was prepared by a County-listed consultant. Viewsheds and key views from the surrounding community were evaluated to determine any visual impacts that might result from the Proposed Project. The Proposed Project would not significantly alter key views in the area because of the low density proposed, distance of pads from the scenic highway, retention of a majority of the existing vegetation. The Proposed Project would not significantly alter the natural topography. Changes include minimal grading and the potential agricultural development of the lots. Cumulative impacts are not significant because cumulative projects are not simultaneously visible. In conclusion, the Proposed Project does not have any significant adverse effects on the visual resources of the area. No mitigation is required.

3.1.2 Agricultural Resources

Agricultural analysis for the TM 5312RPL^3 Hoskings Ranch project was conducted by TRS Consultants and is entitled *Agricultural Conversion Analysis for Hoskings Ranch TM5312RPL^3, ER# 03-10-005*, and dated ~~June~~ August 2013 (provided herein as Appendix F).

3.1.2.1 *Existing Conditions*

The site is characterized by undeveloped rolling hills that have been used for cattle grazing in the past, but there is no indication of agricultural uses such as tilling and plowing. An area of approximately 680 acres in the southern portion of the site is a private inholding, within the Cleveland National Forest. Portions of the site are under Williamson Act contract, limiting lot sizes to a minimum of 40 acres. There are no residences on the site and the only structures present are capped wells, four man-made detention basins, fences, and a cattle loading corral.

Farmland Mapping and Monitoring Program

The site is mapped under the Farmland Mapping & Monitoring Program (FMMP) as Other Land, which is land that does not meet the criteria of any other category. A relatively small area of Grazing Land is located along SR 78/79 in the northeastern portion of the site. See Figure 3-2-1, "Site on Farmland Mapping and Monitoring Program Map," and Figure 3-2-2, "Farmland Mapping and Monitoring Program Map Legend."

Three FMMP Prime Soils or Soils of Statewide Importance are found on the site: Holland fine sandy loam (HmD); Loamy alluvial land (Lu); and Reiff fine sandy loam (RkC), as detailed in Appendix F, Section 1.4.2.1. The Lu soil (if drained) meets the criteria for Prime Farmland. HmD and RkC soils meet the criteria for Farmland of Statewide Importance, which is similar to the Prime Farmland criteria, but with minor shortcomings, such as greater slopes or less ability to store moisture. The FMMP Farmland soils are based on local soil characteristics and irrigation status, with the best quality land identified as Prime Farmland and Farmland of Statewide Importance. The State Department of Conservation (DOC) publishes a list of soils that meet the soil quality criteria for Prime Farmland soils and Soils of Statewide Importance. Soil criteria are defined by the Natural Resources Conservation Service (NRCS) and are unique to each county. In San Diego County, 44 local soils qualify for the Prime Farmland designation and 65 soils qualify for the Farmland of Statewide Importance designation. These soil criteria include a much broader range of soils than the FMMP Farmland designations mentioned above, and are detailed in Section 2.2.2 of Appendix F. Attachment B of Appendix F details soil candidate criteria and candidate listings for Prime Farmland and Farmland of Statewide Importance in San Diego County.

Williamson Act Contracts and Agricultural Preserves

Approximately 1,291.5 acres of the Proposed Project Site are under a Williamson Act Contract within Agricultural Preserve Number 28, dated February 19, 1974. The contract was amended (Amendment 2) on March 24, 1982 to reduce the minimum lot size from 160 to 40 acres. Approximately 161.23 acres in the southeast part of the site were not covered by this amendment. The Proposed Project includes a proposal to amend the Williamson Act contract to reduce the minimum lot size in this area from 160 to 40 acres. Amendment 1 regarding 15-acre minimum lot size applied to areas north of the current Proposed Project Site and is not a part of the Proposed Project.

Zoning and General Plan Designation

The Proposed Project Site is in the Environmentally Constrained Areas (ECA) regional category in the Land Use Element of the Historic General Plan (HGP) because the site is within an agricultural preserve and part of the site is within the

Cleveland National Forest. The Proposed Project Site is designated (19) Intensive Agricultural in the GP, which allows one dwelling unit per 2, 4, or 8 acres, depending on the criteria identified by the GP. Approximately 680 acres of the site is within the Cleveland National Forest. The Proposed Project Site is zoned A72 (8), an agricultural designation which allows one dwelling unit per eight acres. The zone is intended to allow for the compatibility of residential and agricultural land uses. The Project proposes uses that are consistent with the existing category, designations, and zoning.

On-Site Agricultural Production

The site is undeveloped and currently supports cattle grazing, throughout much of the site, and provides no indications of other agricultural uses such as tilling, plowing, or other disturbance of soils. The site is characterized by undeveloped rolling hills that have been used for cattle grazing in the past.

Surrounding Agricultural Resources

Agricultural land uses exist adjacent to the Proposed Project Site on the east and north. The Cleveland National Forest is south and west of the Proposed Project Site and has scattered residential and agricultural uses. The majority of surrounding land use is Protected Resource Land, which includes Williamson Act Contract lands; publicly owned lands maintained as park, forest, or watershed resources; and lands with agricultural, wildlife habitat, open space, or other natural resource easements. Protected Resource Lands restrict the conversion of such land to urban or industrial uses.

An orchard is located adjacent to the Proposed Project along the southern boundary to the east. Williamson Act Contract lands are located north of the site and consist mostly of grazing land and cattle breeding operations. Apple orchards also occur within a quarter mile north of the site.

Regulatory Framework

Preparation of the agricultural report was guided by the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements, Agriculture*. Additionally, the following regulations, policies, and programs are relevant:

California Environmental Quality Act

Under CEQA, lead agencies are required to consider a proposed project's impacts to agricultural resources. The CEQA Guidelines recommend focusing on analyzing impacts to: Farmland as defined by the Farmland Mapping and Monitoring Program developed by the California Department of Conservation; Williamson Act contracts; agricultural zoning; and agricultural conversion. The California LESA Model was developed to provide lead agencies with an optional methodology to ensure that potentially significant effects on the environment of agricultural land conversions are quantitatively and consistently considered in the environmental review process. San Diego County uses and alternate methodology, the Local Agricultural Resource Assessment (LARA), to achieve this result.

Land Conservation (Williamson) Act

Known formally as the California Land Conservation Act of 1965, the Williamson Act was designed as an incentive to retain prime agricultural land and open space in agricultural use, thereby slowing its conversion to urban and suburban development.

The program entails a ten-year contract between the City or County and an owner of land whereby the land is taxed on the basis of its agricultural use rather than the market value. The land becomes subject to certain enforceable restrictions, and certain conditions need to be met prior to approval of an agreement.

The Right to Farm Act

This act is designed to protect commercial agricultural operations from nuisance complaints that may arise when the operation is conducting business in a "manner consistent with proper and accepted customs." The code specifies established operations that have been in business for three or more years that were not nuisances at the time they began, shall not be considered a nuisance as a result of a new land use.

Farmland Mapping and Monitoring Program (FMMP)

California Department of Conservation (DOC) FMMP produces maps and statistical data used for analyzing impacts on California's agricultural resources. Agricultural land is rated according to soil quality and irrigation status; the best quality land is called Prime Farmland.

Local Regulations, Policies, Standards, and Programs

San Diego County General Plan

The County's General Plan provides guidance for the protection, promotion and preservation of agriculture in San Diego County. Aspects of agriculture are discussed in the General Plan's Open Space Element, Land Use Element, Conservation Element, and Community Plans.

San Diego County Agricultural Enterprises and Consumer Information Ordinance

The ordinance defines and limits the circumstances under which agricultural enterprise activities, operations, and facilities would constitute a nuisance The ordinance recognizes that the commercial agricultural industry in the County of San Diego is a significant element of the County's economy and a valuable open space/greenbelt resource for San Diego County residents.

San Diego County Board of Supervisors Policy I-38 Agricultural Preserves

The Board of Supervisor Policy I-38 sets forth policies for the implementation of the California Land Conservation Act of 1965, known as the Williamson Act. In 1965 the State Legislature added to the Government Code Sections 51200 et. seq. which authorized the County to establish agricultural preserves. An agricultural preserve is an area devoted to agricultural use, open space use, recreational use, or any combination of such uses, and compatible uses which are designated by the County. Preserves are established for the purpose of defining the boundaries of those areas within which the County would be willing to enter into contracts pursuant to the Act. Landowners within a preserve may enter into a Contract with the County to restrict their land to the uses stated above whereby the assessment on their land would be based on its restricted use rather than on its market value.

San Diego County Farming Program

The goals of the San Diego County Farming Program are to promote economically viable farming in San Diego County and to create land use policies and programs that recognize the value of working farms to regional conservation efforts.

San Diego County Board of Supervisor's Policy I-133 Support and Encouragement of Farming in San Diego County

In 2005, the Board of Supervisors adopted a policy to establish the County's support of agriculture. The policy established the Board's commitment, support, and encouragement of farming in San Diego County through establishment of partnerships with landowners and other stakeholders to identify, secure, and implement incentives that support the continuation of farming as a major industry in San Diego. The intent is to develop and implement programs designed to support and encourage farming in San Diego County.

3.1.2.2 *Analysis of Project Effects and Determination as to Significance*

Guidelines for the Determination of Significance

Guidelines are from the County of San Diego *Guidelines for Determining Significance and Report Format and Content Requirements – Agricultural Resources* (March 19, 2007) and are the basis for evaluating impacts to important onsite agricultural resources in San Diego County. An affirmative response to, or confirmation of the following guidelines would generally be considered a significant impact to agricultural resources as a result of Proposed Project implementation, in the absence of evidence to the contrary:

1. The project site has important agricultural resources as defined by the LARA Model; and the project would result in the conversion of agricultural resources that meet the soil quality criteria for Prime Farmland or Farmland of Statewide Importance, as defined by the FMMP; and as a result, the project would substantially impair the ongoing viability of agricultural use on the site.
2. Proposes a non-agricultural land use within one-quarter mile of an active agricultural operation or land under a Williamson Act contract and as a result of the project, land use conflicts between agricultural operations or Williamson Act contract land and the project are likely to occur and could result in conversion of agricultural resources to non-agricultural use.
3. Propose a school, church, daycare or other use that involves a concentration of people at certain times within one mile of an agricultural operation or land under Williamson Act contract and as a result of the project, land use conflicts between agricultural operations or Williamson Act contract land and the project are likely to occur and could result in conversion of agricultural resources to non-agricultural use.
4. Involves other changes to the existing environment, which due to their location or nature, could result in the conversion of off-site agricultural resources to non-agricultural use or could adversely impact the viability on land under a Williamson Act contract.
5. The project conflicts with a Williamson Act contract or the provisions of the California Land Conservation Act of 1965 (Williamson Act).

Analysis

Guideline 1: The project site has important agricultural resources as defined by the LARA Model; and the project would result in the conversion of agricultural resources that meet the soil quality criteria for Prime Farmland or Farmland of Statewide

Importance, as defined by the FMMP; and as a result, the project would substantially impair the ongoing viability of agricultural use on the site.

The LARA Model determined that the site is not an important agricultural resource because a required factor, water, is rated as having low importance. Two other required factors, climate and soil quality, are rated as moderate importance. Land use consistency and slope are both rated low importance, while surrounding land uses is rated high importance because more than 90 percent of land within the Zone of Influence (ZOI) is compatible with agriculture. Guideline 1 is not exceeded, impacts are less than significant and no mitigation is required.

Guideline 2: Proposes a non-agricultural land use within one-quarter mile of an active agricultural operation or land under a Williamson Act contract and as a result of the project, land use conflicts between agricultural operations or Williamson Act contract land and the project are likely to occur and could result in conversion of agricultural resources to non-agricultural use.

The Proposed Project Site is under a Williamson Act Contract and currently supports an agricultural use, which may continue after the subdivision of land. Individual lot owners may opt out of the Williamson Act Contract, in which case there is a ten year period during which agriculture may continue. There are agricultural operations north of the site.

Design features identified for the Proposed Project would preclude impacts to adjacent agricultural operations. These include:

- Continuation of existing agriculture on the Proposed Project Site. Most of the proposed residential lots are adjacent to areas that currently have an agricultural use, or are undeveloped. Conflicts with those areas where there is an adjacent agricultural use would be minimized due to the similarity of use and commonly shared issues between onsite and offsite operations (e.g., cattle grazing currently is carried out east, north, and southwest of the site).
- A Conceptual Grazing Management Plan (CGMP) has been prepared that provides scientifically-based management of habitats as related to grazing. All grazing activities would be subject to monitoring and reporting, as well as remedial action if and when needed, and would be coordinated with the Resource Management Plan (RMP).
- The CGMP is provided as Appendix B to this ~~DEIR~~FEIR. Proposing large lots ranging in size from 40 to 196 acres. This design provides flexibility in the siting of residences. As a result, residential pads are generally located away from project boundary areas. This separation minimizes the potential for effects such as odor and noise from offsite areas. Lot 5 on the east is the closest to an offsite area, with an approximate 500-foot separation between the pad and the adjacent lot across Pine Hills Road. According to the *Guideline for Determining Significance and Report Format and Content Requirements* (page 42), a 300-foot or grade separation is generally regarded as adequate to reduce interface conflicts to below a level of significance. Additionally, cattle grazing exists on the site.
- Monitoring and control of the use of pesticides via pesticide permitting through the County of San Diego Department of Agriculture, Weights and Measures (AWM). A permit allows AWM to require limitations such as implementing buffer zones around the application, prohibiting applications by

air, or limiting the amount of acreage treated at any one time. The Proposed Project would conform to AWM's requirements.

- Minimization of odor impacts through the Project's large lot design, which separates on- and off-site uses. Grazing density on the site would be low density of approximately 680 head of cattle, or an average of one cow per 17.7 acres.
- Several Williamson Act contract lands are located in the vicinity. Grazing onsite is similar to the low-intensity grazing and pasture uses in these areas.

Therefore, the Proposed Project would not result in any land use conflicts between agricultural operations or off-site Williamson Act contract lands. Further, the project would not result in the conversion of off-site agricultural resources to non-agricultural uses. Therefore, Guideline 2 is not exceeded, impacts are less than significant and no mitigation is required.

Guideline 3: Propose a school, church, daycare or other use that involves a concentration of people at certain times within one mile of an agricultural operation or land under Williamson Act contract and as a result of the project, land use conflicts between agricultural operations or Williamson Act contract land and the project are likely to occur and could result in conversion of agricultural resources to non-agricultural use.

The Proposed Project does not propose a school, church, daycare or other use that involves a concentration of people at certain times, within one mile of an agricultural operation or land under Williamson Act contract. The Proposed Project is a tentative map for a residential subdivision. Therefore, Guideline 3 is not exceeded and no impact is identified for this issue area. No mitigation is required.

Guideline 4: Involves other changes to the existing environment, which due to their location or nature, could result in the conversion of off-site agricultural resources to non-agricultural use or could adversely impact the viability on land under a Williamson Act contract.

The project does not propose other changes that would result in the conversion of agricultural uses surrounding the site. The project supports existing and continued agricultural operations onsite. Offsite uses are protected through project design features that preserve agriculture, maintain a low density of 40 acres per lot, and separate residential uses form offsite uses. Therefore, Guideline 4 is not exceeded and no impact is identified for this issue area. No mitigation is required.

Guideline 5: The project conflicts with a Williamson Act contract or the provisions of the California Land Conservation Act of 1965 (Williamson Act).

The Williamson Act contract restricts residential use on contract land unless that use is incidental to an agricultural use. The contract stays with the land and as such the Proposed Project would require an agricultural component on each lot. If any lot owner wishes to stop all agricultural activity, a notice to terminate the Williamson Act contract for that property must be filed and would take ten years to entirely extinguish (see also Williamson Act discussion in section S.3 and section 1.2.1).

The Proposed Project provides for continuation of existing agriculture on each subdivided lot, in conformance with Board Policy I-38.

Therefore, Guideline 5 is not exceeded and impacts are less than significant. No mitigation is required.

3.1.2.3 *Cumulative Impact Analysis*

The County of San Diego's *Guidelines for Determining Significance and Report Format and Content Requirements* (March 19, 2007) were used to determine the scope of the cumulative analysis.

The cumulative study area includes the surrounding west-facing mountainous areas of Julian and Santa Ysabel, as well as the flatter valleys to the northwest. The area shares a common climate, topography and location within the Julian Community Planning Area. The cumulative study area is also based on the *Guidelines'* Attachment F *Defining a Project's Zone of Influence.* Agricultural factors such as other lands in contract, important farmland and important soils were taken into account in determining the cumulative study area. Grazing is a common form of agriculture in the area. The *Guidelines* require the analysis of all properties within a quarter-mile of the subject property.

The cumulative study projects are shown in Figure 3-2-3, "Cumulative Projects on Farmland Mapping and Monitoring Program Map," designated by red dots, and are listed in Table 3-2-1, "Cumulative Project List."

The entire cumulative study area contains 90 projects. Of these 90, 55 projects were not analyzed because the County of San Diego had determined that they would not substantially impair the ongoing viability of agricultural use. The remaining 35 projects were examined in detail. Of the remaining 35 projects, it was concluded that 27 do not convert land to non-agricultural uses or have any agricultural impacts. These are listed in the agricultural resources study (Appendix F, Table 3).

The remaining eight projects in the cumulative projects study area either have existing agriculture onsite or have Prime or Statewide Importance soils. Some of these projects were applications to expand existing agricultural operations, some mitigated impacts onsite through preservation in open space, and some projects did not have agricultural impacts.

The cumulative impacts within the study area result from the following:

- Proposed Project has a direct impact to 16 acres of important soils;
- Julian Sanitation District project (MUP 77-113) results in an impact to two acres of Farmland of Statewide Importance;
- Ortega project (TPM 19932) results in an impact of three acres;
- YMCA project (MUP 75-083) impacts four acres;
- Julian/Cuyamaca Fire Station would impact two acres of Farmland of Statewide Importance.

Collectively, the Proposed Project in combination with other anticipated development in the area results in the total loss of 27 acres of Prime Farmland or Farmland of Statewide Importance within the 22,400-acre study area. Despite isolated losses of agricultural farmland, the agricultural industry in San Diego continues to expand. For example, between 2005 and 2010, the total value of agricultural production increase by eight percent, from 1.53 billion in 2005 to 1.65 billion in 2010. The number of acres in agricultural production increased 11 percent during that same time, from

273,176 acres in 2005 to 302,713 in 2010. Therefore, the cumulative loss of 27 ~~25~~ acres of Prime Farmland and Farmland of Statewide Importance is considered less than significant, because the area of farmland in the County continues to expand, despite isolated losses. No mitigation is required.

There are several cumulative projects in the vicinity that support Williamson Act Contracts (see Appendix E of the Agricultural Conversion Report). The Proposed Project would continue under a Williamson Act Contract and current cattle grazing/cattle breeding activities would also continue. Due to the similarity of agricultural uses, the Project would have minimal effect on surrounding properties under a Williamson Act Contract.

Any change from agricultural uses would have to comply with the provisions of the Williamson Act and County Board of Supervisors Policy I-38, which implements the Williamson Act. To the extent that all projects must comply with state law as regards the Williamson Act, cumulative impacts related to the Williamson Act are precluded. Impacts are not significant and no mitigation is required.

3.1.2.4 *Significance of Impacts Prior to Mitigation*

There are no significant impacts anticipated to agricultural resources as a result of the Proposed Project.

3.1.2.5 *Conclusion*

The Proposed Project does not result in a significant impact to agricultural resources onsite. Offsite agricultural resources were assessed using aerial photographs and information gathered during site visits. The Proposed Project would not significantly impact nearby offsite agricultural uses because it would continue agricultural uses that are similar to those already established in the area. Controls on pesticide use would be in accordance with State law and County ordinance. Williamson Act contracts are not threatened because sites under contract must conform to State law and County processes, in order to change contract status. Offsite impacts to these contract lands are minimized as a result of the Project's large-lot design which separates uses by large distances, as well as consistency of use with nearby uses, and controls on activity. The Proposed Project would not produce a concentration of people because it does not propose a use such as a church or school. Furthermore, the project does not propose other changes to the existing environment which could result in the conversion of offsite agricultural resources to a non-agricultural use. Based upon the list of past, present and reasonably future project, cumulative impacts are not significant because agricultural impacts are avoided, and because the capacity for agricultural uses would be maintained. In conclusion, impacts to agricultural resources would be less than significant and no mitigation is required.

3.1.3 Air Quality/Global Climate Change

Air quality and climate change studies were prepared for the Proposed Project by Urban Crossroads, entitled, respectively, *Air Quality Study, Hoskings Ranch TM5312, Log No. 03-10-005,* October 31, 2011, and *Global Climate Change Analysis, Hoskings Ranch ~~(~~TM 5312 RPL2~~, Log No. 03-10-005)~~*, dated ~~April 10, 2012~~October ~~9~~22, 2015. The air quality report was ~~reports were~~ prepared by Haseeb Qureshi, and the global climate change report was prepared by Jeremy Louden. They are ~~who is~~ on the County's list of consultants approved to prepare air quality and global climate change analyses. The reports are included as Appendices H and I, respectively. The following section

combines these two separate studies to provide a comprehensive view of existing and projected air quality and climate change conditions surrounding the Hoskings Ranch property.

3.1.3.1 *Existing Conditions*

Air Quality – Introduction

The Proposed Project is located within the San Diego Air Basin (SDAB), whose climate is dominated by a semi-permanent high pressure cell or region in which air pressure is higher than surrounding areas. This cell influences the direction of prevailing winds (westerly to northwesterly) and maintains clear skies for much of the year. The high pressure cell also creates two types of temperature inversions that may act to degrade local air quality. Temperature inversions are situations in which warmer air is trapped closer to the earth under a layer of cooler air, and is associated with global warming effects.

Subsidence inversions occur during the warmer months as descending air associated with the Pacific high pressure cell comes into contact with cool marine air. The boundary between the two layers of air creates a temperature inversion that traps pollutants. The other type of inversion, a radiation inversion, develops on winter nights when air near the ground cools by heat radiation and air aloft remains warm. The shallow inversion layer formed between these two air masses can trap pollutants. As the pollutants become more concentrated in the atmosphere, photochemical reactions occur that produce ozone, commonly known as smog.

The climate of the coastal southern California, including the County of San Diego, is determined largely by high pressure that is almost always present off the west coast of North America. High pressure systems are characterized by an upper layer of dry air that warms as it descends. This warm, dry air acts as a lid, restricting cool air located near the surface, creating an inversion of typical temperature conditions.

During the summer and fall, emissions generated in the region combine with abundant sunshine under the influences of topography and the aforementioned inversion to create conditions that are conducive to the formation of photochemical pollutants, such as ozone, and secondary particulates, such as sulfates and nitrates. As a result, air quality in the SDAB is often the poorest during the warmer summer and fall months.

Average summer high temperatures in the Proposed Project vicinity (Julian) are approximately 84 degrees Fahrenheit (°F). Average winter low temperatures are approximately 37°F. The average rainfall in the Proposed Project vicinity is approximately 24 inches annually.

The distinctive climate of the Proposed Project area and the SDAB is determined by its terrain and geographical location. The Basin is located in a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter.

The prevailing winds in the Proposed Project area move predominately from northwest to southeast with an average wind speed of 2.33 meters per second (m/s). Meteorological data from the San Diego air monitoring station (Miramar MCAS) was used to represent conditions at the Proposed Project area's inland location. It should be noted that although the Miramar monitoring station is located approximately 31

miles southwest of the Proposed Project Site, its inland location provides the best available data representative of conditions at the Proposed Project Site.

Air Quality – Regulatory Framework

The following agencies are involved in air quality regulations:

- The U.S. Environmental Protection Agency (EPA) is responsible for setting and enforcing the National Ambient Air Quality Standards (NAAQS) for oxidants (O_3), carbon monoxide (CO), nitrogen oxide ($NO_{x)}$, sulfur dioxide ($SO_{2)}$, particulate matter ($PM_{10)}$, fine particulate matter ($PM_{2.5)}$, and lead.
- The Federal Clean Air Act (CAA) establishes the federal air quality standards, the NAAQS, and specifies future timelines for compliance.
- The California Air Resources Board (CARB), which became part of the EPA in 1991, is responsible for ensuring implementation of the California Clean Air Act (AB2595).
- Local air quality management districts, such as the San Diego Air Pollution Control District (SDAPCD), regulate air emissions.
- The SDAPCD along with the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The San Diego County Regional Air Quality Strategy (RAQS) was initially adopted in 1991, and outlines the APCD's plans and control measures designed to attain the state air quality standard for ozone (O_3).

Existing Air Quality/Attainment Status

Existing air quality is measured based upon ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect public health and welfare.

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state standards and federal standards. The air quality in a region is considered to be in attainment if:

1. The measured ambient air pollutant levels for O3, CO, SO2 (1-hour and 24-hour), NO2, and PM10 are not exceeded and all other standards are not equaled or exceeded at any time in any consecutive three-year period.
2. And the federal standards (other than O3, PM10, and those based on annual averages or arithmetic mean) are not exceeded more than once per year.

The SDAPCD operates a network of ambient air monitoring stations throughout San Diego County. The purpose of the monitoring stations is to measure ambient concentrations of the pollutants and determine whether the ambient air quality meets the CAAQS and NAAQS.

Air quality has shown improvement in the SDAB such that there have been no violations of standards for CO, NO_x, Inhalable Particulates (PM_{10}), and Ultra-Fine Particulates ($PM_{2.5}$) over the past five years in the Proposed Project area, and very low occurrences of violations for PM_{10} and O_3.

The nearest long-term air quality monitoring station to the Proposed Project for O_3, CO, NO_x, PM_{10} , and $PM_{2.5}$ is carried out at the El Cajon monitoring station located approximately 26 miles southwest of the Proposed Project Site. Data for Carbon Monoxide (CO) was obtained from the Chula Vista monitoring station located approximately 39 miles southwest of the Proposed Project Site.

Global Climate Change – Introduction

Greenhouse gases such as water vapor and carbon dioxide are abundant in the earth's atmosphere. These cases are called "Greenhouse Gases" because they absorb and emit thermal infrared radiation which acts like an insulator to the planet. Without these gases, the earth's ambient temperature would either be extremely hot during the day or very cold at night. However, because these gases can both absorb and emit heat, the earth's temperature does not reach these extremes.

Over the years human activities have employed the burning of fossil fuels stored as carbon, thus releasing into the air as carbon dioxide (CO_2) and to a much lesser extent carbon monoxide (CO). Scientists have measured this rise in CO_2 and have correlated it with a warming of the atmosphere. Thus the levels of greenhouse gases emitted by human activity generally, and by land use activities specifically, have become an environmental concern.

Greenhouse gases of concern as analyzed in the technical report for this subject (Appendix I) are CO_2, Methane (CH_4), and Nitrous Oxide (N_2O). To simplify greenhouse gas calculations, both CH_4 and N_2O can be converted to an equivalent amount of CO_2 or CO_2e This allows use of a single measurement to assess the global warming effect of these three gases. ~~Global Climate Change (GCC) is defined as the change in average meteorological conditions on the Earth with respect to temperature, precipitation, and storms~~.

~~Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO_2 (Carbon Dioxide), N_2O (Nitrous Oxide) and CH_4 (Methane). These gases allow solar radiation to enter the Earth's atmosphere, but prevent radioactive heat from escaping, thus warming the Earth's atmosphere. GCC can occur naturally as it has in the previous ice ages. However, according to the California Air Resources Board (CARB), the climate change that is currently in effect differs from previous climate changes in both rate and magnitude (CARB, 2004, Technical Support document for Staff Proposal Regarding Reduction of Greenhouse Gas Emissions from Motor Vehicles). Gases that trap heat in the atmosphere are often referred to as Green House Gasses (GHG). GHG are released into the atmosphere by both natural and anthropogenic (human) activity.~~

Global Climate Change – Regulatory Framework

The Global Warming Solutions Act of 2006, better known as Assembly Bill 32 (AB 32), requires that by 2020 the state's greenhouse gas emissions be reduced to 1990 levels. AB 32 is specific as to when significance thresholds for greenhouse gas emissions need to be adopted. A timeline for the adoption of thresholds is included in Part 4 of AB 32, titled *Greenhouse Gas Emissions Reductions*.

AB 341 makes a legislative declaration that it is the policy of the state that not less than 75 percent of solid waste generated by source reduced, recycled, or composted by the year 2020. It required the state Department of Resources Recycling and Recovery (DOR) to provide a report to the legislature by January 1, 2014 that provides strategies to achieve that policy goal. This bill increases diversion

requirements by an additional 25 percent over Business as Usual as was defined under AB 939 and Senate Bill 1322 (SB 1322).

SB 97 requires the state Office of Planning and Research to prepare and transmit to the DOR guidelines and directed amendments to the CEQA statute specifically for the mitigation of greenhouse gas emissions on the effects of greenhouse gas emissions.

The Energy Independence and Security Act of 2007 (EISA) is a federal energy policy law adopted by Congress that is designed to increase energy efficiency and the availability of renewable energy. The lay will require automakers to boost fleet-wide gas milage averages from the current 25 mpg to 35 mpg by 2020. This fleet-wide average is known as the Corporate Average Fual Economy (CAFE) standard.

AB 1493 is a state law that is similar to CAFE standards but is expected to produce a GHG benefit that is greater than CAFE. The California standards, also referred to as the Pavley rules, are designed to regulate CHG emissions while the EISA is aimed at reducing the nation's fuel consumption.

California's Advanced Clean Car Program incorporates higher emission standards standards, known as Pavley II, with a program to encourage development of zero emission vehicles. This program is expected to reduce GHGs by 4.0 million metric tons or roughly 2.4 percent beyond Pavley I.

The California vehicle efficiency effort is also augmented by the Low Friction Oil, Tire Pressure Regulation, Tire Tread Program, and Solar Reflective Automotive Paint and window glazing efforts. To date only the Tire Pressure Regulations have been implemented.

The Governor's Executive Order S-01-07, also known as the Low Carbon Fuel Standard (LCFS), was enacted in January 2007 and seeks to reduce the carbon intensity of California's passenger vehicle fuels by at least 10 percent by 2020.

The Governor's Executive Order S-3-05 was signed in June 2005 and set the following greenhouse gas targets for California: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels, and by 2050, reduce GHG emissions to 80 percent below 1990 levels.

The Governor's Executive Order B-30-15 was signed in April 2015. This order seeks to establish a California greenhouse gas reduction target of 40 percent below 1990 levels by 2030.

The Governor's Executive Order S-14-08, also known as the Renewable Portfolio Standard (RPS), requires that the retail sellers of electricity will serve 33 percent of their load with renewable energy by 2020. Though this is not a law, for the purposes of speculative GHG forecasting into 2030 and 2050, it is reasonable to assume that it will be a requirement.

The California Energy Code, or Title 24, Part 6 of the California Code of Regulations, were established in 1978 in response to a legislative mandate to reduce the state's energy consumption. The code was updated in 2008 to reduce both natural gas and electrical energy demand. Title 24 (2008) has been found to reduce electrical emissions by 22.7 percent when compared to buildings constructed with 2005 minimum standards. Title 24 (2010) incorporated a voluntary program of efficiency standards. Title 24 (2013) made extensive revisions to the energy efficiency standards for new construction, seeking a reduction of electricity use by 36.4 percent

for single family homes and 22 percent for non-residential buildings. Natural gas reductions being sought are 6.5 percent and 17 percent, respectively.

~~Several governmental agencies are now working towards policies and standards that will work at the federal, state, and local levels. The CARB, California Environmental Protection Agency (Cal EPA), the U.S. Environmental Protection Agency (EPA), the South Coast Air Quality Management District (SCAQMD) or other appropriate governmental organizations have not yet developed formal guidelines for California Environmental Quality Act (CEQA) assessments for climate change, though a number of these groups is currently in the process of developing guidelines for the determination of significance for climate change. In the absence of published CEQA thresholds, analysis of GCC for the Proposed Project includes CEQA-level discussions that suggest such guidelines and evaluates the potential impact of the Proposed Project with regard to its contribution to GHG based on the intent of AB32.~~

~~*Title 24 Energy Standards:* Title 24 of the California Code of Regulations was enacted in 1978, and requires buildings to meet energy efficiency standards. It is estimated by the CEC that consumers have saved $15.8 billion on utility bills since 1978 as a result of Title 24, indirectly resulting in a reduction in GHG emissions that would otherwise result from increased energy use. Title 24 standards are updated periodically to allow for the consideration and implementation of new energy efficient technologies.~~

~~*California Assembly Bill No. 1493 (AB 1493):* Vehicle emissions of GHG were subsequently targeted in 2002 with the passage of AB 1493, which required CARB to develop regulations to limit GHG emissions by cars and light duty trucks. These measures will go into effect in 2009, and it is estimated that vehicle emissions of GHG will be reduced by approximately 18 percent by 2020 (CARB 2004).~~

~~*Executive Order S-3-05:* On June 1, 2005, California Governor Arnold Schwarzenegger mandated GHG emission reduction targets as follows:~~

1. ~~By 2010: reduce GHG emissions to 2000 levels~~
2. ~~By 2020: reduce GHG emissions to 1990 levels~~
3. ~~By 2050: reduce GHG emissions to 80 percent below 1990 levels~~

~~*California Senate Bill No. 1368 (SB 1368):* In 2006, the State Legislature adopted SB 1368, which was subsequently signed into law by the Governor. SB 1368 directs the California Public Utilities Commission (CPUC) to adopt a GHG emission performance standard (EPS) for the future power purchases of California utilities. Accordingly, the new law would effectively prevent California utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the state.~~

~~*California Assembly Bill 32 (AB 32):* In 2006, AB 32, the California Global Warming Solutions Act, was signed into law by Governor Schwarzenegger, giving CARB primary responsibility for reducing statewide GHG to 1990 levels by 2020.~~

~~*Executive Order S-01-07:* On January 18, 2007, California Governor Schwarzenegger mandated a statewide goal to reduce the carbon intensity of California's transportation fuel by at least ten percent by 2020 through S-01-07. The order also requires that a California Specific Low Carbon Fuel Standard be established for transportation fuels.~~

~~In June 2008, the Governor's Office of Planning and Research (OPR), which is the state of California's comprehensive planning agency, released the technical advisory document entitled 'CEQA and Climate Change: Addressing Climate Change through CEQA Review'. In this document, OPR provides interim guidance on how climate change should be addressed in CEQA documents until the CEQA Guidelines are amended on or before January 1, 2010 pursuant to SB 97. SB97 requires that GHG emissions be considered in evaluating projects.~~

~~It should be noted that OPR, with the assistance of CARB's technical staff, and the SCAQMD, are in the process of establishing CEQA GHG significance thresholds. Any significance threshold formally adopted by the SCAQMD would apply to projects located within the South Coast Air Quality Management District, while any CARB significance threshold would apply to projects located within the state. The progress of the proposed thresholds by OPR/CARB and the SCAQMD would be tracked for purposes of this Proposed Project and if additional guidance becomes available the report may be updated if applicable.~~

The California Air Resources Board (CARB) developed the Climate Change Scoping Plan in response to AB 32. The plan encompasses GHG emission reductions, expanded energy efficiency programs, increased utility renewable energy requirements, clean car standards, and low carbon fuels. It also developed a cap and trade program and identified discretionary measures to assist the state in meeting the 2020 limits established by AN 32. The scoping plan was updated in 2014 with regulations focused on key sectors of the economy.

Existing Onsite Conditions Related to Global Warming

The site currently reflects the rural agricultural setting common to the Julian area. Approximately 60 head of cattle are grazed on the site. No residences or other uses are currently in place on the site that would affect air quality or global climate change. It is anticipated that the existing/natural vegetation and soils at the Proposed Project Site currently store carbon emissions; however there is no identified or accepted methodology for calculating net changes in carbon storage associated with proposed development projects. Although there may be some loss of carbon storage with implementation of the Proposed Project (through removal of on-site vegetation and soils), the proposed landscaping as well as future agricultural uses of the Proposed Project Site would facilitate an equal amount of carbon storage.

3.1.3.2 *Analysis of Project Effects and Determination as to Significance*

Air Quality Criteria

Guidelines for the Determination of Significance

The County of San Diego published the document *Guidelines for Determining Significance and Report Format and Content Requirements, Air Quality* (March 19, 2007), which provides guidance on determining Proposed Project-related air quality impacts. The guidance states that a project would have a significant air quality impact if it would:

1. Conflict with or obstruct implementation of the San Diego Regional Air Quality Strategy (RAQS) or applicable portions of the State Implementation Plan (SIP).

2. Result in emissions that would violate any air quality standard or contribute substantially to an existing or proposed air quality violation.

3. Result in a cumulatively considerable net increase of PM_{10} or exceed quantitative thresholds for O3 precursors, oxides of nitrogen (NO_x) and/or volatile organic compounds (VOCs).

4. Expose sensitive receptors (i.e., schools, hospitals, resident care facilities, or day-care centers) to substantial pollutant concentrations.

5. Create objectionable odors affecting a substantial number of people.

6. The potential to result in emissions of any TAC or HAP which result in a cancer risk of greater than 1 in 1 million without T-BACT, 10 in 1 million with T-BACT, or a health hazard index greater than or equal to 1, the project would result in a potentially significant impact.

Analysis

Guideline 1: Conflict with or obstruct implementation of the San Diego RAQS or applicable portions of the SIP.

A determination of whether the potential emissions resulting from operations of the Proposed Project would result in a significant impact is based on an evaluation of the extent to which the Proposed Project conforms to existing regional or local plans. The Proposed Project was assessed to determine consistency with the proposed SANDAG projections for growth within the area. The analysis has determined that the Proposed Project is consistent with the growth projections and therefore is consistent with the RAQS. This determination is based on a careful review of the SANDAG growth projections and the reasonably foreseeable cumulative projects in the San Diego Sub Regional Area (SRA). The Julian CPA, in which the Proposed Project is located, consists of approximately 1,551 single family residential units (in 2008). SANDAG projections indicate that residential demand would continue to increase in the Julian CPA through the year 2030, when it is estimated that the Julian CPA would consist of approximately 1,980 single family residential units. As a result, it is expected that an additional 429 single family residential dwelling units would be developed between 2008 and 2030. It should be noted that the Proposed Project along with reasonably foreseeable projects in the vicinity are not expected to develop more than the expected 429 single family residential dwelling units by the year 2030. Since the Proposed Project along with other cumulative projects does not plan to develop in excess of 429 single family residential dwelling units, it is assumed that the Proposed Project does not conflict with the RAQS as the growth projections do not exceed those in the RAQS. Guideline 1 is not exceeded and impacts are not significant. No mitigation is proposed.

Guideline 2: Result in emissions that would violate any air quality standard or contribute substantially to an existing or proposed air quality violation.

Construction Emissions:

The local air-quality standard to which the Proposed Project must comply would be the based on San Diego County Guidelines for Determining Significance and Report Format and Content Requirements, Air Quality (March 19, 2007) which state that construction impacts are potentially significant if they exceed the quantitative

screening-level thresholds (SLTs) for attainment pollutants NO_x, SO_x, and non-attainment pollutants CO, and O_3, PM_{10}, and $PM_{2.5}$.

The County's Screening Level Thresholds (SLTs) establish the maximum acceptable level of a given GHG, as shown in Table 3-3-1, "Maximum Daily Emissions Thresholds."

In addition to impacts from criteria pollutants, Proposed Project-related impacts may include emissions of pollutants identified by the state and federal government as toxic air contaminants (TACs) or hazardous air pollutants (HAPs), which are toxic air pollutants known to have adverse human health effects. In San Diego County, the Department of Planning and Development Services identifies an excess cancer risk level of 1 in 1 million for projects that do not implement Toxics Best Available Control Technology (T-BACT), and an excess cancer risk of 10 in 1 million or less for projects that do implement T-BACT as the threshold for determining significance. These significance thresholds are consistent with SDAPCD's Rule 1210 requirements for stationary sources.

Rimpo and Associates, in association with various air districts throughout California, developed the Urban Emissions (URBEMIS) 2007 (version 9.2.4), land use and air pollution emissions computer model that is used to calculate the daily emissions increase associated with a Proposed Project. The URBEMIS 2007 model was used to forecast emissions levels for Proposed Project construction and operational activity for purposes of the Proposed Project.

Construction activities for the Proposed Project are anticipated to result in emissions of fugitive dust during the grading phase from heavy equipment usage and from construction workers' commuting to and from the site.

The analysis concluded that construction activities associated with the Proposed Project would result in emissions of CO, volatile organic compounds (VOCs), NO_x, SO_x, PM_{10}, and $PM_{2.5}$. For purposes of this analysis, although the majority of the site would remain undisturbed for future agriculture use, a conservatively estimated maximum of 5 acres per lot (5 acres x 24 lots = 140 total acres) has the potential to be developed as a residential dwelling unit. The analysis assumes overlap of grading, underground utility construction, paving, architectural coating (painting), and physical building construction.

Table 3-3-2, "Summary of Construction Emissions (Pounds Per Day) With Project Design Considerations," shows the forecasts for the Proposed Project relative to each of the emissions areas presented below:

- Grading exhaust emissions
- Grading fugitive dust (PM10) emissions
- Underground utility construction exhaust emissions
- Paving exhaust emissions
- Architectural coatings
- Construction worker commuting
- Diesel-fired particulates and carcinogenic impacts

The Proposed Project encompasses an area of approximately 120 acres to be graded (24 lots x 5-acre lots), or 522,000 square meters. A more conservative 28 lots

was used for the analysis Therefore an area source of 566,560 square meters (752.7m x 752.7m) was programmed into the model to represent the Proposed Project area. Based on the on-site maximum diesel exhaust emissions levels expected, the emission rate for PM_{10} exhaust was programmed into the model in terms of grams per second per meter squared. To represent a worst-case scenario, diesel-fired PM_{10} emissions from rough grading activity (rough grading activity accounts for the highest single phase of diesel-fired PM_{10} levels) were modeled. Rough grading activity is expected to result in 6.22 pounds of PM_{10} exhaust emissions per day (see Section 5.2.1.2 'Diesel-fired Particulates and Carcinogenic Impact,' in the final paragraph on page 27 of the Air Quality study).

Health risks associated with exposure to carcinogenic compounds are defined in terms of the probability of developing cancer as a result of exposure to a chemical at a given concentration. The cancer risk probability is determined by multiplying the chemical's annual concentration by its unit risk factor (URF). The URF is a measure of carcinogenic potential of a chemical when a dose is received through the inhalation pathway. It represents an upper-bound estimate of the probability of contracting cancer as a result of continuous exposure to an ambient concentration of one microgram per cubic meter (µg/m3) over a 70 year lifetime. The URF utilized in this analysis was obtained from the California Environmental Protection Agency, Office of Environmental Health Hazard (OEHHA).

To conservatively represent exposures, an exposure frequency of 365 days and exposure duration of 365 days (1 year) was assumed. For carcinogenic exposures associated with the maximum exposed individual (MEI), the risks were predicted to be 5.4E-07 (0.54 in one million) as presented on Table 3-3-3, "Quantification of Carcinogenic Risks and Noncarcinogenic Hazards (Short-Term Construction Activity)." Therefore risk estimates do not exceed the County of San Diego threshold of one in one million.

An evaluation of the potential noncancer effect of chronic exposures was also conducted. Adverse health effects are evaluated by comparing a compound's annual concentration with its toxicity factor or Reference Exposure Level (REL). The REL for diesel particulates was obtained from OEHHA for this analysis.

To quantify noncarcinogenic impacts, the hazard index approach was used. The hazard index assumes that chronic subthreshold exposures adversely affect a specific organ or organ system. To calculate hazard index, the chemical concentration or dose is divided by its REL. Where the total equals or exceeds one, a health hazard is presumed to exist. For purposes of this analysis the hazard index for the respiratory endpoint totaled less than one.

Design Considerations:

The Proposed Project would be required to reduce air quality effects as listed above to acceptable levels through a series of required design considerations. These design considerations have been derived from the San Diego County Grading Ordinance Section 87.428 on Dust Control Measures as well as from established Best Management Practices.

Design measures to curb mobile source emissions are also required in order to comply with Assembly Bill 32 and its supporting bills (e.g. AB 1493, which addresses CO_2 mobile emissions), as well as the low Carbon Fuel Standard.

The following design considerations are required as part of the Proposed Project construction activity to address these issues:

- Adhere to best management practices (BMPs) which include the application of water on disturbed soils three times per day (3.2 hour watering interval), covering haul vehicles, replanting disturbed areas as soon as practical (per the San Diego County Grading, Clearing and Watercourses Ordinance, section 87.417, effective April 23, 2004) and restricting vehicle speeds on unpaved roads to 15 miles per hour (mph) or less, to control fugitive dust.
- During construction activities, construction equipment shall be properly maintained to ensure proper timing and tuning of engines. Equipment maintenance records and equipment design specification data sheets shall be kept on-site during construction activity. It is conservatively estimated that keeping engines timed/tuned and reducing idling time would achieve a 5 percent reduction for emissions of VOCs, CO, NOx, SOx, and PM10 exhaust emissions during construction activity.
- During grading activities, chemical soil stabilizers shall be applied to inactive areas to reduce fugitive dust emissions (per the San Diego County Grading, Clearing and Watercourses Ordinance, section 87.428, effective April 23, 2004). It is conservatively estimated that implementation of this measure would reduce PM10 and PM2.5 fugitive dust emissions by approximately 84 percent.
- During construction activities, contractor shall ensure that all equipment on-site would not idle for more than five (5) minutes.
- Contractor shall ensure use of low-sulfur diesel fuel in construction equipment as required by the California Air Resources Board (CARB).

With the implementation of the aforementioned design considerations, impacts resulting from construction emissions are not anticipated. Guideline 2 is not exceeded and impacts are not significant. No mitigation is proposed.

Operational Emissions:

Based on the *County of San Diego Guidelines for Determining Significance for Air Quality* (County of San Diego, 2007), operational emissions impacts would be potentially significant if they exceed the quantitative screening-level thresholds for attainment pollutants (NO_x, SO_x, and CO), and would result in a significant impact if they exceed the screening-level thresholds for non-attainment pollutants (ozone precursors, PM_{10}, and $PM_{2.5}$). A summary of operational emissions for winter and summer periods is provided in Table 3-3-4, “Summary of Operational Emissions,” and shows the Proposed Project’s emissions expectations as compared with the Guidelines for Determining the Significance of Air Quality.

Long-term operational activities associated with the Proposed Project would result in emissions of ROG, NO_x, CO, PM_{10}, $PM_{2.5}$ and SO_x. Most of these emissions are the result of Proposed Project related traffic, but also include emissions resulting from natural gas usage, landscaping equipment, and repainting.

The results of the traffic analysis prepared by KOA Corporation indicate that no intersections would operate at a LOS E or worse with a peak-hour approach volume exceeding 3,000 vehicles; in fact, all intersections operate at LOS B or better. As a result CO levels are not anticipated to reach any threshold levels. Consequently,

sensitive receptors would not be significantly affected by CO emissions generated by Proposed Project related traffic.

The Proposed Project's emissions would not exceed the San Diego County SLTs, and Proposed Project related traffic is not anticipated to result in the creation of a CO hotspot. Guideline 2 is not exceeded and impacts are not significant. No mitigation is required.

Guideline 3: Result in a cumulatively considerable net increase of PM_{10} or exceed quantitative thresholds for O_3 precursors, oxides of nitrogen (NO_x) and/or volatile organic compounds (VOCs).

Section 4.3 of the document *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements Air Quality* (March 19, 2007), provides the following guidelines for determining the cumulatively considerable net increases during the construction phase:

- A project that has a significant direct impact on air quality with regard to emissions of PM10, PM2.5, NOx and/or VOCs, would also have a significant cumulatively considerable net increase.
- In the event direct impacts from a proposed project are less than significant, a project may still have a cumulatively considerable impact on air quality if the emissions of concern from the proposed project, in combination with the emissions of concern from other proposed projects or reasonably foreseeable future projects within a proximity relevant to the pollutants of concern, are in excess of the guidelines identified in Section 4.2.

Construction Emissions:

As shown in the previous section, the Proposed Projects not expected to result in emissions that would result in a significant direct impact on air quality relative to projected emissions of PM_{10}, NO_x, and/or VOCs. Therefore, the Proposed Project is anticipated to comply with the first criterion listed above.

The analysis conducted in response to the second criterion above comes to a similar conclusion utilizing an equation from the South Coast air Quality Management District for purposes of determining localized PM_{10} concentrations, which describes the change in PM_{10} concentration versus downwind distance. The analysis shows that fugitive PM_{10} concentrations decrease by 90 percent from the Proposed Project boundary within 50 meters (165 feet) of the source. At 100 meters (330 feet) PM_{10} concentrations decrease by 99 percent; beyond 100 meters, concentrations approach zero. No cumulative contribution of PM_{10} beyond 150 meters would be physically possible.

Furthermore, emissions associated with construction activity are by nature short-term in duration. More specifically, PM_{10} emissions (as previously discussed) tend to settle out in close proximity to the source. For purposes of this analysis the source would be the grading area which the Proposed Project is expected to disturb on any given day. Thus, in order for the potential for cumulative PM_{10} impacts to occur, simultaneous construction and/or grading would need to occur on both a parcel of the Proposed Project Site and on another parcel that is located directly adjacent (within 150 meters) to the Proposed Project Site. Therefore, the likelihood of a cumulatively considerable contribution to PM_{10} from the Proposed Project in conjunction with adjacent projects is highly unlikely.

Additionally, project design considerations identified for the Proposed Project would remain applicable, and other cumulative projects would also need to comply with local ordinances prohibiting nuisances or requiring dust control. These measures would further reduce the cumulative effect of fugitive PM_{10} emissions.

The Proposed Project therefore complies with the second criterion.

The following design considerations are required in order to maintain emissions levels within acceptable limits:

- Adhere to best management practices which include the application of water on disturbed soils three times per day (3.2 hour watering interval), covering haul vehicles, replanting disturbed areas as soon as practical and restricting vehicle speeds on unpaved roads to 15 mph or less to control fugitive dust.
- During construction activities, construction equipment shall be properly maintained to ensure proper timing and tuning of engines. Equipment maintenance records and equipment design specification data sheets shall be kept on-site during construction activity. It is conservatively estimated that keeping engines timed/tuned and reducing idling time would achieve a 5 percent reduction for emissions of VOCs, CO, NOx, SOx, PM10, and PM2.5 exhaust emissions during construction activity.
- During construction activities, contractor shall ensure that all equipment on-site would not idle for more than five (5) minutes.
- Contractor shall ensure use of low-sulfur diesel fuel in construction

Operational Emissions:

Section 4.3 of the document County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements Air Quality (March 19, 2007), indicates that the following guidelines must be used for determining the cumulatively considerable net increases during the operational phase:

- A project that does not conform to the RAQS and/or has a significant direct impact on air quality with regard to operational emissions of PM_{10}, $PM_{2.5}$, NO_x, and/or VOCs, would also have a significant cumulatively considerable net increase.
- Projects that cause road intersections or roadway segments to operate at or below a LOS E and create a CO 'hotspot' create a cumulatively considerable net increase of CO.

County Guidelines for Determining Significance for Air Quality state further the assumption that a project which conforms to the County of San Diego General Plan and does not have emissions exceeding the SLTs would not create a cumulatively considerable net increase in criteria pollutants. This is because the emissions have already been accounted for in the RAQS.

For operational activity, the Proposed Project complies with the first criterion as the Proposed Project is not expected to result in a significant direct impact on air quality with regard to emissions of VOCs, CO, PM_{10}, and $PM_{2.5}$ (as described in the previous section). The Proposed Project is also consistent with SANDAG growth projections for the Proposed Project area and hence is consistent with the RAQS forecast. Based on the operational emissions, this Proposed Project results in a less than significant cumulatively considerable impact.

It should be noted that the results of the analysis indicate no CO 'hotspots' are expected to form as a result of cumulative and project-related traffic.

The Proposed Project is not expected to result in any emissions that exceed the SLTs for operational activity, thus no additional design considerations or mitigation measures are required. Guideline 3 is not exceeded, and impacts are less than significant. No mitigation is necessary.

Guideline 4: Expose sensitive receptors (i.e., schools, hospitals, resident care facilities, or day-care centers) to substantial pollutant concentrations.

Sensitive receptors can include uses such as long term health care facilities, rehabilitation centers, and retirement homes, as well as residences, schools, playgrounds, child care centers, and athletic facilities. In evaluating impacts to sensitive receptors, the two primary emissions of concern are CO and diesel particulate matter emissions.

There are no sensitive receptors located near the Proposed Project boundary. There are several residences located across Pine Hills Road on the east, but the residence closest to a proposed pad is 300 feet away. This is the distance beyond which the county has determined that agricultural nuisances such as noise would not be noticeable.

A screening-level health risk assessment was conducted to determine the potential for the Proposed Project to result in a significant impact on nearby sensitive receptors during short-term construction activity. For purposes of this analysis, the primary pollutant of concern was diesel particulate matter (DPM) which is emitted by the operation of heavy diesel equipment during construction activity.

Since the Proposed Project does not exceed any of the SLTs, a less than significant impact to sensitive receptors is expected.

Based on the analysis conducted as part of the overall Air Quality study, the Proposed Project would not result in a significant impact to sensitive receptors. Guideline 4 is not exceeded, and impacts are less than significant. No mitigation is necessary.

Guideline 5: Create objectionable odors affecting a substantial number of people.

As mentioned previously, sensitive receptors include uses such as long term health care facilities, rehabilitation centers, retirement homes, residences, schools, playgrounds, child care centers, and athletic facilities.

Section 4.5 of the document County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements Air Quality (March 19, 2007), indicates that, in general, a project would not have a significant odor impact if the following is true:

- The project which is not an agricultural, commercial or industrial activity subject to SDAPCD (San Diego Air Pollution Control District) standards, as a result of implementation would either generate objectionable odors or place sensitive receptors next to existing objectionable odors, which would affect a considerable number of persons or the public.

The Proposed Project would be subject to applicable SDAPCD rules, and conditions may be applied (or control equipment required) where necessary to prevent occurrence of public nuisance.

In evaluating impacts to sensitive receptors, the two primary emissions of concern are CO and diesel particulate matter. As noted above, the Proposed Project conforms to the SLTs and would therefore not have impacts related to CO and diesel particulate matter.

Uses such as the ones proposed by the agricultural component of the Proposed Project may introduce odor-causing substances such as manure. This effect is minimized by the large lot design and the separation between on- and offsite uses. This type of land use and design is common in the area. Therefore, no significant impacts would occur.

Under the Agricultural Enterprises and Consumer Information Ordinance, the Proposed Project is required to provide notice in writing to each prospective purchaser about potential agricultural operational issues that may occur on surrounding property and onsite. Purchasers of the property may be required to accept inconveniences such as odors, unless the agricultural use itself constitutes a public or private nuisance under the provisions of the Civil or San Diego County Code (see also agricultural analysis in section 3.1.2.2 of this ~~DEIR~~FEIR).

Based on the aforementioned criteria and analysis, the Proposed Project is not expected to result in a significant odor impact. Guideline 5 is not exceeded, and impacts are not significant. No mitigation would be necessary.

Guideline 6: If a project has the potential to result in emissions of any TAC or HAP which result in a cancer risk of greater than 1 in 1 million without T-BACT, 10 in 1 million with T-BACT, or a health hazard index greater than or equal to 1, the project would result in a potentially significant impact.

For carcinogenic exposures associated with the maximum exposed individual (MEI), the risks were predicted to be 0.54 in one million. Therefore risk estimates do not exceed the County of San Diego threshold of one in one million. Impacts are less than significant, and no mitigation would be necessary.

Global Climate Change Criteria

Guidelines for the Determination of Significance

Background

In January 2015 the County of San Diego issued the 2015 GHG Guidance, *Recommended Approach to Addressing Climate Change in CEQA Documents* (County of San Diego, Planning and Development Services (PDS), January 21, 2015). the latest Guidelines for Determining Significance (County of San Diego, Planning and Development Services (PDS), January 21, 2015). In that document the County recommends using screening thresholds published by California Air Pollution Control Officer's Association (CAPCOA) for determining the need for a Climate Change Analysis to determine the need for mitigation for GHG related impacts under CEQA. It suggests that a project that projects producing more than 900 metric tons of CO_2 would be required to conduct a Climate Change Analysis and demonstrate a 16 percent reduction in GHG emissions through project design features and/or mitigation measures when emissions are compared to a 'business as usual' scenario. The Guidance has been developed from the requirements of AB 32 and addresses potential cumulative impacts that a project's GHG emissions could have on global climate change. Conversely, projects producing less than 900 metric tons

would be considered to result in less than significant impacts related to GHG emissions.

In addition to calculating projected project emissions for the year 2020, the County also recommends, but it is not currently discussed within the Guidance document, conducting an emissions projection for the horizon years 2030 and 2050, consistent with Executive Orders B-30-15 and S-3-05 and discuss the progress that a project would make toward achieving the GHG reduction goals for those years. ~~A 900 metric ton screening criteria (CO2 generated annually) referenced in the CAPCOA white paper (http://www.capcoa.org/) is relatively conservative criteria for determining which projects require further analysis and mitigation with regard to Climate Change. Although the Proposed Project is estimated to produce 861.78 metric tons of CO2Eq/year which is below the screening criteria, a climate change analysis has been prepared to consider project specific details that evaluate the Proposed Projects potential contribution to climate change.~~

~~As indicated in section 15064(b) of the State CEQA Guidelines, the determination of significance of greenhouse gases is not 'ironclad;' rather, the "determination of whether a project may have a significant effect on the environment calls for a careful judgment" by the lead agency "based to the extent possible on scientific and factual data."~~

~~Assembly Bill 32 (AB 32) is the Global Warming Solutions Act of 2006 which established a comprehensive program for the reduction of greenhouse gas emissions in the state of California. AB32 charges the California Air Resources Board (CARB) with establishing regulations and market mechanisms that would reduce California's overall greenhouse gas emissions to 1990 levels by the year 2020, representing a roughly 25 percent reduction in emissions statewide. As of the writing of this report, CARB is still in the process of establishing CEQA GHG significance thresholds.~~

~~Additionally, the County of San Diego has not yet adopted a numeric threshold of significance for emissions of greenhouse gases, and although the County has issued interim guidance it is in the process of being updated due to statewide efforts for a consistent threshold to be established by CARB.~~

Significance Guideline

~~In a report released in December of 2008, CARB has determined that, absent the finalization of any climate change mandates (such as AB32), California's projected 2020 greenhouse gas emissions would be 596 million metric tonnes carbon dioxide equivalent (MMCO2e). CARB has also determined that California's 1990 greenhouse gas emissions totaled 427 MMTCO2e. Therefore, to satisfy the requirements of AB 32, California needs to reduce its overall 2020 emissions for all sectors by 169 MMTCO2e, or 28.3 percent below the Business As Usual (BAU) projection.~~

Therefore, for the purposes of this analysis a significance threshold is exceeded if

1. , the Proposed Project would ~~have a significant impact to global climate change if it~~generate more than~~t~~ 900 metric tons of CO_2e on an annual basis. ~~:~~

~~1. Creates GHG emissions totaling less than a 28.3 percent reduction in GHG emissions compared to BAU conditions.~~

~~The design of the proposed buildings would be required to meet the current Title 24 requirements (Title 24, Part 6 of the California Code of Regulations; Energy Efficiency Standards for Residential and Non-residential Buildings 201308).~~

~~With implementation of energy-efficient measures and design features planned for the Proposed Project, the projected 2020 emissions for the Proposed Project are estimated to be 583.9 metric tons of CO_2 per year.~~

Analysis

Guideline 1: The Proposed Project would generate more than 900 metric tons of CO_2e annually. ~~Create GHG emissions totaling less than a 28.3 percent reduction in GHG emissions compared to 'business as usual' conditions.~~

~~The stated guideline for the Proposed Project is to create GHG emissions which, in the aggregate, total a *28.3* percent or greater reduction in GHG in comparison with 'business as usual' conditions. Emissions measured from 2006 are used as 'business as usual' markers for this comparison. Because the County requires overall compliance with the 'less than *28.3* percent' standard, the analysis of compliance would appear at the end of this section, reviewing both construction and operational GHG emissions combined.~~

~~GHG emissions associated with the development and operation of the Proposed Project were estimated for the following categories:~~

~~1. Increases in emissions from short term construction activity (fossil fuel consumption).~~

~~2. Increase in emissions from electricity generation to provide power to project uses.~~

~~3. Increase in emissions from natural gas use for project uses.~~

~~4. Increase in emissions from water consumption for project uses.~~

~~5. Increase in emissions from vehicular exhaust emissions from daily vehicular activity as a result of the project.~~

~~6.~~1. ~~Increase in emissions as a result of increased municipal solid waste generated by the proposed project.~~

Construction GHG Emissions

The Proposed Project would be expected to take approximately 12 months to complete. The grading operations are expected to take up to six months, with trenching and paving taking an additional two months. Residential buildings will be built out over a four to six month period. The earliest buildout would occur no sooner than late 2017. Table 4.1 of Appendix I shows the expected timeframes for the construction process. The analysis assumes the construction of residential structures though sales will be on an individual lot basis driven by market demand. Therefore this analysis assumes a worst case scenario for emission timing. Additionally, it is assumed that each vehicle trip would follow a rural setting as modeled within the CalEEMod computer program.

Using the vehicle mix in Table 4.1 of Appendix I, the CalEEMod computer analysis produced results shown in Table 3-3-6, " Expected Greenhouse Gas CO_2e Emissions Summary." Emissions are 510.63 metric tons (MT) over the life of the

Project. Assuming a 20 year Project life, the amortized annual amount of emissions each year would be 25.53 MT. ~~During the construction phase of the Proposed Project, GHG emissions would be released in the operation of fossil-fuel-powered construction equipment. Emission forecasts for carbon dioxide (CO2) and methane (CH4) were calculated based on CARB's OFFROAD 2007 emissions inventory model and associated South Coast Air Quality Management District (SCAQMD) methodology. Emissions of nitrous oxide resulting from construction equipment were estimated based on emission factors provided in the document General Reporting Protocol for the Voluntary Reporting Program (The Climate Registry, October 29, 2007) and CARB's OFFROAD 2007 model. Since the specific construction equipment that would be used on the Proposed Project and the timing or phasing estimates are not known at this time, the URBEMIS 2007 emissions inventory model was utilized to develop a relevant equipment inventory and duration for projects of similar scope.~~

~~Exhaust emissions from rough grading, underground utility, and paving activity result from both on-road and off-road heavy equipment operating during this activity.~~

~~The Proposed Project's design considerations incorporate existing regulations, such as Pavely I and II, which include requirements that are expected to yield a 48.2 percent reduction from mobile source emissions. One such requirement is the use of up to 20 percent biodiesel in construction equipment to the maximum extent possible, which will be required as a design feature. .~~

Operational GHG Emissions:

~~*GHG Emissions: Electricity*~~

Once construction is completed, the Proposed Project would generate air and GHG emissions from daily operations which would include factors such as area sources, energy use, mobile sources, solid waste generation, and water uses, all of which are calculated within the CalEEMod program. Area sources include fire places in all units, consumer products, landscaping, and architectural coatings as part of regular maintenance. Energy uses would include electricity and natural gas.

Whenever land uses are changed and alterations are made to the landscaping the amount of carbon dioxide that vegetation can sequester is also changed. The Project would be a rural residential development and each lot is assumed to reduce the amount of vegetative cover by 0.5 acres. The overall change in sequestered CO_2 was incorporated into the CalEEMod model. Results for the CalEEMod run are provided in Attachment A of Appendix I.

The model was run using a combination of default and San Diego –specific settings. Specifically, the Proposed Project location and San Diego Gas and Electric averages for utility emissions were utilized. The operational emissions are presented in Table 3-3-7. The Proposed Project will emit approximately 639.66 MT of CO_2e during a typical year.

Combining the construction and operations emissions produces a total annual emission of 665.22 MT. Loss of vegetative cover would reduce sequestration by 51.72 MT. Therefore the total annual emission would be 742.47 MT of CO_2e. This is below the screening threshold of 900 MT per year set by the County. Therefore the Proposed Project would not generate significant emission impacts. No mitigation is required. ~~While not released on-site, increased GHG emissions resulting from the added electrical demands of the Proposed Project would be created, since electricity~~

~~is often generated through the burning of coal, oil, or natural gas. GHG emissions resulting from Proposed Project energy use were calculated based on average annual energy usage rates published by the United States Energy Information Administration (2003). Power generation emission factors were obtained from the U.S. EPA's eGRID2006 database for the California/Mexico subregion. In order to forecast the GHG emissions resulting from natural gas combustion, usage estimates consistent with the URBEMIS 2007 model were used. The design of the proposed buildings would be required to meet the current Title 24 requirements (Title 24, Part 6 of the California Code of Regulations; Energy Efficiency Standards for Residential and non-residential Buildings 2008).~~

~~*Energy GHG Emissions: Natural Gas*~~

~~GHG emissions from natural gas usage were calculated based on U.S. EPA emission factors (Compilation of Air Pollutant Emission Factors, Volume 1, Chapter 1, External Combustion Sources – Emission Factors for Criteria Pollutants and Greenhouse Gases from Natural Gas Combustion, Table 1.4-2).~~

~~*Energy GHG Emissions: Water Consumption*~~

~~Emissions of GHG would also occur as a result of Proposed Project water consumption. Water use and energy consumption are closely linked, especially in Southern California where water supplies are limited and a significant portion of the water supply must be imported. Large amounts of energy are required for the conveyance, treatment, distribution, and end use of water, as well as wastewater treatment. Water consumption estimates are based on water usage estimates from the American Water Works Association.~~

~~*Transportation GHG Emissions*~~

~~The majority of GHG emissions associated with the daily project operations are the result of increased project-related motor vehicle activity. Emissions for carbon dioxide, methane, and nitrous oxide were calculated using trip generation rates from the project traffic study.~~

~~*Solid Waste GHG Emissions*~~

~~GHG emissions would also occur as a result of municipal solid waste generated by the proposed project. Solid waste generated by the proposed project has the potential to be disposed of in a landfill, where it would emit methane gas as it decomposes. Solid waste generation rates were estimated utilizing data provided by the California Integrated Waste Management Board, and emissions of methane gas resulting from project generated solid waste were estimated utilizing data provided in the document Solid Waste Management and Greenhouse Gases (United States Environmental Protection Agency, September 2006).~~

~~Table 3-3-5, "Total Greenhouse Gas Emissions (Metric Tons Per Year)," provides a summary of detailed calculations for the construction and operational emissions identified above. This GHG reduction is based upon the following assumptions:~~

- ~~21 percent reduction of mobile source emissions with implementation of Pavely.~~
- ~~10 percent reduction of construction emissions with implementation of LCFS.~~
- ~~21 percent reduction in energy use emission due to Renewable Portfolio Standards.~~

- 5 percent reduction in energy use and natural gas emissions with Proposed Project compliance with current Title 42 standards.

Global Climate Change Construction and Operational Emissions: Conclusion

The Proposed Project's forecasted reduction in GHG emissions would be the result of conforming to the AB 32 reduction target of 28.3 percent from 'business as usual', by yielding an approximate 30.58 percent reduction overall. Furthermore, in addition to assessing the Proposed Project's emissions with respect to 2004 State levels, a comparison of the Proposed Project's emissions to the draft interim thresholds under consideration by CARB has been conducted to assist the County in determining whether the Proposed Project's greenhouse gas emissions are cumulatively considerable.

The Proposed Project, with implementation of the proposed design features and recommended measures by the California Attorney General, is consistent with a number of CARB's proposed performance standards. The proposed design features for air quality and GHG are presented in Section 7.6 of this document.

CARB's interim draft thresholds establish a numeric value only for industrial projects and currently they do not define the 'upper limit on project emissions'. It is anticipated that the CARB upper limit project emissions for residential/commercial projects would fall within the general range of the proposed industrial project numerical threshold of 7,000 metric tons of CO_2 Eq/year and the CARB mandatory reporting requirement for industrial projects of 25,000 metric tons of CO_2 Eq/year.

Given that the Proposed Project is expected to generate approximately 1,619.37 metric tons of CO_2 Eq/year under 'business as usual' conditions, and 1,124.13 metric tons of CO_2 Eq/year under 2020 conditions with the Proposed Project, a reduction of approximately 30.58 percent of GHG emission is anticipated for the Proposed Project. Since this exceeds the AB 32 reduction target of 28.3 percent, the Proposed Project is determined to have no impacts associated with global climate change.

Guideline 1 is not exceeded, and impacts are not significant. No mitigation is required.

3.1.3.3 *Cumulative Impact Analysis*

Air Quality

Construction Emissions: Cumulative Effects

Section 4.3 of the *County of San Diego's Guidelines for the Determination of Significance Report Format and Content Requirements Air Quality* (March 19, 2007) provides the following guidelines for the determination of cumulative impacts regarding air quality:

1. A project that has a significant direct impact on air quality with regard to emissions of PM_{10} , O_3, NO_x, and/or VOCs, would also have a significant cumulatively considerable net increase.
2. In the event direct impacts from a proposed project are less than significant, a project may still have a cumulatively considerable impact on air quality if the emissions of concern from the proposed project, in combination with the emissions of concern from other proposed projects or reasonably foreseeable future projects within a proximity relevant to the pollutants of concern, are in excess of the guidelines identified in Section 4.2.

Guideline 3 in the air quality section above analyzes cumulative impacts relative to PM_{10} , O_3, NO_x, and/or VOCs. The data shows that PM_{10} concentrations relative to distance from the source drop off dramatically, making it highly unlikely that a cumulative effect to air quality could take place. Specifically, the report states that for cumulative impacts to occur, grading activities on a directly-adjacent (within 150 meters) parcel would need to occur simultaneously with grading on the subject property. Since no development projects are anticipated adjacent to the subject property, cumulative impacts associated with PM_{10} emissions would be less than significant and no mitigation would be necessary.

The report also concludes that project design considerations which would prohibit nuisances for the Proposed Project are recommended for all projects; because any other project in the area would also be required similar design considerations, cumulative impacts are not anticipated, and no mitigation would be necessary.

Operation Emissions: Cumulative Effects

Section 4.3 of the County of San Diego's Guidelines for the Determination of Significance Report Format and Content Requirements Air Quality (March 19, 2007) provides the following guidelines for the determination of cumulative net increases during the operation phase as relates to air quality:

1. A project that does not conform to the RAQs and/or has a significant direct impact on air quality with regard to operational emissions of PM10, PM2.5, NOx, and/or VOCs, would also have a cumulatively considerable net increase.
2. Projects that cause road intersections or roadway segments to operate at or below a LOS E and create a CO 'hotspot' create a cumulatively considerable net increase of CO.

The Proposed Project is not anticipated to result in a significant direct impact on air quality with regard to emissions of VOCs, CO, PM_{10}, or $PM_{2.5}$, nor is it anticipated to create any CO 'hostspots'. The Proposed Project is also consistent with SANDAG growth projections for the Proposed Project area and hence is also consistent with the RAQs forecast. Based on the analysis, the Proposed Project results in a less than significant cumulative impact.

Global Climate Change: Cumulative Effects

~~Due to the overwhelming scope of GCC~~, ~~no single development project would have a substantial effect on GCC.~~ The Project does not exceed the screening level threshold of 900 MT set by the County. Therefore its cumulative impact is not significant. Due to the overwhelming scope of GHG emissions, which is literally a global issue, the Project doe not rise to the lvel of a signinificant contribution ot GHG emissions. Impacts are not significant and no mitigation is required. ~~No single development can be deemed individually responsible for global temperature increases and rising sea levels. Instead, GHG emissions from the proposed project would combine with GHG emissions emitted across California, the United States, and the world to cumulatively contribute to GCC. Therefore, this analysis considers GCC on a cumulative basis.~~

Because t~~T~~he nature of climate change analysis is cumulative in scope, ~~and therefore~~ the substance of the cumulative discussion appears within the prior section's analysis.

~~It is estimated that the Proposed Project would result in emissions of approximately 1,619.37 metric tons of CO_2Eq per year for 'business as usual' conditions, and 1,124.13 metric tons of CO_2Eq per year for 2020 conditions. The Proposed Project is designed with appropriate design considerations which would reduce total greenhouse gas emissions by 30.58 percent, which is well above the 28.3 percent goal established by AB32.~~

~~The analysis concluded that GHG emissions expected from the Proposed Project would not contribute to any cumulatively significant impact, and no mitigation would be necessary.~~

3.1.3.4 *Significance of Impacts Prior to Mitigation*

The Proposed Project has no significant effects with respect to air quality or GCC.

3.1.3.5 *Conclusion*

Air Quality

Construction activities for the Proposed Project are anticipated to result in emissions of fugitive dust during the grading phase from heavy equipment usage and from construction workers' commuting to and from the site. During short-term construction activity, it is anticipated that emissions would not exceed the criteria pollutant thresholds established by the County of San Diego CEQA Guidelines for Determining Significance for Air Quality, and therefore a less than significant impact is expected.

Operational emissions from the Proposed Project are also anticipated. Most of these emissions are the result of project related traffic, but also include emissions resulting from natural gas usage, landscaping equipment, and painting. The analysis has concluded that emissions generated during long-term project operational activity would not exceed significance thresholds for criteria pollutant emissions. It should be noted that results of the analysis indicate that the Proposed Project would not result in any CO 'hotspots,' thus the Proposed Project is not expected to result in adverse impacts for emissions of CO. Because the Proposed Project would not exceed San Diego County Screening Level Thresholds (SLTs) or any County of San Diego significance thresholds, the Proposed Project would not result in a significant impact.

A screening-level health risk assessment was conducted to determine the potential for the Proposed Project to result in a significant impact on nearby sensitive receptors during short-term construction activity. The results of the health risk assessment indicate that the Proposed Project would not result in a significant impact to nearby sensitive receptors during short-term construction activity.

The analysis also concluded that the Proposed Project would not result in a significant odor impact.

Global Climate Change

The Global Climate Change Analysis report considered construction and operational emissions as part of the overall Proposed Project effects. Construction emissions of 510.23 MT over the life of the Project were amortized over the life of the project, assumed conservatively to be 20 years. The resulting annual emission was 25.53 MT. Operational emissions encompassed a range activities, from area-specific actions such as fire places and landscaping, to vehicle emissions, energy use, solid waste generation, and water use. Total annual operational omissions were

calculated at 639.68 MT.~~concluded that the 'business as usual' scenario for the Proposed Project would result in emissions of approximately 1,619.37 metric tons of CO_2 Eq per year for the "business as usual" condition, and 1,124.13 metric tons of CO_2 Eq per year for the 2020 conditions.~~

Combining the construction and operations emissions produces a total annual emission of 665.22 MT. Loss of vegetative cover would reduce sequestration by 51.72 MT. Therefore the total annual emission would be 742.47 MT of CO_2e. This is below the screening threshold of 900 MT per year set by the County. Therefore the Proposed Project would not generate significant emission impacts. No mitigation is required. ~~With implementation of the design features for the Proposed Project , the projected 2020 emissions for the are estimated to be 1,124.13 metric tons of CO_2 Eq per year.~~

~~Due to the~~ overwhelming scope of GCC~~, no single development project would have a substantial effect on GCC. No single development can be deemed individually responsible for global temperature increases and rising sea levels.~~ The Proposed Project does not exceed the 900 MT threshold for further analysis. Therefore it is concluded that it does not have a significant impact cumulatively. This is due to the overwhelming scope of GHG emissions, which are literally a global issue. Impacts are not significant.~~Instead, GHG emissions from the Proposed Project would combine with GHG emissions emitted across California, the United States, and the world to cumulatively contribute to GCC. Therefore, this analysis considers GCC on a wider-scaled cumulative basis.~~

~~Implementation of the Proposed Project design features and compliance with the state/federal laws would result in a 30.58 percent reduction, which is greater than 28.3 percent reduction in GHG emissions compared to 'business as usual' as shown on Table 3-3-5 (previously presented). Proposed Project impacts associated with global climate change are therefore considered less than significant. No mitigation is required.~~

3.1.4 Geologic Resources

A geologic survey of the Hoskings Ranch TM5432[2] Project Site was conducted by Rob Schumann of AECOM. The resulting report, *Geologic Reconnaissance Study, 1,416.5-Acre Hoskings Ranch, Julian, San Diego County, California*, is dated February 2011. The study is provided as Appendix J in the Technical Appendices of this ~~DEIR~~FEIR.

3.1.4.1 *Existing Conditions*

The Proposed Project Site is located in the central part of San Diego County. Onsite elevations range from approximately 3,100 to 4,200 feet above mean sea level (AMSL) with gradients ranging from gently-sloping hills along the northeastern portion of the property to steep cliffs along the southwestern side of the property.

The Proposed Project is in the Julian Region of the Peninsular Range Province, a 300-mile long California geomorphic province with a long and active geologic history. This portion of the province is predominantly composed of rocks of the Southern California Batholith and generally consists of Mesazoic-aged granitic rock with steep alluvium-filled valleys. Residuum, organic-rich topsoil and minor amounts of alluvium exist in onsite drainages.

Hydrology on the site is associated with fractured bedrock. A number of small linements (potential fault and/or fracture zones) occur in and around the property.

The near surface geology of the Proposed Project Site mainly consists of decomposed granite and in many areas, bedrock is exposed at the surface. Soils on the site consist of the following three types: Sheephead, Holland and Crouch. The Sheephead series consists of well-drained, shallow fine sandy loams and comprise the surface soils for a majority of the western and central portions of the site. Erosion hazard for these soils is high to very high with moderate sheet erosion potential. The Holland series is well-drained, with moderately-deep and deep fine sandy loams. Located on the mountainous uplands, they compose the surface soils on the majority of the site. The erosion hazard for these soil types ranges from slight to very high. The Crouch series is well-drained with deep to moderately-deep course sandy loams. These soils are found in the eastern portion of the site and erosion hazard for these soils ranges from moderate to very high.

Surrounding properties are relatively undeveloped, with widely spaced single-family homes located on large parcels. Many of the homes are located on parcels of 10 acres or greater, and often have orchards or cattle grazing on the property. The Pine Hills housing development to the south features home on smaller lots.

Regulatory Framework

The following list details the most significant Federal, State and local regulations that apply to San Diego County.

Federal Regulations and Standards

National Environmental Policy Act (NEPA)

The National Environmental Policy Act of 1969 requires that geologic hazards be considered when assessing the environmental impact of proposed federal projects.

USGS Landslide Hazard Program

Law 106-113 created this program. The Federal Emergency Management Agency (FEMA) is the responsible agency for the long-term management of natural hazards. The Federal government takes the lead role in funding and conducting research, whereas the reduction of losses due to geologic hazards is primarily a State and local responsibility.

State Regulations and Standards

California Environmental Quality Act (CEQA)

Under CEQA, lead agencies are required to consider impacts from geologic hazards. The CEQA Guidelines are concerned with assessing impacts associated with geologic hazards that exist or may be created by project implementation.

Alquist-Priolo Earthquake Fault Zoning Act (AP Act)

This State law requires that proposed developments incorporating tracts of four or more dwelling units investigate the potential for ground rupture within AP Zones. These zones serve as an official notification of the probability of ground rupture during future earthquakes.

Policies and Criteria of the State Mining and Geology Board with reference to the Alquist-Priolo Earthquake Fault Zoning Act

This subchapter sets forth the policies and criteria of the State Mining and Geology Board that govern the government's responsibilities to prohibit the locations of developments and structures for human occupancy across the trace of active faults within AP Zones.

Seismic Hazards Mapping Act

This Act passed by the State in 1990 addresses non-surface fault rupture earthquake hazards, including liquefaction and seismically induced landslides. No seismic hazard maps have been completed by the State for the County of San Diego.

Uniform Building Code

The Uniform Building Code (UBC) is the primary means for authorizing and enforcing procedures and mechanisms to ensure safe building standards. The UBC uses a hazard classification system to determine what protective measures are required to protect human health and property. To ensure that these safety measures are met, the UBC employs a permit system based on hazard classification.

California Building Code

The California Building Code (CBC), which was most recently adopted in 2012 stringent seismic provisions for hospitals, schools, and essential facilities, as well as additional requirements for "green" building.

Local Regulations and Standards

San Diego County General Plan, Seismic Safety Element (Part V)

The Seismic Safety Element of the General Plan provides background information, policies, and measures for protection of the public from unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, slope instability leading to landslides, subsidence and other geologic hazards. Maps of known seismic and other geological hazards are included.

San Diego County Zoning Ordinance Fault Displacement Area Regulations

County Zoning Ordinance Sections 5400-5406 implement the requirements of the Alquist-Priolo Act. The provisions of sections 5400-5406 outline the allowable development, the permitting requirements, and the construction limitations within Fault Rupture Zones, as designated by the Alquist-Priolo Act.

For a non-discretionary permit such as a building permit, the Department of Planning and Development Services, Building Division requires any above-surface structure to conform to the seismic requirements of the CBC and to incorporate the design recommendations contained within the soils and geologic report as required per the Code.

San Diego County Grading Ordinance, Chapter 4 – Design Standards and Performance Requirements

Chapter 4 of the County Grading Ordinance (which commences at Section 87.101 of the County Code) includes requirements for the maximum slope allowed for cut and fill slopes, the requirement for drainage terraces on cut or fill slopes exceeding 40 feet in height, expansive soil requirements for cuts and fills, minimum setback requirements for buildings from cut or fill slopes, and reporting requirements including a soil engineer's report and a final engineering geology report by an

engineering geologist, which includes specific approval of the grading as affected by geological factors.

3.1.4.2 *Analysis of Project Effects and Determination as to Significance*

The guidelines pertaining to each subsection of geology are from the County of San Diego Land Use and Environmental Group 2007 Guidelines for the Determination of Significance, Geologic Hazards.

Unique Geology

Guidelines for the Determination of Significance

The following significance guideline is used to determine whether a significant impact to a unique geologic feature would occur as a result of a project implementation:

1. The project, as designed, would materially impair a unique geologic feature by destroying or altering those physical characteristics that convey the uniqueness of the resource. A geologic feature is unique if it meets one of the following criteria. It
    a. Iis the best example of its kind locally or regionally;
    b. Embodies the distinctive characteristics of a geologic principle that is exclusive locally or regionally;
    c. Provides a key piece of geologic formation important in geology or geologic history;
    d. Is a “type locality” of a formation;
    e. Is a geologic formation that is exclusive locally or regionally;
    f. Contains a mineral that is not known to occur elsewhere in the County; or
    g. Is used repeatedly as a teaching tool.

Analysis

Guideline 1: The project, as designed, would materially impair a unique geologic feature by destroying or altering those physical characteristics that convey the uniqueness of the resource.

Field investigations and a review of aerial photographs indicate that there are no locations on the Proposed Project Site that could be categorized as unique rock outcrops since they do not match the criteria outlined above. Although there are rock formations and geologic structures that are exposed in the Julian area that are both distinctive and interesting, they are not found within the Proposed Project boundaries and would therefore not be impacted by the Proposed Project. Guideline 1 is not exceeded. Impacts are not significant and no mitigation is required.

Landslides

Guidelines for the Determination of Significance

According to the County of San Diego's Guidelines, landslides would be considered a significant impact to the project if:

1. The project site would expose people or structures to substantial adverse effects, including the risk of loss, injury or death involving landslides.
2. The project is located on a geologic unit or soil that is unstable, or would become unstable as a result of the project, potentially resulting in an on- or off-site landslide.
3. The project site lies directly below or on a known area subject to rockfall which could result in collapse of structures.

Analysis

Guideline 1: The project site would expose people or structures to substantial adverse effects, including the risk of loss, injury or death involving landslides.

Guideline 2: The project is located on a geologic unit or soil that is unstable, or would become unstable as a result of the project, potentially resulting in an on- or off-site landslide.

Guideline 3: The project site lies directly below or on a known area subject to rockfall which could result in collapse of structures.

Rock and soil types were reviewed to determine if the Proposed Project Site could be subject to landslides. The Proposed Project Site is largely underlain by metamorphic and igneous rock, which is a hard rock type that typically is not subject to landslides. The underlying bedrock is jointed, but this feature does not significantly increase instability as evidenced by the stability of very steep on-site slopes despite slope movement. Although the soil types have erosion potential and some rock falls were evident on site, the soil profiles are relatively shallow, and there are no deep-seated landslides in the area; therefore, significant sliding or slumping is unlikely. There is some risk from 'popouts,' bedrock in steep areas that may become dislodged due to gravity. However, areas most likely to be affected are the steep canyons along the southern boundary which would be retained in open space. Landslide maps from the County of San Diego were examined and indicate that the Proposed Project is not located in an area of significant landslide danger. Analysis of the rock type, soil depths, and the review of the landslide maps indicate that there is no significant landslide danger on the Proposed Project Site. Guidelines 1 through 3 are not exceeded. Impacts are not significant and no mitigation is proposed.

Faulting

Guidelines for the Determination of Significance

The determination of impact significance for faulting is based on the following conditions that would be considered significant:

1. The project proposes any building or structure to be used for human occupancy over or within 50 feet of the trace of an Alquist-Priolo (A-P) fault or County Special Study Zone fault.

2. The project proposes the following uses within an AP Zone which are prohibit by the County:

    a. Uses containing structures with a capacity of 300 people or more. Any use having the capacity to serve, house, entertain, or otherwise accommodate 300 or more persons at any one time.

    b. Uses with the potential to severely damage the environment or cause major loss of life. Any use having the potential to severely damage the environment or cause major loss of life if destroyed, such as dams, reservoirs, petroleum storage facilities, and electrical power plans powered by nuclear reactors.

    c. Specific civic uses. Police and fire stations, schools, hospitals, rest homes, nursing homes and emergency communication facilities.

Analysis

Guideline 1: The project proposes any building or structure to be used for human occupancy over or within 50 feet of the trace of an Alquist-Priolo (A-P) fault or County Special Study Zone fault.

The Proposed Project Site is located approximately three miles west of the Elsinore Fault zone, which is one of the largest faults in southern California but is historically the least active, with the last major event having occurred in 1910 approximately 15 miles south of Riverside at a magnitude of 6.0. No other earthquakes as large as or greater than a magnitude of 6.0 have been recorded along this fault line. Since 1972, the State of California has delineated Special Studies Zones around active and potentially active faults in the State to prevent the construction of buildings used for human occupancy on the surface area near active faults. Since the Proposed Project Site is outside of the Special Study Area, seismicity should not be considered a significant constraint to project development. However, the Elsinore Fault is classified as active or potentially active. As an additional precaution, structure design should incorporate seismic safety measures. Guideline 1 is not exceeded and impacts are not significant. No mitigation is required.

Guideline 2: The project proposes prohibited uses within an AP Zone which are prohibit by the County.

The Proposed Project does not propose any of the listed uses and is not within an A-P zone; therefore, the guideline does not apply.

Ground Shaking

Guidelines for the Determination of Significance

The determination of impact significance is based on the following condition that would be considered significant:

1. The project site is located within a County Near-Source Shaking Zone or within Seismic Zone 4 and the project does not conform to the Uniform Building Code.

Analysis

Guideline 1: The project site is located within a County Near-Source Shaking Zone or within Seismic Zone 4 and the project does not conform to the Uniform Building Code.

All of San Diego County is located within Seismic Zone 4 and is subject to ground shaking. All habitable structures built within the Proposed Project Site would utilize the Universal Building Code's Seismic Hazards Standards for construction within a county Near-Source Seismic Shaking zone. Guideline 2 is not exceeded and impacts are not significant. No mitigation is necessary.

Liquefaction

Guidelines for the Determination of Significance

1. The project site has the potential to expose people or structures to substantial adverse effects because:
    a. The project site has potentially liquefiable soils.
    b. The potentially liquefiable soils are saturated or have the potential to become saturated.
    c. In-situ soil densities are not sufficiently high to preclude liquefaction.

Analysis

Guideline 1: The project site has the potential to expose people or structures to substantial adverse effects because of:

a. The project site has potentially liquefiable soils.
b. The potentially liquefiable soils are saturated or have the potential to become saturated.
c. In-situ soil densities are not sufficiently high to preclude liquefaction.

Liquefaction occurs primarily in saturated soils that are loose, and fine- to medium-grained, where the water table is 50 feet or less below the surface. When these soils shake during an earthquake, they can lose their solid characteristics and behave as a liquid. The Proposed Project Site is located outside of the County's mapped potential liquefaction areas. In addition, soil types on site are not consistent with potentially liquefiable soils. Guideline 1 is not exceeded and impacts are not significant. No mitigation is required.

Expansive Soils

Guidelines for the Determination of Significance

1. The project is located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), and does not conform to the Uniform Building Code.

Analysis

Guideline 1: The project is located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), and does not conform to the Uniform Building Code.

Expansive soils are clay soils that expand when wet and shrink when dry. Special construction precautions are required when developing in this type of soil. The

Proposed Project Site is not underlain by clay soils, and therefore this effect is not expected on the site. Guideline 1 is not exceeded and impacts are not significant. No mitigation is necessary.

3.1.4.3 *Cumulative Impact Analysis*

An approximately one-mile cumulative impact study area surrounding the site was defined, and encompasses the generally south-facing slopes of Volcan Mountain both east and west of Julian. A listing of past, present and future projects in the County's project data base was compiled. One project, TM4489, is a single family dwelling in Julian Estates, approximately two miles from the Proposed Project. The 'D' designator required review of geologic effects, among others, but no evidence of an unmitigated impacted was found. Cumulative impacts are not significant due to the lack of significant project level impacts, the separation between projects, and the limited scope of the projects involved. No mitigation is required.

3.1.4.4 *Significance of Impacts Prior to Mitigation*

There are no significant geologic impacts from the Proposed Project.

3.1.4.5 *Conclusion*

The Proposed Project was evaluated for geologic hazards by a registered civil engineer. A comprehensive range of effects were evaluated which includes cultural geology, landslides, faulting, ground shaking, liquefaction, and expansive soils. It was determined that the Proposed Project would not have significant effects in any of these areas due to the general stability of underlying bedrock and suitability of soils to uses anticipated for the site. Cumulative impacts were found to be not significant due to the limited scope of the Proposed Project and the single other project in the study area with a geological effect. No impacts are anticipated, and no mitigation is required.

3.1.5 Groundwater Resources

The following section summarizes information from the groundwater analysis that was conducted for the Proposed Project prepared by Douglas Roff of AECOM. Mr. Roff is a County-approved consultant for the preparation of groundwater analyses. The report, entitled *Final Hydrogeologic Investigation, 1416.5- Acre Hoskings Ranch, Julian, San Diego County*, dated April 2012, is included as Appendix K of the ~~DEIR~~FEIR.

3.1.5.1 *Existing Conditions*

The site consists of moderately steep, rocky slopes and rolling hills, which are vegetated with oak, sage brush, and grasses. Surrounding properties are relatively undeveloped with approximately 30 to 40 single-family homes within one-quarter mile of the property. Most of these homes are located along Pine Hills Road immediately southeast of the site. Approximately five to ten homes are located along both the northern and south-eastern portions of the study area on relatively large lots

that utilize groundwater for irrigation, potable needs, and the raising of cattle. Many homes in the study area are groundwater dependent. The Julian Water Company supplies potable water to about 276 acres of downtown Julian located northeast of the site. In addition, Pine Hills Mutual Water Company provides potable water to homes adjacent to the southern portion of the study area.

Apple and pear orchards are established on the lower hillsides and valley bottoms in the Julian area. Approximately 35 acres of orchards are located within one-quarter of a mile to the east and south property lines. Approximately 160 acres immediately north of the central portion of the property is used for cattle grazing.

Geology in the area consists of various types of granitic rock that compose fractured bedrock. The bedrock is overlain by residuum, or weathered rock, that varies in depth from non-existent to approximately 50 feet. Onsite elevations range from approximately 3,100 to 4,200 feet above mean sea level, with gradients ranging from gently sloping hills along the northeastern portion of the property to steep cliffs along the south central part of the property. Groundwater is found in both the bedrock and fractured alluvium, although fractured bedrock represents the significant water-bearing unit throughout the basin. The property is part of the larger Julian watershed, which includes over 12,000 acres. Groundwater within the 3,000-acre study area generally flows toward Orinoco/Temescal Canyon Creek, then westward, to exit the study area near the southwestern portion of the property where it merges with the San Diego River, continuing to flow southwesterly.

Fifteen wells are located on the Proposed Project Site. Well locations are shown in Figure 3-5-1, “Groundwater Study Area and Well Locations.” Agricultural uses on the site have historically involved grazing in a non-irrigated setting.

Regulatory Framework

This section gives a generalized summary of State and local regulations related to groundwater use.

California Groundwater Rights

The right to use groundwater in California has evolved through a series of court decisions dating back to the late 1800s.

Groundwater rights are not absolute, but pertain to the opportunity of use on the overlying land. This use must be “reasonable and beneficial”. In 1903, a court ruling established that for landowners overlying an aquifer, each property had a “correlative” or co-equal right to a “just and fair proportion” of the resource (CDWR, 2003). These correlative rights only require that all property owners share equally in the resource until it is exhausted – irrespective of the consequences (WEF, 1998).

California Environmental Quality Act (CEQA)

Under the California Environmental Quality Act (CEQA), lead agencies are required to consider impacts to groundwater and water quality when considering discretionary actions. Appendix G of the State CEQA Guidelines lists two questions related to groundwater resources.

San Diego County Groundwater Ordinance

The County of San Diego currently manages anticipated future groundwater demand through the County Groundwater Ordinance. This Ordinance does not limit the number of wells nor the amount of groundwater extraction of existing landowners.

However, the Ordinance does identify specific measures to mitigate potential groundwater impacts of projects requiring specified discretionary permits. Existing land uses are not subject to the Ordinance unless a listed discretionary permit is required.

Section 67.722 (All Other Projects) regulates all areas within the County outside Borrego Valley and any future groundwater impacted basins. Specifically, single-family subdivision projects are required to conform to certain minimum parcel sizes. For other discretionary permit applications, the following findings must be made: 1) For projects using greater than 20 acre-feet per year or 20,000 gallons per day, that groundwater resources are adequate to meet the groundwater demands both of the project and the groundwater basin if the basin were developed to the maximum density and intensity permitted by the General Plan, and 2) for all other projects, that groundwater resources are adequate to meet the groundwater demands of the project.

In the case of certain subdivisions and Specific Plans, such as the subdivision proposed by the Hoskings Ranch project, well testing is required for approximately 10 percent of residential lots proposed (at least one well test and up to five well tests). Residential well tests must meet or exceed the following four requirements:

1. Well production during the residential well test must be maintained at a rate of no less than three gallons per minute;
2. The well test must be conducted for at least 24 hours, unless after eight hours of pumping, the measured specific capacity is equal to or greater than 0.5 gallons per minute per foot of drawdown, at which time pumping can be terminated;
3. The analysis of the Residential Well Test must indicate that no residual drawdown is projected (taking into account minor inaccuracies inherent in collecting and analyzing well test data); and
4. The analysis of the Residential Well Test must also indicate that the amount of drawdown predicted to occur in the well after five years of continual pumping at the rate of projected water demand, would not interfere with the continued production of sufficient water to meet the needs of the anticipated residential use(s).

If any well tested does not meet the above four requirements, the County may require additional well tests be conducted beyond the initial requirement of one to five well tests.

3.1.5.2 *Analysis of Project Effects and Determination as to Significance*

The analysis included discussions with the San Diego County Groundwater Geologist, a site reconnaissance, questionnaires to neighbors, and review of geologic maps and literature and topographic maps. The report also included photographs of the area, evaluation of sustainable groundwater yield, coordination of pump testing of five production wells, a groundwater evaluation, and preparation of a report.

The groundwater study area covers approximately 3,000 acres, which includes the entire Proposed Project Site and the area one-quarter mile beyond the Proposed

Project Site on all sides. Existing and potential future groundwater use in the area is summarized in Table 3-5-1, "Anticipated Groundwater Needs at Maximum Buildout." As shown in Table 3-5-1, the anticipated groundwater needs at maximum buildout of the groundwater study area (per the General Plan) is 133 acre feet per year (afy). This includes the 24 proposed residences.

Groundwater Quality

AECOM personnel obtained groundwater samples from Wells A and B on September 18, 2008 and Well D on September 17, 2008 after at least two well-bore volumes had been pumped from the wells. The samples were collected and analyzed for gross alpha, uranium, total dissolved solids, nitrate, and total coliform.

No groundwater samples exceeded the maximum contaminant levels (MCLs) with the exception of total and fecal coliform in Well A and total and fecal coliform in Well D. These wells were disinfected, resampled, and found to be non-detect for total and fecal coliform. Further, water quality samples were collected from Well G on December 17, 2010 and Well E on January 12, 2011. None of these groundwater samples exceeded the MCLs.

Guidelines for the Determination of Significance

The guidelines to determine impacts to groundwater quantity were derived from the County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements, Groundwater Resources as follows:

1. Water Balance Analysis: For proposed projects in fractured rock basins, a soil moisture balance, or equivalent analysis, conducted using a minimum of 30 years of precipitation data, including drought periods, concludes at many time groundwater in storage is reduced to a level of 50% or less as a result of groundwater extraction; or
2. Offsite Well Interference: Offsite well interference would be considered a significant impact if after a five year projection of drawdown, the results indicate a decrease in water level of 20 feet or more in the offsite wells.
3. Low Well Yield:
    a. Proposed projects requiring groundwater resources associated with single-family residences require well production during the well test to be not less than 3 gallons per minute (gpm) for each well tested. Proposed projects that cannot meet this requirement would be considered to have a significant impact.
    b. Where analysis of a residential well test indicates that greater than 0.5 feet of residual drawdown is projected, the project would be considered to have a significant impact.
    c. The analysis of the residential well test must indicate the amount of drawdown predicted to occur in the well after five years of continual pumping at the rate of projected water demand (a) would not interfere with the continued production of sufficient water to meet the needs of the anticipated residential use(s), and (b) must be less than the saturated depth of water above the pump intake or 100 feet, whichever is less. Proposed projects that cannot meet this guideline would be considered to have a significant impact.

Analysis

Guideline 1: For proposed projects in fractured rock basins, a soil moisture balance, or equivalent analysis, conducted using a minimum of 30 years of precipitation data, including drought periods, concludes at many time groundwater in storage is reduced to a level of 50% or less as a result of groundwater extraction.

Guideline 1 was established to address the unique characteristics of the County fractured rock aquifers which are characterized by limited storage capacity and very limited groundwater recharge during droughts and excess recharge during wet periods. These unique characteristics typically cause large fluctuations of groundwater levels over the short-term which are generally not observed in aquifers with large storage capacity. During drought years, recharge may be negligible, and water extracted from the aquifer may be derived solely from storage. The available storage in the aquifer must be large enough to supply water throughout the duration of the drought. To assure sustainable groundwater use through drought conditions, the resulting calculated sustainable yield from the soil moisture balance analysis is a fraction of average annual recharge.

The soil moisture balance analysis involved calculating groundwater recharge within the 3,185-acre study area on a yearly basis from 1950 to 2000. Groundwater in storage was estimated using the typical storage capacity of the fractured bedrock and decomposed granite that underlay the site. The total calculated groundwater in storage in the study area was estimated to be 1,341.5 acre-feet.

A comparison was then made of yearly groundwater recharge and estimated groundwater extraction at the maximum buildout of the current General Plan. Depletion of groundwater in storage was calculated during years when groundwater extraction exceeded recharge. The amount of groundwater in storage was tracked annually through the 50 year period analyzed.

In the worst-case scenario of maximum buildout of the current General Plan, groundwater resources would be reduced to 59 percent of maximum groundwater in storage, which is above the 50 percent threshold. Therefore the Proposed Project as well as additional future homes at theoretical maximum buildout of the current General Plan could be implemented without affecting long-term sustainability of the groundwater supply. Guideline 1 is not exceeded and impacts to groundwater supplies are less than significant. No significant impact is anticipated due to Proposed Project implementation. No mitigation is required.

Guideline 2: Offsite well interference would be considered a significant impact if after a five year projection of drawdown, the results indicate a decrease in water level of 20 feet or more in the offsite wells.

Well interference reduces the well yield in affected wells by reducing the available drawdown in the well. The magnitude of well interference is dependent on the number and spacing of the wells, pumping rate, properties of the aquifer, and the duration over which pumping has occurred. The Proposed Project would employ a private domestic well on each of the 24 individual lots. The cumulative effect of these wells were analyzed together to predict potential impacts to offsite wells currently

being utilized by offsite well users. Standard hydrological methods were used to estimate drawdown using both an assumed production rate of 0.31 gpm for a period of five years, and a rate of 10 gpm for a period of 24 hours. The rate of 10 gpm for 24 hours is meant to represent drawdown resulting from a homeowner filling a 14,000-gallon swimming pool or similar use.

Offsite well interference was seven feet in the nearest offsite well, less than the threshold of 20 feet. Well interference projected in other offsite wells was less than that projected in the nearest offsite well. The number calculated conservatively assumes that no recharge occurs within the five year period, which would be similar to a severe drought scenario where little or no recharge would occur for five years. Guideline 2 is not exceeded and impacts to offsite groundwater users are less than significant. No significant impact is anticipated due to Proposed Project implementation. No mitigation is required.

Guideline 3: Proposed projects requiring groundwater resources associated with single-family residences require well production during the well test to be not less than 3 gallons per minute (gpm) for each well tested. Proposed projects that cannot meet this requirement would be considered to have a significant impact. (ii) Where analysis of a residential well test indicates that greater than 0.5 feet of residual drawdown is projected, the Proposed Project would be considered to have a significant impact. (iii) The analysis of the residential well test must indicate the amount of drawdown predicted to occur in the well after five years of continual pumping at the rate of projected water demand (a) would not interfere with the continued production of sufficient water to meet the needs of the anticipated residential use(s), and (b) must be less than the saturated depth of water above the pump intake or 100 feet, whichever is less. Proposed projects that cannot meet this guideline would be considered to have a significant impact.

Guideline 3 is divided into three separate thresholds to evaluate whether there is adequate well yield to meet the anticipated groundwater demand for the Proposed Project. For discretionary permit projects involving single-family residences, Section 67.722.C. of the County Groundwater Ordinance requires that at least three well tests be conducted for projects between 21 and 30 lots. The well tests must be capable of passing the well testing requirements set forth in Section 67.703 of the Ordinance of which the three thresholds in this guideline are based. The first threshold states that wells not capable of producing 3 gpm are considered significant. Typical single-family residences use approximately 0.5 acre-feet per year. This converts to 0.3 gpm if pumping occurred 24 hours a day, every day of the year. The required well yield has been set at a factor of 10 times higher than the average 0.3 gpm rate to meet the peak demands for a typical home resulting in the 3 gpm significance level for well yield. The second threshold for residual drawdown evaluates whether the well is within an aquifer of limited extent and long-term well yield may be lower than what is indicated in the well test. Residual drawdown is the difference between the initial water level before a well test is conducted and the water level after recovery. A consequential amount, set at 0.5 feet or greater of projected residual drawdown, would be indicative of an aquifer of limited extent and would be considered a significant impact. The third threshold is based on a five year projection of drawdown using standard hydrologic methods which takes into account the rate of projected demand for the proposed well. If after five years of continual pumping at the rate of projected demand, predicted drawdown must be less than the

saturated depth of water above the pump intake (the pump intake is assumed to be 50 feet above the bottom of the well) or 100 feet, whichever is less.

As part of the Hoskings Ranch groundwater investigation, eleven production wells were installed onsite for testing. Two additional wells were reported by the driller at the time the well was installed as being unable to produce the required 3 gpm. The results of well testing indicate that ten wells onsite may have adequate well yield, in accordance with County Groundwater Ordinance. Therefore, Guideline 3 is not exceeded and impacts due to low well yield are not significant. No significant impact is anticipated due to Proposed Project implementation. No mitigation is required.

Groundwater Quality

Guidelines for the Determination of Significance

The following guideline 4.5 "Poor Groundwater Quality" from the County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements, Groundwater Resources calls for the analysis of possible effects to groundwater quality as a result of the proposed project:

1. Groundwater resources for proposed projects requiring a potable water source must not exceed the Primary State or Federal Maximum Contaminant Levels (MCLs) for applicable contaminants. Proposed projects that cannot demonstrate compliance with applicable MCLs would be considered to have a significant impact.

Analysis

Guideline 1: Groundwater resources for proposed projects requiring a potable water source must not exceed the Primary State or Federal Maximum Contaminant Levels (MCLs) for applicable contaminants. Proposed projects that cannot demonstrate compliance with applicable MCLs would be considered to have a significant impact.

If groundwater in an area is not potable, any discussion of available groundwater resources is moot. Any groundwater that has contaminants that exceed the Federal or State primary MCLs is not potable. Therefore, any project dependent on this contaminated water does not have a viable source of water. In 2008, water samples were obtained from three wells: Well A, Well B and Well D. These wells were tested in a California-certified laboratory for gross alpha, uranium, total dissolved solids, nitrate, total coliform bacteria, and fecal coliform bacteria. Laboratory analytical methods and preservations methods, as well as lab results, are provided on Table 24 of Appendix K. Groundwater samples from Well A and Well D exceeded the MCL established for total and fecal coliform bacteria. These two wells were disinfected and resampled on July 1, 2010 and were found not to exceed the MCL for total and fecal coliform bacteria. Therefore, each of the three wells tested does not exceed MCLs for constituents analyzed. Guideline 1 is not exceeded. Impacts are not significant. No mitigation is required.

3.1.5.3 *Cumulative Impact Analysis*

As noted, a buildout estimate was made for the study area. The County of San Diego General Plan designates Julian, Hoskings Ranch and the surrounding one-quarter mile area as intensive agriculture where minimum allowable parcel sizes (4 and 8 acres) are based on slope and other criteria. Physical constraints such as steep

slopes and unfavorable conditions for septic systems in many areas preclude the creation of smaller parcels, particularly in the southern portion of the site. Consequently, a 20-acre parcel size was used in estimating maximum buildout for approximately 600 acres. One residence on 40 acres was assumed for private inholdings within the Cleveland National Forest, in conformance with the Forest Conservation Initiative. No residences were allocated to publically-owned land. A total of 216 homes could be located in the study area at maximum buildout, with a maximum annual extraction of 200 acre feet. This includes extraction for residences and agricultural uses. The lowest percent of maximum groundwater in storage is estimated to be 56 percent under the historic general plan. In accordance with the *County of San Diego Guidelines for Determining Significance, Groundwater Resources*, storage cannot drop below 50 percent (or 617 acre-feet) of maximum storage. Based on the groundwater in storage calculations, the study area could sustain development at maximum buildout under the current GP and the GP update.

Consequently the Proposed Project, in conjunction with buildout and estimated agricultural uses, would not exceed the sustainable yield calculated for the study area. Cumulative groundwater impacts under the theoretical current General Plan maximum buildout scenario are not significant and no mitigation is required.

3.1.5.4 *Significance of Impacts Prior to Mitigation*

No significant effects would occur and no mitigation would be required.

3.1.5.5 *Conclusion*

Groundwater resources were assessed by a County-listed consultant. The assessment included a review of the geology, soils, and groundwater characteristics of the site and surrounding area. A study area that includes a quarter mile around the site was defined. Groundwater demand for the site and the study area was calculated and overall storage and recharge was assessed. It was determined that adequate groundwater resources exist in the area to support the Proposed Project. Additionally, area buildout would not compromise groundwater availability.

Offsite well interference was evaluated on the basis of well tests. It was determined that the nearest offsite production well would experience 7 feet of drawdown after five years of cumulative effects of pumping from the 24 onsite production wells. Impacts are less than significant. No mitigation is required. The Proposed Project would be designed so that no well would be located within 300 feet of the Proposed Project boundary to ensure offsite interference does not occur.

Well yield was evaluated in eleven wells at the Proposed Project Site. As required by the County Groundwater Ordinance, ten of the wells met the Ordinance requirements and CEQA thresholds to evaluate low well yield. Impacts are not significant. No mitigation is required.

Groundwater quality tests conducted indicate no water quality standards were exceeded. Impacts are less than significant and no mitigation is required.

The Proposed Project was evaluated for potential contributions to cumulative impacts. Land within a one quarter mile radius of the Proposed Project Site was used for the cumulative analysis. Projected water usage in this area at build-out is below the sustainable yield for the study area. The Proposed Project does not contribute to cumulatively significant impacts. No mitigation is required.

3.1.6 Fire Hazard

A Fire Protection Plan (FPP) for the Hoskings Ranch 5312 RPL[3] project was prepared by Lamont Landis, a County-listed fire hazard consultant. The report is entitled, "Fire Protection Plan/Fuel Management Plan for 5312 RPL[3], ER 03-10-005 Hoskings Ranch Project," dated February 10, 2013, and is provided as Appendix L of this ~~DEIR~~FEIR.

The purpose of the FPP is to assess the potential impacts resulting from wildland fire hazards and identify the measures necessary to adequately mitigate those impacts. As part of the assessment, the plan considers the property location, topography, geology, combustible vegetation (fuel types), climatic conditions, and fire history. The plan also addresses water supply, access, structural ignitability and fire resistive building features, fire protection systems and equipment, impacts to existing emergency services, defensible space, and vegetation management. The FPP identifies and prioritizes areas for hazardous fuel reduction treatments, and also recommends measures that property owners would take to reduce the probability of ignitions of structures throughout the area addressed by the plan.

3.1.6.1 *Existing Conditions*

The Proposed Project is located in an area of San Diego County that is prone to wildfires due to its rural nature, the seasonal dry Santa Ana winds that promote the incidence and spread of wildfire, and the high flammability of the surrounding vegetation.

In 2003, the Cedar Wildfires burned through the Cleveland National Forest and in the nearby communities including Ramona, Lakeside, Alpine, Harbison Canyon, Cuyamaca Rancho State Park, Santa Ysabel, the community of Pine Hills directly to the south of the subject property, as well as parts of the subject property itself. The Cedar fires burned over 280,000 acres, and resulted in a total of at least 15 fatalities.

In 2007, the Witch Creek Fire, spread to the nearby communities of Ramona, Rancho Bernardo, Poway, and Escondido, and threatened to invade the communities of Santa Ysabel and Julian. In total, 197,990 acres burned, including 1,125 homes and two civilian fatalities, with a total estimated cost to the State of California of 16 million dollars.

On-Site Fire Conditions

Existing fire fuel loads on the project site are associated with vegetation and include non-native grasses about one-foot in height, Southern Mixed Chaparral and Diegan Coastal Sage Scrub (DCSS) approximately three feet in height as well as scattered trees.

Fire Protection Services

The project site is located within the services are of the Julian/Cuyamaca Fire Protection District (JCFPD). The nearest fire station to the project site is

Julian/Cuyamaca Fires Station No.56, located at 2645 Farmer Road in Julian. This station is staffed with two firefighters (two full-time paid on the ambulance and volunteers on the fire engine). Travel time to the project site from this station is approximately 9.1 to 9.3 minutes, depending on the route.

Additional fire protection service is from the CAL/FIRE Julian Station and Cuyamaca Station, which has automatic aid agreement with the JCFPD. The CAL/FIRE station is located at 587 Highway 78 and is staffed with three full-time firefighters. Travel time to the project site is approximately 11 minutes.

Regulatory Framework

The regulations discussed below have been chosen for their applicability to the Proposed Project and for their usefulness in assessing potential adverse project impacts as defined by the California Environmental Quality Act (CEQA).

Federal Regulations and Nationally Recognized Standards

International Fire Code (IFC)

Published by the International Code Council, it is a model code which may be adopted by a jurisdiction. It forms the basis for the current California Fire Code (California Code of Regulations (CCR) Title 24 part 9). The IFC is the underlying nationally recognized code that sets standards and requirements to safeguard against the threat fires may pose to public health, safety, and the environment. The IFC, when adopted by a jurisdiction, regulates the planning, construction and maintenance of development in all areas.

National Fire Protection Association (NFPA) Standards

The NFPA is a world-wide organization of fire industry, fire agencies, fire professionals and concerned individuals. These model standards are annually compiled from the standards, recommended practices, manuals, guides, and model laws that are prepared by the individual technical committees of the NFPA. Most are revised on a three-year cycle. The published standards are voted on by the members of the NFPA. The individual standards can be adopted by jurisdictions or modified and adopted as that jurisdiction's ordinance.

California Environmental Quality Act and Guidelines

Consideration of impacts relating to wildland fires is required by CEQA. The CEQA Guidelines are concerned with assessing impacts associated with exposing people or structures to wildland fires.

California Building and Fire Codes

Title 24 contains several International Codes that address fire safety regulations adopted by the California Building Standards Commission include the Uniform Mechanical Code, and Uniform Plumbing Code, which are also part of the California Code of Regulations.

Local Regulations and Standards

County of San Diego Building and Fire Codes

Following the October 2003 and fall 2007 wildfires, in February 2008, the County amended the Fire Code and Building Code to include strengthened ignition-resistive construction requirements, modifying the previous two-tiered system and requiring "enhanced" standards for all new construction.

County Consolidated Fire Code

County Consolidated Code (February 2012) is based on the County Fire Code and incorporates local fire district fire codes as ratified by the Board of Supervisors into a single document. The County Consolidated Fire Code includes notations where the local fire district(s) requirements differ from the County Fire Code. The County Consolidated Fire Code is the current fire regulation approved by the Board of Supervisors that apply in the various fire districts. The County Consolidated Fire Code has been certified by the California Board of Forestry and Fire Protection.

Memorandum of Understanding (MOU)

The MOU is an agreement between the United States Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), California Department of Forestry and Fire Protection (CAL FIRE), San Diego County Fire Chief's Association and the Fire District's Association of San Diego County.

The MOU was created to establish guidelines by which fire agencies can continue to require abatement of flammable vegetation without violating environmental regulations for the protection of habitats and species.

Combustible Vegetation and Other Flammable Materials Ordinance

This ordinance addresses the accumulation of weeds, rubbish, and other materials on private property found to create a fire hazard and be injurious to the health, safety, and general welfare of the public. The ordinance finds that the presence of such weeds, rubbish, and other materials is a public nuisance, which must be abated in accordance with the provisions of this ordinance.

Local Fire Agencies' Ordinances

Certain codes like the Fire Code can be amended to be more restrictive than state regulations based upon local climatic, geological and topographical features that can have a significant effect on fire protection and emergency services. These amendments are based on fire agencies' findings and local conditions within the County of San Diego. Per state law, local fire district fire code amendments are effective only after they are ratified or modified by the Board of Supervisors. Health and Safety Code, section 13869.7(a) and (c).

3.1.6.2 *Analysis of Project Effects and Determination as to Significance*

Guidelines for the Determination of Significance

The County of San Diego's *Guidelines for Determining Significance and Report Format and Content Requirements Wildland Fire and Fire Protection* provides a list of mandatory guidelines for the determination of significance. According to this list, the Proposed Project would have significant impacts if it:

1. Exposes 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.
2. Results in inadequate emergency access.
3. Results in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain

acceptable service ratios, response times or other performance objectives for fire protection.

4. Does not have sufficient water supplies available to serve the project from existing entitlements and resources, or new or necessary entitlement expansions.

Analysis

Guideline 1: Exposes 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.

Fire Behavior Modeling

The BehavePlus fire modeling system, was used to assess reasonably-anticipated conditions on the project site under worst-case scenarios during the summer and fall months as well as during Santa Ana wind conditions.

Vegetation types on the project site include non-native grasses, Southern Mixed Chaparral, DCSS and scattered trees. The fuel load for DCSS is approximately 3.6 tons per acre (RMRS-GTR-153 USDA Forest Service). The fuel load for non-native grasses less than one foot in height is 0.74 tons per acre.

The worst-case scenario conditions are analyzed in the FPP. The model results produced flame-lengths of approximately 12.7 feet in height for unmodified non-native grasses, 51.1 feet for unmodified DCSS and 56 feet for unmodified Southern Mixed Chaparral was 56 feet.

Using a safety margin of approximately two times the flame length, the fuel management zones for the Proposed Project should be a minimum of 100 feet. This would be accomplished through the use of a Limited Building Zone (LBZ), and two Fuel Management Zones, as described below.

Design Considerations

The Proposed Project has been designed to incorporate a 100-foot Limited Building Zone (LBZ) between open space and future development areas to maximize fire safety. The LBZ includes specific Fuel Management Zones (FMZs), as described below. Figure 3-6-1, “Typical Fire Clearing Design,” shows the proposed zones overlain on a typical lot. Additional measures include construction standards that would improve fire-safety.

Fuel Management Zone 1

1. Fuel Management Zone 1 (FMZ1) consists of the first 50 feet surrounding habitable structures. Within FMZ1, native vegetation would be removed, and drought-tolerant and fire-resistant plant material would be planted and irrigated. The purpose of FMZ1 is to provide a defensible space for fire suppression forces to protect structures from radiant and convective heat during fire events. The following design measures are part of FMZ1: No combustible construction, groves, firewood, propane tanks, fuel or combustible native or ornamental vegetation shall be allowed within the 50 feet of this FMZ, or 30 feet of the edge of slopes.

2. Mature trees (above 18 feet in height) are to be limbed up or canopied six to eight feet from ground level.
3. No tree limbs are allowed within ten feet of chimney outlets, nor are any dead limbs allowed to overhang structures.
4. Spacing between mature tree canopies must be as follows:
    a. Slopes 0 to 20 percent – 10 feet distant
    b. Slopes 21 to 40 percent – 20 feet distant
    c. Slopes greater than 40 percent – 30 feet distant
5. The minimum horizontal space between the edges of shrubs must be as follows:
    a. Slopes 0 to 20 percent – two times the height of the shrub
    b. Slopes 21 to 40 percent – four times the height of the shrub
    c. Slopes greater than 40 percent – six times the height of the shrub
6. The minimum vertical space between the top of the shrub and the bottom of lower tree branches is three times the height of the shrub.
7. All plants used within FMZ1 must comply with the San Diego County Acceptable Plant List.
8. The landscaping plan for FMZ1 must be approved by the JCFPD.
9. FMZ1 shall be delineated with permanent markers (e.g., metal fence post with orange paint finish on the top half of the post) until such time it is no longer needed, as determined by the Fire Marshal.

Fuel Management Zone 2

Fuel Management Zone 2 (FMZ2) encompasses the area 50 feet beyond FMZ1, and bring the minimum width of the LBZ up to 100 feet. Landscaping plans for this area shall include methods of erosion control to protect against slope failure. The following design measures are part of FMZ2:

1. Fifty percent of the existing native combustible vegetation must be cleared in this area. Trees may remain provided that the horizontal distance between the crowns of trees is not less than ten feet.
2. Orchards, groves, and vineyards shall be maintained as per section 4707.3.2 of the San Diego County Consolidated Fire Code revised October 28, 2011.
3. Fire resistive plant materials are also required within FMZ2 to control soil erosion and/or to reduce vegetation mass near the wildland interface.
4. Plant spacing would be the same as noted for FMZ1.
5. All plants used within FMZ1 and FMZ2 must comply with the San Diego County Acceptable Plant List.
6. The landscaping plan for FMZ2 must be approved by the JCFPD.
7. FMZ2 shall be delineated with permanent markers (e.g., metal fence post with orange paint finish on the top half of the post) until such time it is no longer needed, as determined by the Fire Marshal.

Fuel Management Zone 3

Fuel Management Zone 3 (FMZ3) focuses on roadside fuel modification and covers the area from the edge of the road or driveway to a width of 30 feet on each side of the road. The following design measures are part of FMZ3:

1. All vegetation must be maintained at a height of 4 to 6 inches with all dead and down vegetation removed.
2. Any plants within this area shall be from the San Diego County Acceptable Plant List and maintained per the requirements of FMZ1.
3. Any off-site fuel management along Daley Flat Road and Hoskings Ranch Road shall be pledged memorialized and attached to the parcels through a Private Road Maintenance agreement through the San Diego County Department of Public Works.
4. FMZ3 shall be delineated with permanent markers (e.g., metal fence post with orange paint finish on the top half of the post) until such time it is no longer needed, as determined by the Fire Marshal.

Access

Primary Access

The Proposed Project's main access point is from Pine Hills Road along the eastern boundary at its intersection with Tenaya Road, which would be the new access road that originates in that location at Lot 7. Tenaya Road would be a two-lane road, 24 feet of pavement on a graded road bed of 28 feet, on a 40 food easement that includes fire clearing.

Secondary Access

An additional access point is provided from Daley Flat Road north to Hoskings Ranch Road. Daley Flat Road north is a two-lane paved road, 24 feet in width on a 28-foot graded surface. The road is paved along its entire length, which from the Proposed Project's north-central boundary to SR 78/79 is 1.52 miles.

As per the FPP for the project, the following project design features would be implemented related to fire access road design:

- Dead end roads shall not exceed the 2,640 feet maximum allowable length.
- All new roads and driveways throughout the Proposed Project shall have a minimum clearance of 30 feet on either side and shall meet or exceed all San Diego County DPS and JCFPD requirements by complying with the San Diego County Consolidated Fire Code.
- Requirements include all-weather road surfaces suitable for travel by 50,000 lb. fire apparatuses.
- All driveways or roads exceeding 15 percent grade shall be surfaced in Portland cement concrete with deep broom finish perpendicular to the direction of travel to enhance traction.
- Roads shall not exceed 20 percent grade.
- All gates shall comply with section 503.6 of the San Diego County Consolidated Fire Code.

Emergency Response Times

The Proposed Project within the services area of JCFPD. The nearest fire station to the project site is located at 2645 Farmer Road in Julian. Travel time to the project site from this station is approximately 9.1 to 9.3 minutes, depending on the route. This response time is within the 10-minute maximum travel time requirement and is consistent with the General Plan requirement for fire response.

Additional fire protection service is from the CAL/FIRE Julian Station and Cuyamaca Station, which has automatic aid agreement with the JCFPD. The CAL/FIRE station is located at 587 Highway 78 and is staffed with three full-time firefighters. Travel time to the project site is approximately 11 minutes. The Proposed Project is west of Julian and has 8-acre zoning that would be classified as a rural category. This allows for a 20 minute response time per the General Plan. Therefore, the Proposed Project can be served within in County-required response time.

~~Furthermore, the Proposed Project proposes the dedication of 5.0 acres of land along the northern boundary approximately one-half mile from the intersection of Pine Hills Road and SR 78/79 for the purpose of creating a new fire station. This area is provided as a public service and is not required as project mitigation for fire impacts. It would be able to serve the Proposed Project as well as the surrounding community.~~

Construction Measures

A range of “fire safe” construction measures are proposed that control the materials, design, and safety systems used in the homes, as detailed in the technical report, Appendix L.

All new structures shall be equipped with the following interface features:

1. Roofs would be a Class “A” noncombustible material and shall meet San Diego County Planning and Development Services (DPS) standards.
2. Eaves and balconies would be on noncombustible material and meet San Diego County Building Code.
3. Exterior walls would be a noncombustible or ignition resistive material and meet the San Diego Building Code Chapter 7A.
4. All habitable structures and attached garages would be equipped with automatic fire sprinklers per the County Consolidated Fire Code requirements (NFPA-13D). All sprinkler systems shall be approved by the JCFPD prior to installation.
5. All future outbuildings must be approved by the JCFPD.
6. All structures would comply with the wildland area structural requirements of the San Diego Building Code Chapter 7A in affect at the time of a building permit application.

Maintenance of Fuel Management Zones

FMZ1 and FMZ2 must be maintained in a manner that would fulfill the intent of the FPP and must meet the requirements of the JCFPD. Maintenance would include initial planting, weeding, irrigation installation, pruning, removal of dead and down vegetation, and the replacement of plants as the need arises.

Specific maintenance activities would include:

1. Each lot owner shall be responsible for all irrigation and landscaping FMZs within their property boundaries.
2. The JCFPD would hold each lot owner accountable for enforcement of all wildland fire protection issues discussed in the FPP.
3. Each lot owner shall not allow trash dumping or disposal of any yard trimmings in the FMZs.
4. The JCFPD or its designated representative shall decide any disputes related to individual lot landscaping or fuel treatment, with respect to interpretation of the FPP. Decisions shall be final and binding to the lot owner.
5. Should modifications to the Tentative Map occur, any and/or all of the FPP may be revised at the discretion of the JCFPD and the San Diego County Fire Marshal.
6. All exterior boundaries of FMZ1 and FMZ2 shall be permanently marked on the ground for purposes of guiding annual fuel maintenance and inspection operations. These markers must be spaced so that the markers to either side of any individual marker are visible.

These design measures would ensure the maximum fire protection possible for the residents of the Proposed Project and the surrounding community. Therefore, Guideline 1 is not exceeded and impacts are less than significant. No mitigation is necessary.

Guideline 2: Results in inadequate emergency access.

As described in the response to Guideline 1, above, the Proposed Project provides two access points for the 24 residential lots. Primary access is from Pine Hills Road along the eastern boundary at its intersection with Tenaya Road between Lots 5 and 7. Tenaya Road would be a two-lane road, 24 feet of pavement on a graded road bed of 28 feet, on a 40 food easement that includes fire clearing.

Secondary access is provided from Daley Flat Road north to Hoskings Ranch Road. Daley Flat Road north is a two-lane paved road, 24 feet in width on a 28-foot graded surface. The road is paved along its entire length, which from the Proposed Project's north-central boundary to SR 78/79 is 1.52 miles. The Proposed Project applicant has legal access rights, as documented in the Title Report for the Proposed Project.

All roads within the Proposed Project meet the maximum dead-end allowance of 2,640 feet. All new roads and driveways throughout the Proposed Project shall have a minimum clearance of 30 feet on either side and shall meet or exceed all San Diego County DPS and JCFPD requirements by complying with the San Diego County Consolidated Fire Code. Requirements include all-weather road surfaces suitable for travel by 50,000 lb fire apparatuses; all driveways or roads exceeding 15 percent grade would be surfaced in Portland cement concrete with deep broom finish perpendicular to the direction of travel to enhance traction; no roads would exceed 20 percent grade; and all gates shall comply with section 503.6 of the San Diego County Consolidated Fire Code.

Since the project provides both primary and secondary emergency access and all roads and driveways proposed as part of the project meet San Diego County DPS, JCFPD and San Diego County Consolidated Fire Code requirements, Guideline 2 is not exceeded, and impacts are less than significant. No mitigation is required.

Guideline 3: Results in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection.

The Proposed Project as proposed would dedicate a portion of land for the creation of a new fire-service station, which would benefit the community as well as the Proposed Project itself. However, the station is not required as mitigation for the project. Guideline 3 is not exceeded, no impacts are anticipated, and no mitigation is required.

Guideline 4: Does not have sufficient water supplies available to serve the project from existing entitlements and resources, or new or necessary entitlement expansions.

The site is located in a groundwater-dependent area outside of the Municipal Water District (MWD), and therefore would be served by wells. The water for firefighting would come from onsite water tanks. Storage required for firefighting would comply with the conditions identified in Table 507.2.2 of the County Consolidated Fire Code. Each lot would be equipped with a water storage tank and a fire-hose connection which would meet with JCFPD requirements. As part of the current CEQA process, groundwater studies have been conducted which conclude that groundwater in the area is sufficient to serve the Proposed Project's needs. Guideline 4 is not exceeded and impacts are less than significant. No mitigation is required.

3.1.6.3 *Cumulative Impact Analysis*

Cumulative research was conducted at the San Diego County Department of Planning and Development Services to discover any potential past, current, or future projects that may contribute to cumulatively significant impacts. The area in question was chosen based on historic information concerning the Cedar Fires, which burned areas that are topographically linked to the Proposed Project Site. This area includes Pine Hills and the hillsides adjacent to and below the Proposed Project site. All projects proposed for development in the County are required to conform to the San Diego County Consolidated Fire Code, as revised October 28, 2011. The Code includes substantial fire safety measures designed to minimize fire risk associated with development. When project conform to the San Diego County Consolidated Fire Code, they minimize their vulnerability and potential to contribute to fire risks.

The Proposed Project meets JCFPD requirements for fire protection~~, and in addition contributes land to the district that could be used for the construction of an additional fire station, thereby contributing to an enhancement of fire safety in the area~~. The Proposed Project conforms to the County's Consolidated Fire Code and local fire district fire safety requirements, including secondary access, cul de sac length, and fire safe construction measures. The Proposed Project, when considered with the other project in the area with a fire safety impact, does not have a cumulatively considerable impact. Guidelines are not exceeded. Impacts are not significant. No mitigation would be necessary.

3.1.6.4 *Significance of Impacts Prior to Mitigation*

The Proposed Project design would require that two Fuel Management Zones surround each habitable structure (FMZ1 and FMZ2), adequate fire clearing be created along roadways (FMZ3), and fire-safe construction methods be employed.

These actions would prevent significant impacts to fire safety. No significant effects would occur and no mitigation would be required.

3.1.6.5 *Conclusion*

A fire analysis was completed by a County-listed fire hazard consultant. The analysis concluded that the Proposed Project, as designed, would have a less than significant impact on fire safety. No guidelines are exceeded and impacts for all guidelines are less than significant. The design measures described in the analysis portion of the FPP provide comprehensive measures for the prevention of fire hazards, including a two-tiered fire safety zone around habitable structures, fire clearing along roads, and fire-safe construction methods. The Proposed Project provides both a primary and a secondary access points. Impacts are less than significant and no mitigation is required.

3.1.7 Surface Water Resources

Surface water resources were evaluated in three reports: *CEQA Level Preliminary Drainage Study, Hoskings Ranch TM 5312RPL[3]*, dated March 13, 2013, *Major Stormwater Management Plan (Major SWMP), for Hoskings Ranch, Highway 78 and 79, Julian, San Diego County, California, TM 5312RPL3*, dated ~~January 5, 2011~~March 13, 2013, both prepared by Masson & Associates, Inc., California-registered civil engineers; and *Technical Memorandum: Design of IMPs for Hydromodification and Water Quality Purposes for The Hoskings Ranch Development*, dated October 31, 2011, prepared by Tory R. Walker engineering, Inc. The studies are provided as Appendices M, N, and O, respectively, in the Technical Appendices.

3.1.7.1 *Existing Conditions*

The Proposed Project is located in the central part of San Diego County, approximately one mile distant from the Julian town center. The property is bound to the north by SR 78/79 and to the east by Pine Hills Road. The site covers 1,416.5 acres of undeveloped land primarily containing natural and disturbed habitats.

The drainage area that affects the site covers approximately eight square miles and is divided into 12 major drainage basins. Two major drainage courses, Temescal Creek and Orinoco Creek, receive the discharge runoff from the basins and flow westerly to the San Diego River, which is the receiving water of the site. Basins 1 through 10 discharge directly into Temescal Creek; Basin 11 discharges into the San Diego River; and Basin 12 discharges into Orinoco Creek. All storm water runoff from the drainage eventually discharges into the San Diego River.

The topography of the site is generally sloping from east to south and west. Approximately 37.2 percent of the slopes onsite are over 25 percent slope. The hydrologic soils existing on the site are classified as types ‘B’ and ‘C.’ Type ‘B’ soils are primarily clay soils and have moderate infiltration rates when thoroughly whetted. Type ‘C’ soils have slow infiltration rates.

The general land use category for the site is (19) Intensive Agricultural. The zoning for the Proposed Project and surrounding area is A-72, General Agricultural.

Regulatory Framework – Surface Hydrology and Hydromodificaton

The following discussion details the most important Federal, State and local laws, regulations, policies and programs that address flooding issues onsite.

Federal Regulations, Programs, and Acts

Federal Regulations and Standards Federal Emergency Management Agency (FEMA)

FEMA is the primary agency in charge of administering programs and coordinating with communities to establish effective flood plain management standards. FEMA is responsible for preparing FIRM for communities, which delineate both the areas of special flood hazards1 and the risk premium zones applicable to the community.

National Flood Insurance Act

This legislation established the National Flood Insurance Program (NFIP). The 1968 Act provided for the availability of flood insurance within communities that were willing to adopt floodplain management programs to mitigate future flood losses. The act also required the identification of all floodplain areas within the United States and the establishment of flood-risk zones within those areas.

National Flood Insurance Program

This program is the Federal regulatory program under which flood-prone areas are identified and flood insurance is made available to residents of participating communities. The primary objectives of the National Flood Insurance Program (NFIP) were to: (1) make federal flood insurance available to home and business owners and renters who were exposed to flood hazards; and (2) as a condition of insurance availability, to require the adoption of specified hazard mitigation practices, including land use practices that restrict development on flood-prone lands.

National Flood Insurance Reform Act

The National Flood Insurance Reform Act was signed into law in 1994 and was designed to strengthen the NFIP by providing for mitigation insurance and establishing a grant program for State and community flood mitigation planning projects.

State Regulations and Standards

California Environmental Quality Act

Under CEQA, lead agencies are required to consider impacts to hydrology and water quality. The State CEQA Guidelines recommend focusing on impacts that may result from: substantially altering drainage patterns; placing housing within a 100-year flood hazard area; placing structures within a 100-year flood hazard area; exposing people or structures to as a result of the failure of a dam; and exposing people or structures to inundation by a seiche, tsunami, or mudflow.

Cobey-Alquist Flood Plain Management Act

This act encourages local governments to plan, adopt and enforce land use regulations for floodplain management in order to protect people and property from flooding hazards. This act also identifies requirements that jurisdictions must meet in order to receive state financial assistance for flood control.

Local Regulations and Standards

San Diego County General Plan, Public Safety Element (Part VII)

The Public Safety Element was developed to introduce safety considerations into the planning and decision making processes in order to reduce the risk of injury, loss of life, and property damage associated with the hazards identified in the element. The element also proposes policies and recommendations aimed at enhancing public safety through prevention as well as response preparation. Chapter 3 of the element, Geologic Hazards, addresses non-seismic hazards, specifically slope instability/erosion and landslides, which can cause flooding.

San Diego County General Plan, Seismic Safety Element (Part V)

In 1984, the Government Code (§ 65302g) was amended to require that the Seismic Safety Element be consolidated with the Public Safety Element. The Seismic Safety Element is an update to the seismic safety portion of the Safety Element and has the following objectives: define degrees of risk in various parts of the County; minimize risk to human life from structures located in hazardous areas; provide a basis for designating land uses in risk areas; ensure essential facilities would operate in the event of a disaster; facilitate post-disaster relief and recovery operations; and increase public awareness of hazards. Section 6 addresses and provides policies on landslides, Section 8 addresses and provides policies on tsunamis and seiches and Section 9 addresses and provides policies on inundation caused by dam failure.

San Diego County General Plan, Conservation Element (Part X)

The Conservation Element identifies and describes the natural resources of the County of San Diego and includes policies and action programs to conserve those resources. Chapter 3, Water, Finding 21 under Drainage and Flood Control, addresses the effects of land use changes on the hydrology of an area, including changes in peak flow characteristics (floods), changes in total run-off, changes in the quality of water, and changes in the appearance of the area.

County of San Diego Flood Damage Prevention Ordinance

This ordinance was established to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas throughout the County of San Diego. Pursuant to this ordinance, SFHA in the County are identified as areas having a special flood or flood-related erosion /sedimentation hazard and shown on a FIRM, on a County flood plain map as within 100-year flood plain or on an alluvial fan map within an alluvial fan area. This ordinance defines methods to accomplish the goals of reducing flood losses, including: restricting uses which are dangerous to health, safety and property due to erosion or water hazards; requiring uses vulnerable to floods to be protected against flood damage at the time of construction; controlling the alteration of natural flood plains; controlling filling, grading, or dredging which may increase flood damage; and preventing construction of flood barriers which would divert flood waters or increase flood hazards in other areas. This ordinance also provides for provisions for standards of construction and standards for subdivisions in areas of special flood hazards. By complying with the requirements of the Flood Damage Prevention Ordinance, projects are considered to be in compliance with FEMA regulations.

County of San Diego Resource Protection Ordinance (RPO)

The RPO prohibits development of permanent structures for human habitation or as a place of work in a floodway. Uses permitted in a floodway pursuant to Article IV, Section 3 of this ordinance include agricultural, recreational, and other such low intensity uses, provided, however, that no use shall be permitted which would substantially harm the environmental values of a particular floodway area.

County of San Diego Grading Ordinance

The revised Grading Ordinance was adopted by the Board of Supervisors and became effective on April 23, 2004. The purpose of the ordinance is to combine regulations affecting the grading and clearing of land, and activities affecting watercourses, within the unincorporated County of San Diego. Chapter 6 (Section § 87.601- 87.608) of the ordinance covers watercourses and is intended to protect persons and property against flood hazards by identifying prohibited acts in watercourses and acts prohibited unless a permit is obtained.

County of San Diego Watershed Protection Ordinance, Storm Water Management and Discharge Control Ordinance (WPO and SSM)

The WPO and SSM were amended January 10, 2003 (Ordinance No. 9518) and August 5, 2003 (Ordinance No. 9589), and revised December 2010. The stated purposes of these ordinances are to protect the health, safety and general welfare of the County of San Diego residents; to protect water resources and to improve water quality; to cause the use of management practices by the County and its citizens that would reduce the adverse effects of polluted runoff discharges on waters of the state; to secure benefits from the use of stormwater as a resource; and to ensure the County is compliant with applicable state and federal law. The WPO contains discharge prohibitions, and requirements that vary depending on type of land use activity and location in the County. The SSM is Appendix A of the WPO and sets out in more detail, by project category, what Dischargers must do to comply with the WPO and to receive permits for projects and activities that are subject to the WPO. The WPO and SSM define the requirements that are legally enforceable by the County in the unincorporated area of San Diego County.

County of San Diego Hydrology Manual

This manual provides technical guidance and mapping resources for the analysis of hydrology conditions such as soil types.

Board of Supervisors Policy I-45: Definition of Watercourses in the County of San Diego Subject to Flood Control

The purpose of this policy is to define those watercourses in the County of San Diego that are subject to flood control so that appropriate responsibility can be determined. Flood control is defined as those watercourses which serve one square mile or more of watershed shown on the map on file with the Clerk of the Board as Document #468904.

Board of Supervisors Policy I-68: Proposed Projects in Flood Plains with Defined Floodways

This policy was developed to identify procedures to be used when proposed projects impact floodways as defined on County floodplain maps. The policy defines procedures to be implemented for the following types of proposals: major construction that would change the flood plain or floodway; relocation of a floodway;

partial filling of the flood plain fringe; erosion and sedimentation in a flood plain; increased flood flows; and concrete or rip rap facilities.

Board of Supervisors Policy I-73: Hillside Development Policy

The purpose of this policy is to minimize the effects of disturbing natural terrain and to provide for creative design for hillside developments. It provides policies designed to minimize the permanent impact upon site resources including but not limited to existing natural terrain, established vegetation, visually significant geologic displays and portions of a site that have significant public or multiple-use value. Specifically, Policy 1.e requires planning of hillside developments to minimize potential soil, geological and drainage problems.

County of San Diego Final Hydromodification Plan (March 25, 2011)

The plan provides technical data such a sizing tables for the completion of project specific hydromodification analyses.

County of San Diego Standard Urban Stormwater Mitigation Plan for Land Development and Public Improvement Projects (SUSMP)

The plan is intended to help implement part of the County's Stormwater Program. The SUSMP addresses land development and capital improvement projects. It is focused on project design requirements and related post-construction requirements, but not on the construction process itself.

Regulatory Framework – Water Quality

Federal Regulations

The Clean Water Act (CWA)

The CWA was passed by Congress in 1972 and was extended to stormwater concerns in 1990; thus making it illegal to release pollutants into waterways. The Regional Water Quality Control Board (RWQCB), a division of the State of California Environmental Protection Agency, is responsible for ensuring that federal and state water regulations are implemented at the local level.

State Regulations and Standards

Municipal Stormwater Permit

The California RWQCB requires all local jurisdictions to implement a stormwater program to address stormwater concerns, permitting San Diego County jurisdictions to discharge stormwater runoff via storm drains into natural water bodies. Requirements under the permit mandate that the jurisdictions regulate development and existing establishments to comply with stormwater requirements.

The Permit is a product of the CWA. On January 24, 2007, the RWQCB adopted a revised Municipal Stormwater Permit (Order No. R9-2007-0001) [4]. The revised Permit intends to further reduce the pollution that runs down storm drains into local waterways. As of 2010, the County and other local jurisdictions have an updated stormwater program with a comprehensive list of Best Management Practices (BMPs), including the new LID standards and criteria.

Local Regulations and Standards

County of San Diego Watershed Protection, Storm Water Management, and Discharge Ordinance (WPO)

This ordinance requires all applications for a permit or approval associated with a Land Disturbance activity to be accompanied by a Storm Water Management Plan (SWMP). The purpose of a SWMP is to describe how the project would minimize the short and long-term impacts on receiving water quality.

3.1.7.2 *Analysis of Project Effects and Determination as to Significance*

The analysis of Proposed Project effects to surface hydrology and water quality is discussed from two perspectives; the first considers effects to drainage, flooding and runoff, and the second considers effects to water quality.

Surface Hydrology

Guidelines for the Determination of Significance

The guidelines to determine impacts to surface hydrology were derived from the County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements, Hydrology as follows:

1. The project would 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.
2. The project would increase water surface elevation in a watercourse within a watershed equal or greater than 1 square mile, by 1 foot or more in height and in the case of San Luis Rey River, San Dieguito River, San Diego River, Sweetwater River and Otay River, 2/10 of a foot or more in height.
3. The project would result in increased velocities and peak flow rates exiting the project site that would cause flooding downstream or exceed the storm water drainage system capacity serving the site.
4. The project would result in placing housing, habitable structures, or unanchored impediments to flow in a 100-year floodplain area or other special flood hazard area, as shown on a FIRM, a County Flood Plain Map or County Alluvial Fan Map, which would subsequently endanger health, safety and property due to flooding.
5. The project would place structures within a 100-year flood hazard or after the floodway in a manner that would redirect or impede flow resulting in any of the following:
    a. Alter the Lines of Inundation resulting in the placement of other housing in a 100-year hazard; or
    b. Increase water surface elevation in a watercourse with a watershed equal to or greater than 1 square mile by 1 foot or more in height and in the case of the San Luis Rey River, San Dieguito River, San Diego River, Sweetwater River and Otay River 2/10 of a foot or more in height.

Analysis

Guideline 1: The project would 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.

The Proposed Project's 24 lots range in size from 40 acres to 196 acres and are designed to minimize disturbance of existing topography by using double driveways where feasible and situating pads in areas requiring minimal grading. The roads and pads would follow the existing terrain to minimize the need for cut and fill. Total grading would amount to approximately103,568 cubic yards (cy) of fill, an 103,127 cy of cut. The grading would be balanced on site in final engineering. With this minimal level of grading, drainage flow would be maintained in existing swales and minimal flows would be carried within the proposed streets.

The basin area is delineated in Exhibit A of the Drainage Study (Appendix M), which details the location of the drainage basins, flowage paths and concentration points for the pre-development conditions. Exhibit B of Appendix M, post-development conditions, adds the proposed development grading and proposed culverts. A comparison of the two conditions shows that the Proposed Project would not increase the amount of water leaving the project site. Substantial erosion or siltation on- of off-site would not occur because drainage patterns are maintained. In the hydromodification analysis (Appendix O), 32 contributing areas are identified in the pre- and post-development conditions. Bio-retention cells have been designed for each area, as detailed in Appendix 1 (mapping) and Appendix 2 (calculations) of the hydromodification memorandum. The designs satisfy both hydromodificaiton and water quality requirements. Bio-retention cells were chosen as the best Integrated Management Practice (IMP) option because they are one of the preferred treatment facilities in the Guideline 1 is not exceeded and short- and long-term impacts are not significant. No mitigation is required.

Guideline 2: The drainage study examines whether project would increase water surface elevation in the San Diego River watershed by 2/10 of a foot or more.

Hydrology calculations for the pre- and post-development condition are located in Appendices B and C, respectively, of the drainage study (Appendix M). The overall drainage basins include a large offsite area and 49.5 acres of pad and road grading would have little or no effect on post-development runoff in terms of raising the water surface elevation of the San Diego River, and therefore the Proposed Project is not expected to cause any adverse effects to downstream drainage facilities. No development would take place offsite, therefore no impacts are anticipated. Guideline 2 is not exceeded. No short- or long-term effects would occur. Impacts are not significant and no mitigation is required.

Guideline 3: The project would result in increased velocities and peak flow rates exiting the project site that would cause flooding downstream or exceed the storm water drainage system capacity serving the site.

The coefficients of runoff were derived from the County of San Diego Hydrologic Soil Classification Map (See Appendix M). The difference in runoff coefficients before and after development is insignificant because the Proposed Project would only disturb approximately 3.5 percent of the site. Velocity of water leaving the site would not be altered either in the short- or long-term. Guideline 3 is not exceeded and impacts are not significant. No mitigation is proposed.

Rainfall intensity for the Proposed Project was derived from the County Drainage Manual using the 100-year 6-hour and 100-year 24-hour maps. In combination with the factors of basin area and coefficients of runoff, the time of concentration (toc) was calculated. The toc is defined as the time required for the runoff to flow from the most remote part of the drainage basin to an identified concentration point. The toc

for the pre-development conditions were evaluated as a natural watershed. The toc for post-development is going to remain approximately the same for all basins because so much of the natural drainage basin would remain undisturbed. Guideline 3 is not exceeded and impacts are not significant. No mitigation is required.

Rainfall intensity associated with the 100-year storm was used to calculate the peak runoff from the drainage basins. The offsite area included in the overall drainage basins is large enough that the minimal grading required for the development of the Proposed Project would not add significant area of impervious surface. The post-development runoff conditions would not be significantly different from the pre-construction conditions. Therefore, anticipated Proposed Project effects to existing drainage velocities and flow rates do not exceed Guideline 3. Impacts are not significant in the short- and long-term. No mitigation is required.

The Drainage Study (Appendix M) also analyzed existing culverts crossing Pine Hills Road. These were found to be insufficient and would therefore be augmented so as to adequately receive the 100-year flow as a part of the Proposed Project's design. Proposed culverts, inlets and brow ditches have been appropriately sized to accept the 100-year flow. Since all peak flows exiting the Proposed Project Site would be equal to those of the existing conditions, there would be no adverse effects on downstream drainage facilities. Guideline 3 is not exceeded. Proposed Project impacts to the capacity of existing or planned storm water drainage systems are less than significant in both the short- and long-term. No mitigation is proposed.

Guideline 4: The project would result in placing housing, habitable structures, or unanchored impediments to flow in a 100-year floodplain area or other special flood hazard area, as shown on a FIRM, a County Flood Plain Map or County Alluvial Fan Map, which would subsequently endanger health, safety and property due to flooding.

The Proposed Project does not propose housing, habitable structures or unanchored impediments to flow in a 100-year floodplain area or other special flood hazard area. Floodplains are located in deeply incised water courses that do not have broad floodplains or are located in remote areas where no development is proposed. Guideline 4 is not exceeded and short- and long-term impacts are not significant. No mitigation is required.

Guideline 5: The project would place structures within a 100-year flood hazard or alter the floodway in a manner that would redirect or impede flow resulting in any of the following:

a. Alter the Lines of Inundation resulting in the placement of other housing in a 100-year hazard; or

b. Increase water surface elevation in a watercourse with a watershed equal to or greater than 1 square mile by 1 foot or more in height and in the case of the San Luis Rey River, San Dieguito River, San Diego River, Sweetwater River and Otay River 2/10 of a foot or more in height.

The Proposed Project does not propose to place structures within a 100-year flood hazard or after the floodway in a manner that would redirect or impede flow. Crossings would be sized to accommodate 100-year flood events. Guideline 5 is not exceeded and short- and long-term impacts are not significant. No mitigation is required.

Water Quality

Guidelines for the Determination of Significance

The Proposed Project would have a significant effect on water quality if:

1. The project would drain to a tributary of a drinking water reservoir and would contribute substantially more pollutant(s) than would normally runoff from the project site under natural conditions,
2. The project would contribute pollution in excess of that allowed by applicable State or local water quality objectives or would cause or contribute to the degradation of beneficial uses,
3. The project does not conform to applicable Federal, State or local "Clean Water" statutes or regulations including but not limited to the Federal Water Pollution Control Act, California Porter-Cologne Water Quality Control Act, and the County of San Diego Watershed Protection, Stormwater Management, and Discharge Control Ordinance.
4. The project would drain to a tributary of an impaired water body listed on the Clean Water Act Section 303(d) list, and would contribute substantial additional pollutant(s) for which the receiving water body is already impaired,
5. Or, it is a development project listed in County of San Diego, Code of Regulatory Ordinances (Regulatory Ordinances), Section 67.804(g), as amended and does not comply with the standards set forth in the County Stormwater Standards Manual, Regulatory Ordinances Section 67.813, as amended, or the Additional Requirements for Land Disturbance Activities set forth in Regulatory Ordinances, Section 67.

Analysis

Guideline 6: The project would drain to a tributary of a drinking water reservoir and would contribute substantially more pollutant(s) than would normally runoff from the project site under natural conditions.

El Capitan Reservoir is 12 miles downstream from the Proposed Project Site and is listed as "Impaired" on the most recent list of 303(d) limited segments requiring Total Maximum Daily Loads (TMDLs).

Beneficial uses for El Capitan Reservoir (for reservoirs and lakes as listed in the San Diego Basin Plan) include:

a) Municipal and Domestic Supply (MUN)
b) Agricultural Supply (AGR)
c) Industrial Process Supply (PROC)
d) Industrial Service Supply (IND)
e) Contact Water Recreation (REC-1)

f) Non-contact Water Recreation (REC-2)

g) Warm Freshwater Habitat (WARM)

h) Cold Freshwater Habitat (COLD)

i) Wildlife Habitat (WILD)

j) Rare, Threatened, or Endangered Species (RARE)

There would be no impacts receiving waters beneficial uses. Any permitting requires the development of a project-specific Stormwater Management Plan (SWMP) and a hydromodificatioin analysis and retention design. The SWMP needs to specifically follow the County's SUSMP and hydromodification criteria which addresses LID and post project treatment control BMPs to target pollutants of concern.

BMP controls would be a combination of site design, source control and LID, as well as Treatment Controls for each house pad. Streets would utilize vegetated bio retention techniques with minimum travel or residence time of 10 minutes to treat street runoff.

Any increase in flows and volumes would be mitigated through the use of detention basins and LID practices for hydromodification controls.

The Proposed Project does not drain to a tributary of a drinking-water reservoir. Guideline 6 is not exceeded and impacts are not significant. No mitigation is necessary.

Guideline 7: The project would contribute pollution in excess of that allowed by applicable State or local water quality objectives or would cause or contribute to the degradation of beneficial uses.

Onsite (or within close proximity) receiving waters include Setenec Creek, Temescal Creek, and Orinoco Creek. The Beneficial Uses for these creeks include:

a) Municipal and Domestic Supply (MUN)

b) Agricultural Supply (AGR)

c) Industrial Process Supply (PROC)

d) Industrial Service Supply (IND)

e) Contact Water Recreation (REC-1)

f) Non-contact Water Recreation (REC-2)

g) Warm Freshwater Habitat (WARM)

h) Cold Freshwater Habitat (COLD)

i) Wildlife Habitat (WILD)

j) Rare, Threatened, or Endangered Species (RARE)

The San Diego River is approximately 2 miles downstream from the western boundary of the site. The Beneficial Uses listed in the San Diego Basin Plan are the same as those listed above.

Design measures to control runoff quantity and quality have been described in the SWMP. BMPs for the proposed roads would be bio retention techniques with a minimum 10 minute residence time and 2 bio-retention/detention facilities. Each pad

would incorporate LID design strategies as required by the County's SUSMP. These strategies would be specifically identified and designed with the development of grading and improvement plants.

The Proposed Project has been designed so that it would not contribute to pollution in excess of allowed standards. Road improvements have been aligned to avoid or minimize impacts to receiving waters. Erosion effects are minimized by the collection of concentrated flows in stabilized drains and channels. Low Impact Development (LID) standards are implemented which include preserving large open space areas and minimizing disturbances to natural drainages. Curb cuts to natural vegetation and rural bio retention techniques are used. 'Hardening' downstream areas to prevent erosion would not be required due to the lack of significant erosion effects. Source control BMPs would be implemented that include labeling of storm drain outlets and signage that indicates dumping is prohibited. Shared access driveways are used to reduce graded area. Brow ditches would be used to control runoff from impervious surfaces, and storage areas would be paved. Design measures implemented under County of San Diego requirements would effectively control pollutants because they would control, collect, and filter flows prior to their contact with natural vegetation. Guideline 7 is not exceeded and short- and long-term impacts are not significant. No mitigation is required.

Guideline 8: The project does not conform to applicable Federal, State or local "Clean Water" statutes or regulations including but not limited to the Federal Water Pollution Control Act, California Porter-Cologne Water Quality Control Act, and the County of San Diego Watershed Protection, Stormwater Management, and Discharge Control Ordinance.

The Proposed Project conforms to the listed statutes and regulations. A stormwater management plan was prepared for the Proposed Project which documents conformance with statutes or regulations. Guideline 8 is not exceeded and short- and long-term impacts are not significant. No mitigation is required.

Guideline 9: The project would drain to a tributary of an impaired water body listed on the Clean Water Act Section 303(d) list, and would contribute substantial additional pollutant(s) for which the receiving water body is already impaired.

El Capitan Reservoir, which is approximately 12 miles downstream from the Proposed Project Site, is the only receiving water listed on the 303(d) list. The impairments include Color, Manganese, and pH. The County's SUSMP requires treatment BMPs to have a minimum effectiveness of medium as described in Table 2-3 of the County's SUSMP for the targeted constituents. The Proposed Project would incorporate, at a minimum, bio-retention facilities which provide medium to high effectiveness in removing the targeted constituents.

Changes to the SWMP would be made as necessary and as warranted to address any changes in circumstances as the Proposed Project moves into final engineering and construction. Construction permits would not be issued until the County approves all treatments. At this time, it is difficult to identify the exact treatment BMPs that would work for a specific situation. If additional or other BMPs are necessary during the design phase, they would be incorporated into the Proposed Project with approvals from the County.

The Proposed Project does not contribute to an impaired body of water on the Clean Water Act Section 303(d) list. Guideline 9 is not exceeded and impacts are not significant. No mitigation is required.

Guideline 10: The project is a development project listed in County of San Diego, Code of Regulatory Ordinances (Regulatory Ordinances), Section 67.804(g), as amended and does not comply with the standards set forth in the County Stormwater Standards Manual, Regulatory Ordinances Section 67.813, as amended, or the Additional Requirements for Land Disturbance Activities set forth in Regulatory Ordinances, Section 67.

The Proposed Project is not listed in these ordinances and therefore has no short- or long-term impact under the sections cited. Impacts are not significant. Guideline 4 is not exceeded and no impacts occur. No mitigation is required.

3.1.7.3 *Cumulative Impacts Analysis*

Ninety past, present, or future projects were examined in the cumulative impact study area. The study area encompasses the basin in which the Proposed Project is located, as well as the nearby communities of Pine Hills and Julian, which ultimately contribute to the San Diego River watershed. Projects currently processed in by the County of San Diego are required to complete stormwater management plans that would control polluted runoff. Additionally, three projects in the study area were noted as having potential drainage impacts. These are SP 03-015 (Leroux), SP 02-029 (Behen), and TPM 20863. Both SP 03-015 and SP 02-029 are limited in scale and fully mitigate impacts by adopting appropriate pollution control measures and conforming to County of San Diego requirements for controlling surface water flow and quality. Both of the active projects are single-family residences and would expect to have pollutants similar to the Proposed Project, but at a small scale. TPM 20863 has been withdrawn.

Potential source of runoff pollutants are discussed in the SWMP report, pages 10-12 and include on-site storm drain inlets, landscape/outdoor pesticide use, fire sprinkler test water, and roofing, gutters and trim.

In order to maintain beneficial uses, the Proposed Project would implement temporary construction BMPs, LID and site design strategies and permanent source control BMPs such as marking all inlets with the “No Dumping! Flows to Bay” or similar, preserving existing native vegetation, minimizing irrigation and runoff, and proper plant selection, and drain fire sprinkler test water to the sanitary sewer. Operational source control BMPs would entail maintaining and periodically repainting or replacing inlet markings, avoiding the use of pesticides and providing IPM information to owners, and avoiding roofing, gutters and trim made of copper or other unprotected metals that may leach into runoff.

Due to the limited impacts of cumulative projects, and their dispersed locations within the study area, cumulative impacts are not significant and no mitigation is required.

3.1.7.4 *Significance of Impacts Prior to Mitigation*

There are no significant impacts to drainage or water quality. No mitigation is required.

3.1.7.5 *Conclusion*

Drainage and stormwater runoff were evaluated for the Proposed Project by a licensed engineering firm. It was determined that Proposed Project design features avoid significant impacts. These design considerations include minimizing grading, a 40-acre minimum lot size, and retention of ~~1,209.8~~1,214.8 acres in their natural state. Velocity and volume of drainage in pre- and post-development conditions were found to be substantially the same. Short- and long-term drainage impacts were found to be not significant and no mitigation is required.

Water quality effects were also analyzed and it was determined that adoption of selected BMPs would limit and control polluted runoff because purifying mechanisms would be put in place to filter out pollutants before they can reach receiving waters. These mechanisms include collecting concentrated flows in stabilized drain systems, adopting LID measures, and using source controls such as signage to deter dumping. Short- and long term water quality impacts were found to be not significant and no mitigation is required.

Cumulative impacts were evaluated. Three other projects in the study area have potential drainage impacts which were addressed at the project level. Due to the minor scope of these projects in relation to the basin, use of drainage and stormwater plans to control their runoff, and their dispersed nature, cumulative impacts were found to be not significant and no mitigation is required.

3.1.8 Noise

A Noise Study of the Hoskings Ranch TM54322 Project Site was conducted by Jeremy Louden, who is on the County's CEQA Consultant List approved for the preparation of acoustical studies. The resulting report, *Preliminary Noise Study, Hoskings Ranch Subdivision TM5312 RPL2*, is dated ~~February 21, 2011~~September 24, 2015. The study is provided as Appendix P in the Technical Appendices of this ~~DEIR~~FEIR.

3.1.8.1 *Existing Conditions*

The Proposed Project Site is located in the central part of San Diego County, south of State Route 78 (SR-78) and west of Pine Hills Road near Julian.

The Proposed Project proposes an agricultural subdivision that would create 24 lots of 40-acre minimum lot size. Open Space for the protection of sensitive biological and cultural resources is proposed. If homes are built on the site, they would be developed on an individual lot basis. For purposes of this report, it is conservatively assumed that the site would be constructed with the 24 rural estates which would be the on-site noise sensitive land uses (NSLU). The site plan for the Proposed Project is shown in Figure 1-1.

The Proposed Project is located adjacent to SR-78 and Pine Hills Road; both of which are light collector roadways in the County of San Diego's Circulation Element. Existing noise occurs mainly from traffic traveling along SR-78 and to a lesser extent from Pine Hills Road.

Regulatory Framework

The following summarizes the salient aspects of the state and local regulations that apply to the Proposed Project.

State Regulations and Standards

California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) requires lead agencies to consider noise impacts. Under CEQA, lead agencies are directed to assess conformance to locally established noise standards or other agencies' noise standards; measure and identify the potentially significant exposure of people to or generation of excessive ground borne vibration or noise levels; measure and identify potentially significant permanent or temporary increases in ambient noise levels; and measure and identify potentially significant impacts associated with air traffic.

California Noise Control Act

The California Noise Control Act declares that the State of California has a responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise. It is the policy of the State to provide an environment for all Californians free from noise that jeopardizes their health or welfare.

California Noise Insulation Standards

In 1974, the California Commission on Housing and Community Development adopted noise insulation standards for multi-family residential buildings (Title 24, Part 2, California Code of Regulations). Title 24 establishes standards for interior room noise (attributable to outside noise sources). The regulations also specify that acoustical studies must be prepared whenever a residential building or structure is proposed to be located near an existing or adopted freeway route, expressway, parkway, major street, thoroughfare, rail line, rapid transit line, or industrial noise source, and where such noise source or sources create an exterior Community Noise Equivalent Level (CNEL) or Ldn of 60 dB or greater. Such acoustical analysis must demonstrate that the residence has been designed to limit intruding noise to an interior CNEL (or Ldn) of at least 45 dB.

Local Regulations and Standards

San Diego County General Plan, Noise Element, (Part VIII)

The Noise Element of the County of San Diego General Plan establishes limitations on sound levels to be received by noise sensitive land uses (NSLUs). New development may cause an existing NSLU to be affected by noise caused by the new development, or it may create or locate a NSLU in such a place that it is affected by noise. The Noise Element identifies airports and traffic on public roadways as the major sources of noise. The Noise Element states that an acoustical study is required if it appears that a NSLU would be subject to noise levels of CNEL equal to 60 decibels (A) or greater. If that study confirms that greater than 60 dB CNEL would be experienced, modifications that reduce the exterior noise level to less than 60 dB CNEL and the interior noise levels to below 45 dB CNEL must be made to the development.

County of San Diego Noise Ordinance

The County of San Diego Noise Ordinance establishes prohibitions for disturbing, excessive, or offensive noise, and provisions such as sound level limits for the purpose of securing and promoting the public health, comfort, safety, peace, and quiet for its citizens. Planned compliance with sound level limits and other specific parts of the ordinance allows presumption that the noise is not disturbing, excessive, or offensive. Limits are specified depending on the zoning placed on a property (e.g., varying densities and intensities of residential, industrial and commercial zones).

3.1.8.2 *Analysis of Project Effects and Determination as to Significance*

The expected roadway noise impact from SR-78 and Pine Hills Road were projected using Sound32, Caltrans' version of the Federal Highway Administration (FHWA) traffic noise model and in accordance with Caltrans Technical Noise Supplement (TeNS). The results of this analysis are based on the Caltrans Highway Design Manual California Vehicle Noise Emission Levels (CALVENO).

Outdoor observers were located in noise sensitive land use areas and were placed five feet above the pad elevation and approximately ten feet from the top of the slope. All second floor observers were located fifteen feet above the proposed finished floor elevation at the anticipated building façades.

The key factors which determine the impact of vehicular traffic noise include the lane travel speed, the mix of cars and trucks on the roadway volume, surrounding site conditions, and peak hour traffic volumes. Input data was taken using site plans to identify the relationship between the roadway centerline elevation, the pad elevation and the centerline distance to the noise barrier, the backyard observer and at the building façade to predict the future noise environment. For the purpose of this analysis, the roadway segments extend a minimum of 300 feet beyond any observer location.

Noise is measured in sound pressure levels known as decibels (dB). 'A-weighted' decibels (dBA) reflect only those frequencies which are audible to the human ear. The CNEL is the weighted average of the intensity of a sound with corrections for the time of day and averaged over 24 hours. The County of San Diego relies on the CNEL noise standard to assess transportation related impacts on noise sensitive land use. Guidelines discussed below use the dBA CNEL measurements to determine impact significance. Noise contours are lines that are drawn around a noise source indicating a constant or equal level of noise exposure. The use of noise contours allows graphic representation of the areas where significant noise impacts occur.

Noise-sensitive land uses are residential developments, seasonal residential developments, and facilities such as hospitals, nursing homes/retirement homes, schools, and daycare centers. The onsite noise-sensitive land uses include the 24 single-family homes. The Proposed Project would have an adverse effect on the area if it exposes any on- or offsite future noise sensitive land uses to exterior or interior noise in excess of the levels defined below.

<u>Guidelines for the Determination of Significance</u>

The guidelines for the Proposed Project are from the *County of San Diego Guidelines for Determining Significance, Noise.*

Noise Sensitive Land Uses Affected by Airborne Noise

The guidelines were used to determine whether Proposed Project implementation would result in the exposure of any on-or off-site, existing or reasonably foreseeable future Noise Sensitive Land Uses (NSLU) to exterior or interior noise (including noise generated from the Proposed Project, together with noise from roads [existing and planned Circulation Element roadways], railroads, airports, heliports and all other noise sources) in excess of any of the following:

1. Exterior Locations:
    a. 60 dB $(CNEL)^2$; or

b. an increase of 10 dB (CNEL) over pre-existing noise.

In the case of single-family residential detached NSLUs, exterior noise shall be measured at an outdoor living area which adjoins and is on the same lot as the dwelling, and which contains at least the following minimum area:

(1) Net lot area up to 4,000 sq. ft.: 400 square feet

(2) Net lot area 4,000 sq. ft. to 10 acres: 10% of net lot area

(3) Net lot area over 10 acres: 1 acre

2. Interior Locations:

45 dB (CNEL) except for the following cases:

a. Rooms which are usually occupied only a part of the day (schools, libraries, or similar facilities), the interior one-hour average sound level due to noise outside should not exceed 50 decibels (A).

b. Corridors, hallways, stairwells, closets, bathrooms, or any room with a volume less than 490 cubic feet.

Project-Generated Airborne Noise

A. The project would have a significant impact if it generates airborne noise which, together with noise from all sources, would be in excess of the following: Non-Construction Noise: The limit specified in San Diego County Code Section 36.404, General Sound Level Limits, at the property line of the property on which the noise is produced or at any location on a property that is receiving the noise. Section 36.404 provides the following limits (Table 3-8-1):

Table 3-8-1
San Diego County Code Section 36.404
SOUND LEVEL LIMITS IN DECIBELS (dBA)

ZONE	TIME	ONE-HOUR AVERAGE SOUND LEVEL LIMITS (dBA)
(1) R-S, R-D, R-R, R-MH, A-70, A-72, S-80, S-81, S-87, S-90, S-92 and R-V and R-U with a density of less than 11 dwelling units per acre.	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	50 45
(2) R-RO, R-C, R-M, S-86, V5 and R-V and R-U with a density of 11 or more dwelling units per acre.	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	55 50
(3) S-94, V4 and all other commercial zones.	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	60 55
(4) V1, V2 V1, V2 V1 V2	7 a.m. to 7 p.m. 7 p.m. to 10 p.m. 10 p.m. to 7 a.m. 10 p.m. to 7 a.m.	60 55 55 50
	7 a.m. to 10 p.m.	70

V3	10 p.m. to 7 a.m.	65
(5) M-50, M-52 and M-54	Anytime	70
(6) S-82, M-56 and M-58	Anytime	75
(7) S88 (see subsection (c) below)		

(a) If the measured ambient level exceeds the applicable limit noted above, the allowable one hour average sound level shall be the ambient noise level, plus three decibels. The ambient noise level shall be measured when the alleged noise violation source is not operating.

(b) The sound level limit at a location on a boundary between two zones is the arithmetic mean of the respective limits for the two zones; provided however, that the one-hour average sound level limit applicable to extractive industries, including but not limited to borrow pits and mines, shall be 75 decibels at the property line regardless of the zone which the extractive industry is actually located.

B. Construction Noise: Noise generated by construction activities related to the project would exceed the standards listed in San Diego County Code Section 36.409, Sound Level Limitations on Construction Equipment.

Section 36.409 states:

Except for emergency work, it shall be unlawful for any person to operate construction equipment or cause construction equipment to be operated, that exceeds an average sound level of 75 decibels for an eight-hour period, between 7 a.m. and 7 p.m., when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is being received.

C. Impulsive Noise: Noise generated by the project would exceed the standards listed in San Diego County Code Section 36.410, Sound Level Limitations on Impulsive Noise.

Section 36.410 states:

In addition to the general limitations on sound levels in section 36.404 and the limitations on construction equipment in section 36.409, the following additional sound level limitations shall apply:

a. Except for emergency work or work on a public road project, no person shall produce or cause to be produced an impulsive noise that exceeds the maximum sound level shown in Table 3-8-2, “San Diego County Code Section 36.410 Maximum Sound Level (Impulsive) Measured at Occupied Property in Decibels (dBA),” when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is received, for 25 percent of the minutes in the measurement period, as described in subsection (c) below. The maximum sound level depends on the use being made of the occupied property.

Table 3-8-2
San Diego County Code Section 36.410
MAXIMUM SOUND LEVEL (IMPULSIVE) MEASURED AT OCCUPIED PROPERTY IN DECIBELS (dBA)

OCCUPIED PROPERTY USE	dB(A)
Residential, village zoning or civic use	82
Agricultural, commercial or industrial use	85

a. Except for emergency work, no person working on a public road project shall produce or cause to be produced an impulsive noise that exceeds the maximum sound level shown in Table 3-8-3, "San Diego County Code Section 36.410 Maximum Sound Level (Impulsive) Measured at Occupied Property in Decibels (dBA) for Public Road Projects," when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is received, for 25 percent of the minutes in the measurement period, as described in subsection (c) below. The maximum sound level depends on the use being made of the occupied property.

Table 3-8-3
San Diego County Code Section 36.410
MAXIMUM SOUND LEVEL (IMPULSIVE) MEASURED AT OCCUPIED PROPERTY IN DECIBELS (dBA) FOR PUBLIC ROAD PROJECTS

OCCUPIED PROPERTY USE	dB(A)
Residential, village zoning or civic use	85
Agricultural, commercial or industrial use	90

c. The minimum measurement period for any measurements conducted under this section shall be one hour. During the measurement period a measurement shall be conducted every minute from a fixed location on an occupied property. The measurements shall measure the maximum sound level during each minute of the measurement period. If the sound level caused by construction equipment or the producer of the impulsive noise, exceeds the maximum sound level for any portion of any minute it would deemed that the maximum sound level was exceeded during that minute.

Ground-Borne Vibration and Noise Impacts

Exposure of NSLUs and other vibration sensitive uses (i.e., research and manufacturing) to existing and future ground-borne vibration and noise arising from operations related to, but not limited by, materials handling, blasting, transportation corridors, railroads, and extractive industries is another typical adverse effect of development. This includes vibration sources caused by new development impacting existing or foreseeable future NSLUs and vibration sensitive uses. It also includes new development which creates or locates NSLUs and other vibration sensitive uses in such a place that they are impacted by ground-borne vibration and noise (a typical example being a new residential project locating residences close to a commuter railroad line).

Analysis

Guideline 1: The project would have an adverse effect to the area if it exposes any on- or offsite future NSLU to exterior or interior noise in excess of 60dB CNEL for exterior locations and 45dB CNEL for interior locations.

One noise measurement location was set up on the Proposed Project Site to assess roadway noise impacts. This is shown on Figure 3-7-1, "Noise Measurement Locations."

The primary source of noise near the Proposed Project area would be from the traffic noise along SR-78 and Pine Hills Road. The Proposed Project's internal roads would also generate some background traffic noise. However, due to the topography, roadway grade changes, and vehicular speeds that are anticipated, traffic noise from these internal roads would not make a significant contribution to the noise environment.

Noise contour boundaries were developed and the results of the testing indicate that 60 dBA CNEL contours are all located along edge of roadways approximately 220-feet from the centerline along SR-78 and 100-feet from the centerline along Pine Hills Road. The noise contour for the Proposed Project shows that NSLU areas would not exceed the County of San Diego 60 dBA CNEL exterior noise standard. Figure 3-7-2, "Future Noise Level Contours,' provides the location of the future first and second floor 75 and 60 dBA CNEL noise contours for the Proposed Project layout.

No proposed pads fall within 60 dBA CNEL noise contours. Since the Proposed Project's exterior noise levels at the building façades do not exceed 60 dBA CNEL, no interior noise assessment would be required. Guideline 1 is not exceeded. Impacts are not significant and no mitigation is required.

Guideline 2: The project would have an adverse effect to the area if any person causes or allows the creation of any noise generated by non-construction activities related to the project to the extent that the one-hour average sound level, at any point on or beyond the boundaries of the property exceeds the property line standard of 50 dBA Leq for the daytime hours of 7 a.m . to 10 p.m. and 45 dBA Leq for the nighttime hours of 10 p.m. to 7 a.m.

The Proposed Project property and all surrounding properties are zoned A-70 and A-72. According to Section 36.404 of the County of San Diego Noise Ordinance, all areas zoned A-70 and A- 72 have a most restrictive property line standard of 50 dBA Leq for the daytime hours of 7 a.m. to 10 p.m. and 45 dBA Leq for the nighttime hours of 10 p.m. to 7 a.m. Onsite noise generation due to the Proposed Project

would primarily consist of normal residential activities and potential agricultural operations.

Agricultural operations are exempt under Section 36.417 Subsection b, item 2 of the County Noise Ordinance. Therefore, no impacts will occur.

Guideline 2 is not exceeded. Impacts are not significant and no mitigation is needed.

Guideline 3: The project would have an adverse effect to the area if noise generated by construction activities related to the project occur as a result of construction equipment being operated so as to cause at or beyond the property line of any property upon which a legal dwelling unit is located an average sound level greater than 75 decibels between the hours of 7 a.m. and 7 p.m.

Guideline 4: The project would have an adverse effect to the area if any person operates construction equipment between the hours of 7 p.m. of any day and 7 a.m. of the following day or Sundays and holidays between the hours of 5 p.m. and 10 a.m., provided that the average sound level does not exceed 75 decibels during the period of operation.

Individual lots would be graded separately and located at least 90 feet from any existing or proposed occupied property line. It was determined, based on the proposed grading operations for each lot, that at a distance of 90 feet or greater, the noise levels would be at 73.5 dBA, which is below the County's 75 dBA threshold. Therefore, no construction or impulsive noise impacts would occur.

The nearest proposed residential property line for the Proposed Project site is located 140 feet or more from the pad grading operations for Lot 5. All other property lines, existing and proposed, are located further from the acoustic center of proposed pad grading operations.

Guidelines 3 and 4 are not exceeded as impacts are not significant. No mitigation is required.

Guideline 5:The project would have adverse effects if it exposes NSLUs and other vibration sensitive uses to existing and future ground-borne vibration and noise arising from operations related to, but not limited by, materials handling, blasting, transportation corridors, railroads, and extractive industries.

Ground-borne vibration and noise impacts were not assessed due to the nature of the Proposed Project as it does not generate ongoing vibration nor is it near a source that does. Moreover, the Proposed Project location does not require a vibration assessment. Guideline 5 is not exceeded, impacts are less than significant, and no mitigation is required.

3.1.8.3 *Cumulative Impact Analysis*

The Proposed Project does not create a direct impact of more than 3 dBA CNEL on any roadway segment and no cumulative noise increase of 3 dBA CNEL or more were found. Therefore, the Proposed Project's direct and cumulative contributions to off-site roadway noise increases would not cause any significant impacts to any existing or future noise sensitive land uses.

3.1.8.4 *Significance of Impacts Prior to Mitigation*

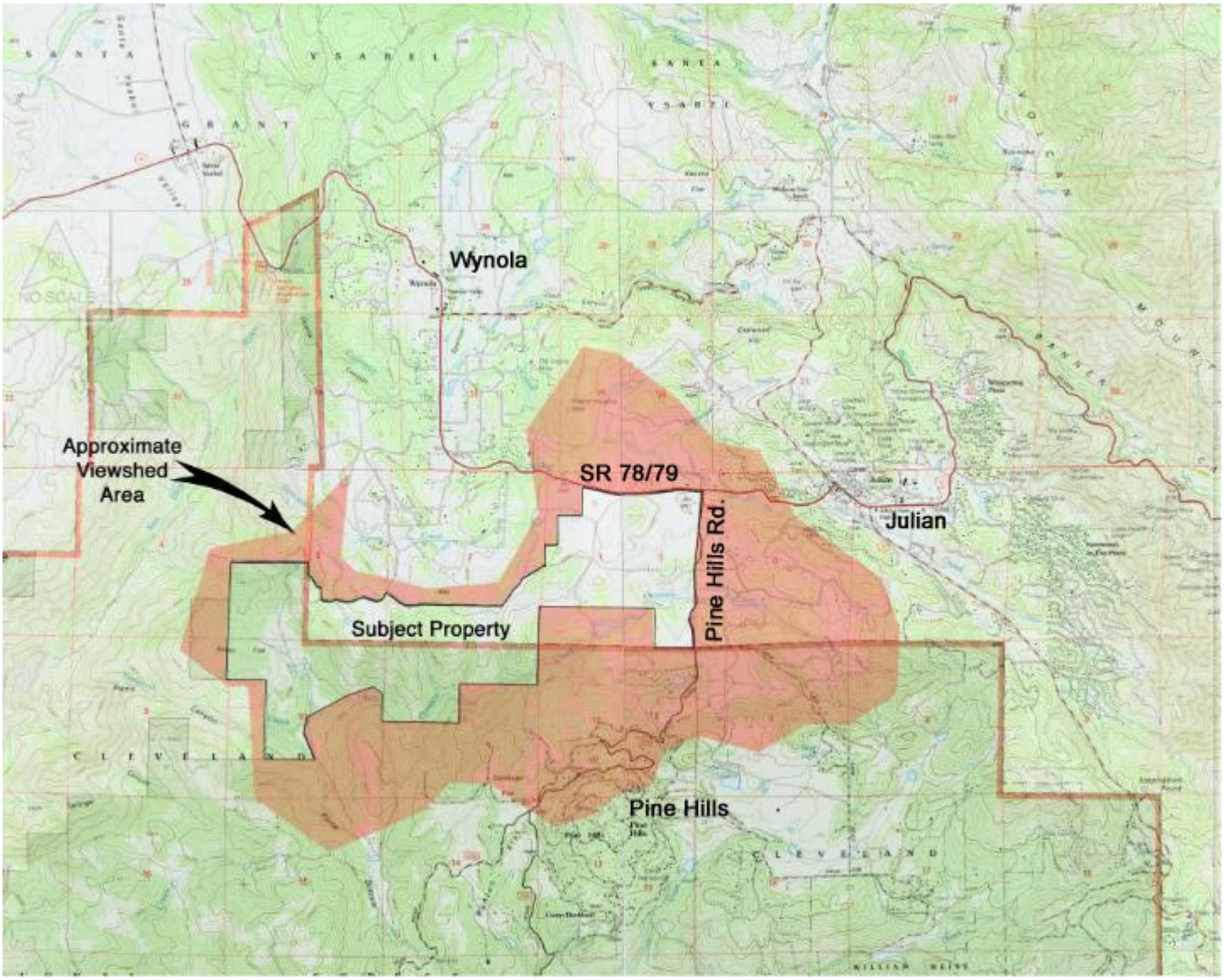
There are no significant noise impacts from the Proposed Project.

3.1.8.5 *Conclusion*

A consultant on the County's CEQA Consultant List approved to prepare acoustical analyses conducted a study for the Proposed Project. A comprehensive range of effects were evaluated which include noise sensitive land uses and project-generated airborne noise (i.e. construction, non-construction and impulsive noise). Ground-borne noise was not evaluated because the Proposed Project does not generate ongoing vibration nor is it near a source that does. It was determined that the Proposed Project would not have significant effects in any of the areas that were assessed because noise levels do not exceed the County's noise standards and project-related operations are anticipated to comply with the County's Noise Ordinance.

Cumulative impacts were found to be not significant because the Proposed Project does not create a direct impact because the Proposed Project's direct and cumulative contributions to off-site roadway noise increases would not cause any significant impacts to any existing or future noise sensitive land uses.

No impacts are anticipated and no mitigation is required.



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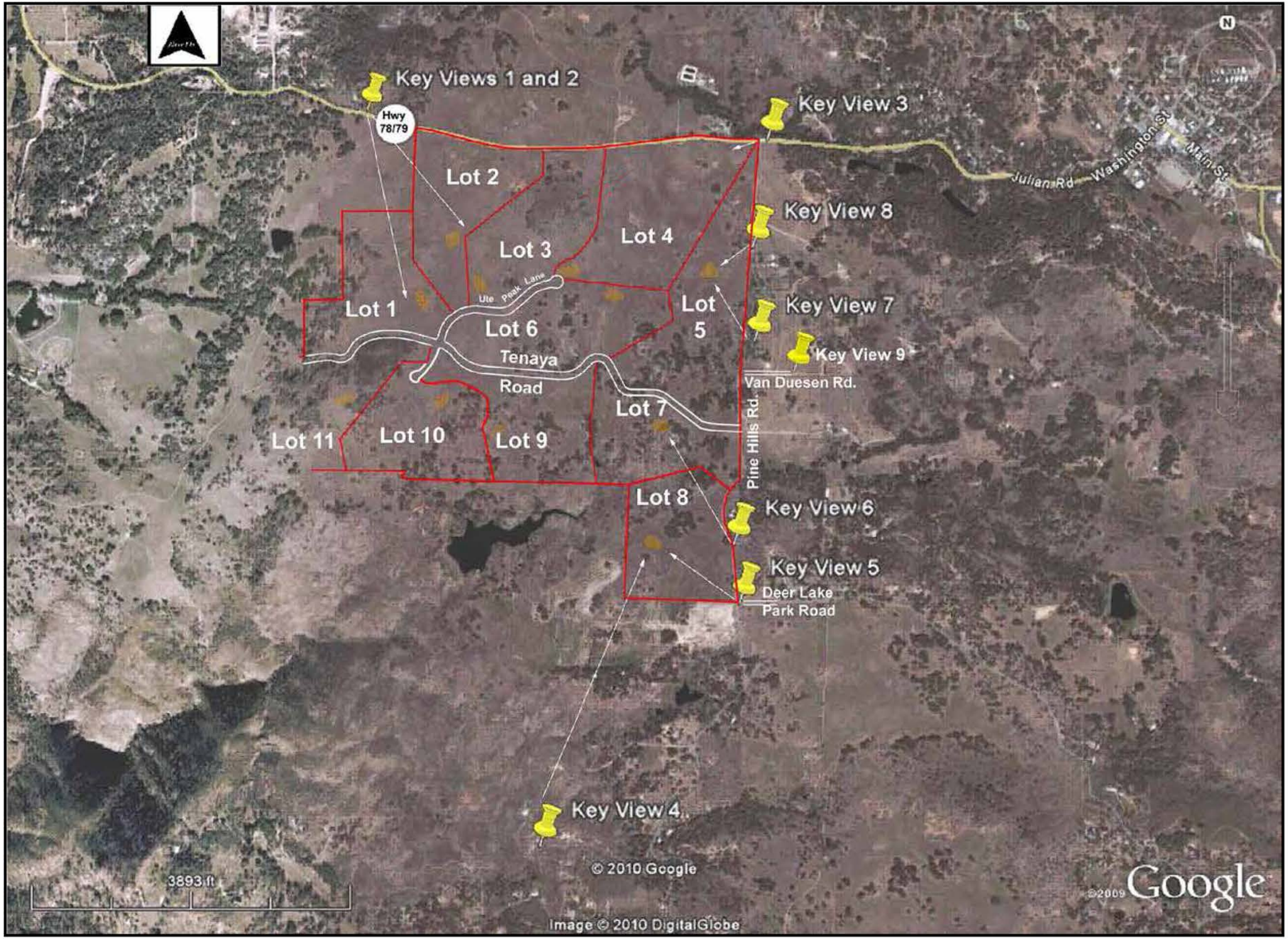
Topographic Viewshed

Figure 3-1-1



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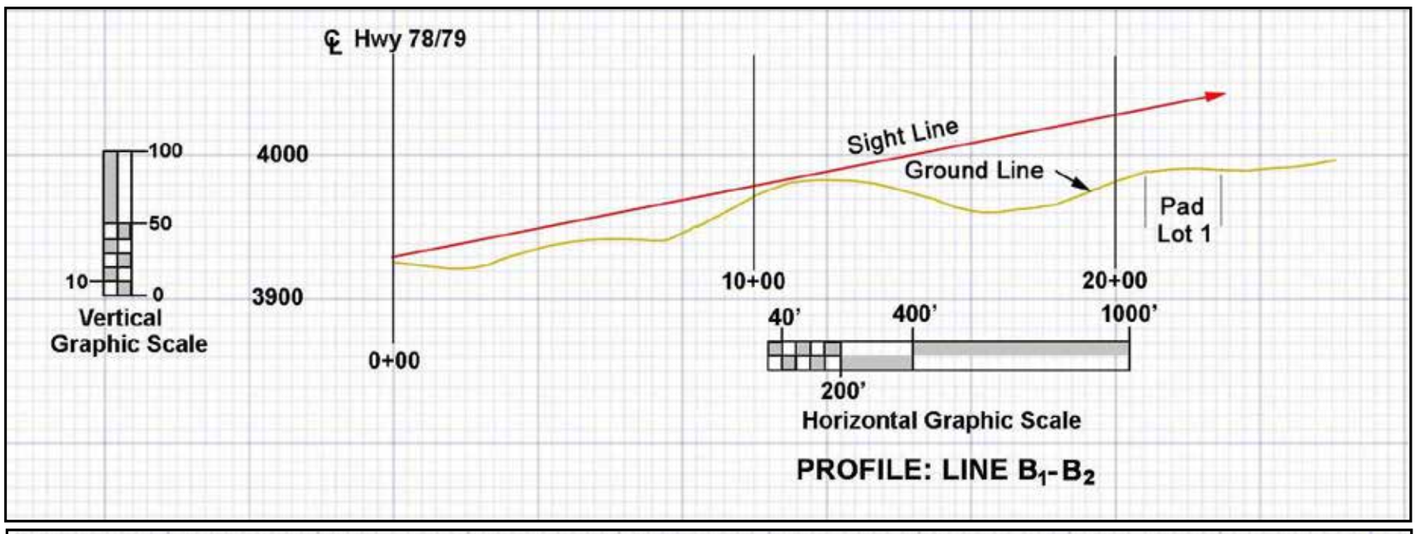
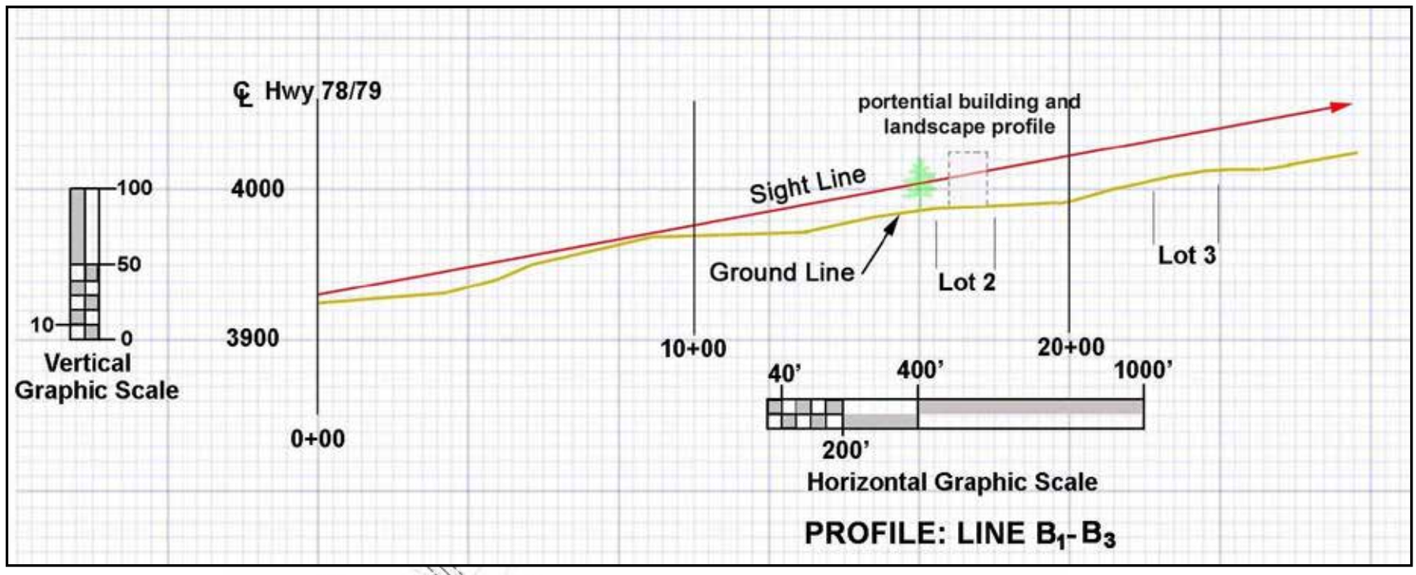
KEY VIEW Index

Figure 3-1-2





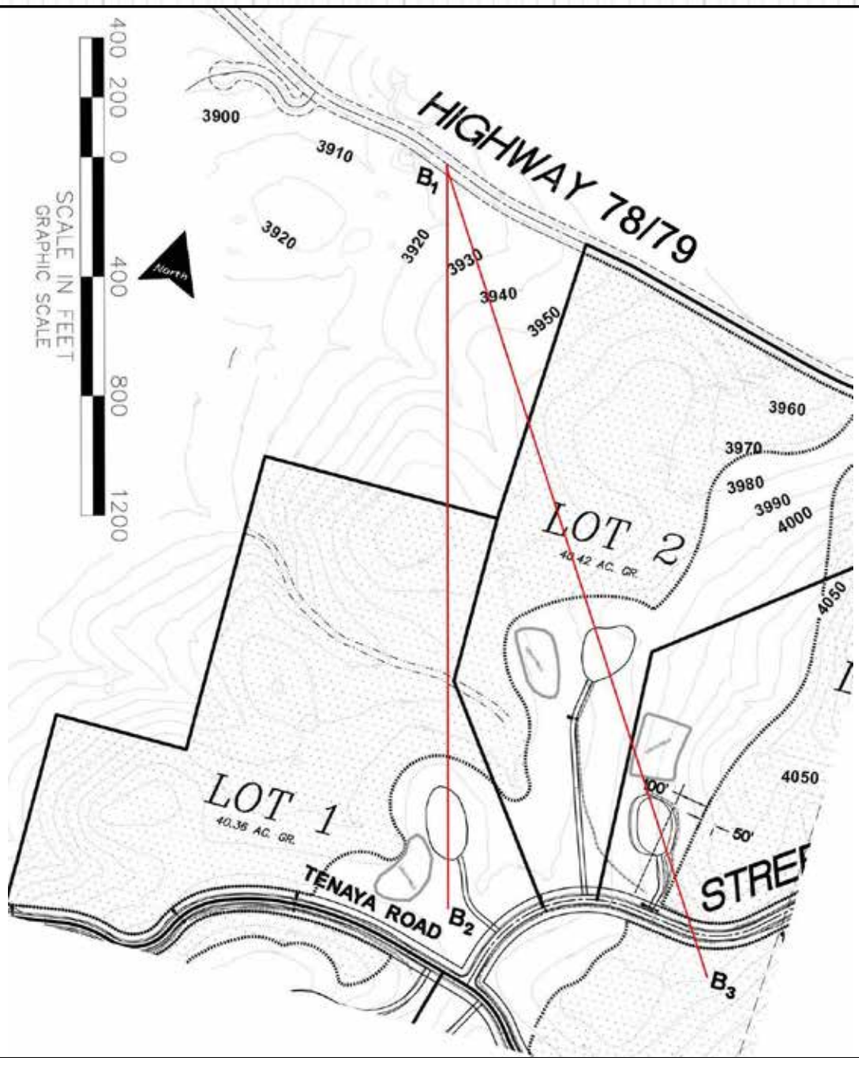


Figure 3-1-3	**KEY VIEWS 1 and 2** **SR 78/79** **Plan and Profile, Looking East**	TRS CONSULTANTS

Upper View

The perspective is that of travelers approaching the site from the east, looking to the west.

Lower View

An enlarged view of the northeast corner of the project site: Pine Hills Road at SR 78/79.

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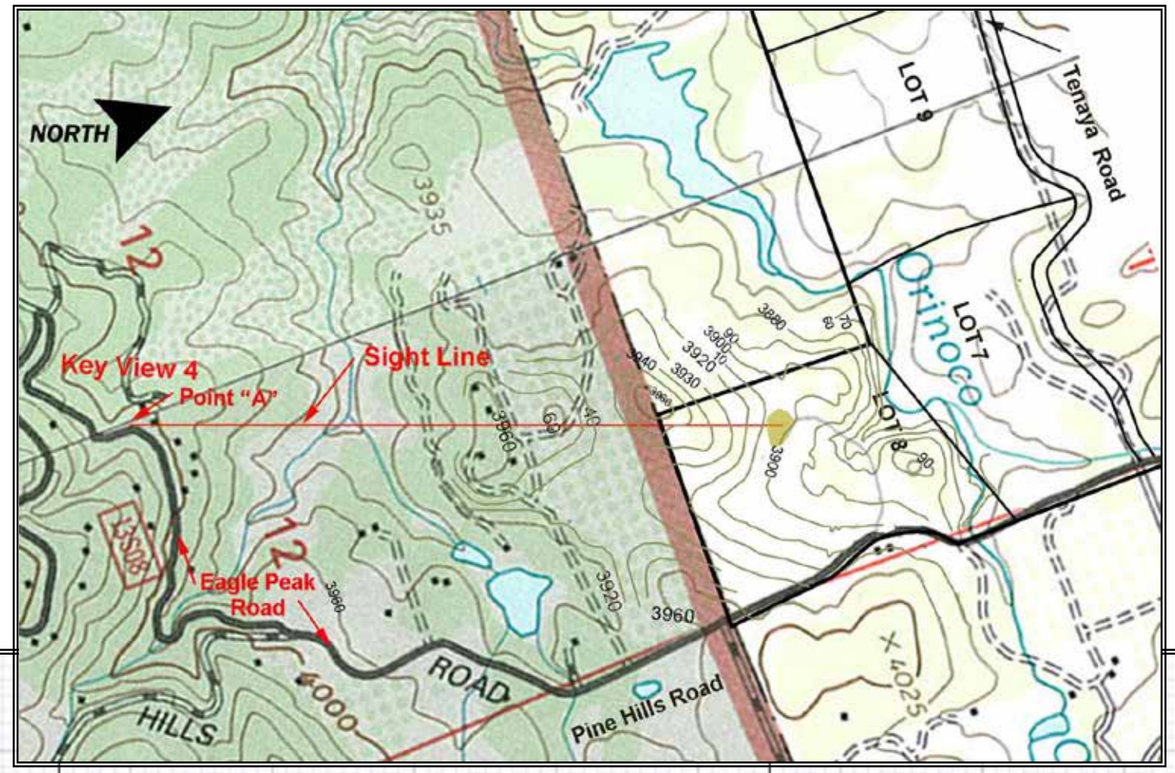
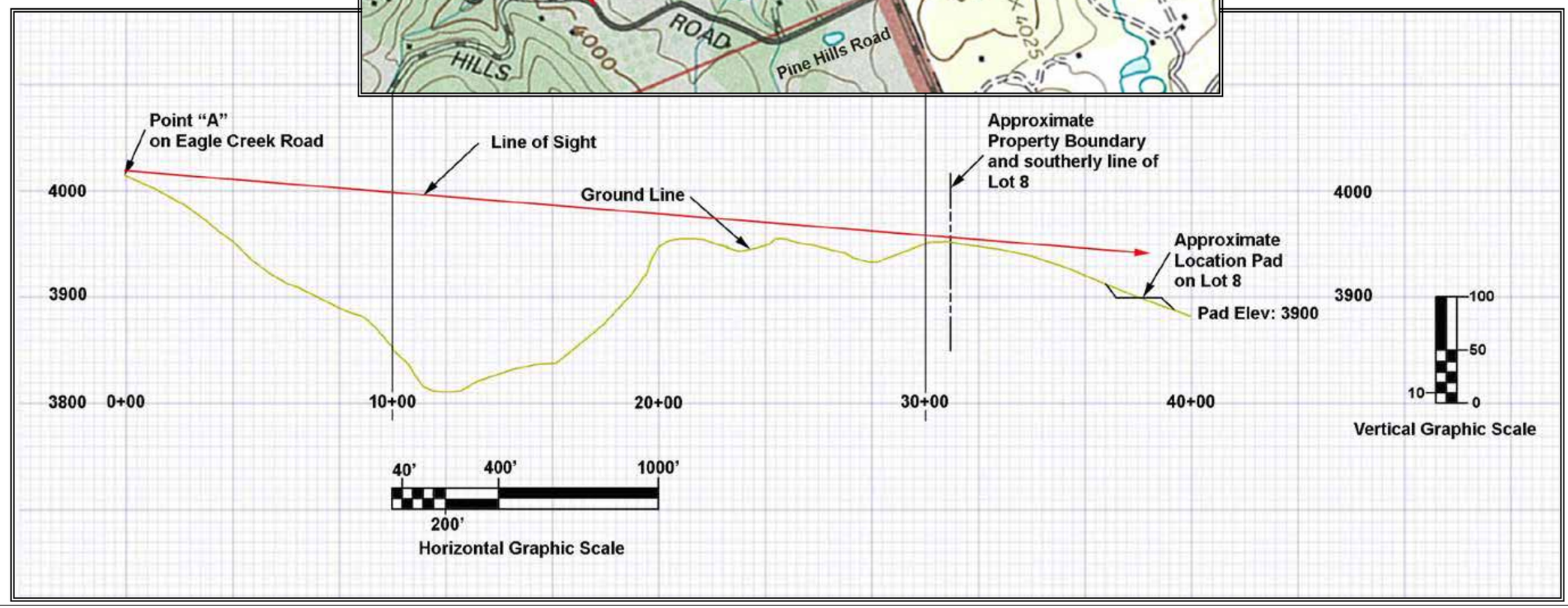
KEY VIEW 3
SR 78/79 Looking West

Figure 3-1-4



Datum is from USGS Mapping.

See Figure 9A for photosimulation of the view.



KEY VIEW 4
Looking North from Pine Hills Residential Area

Figure 3-1-5

KEY VIEW 5
From Southeast Corner of Project
Looking North on Pine Hills Road

Line of sight from nearest properties to Lot 8

Figure 3-1-6

KEY VIEW 6
Looking Northwest from Pine Hills Road

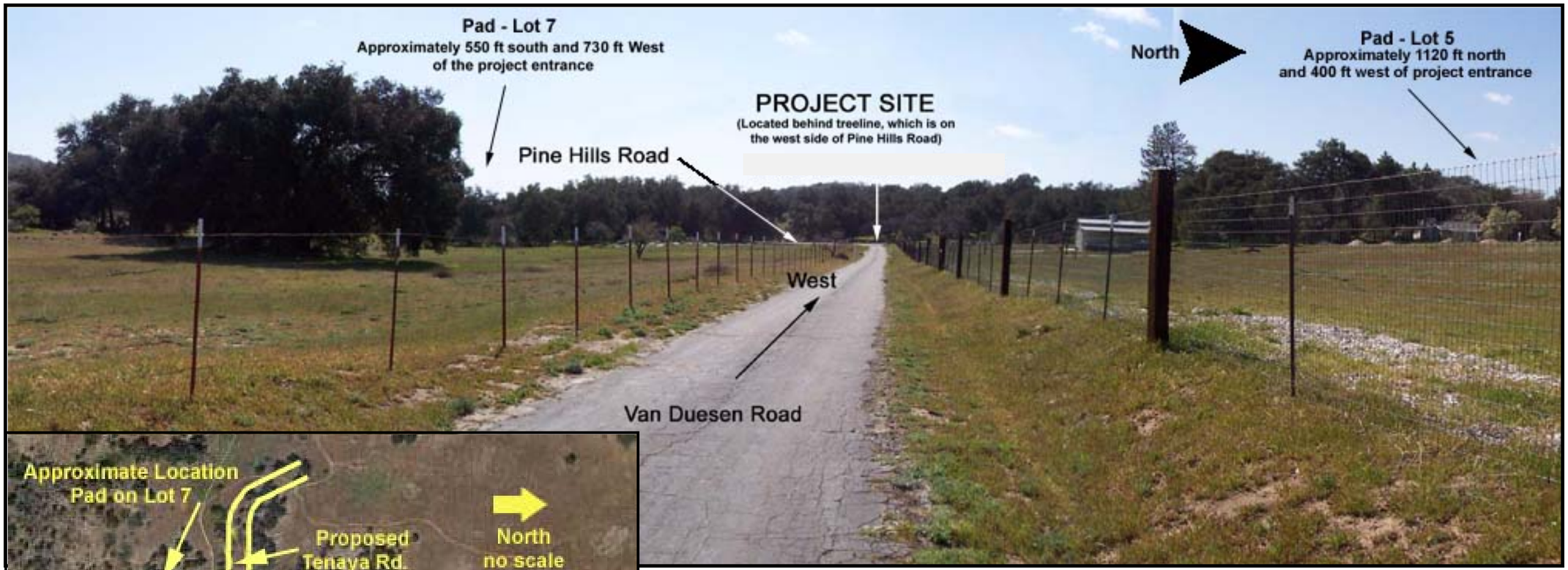
Figure 3-1-7

Key View 7 – Looking northwest from Pine Hills Road

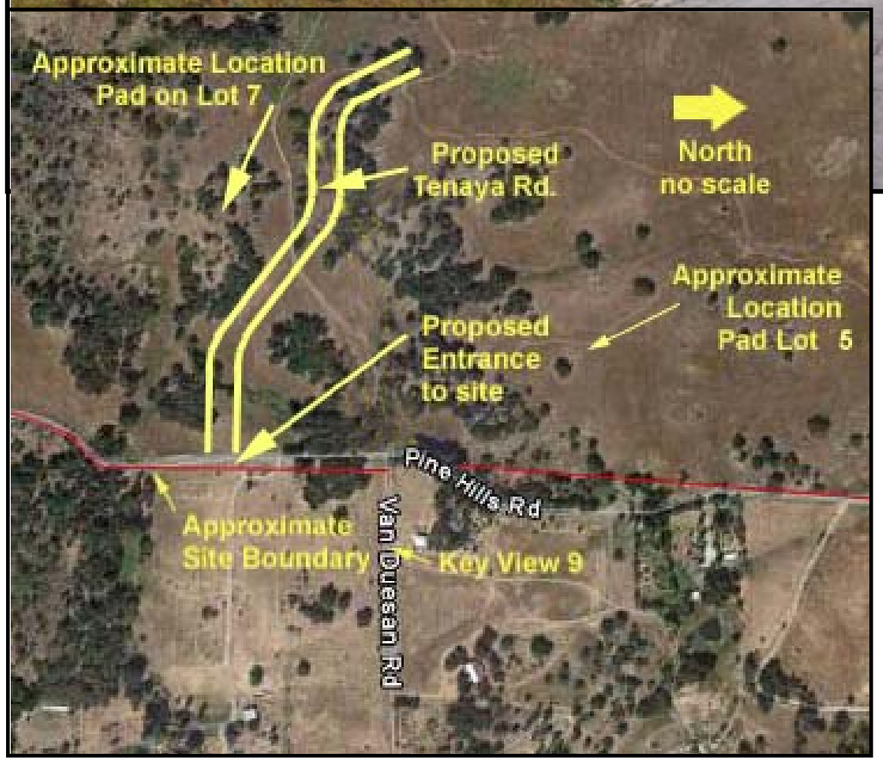
Key View 8 – Looking southwest from Pine Hills Road

KEY VIEWS 7 and 8
From Pine Hills Road

Figure 3-1-8



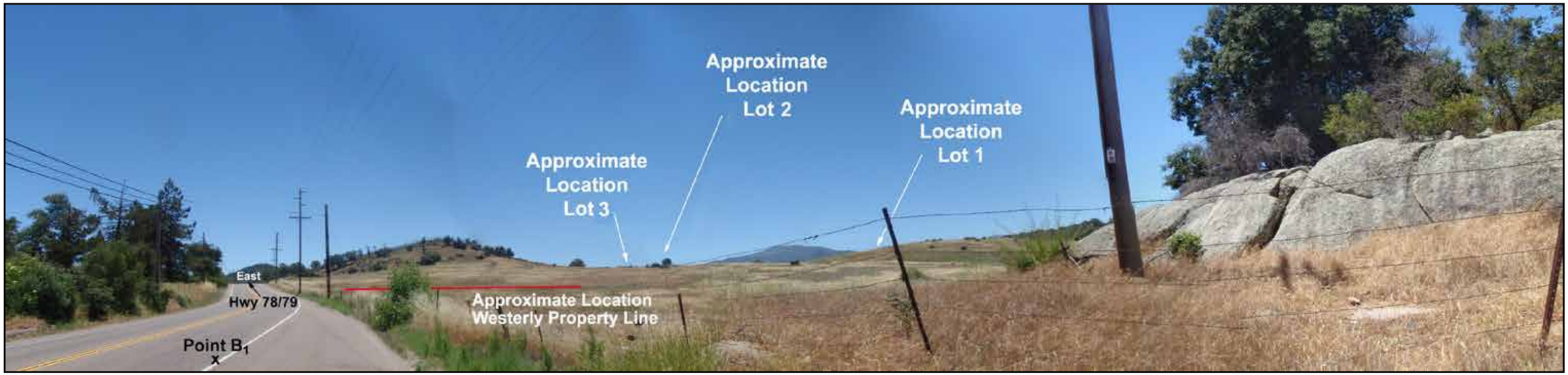
Photosimulation
Looking West along Van Duesen Road
To Project Entrance – Tenaya Road



Aerial
Plan View

KEY VIEW 9
Looking West from Van Duesen Road

Figure 3-1-9



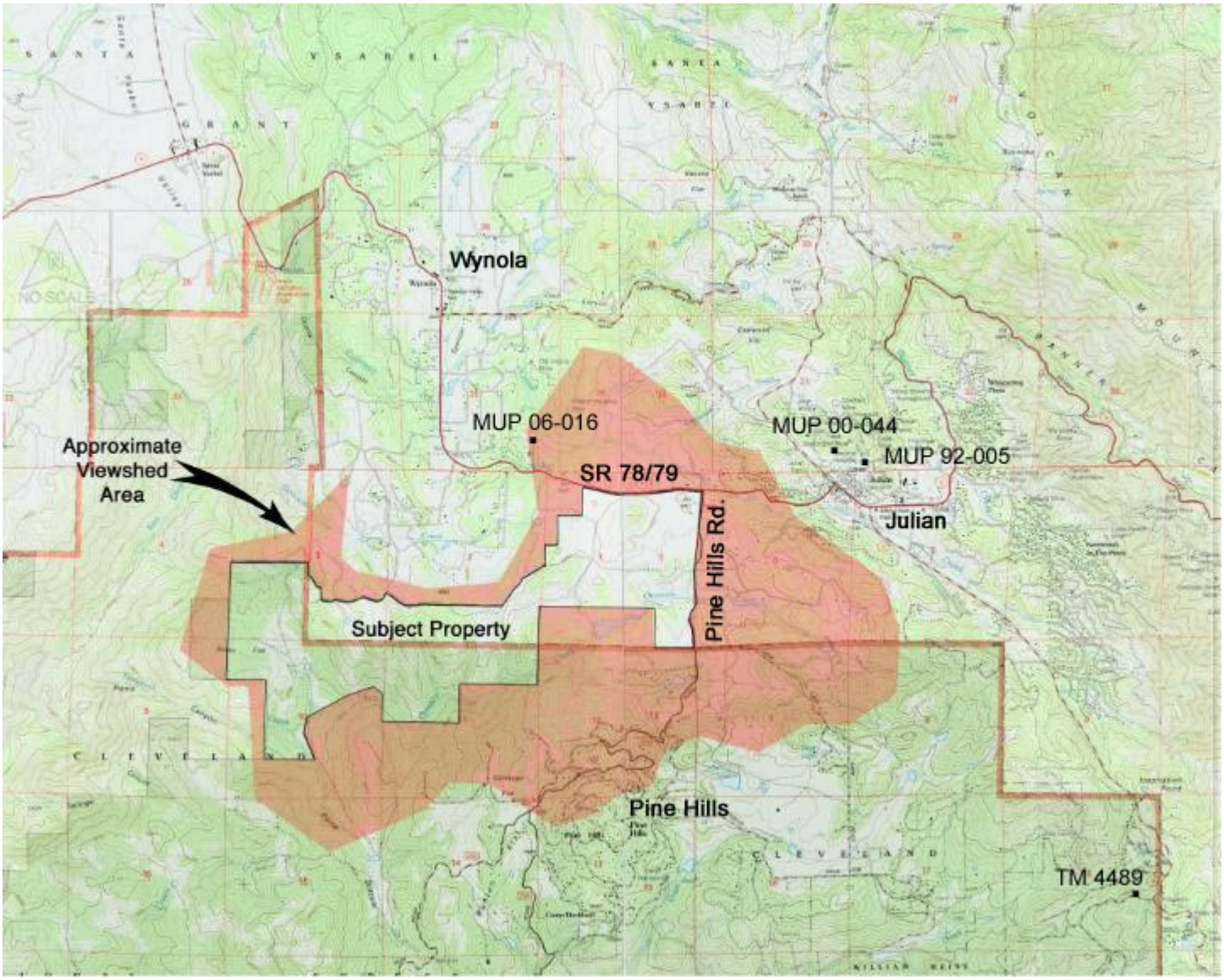
NOTE:
See Figure 3-1-3 for plan and profile of proposed lots.

KEY VIEWS
Photosimulation Looking East on SR 78/79

Figure 3-1-10

KEY VIEW 4
Photosimulation

Figure
3-1-11



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Cumulative Projects Map

Figure 3-1-12

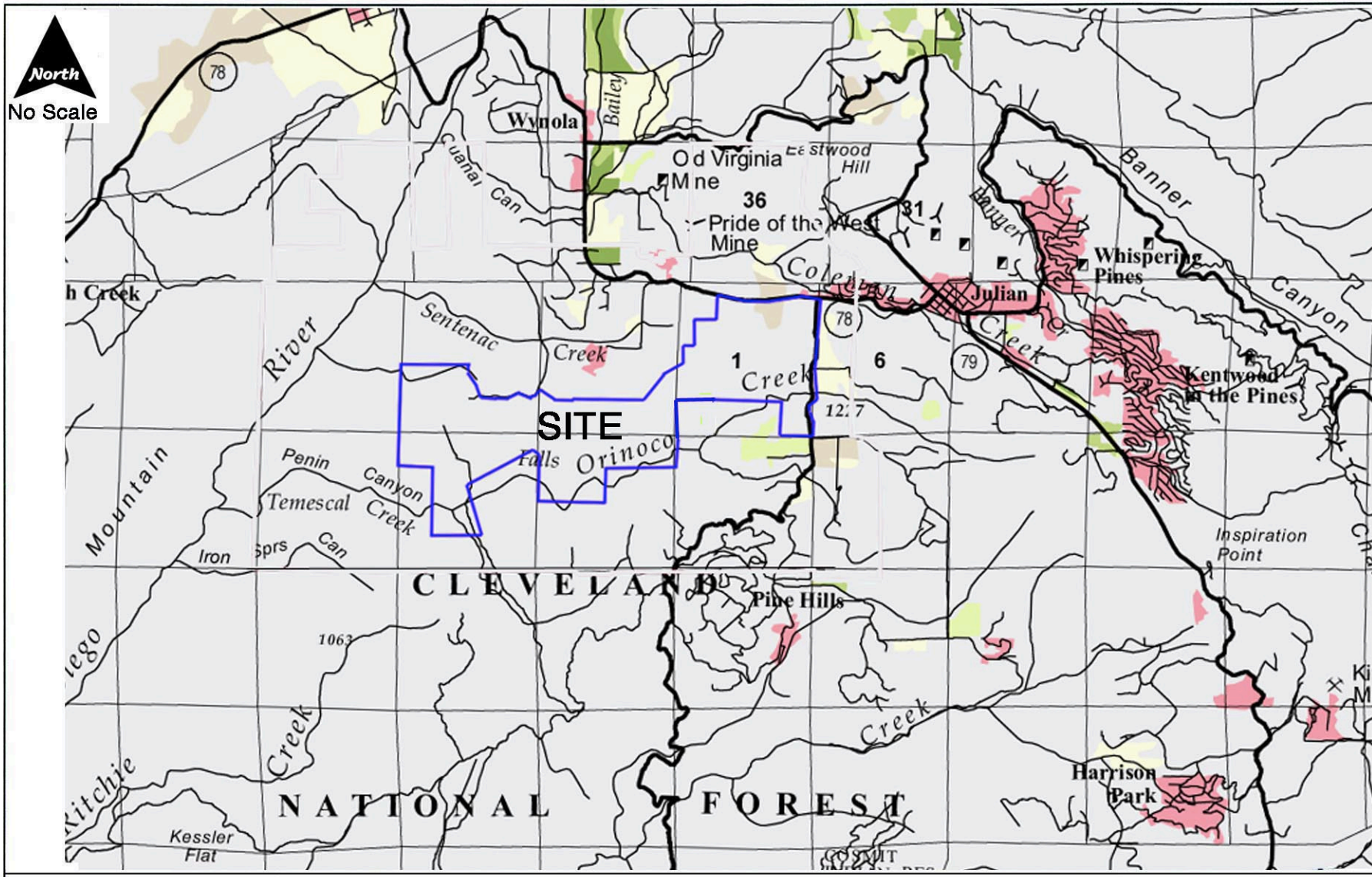

Figure 3-2-1

Site on Farmland Mapping and Monitoring Program Map

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PRIME FARMLAND

LAND WITH THE BEST COMBINATION OF PHYSICAL AND CHEMICAL CHARACTERISTICS ABLE TO SUSTAIN LONG TERM PRODUCTION OF AGRICULTURAL CROPS. THIS LAND MUST HAVE BEEN USED FOR PRODUCTION OF IRRIGATED CROPS AT SOME TIME DURING THE FOUR YEARS PRIOR TO THE MAPPING DATE.

FARMLAND OF STATEWIDE IMPORTANCE

LAND WITH A GOOD COMBINATION OF PHYSICAL AND CHEMICAL CHARACTERISTICS FOR AGRICULTURAL PRODUCTION, HAVING ONLY MINOR SHORTCOMINGS, SUCH AS LESS ABILITY TO STORE SOIL MOISTURE, COMPARED TO PRIME FARMLAND. THIS LAND MUST HAVE BEEN USED FOR PRODUCTION OF IRRIGATED CROPS AT SOME TIME DURING THE FOUR YEARS PRIOR TO THE MAPPING DATE.

UNIQUE FARMLAND

LAND USED FOR PRODUCTION OF THE STATE'S MAJOR CROPS ON SOILS NOT QUALIFYING FOR PRIME OR STATEWIDE IMPORTANCE. THIS LAND IS USUALLY IRRIGATED, BUT MAY INCLUDE NONIRRIGATED FRUITS AND VEGETABLES AS FOUND IN SOME CLIMATIC ZONES IN CALIFORNIA.

FARMLAND OF LOCAL IMPORTANCE

LAND THAT MEETS ALL THE CHARACTERISTICS OF PRIME AND STATEWIDE, WITH THE EXCEPTION OF IRRIGATION.
FARMLANDS NOT COVERED BY THE ABOVE CATEGORIES BUT ARE OF SIGNIFICANT ECONOMIC IMPORTANCE TO THE COUNTY. THEY HAVE A HISTORY OF GOOD PRODUCTION FOR LOCALLY ADAPTED CROPS. THE SOILS ARE GROUPED IN TYPES THAT ARE SUITABLE FOR TRUCK CROPS (SUCH AS TOMATOES, STRAWBERRIES, CUCUMBERS, POTATOES, CELERY, SQUASH, ROMAINE LETTUCE, AND CAULIFLOWER) AND SOILS SUITED FOR ORCHARD CROPS (AVOCADOS AND CITRUS).

GRAZING LAND

LAND ON WHICH THE EXISTING VEGETATION IS SUITABLE FOR GRAZING OF LIVESTOCK. THE MINIMUM MAPPING UNIT FOR THIS CATEGORY IS 40 ACRES.

URBAN AND BUILT-UP LAND

RESIDENTIAL LAND WITH A DENSITY OF AT LEAST SIX UNITS PER TEN-ACRE PARCEL, AS WELL AS LAND USED FOR INDUSTRIAL AND COMMERCIAL PURPOSES, GOLF COURSES, LANDFILLS, AIRPORTS, SEWAGE TREATMENT, AND WATER CONTROL STRUCTURES.

OTHER LAND

LAND WHICH DOES NOT MEET THE CRITERIA OF ANY OTHER CATEGORY. COMMON EXAMPLES INCLUDE LOW-DENSITY RURAL DEVELOPMENTS, WETLANDS, DENSE BRUSH AND TIMBERLANDS, GRAVEL PITS, AND SMALL WATER BODIES.

WATER

PERENNIAL WATER BODIES WITH AN EXTENT OF AT LEAST 40 ACRES.

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Farmland Mapping and Monitoring Program Map Legend

Figure 3-2-2

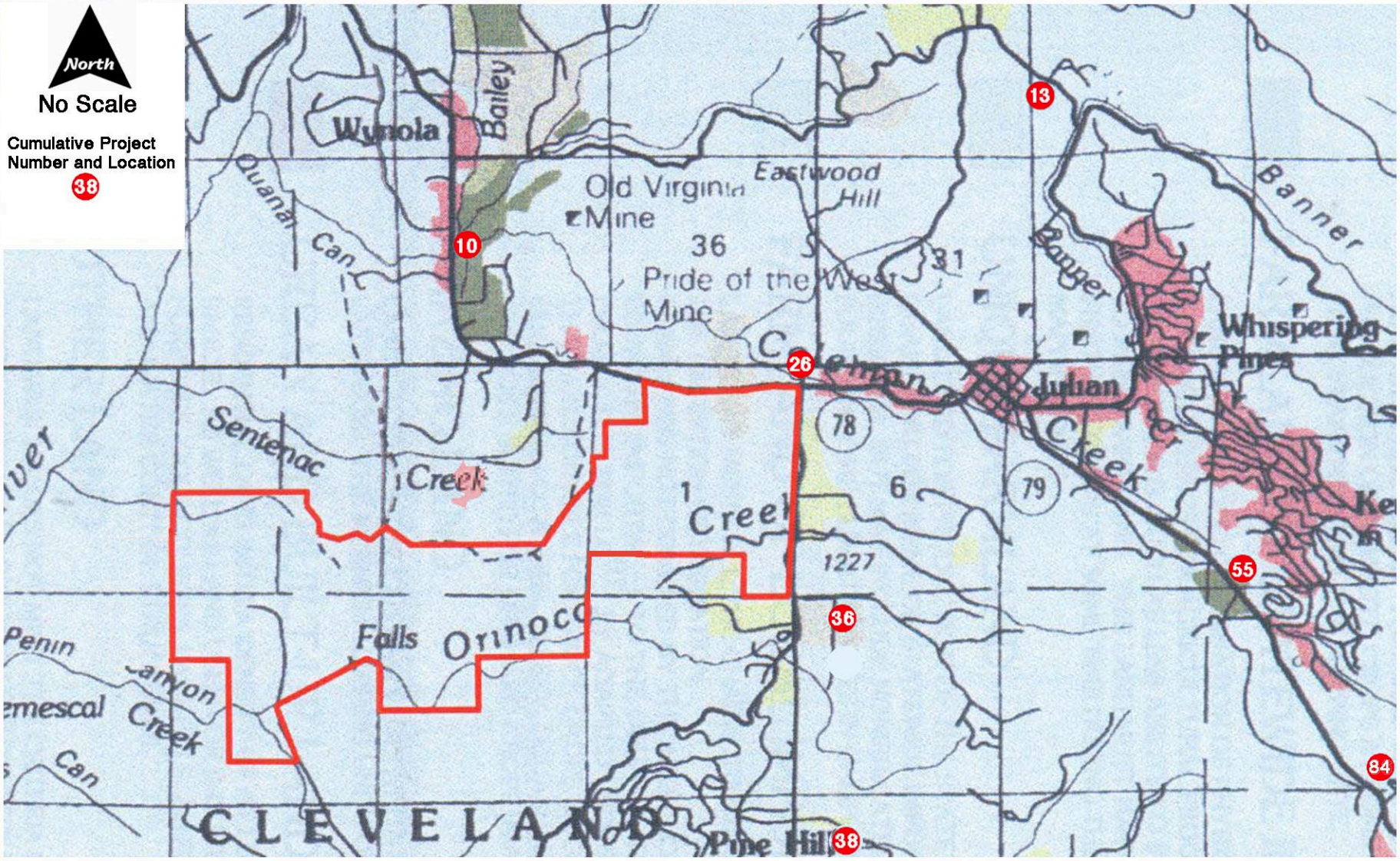

Figure 3-2-3

Cumulative Projects on Farmland Mapping and Monitoring Program Map

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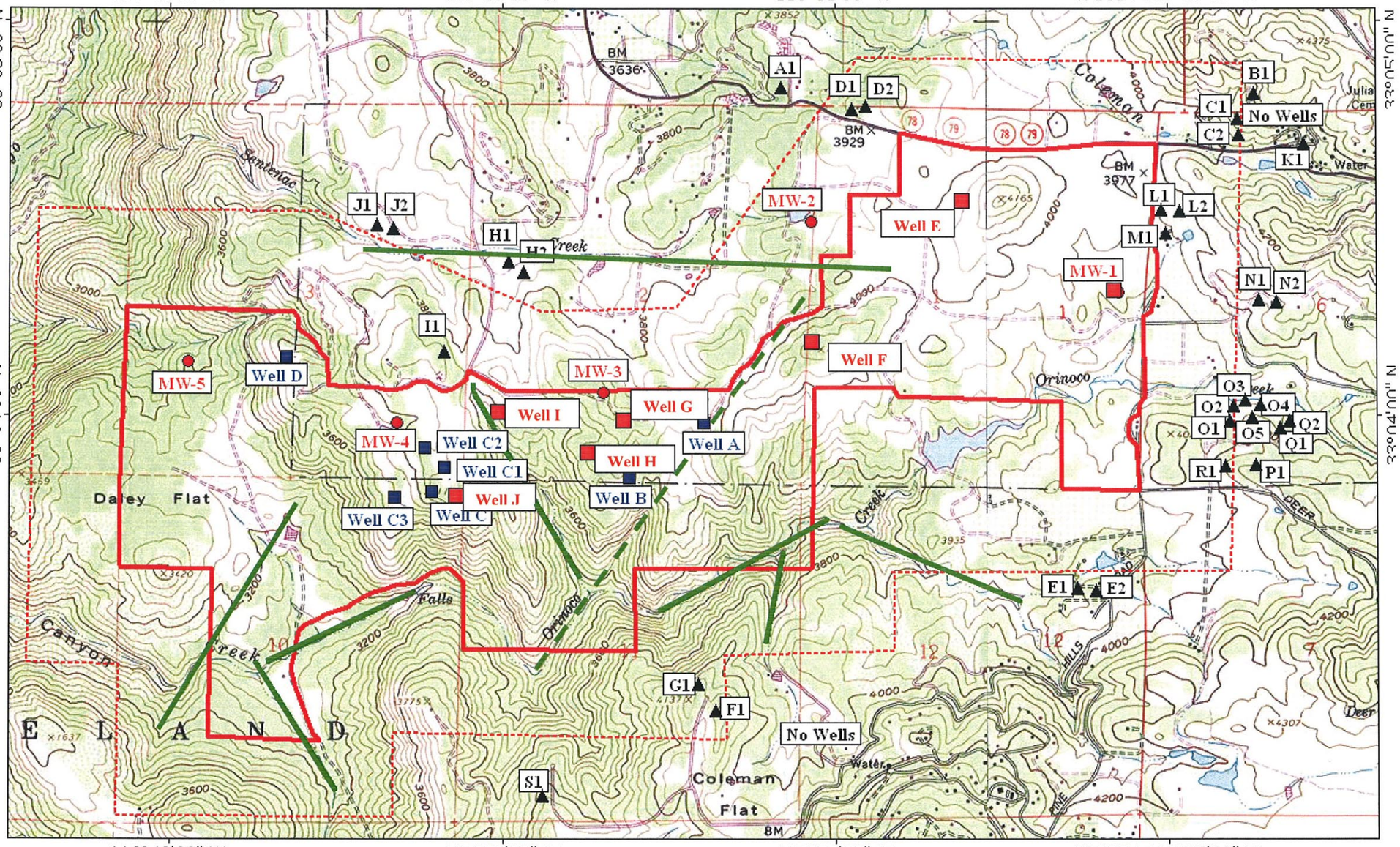
North
No Scale

TOPO! map printed on 02/03/05 from "well locations.tpo" and "Untitled.tpg"

116°40'00" W 116°39'00" W 116°38'00" W WGS84 116°37'00" W

33°05'00" N

33°04'00" N



TN 13° MN

0 .5 1 MILE
0 1000 FEET 0 500 1000 METERS

LEGEND:

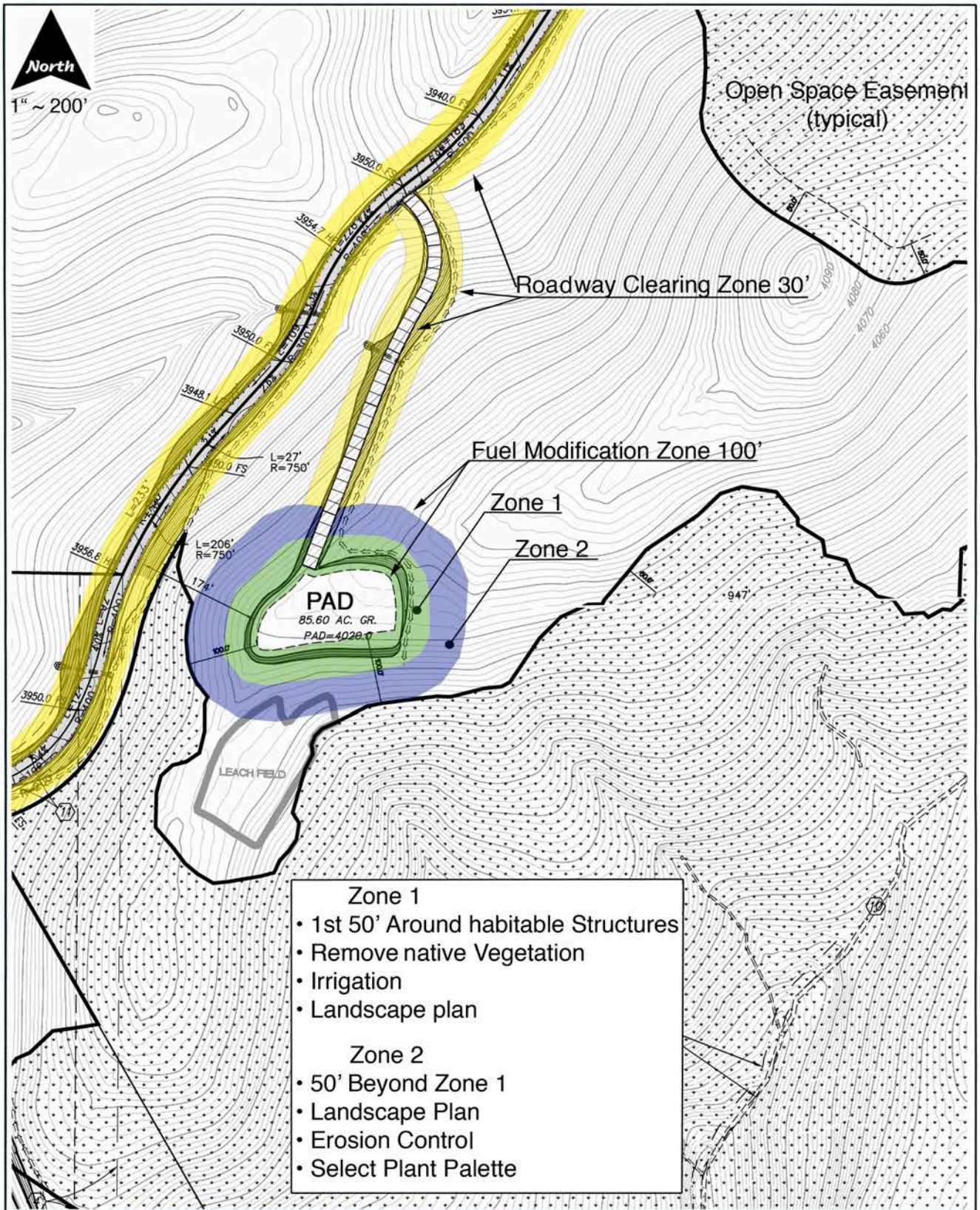
- Property Boundary
- ¼-Mile Study Area
- Aerial Photo Lineaments
- Recently Pump-Tested Well
- Previously Pump-Tested Well
- Offsite Well
- Onsite Monitoring Well

TRC CONSULTANTS

Groundwater Study Area and Well Locations

AECOM

Figure 3-5-1



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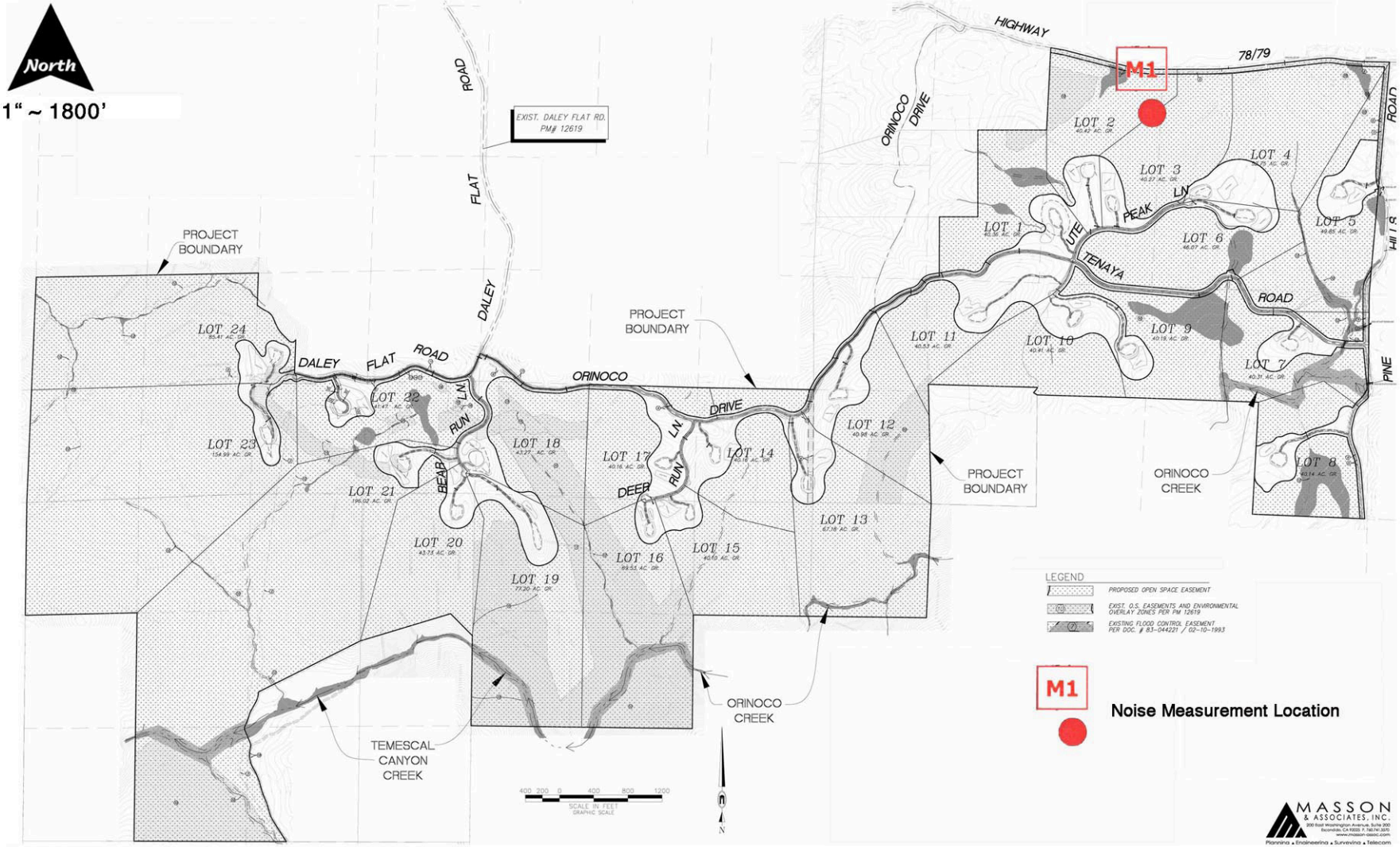
Typical Fire Clearing Design

Figure 3-6-1



Source: Ldn Consulting

Figure 3-7-1

Noise Measurement Locations

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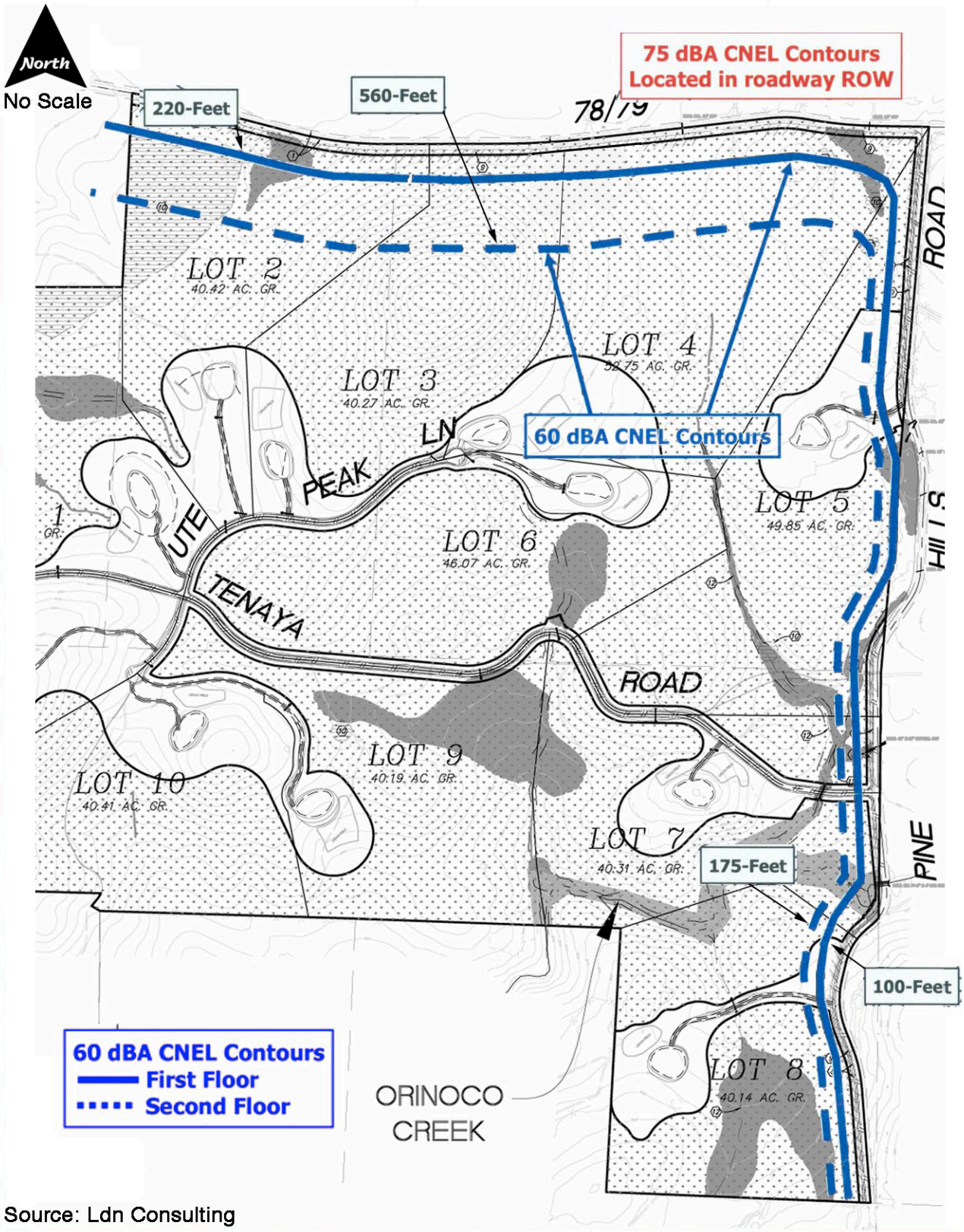

Source: Ldn Consulting

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Future Noise Level Contours

Figure 3-7-2

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Cumulative Projects List

Table 3-2-1

#	Fig.** corresponding #	Project Number	Project Name	Agricultural Use Onsite	Important Agricultural Resource? Prime Farmland (PF) Farmland of Statewide Importance (FSI)	Indirect Impact Estimate (Acres)	Direct Impact Estimate (Acres)
1	10	MUP 98-003	Spencer Winery-add'l winery bldg.	Vineyard	PF	0 (adds ag)	0 (adds ag)
2	13	MUP 98-011	Jenkins Winery-change roof style	Winery	FSI	0	0
3	16	TPM 20863	Hoskings Rch Rd	None	No	0	0
4	25	MUP 77-138	Julian Propane	None	No	0	0
5	26	MUP 77-113	Julian Sanitation Dist.	None	FSI	0	2
6	27	Site Plan 00-018	Straub	None	No	0	0
7	31	ZAP 05-014	Austin 2nd Dwelling	None	No	0	0
8	33	ZAP 07-010	Sloan Star Oaks B&B	None	No	0	0
9	34	AD 99-022	Fisch	None	No	0	0
10	36	TPM 19932	Ortega	None	FSI	0	3
11	38	MUP 75-083	YMCA Camp Marston	None	PF	0	4
12	40	MUP mod/dev 68-084	Lakeside Prebyterian	None	No	0	0
13	41	MUP mod/dev 72-460	Grl Sct. Cmp. Winacka	None	No	0	0
14	43	Site Plan 02-029	Behen	None	No	0	0
15	45	Site Plan 03-034	Brown Family Trust	None	No	0	0
16	46	Site Plan 03-059	Rose Steadman	None	No	0	0
17	47	Site Plan 07-017	Edinger Family	None	No	0	0
18	48	Site Plan 01-028	Brown Residence	None	No	0	0
19	49	Site Plan mod/dev 01-049	Gallo	None	No	0	0
20	50	Site Plan 02-043	Ruffel & Morris	None	No	0	0
21	51	Site Plan 02-045	Jones	None	No	0	0
22	52	Site Plan 07-045	Wardle	None	No	0	0
23	54	TPM 20253	Sauter	None	No	0	0
24	55	Site Plan 10-004	Julian/Cuy. Fire Sta.	None	FSI	0	2
25	73	MUP 72-469	Manley Minor Deviation	None	No	0	0
26	79	Site Plan 03-046	NailZone Cingular	None	No	0	0
27	80	Site Plan 02-041	Robinson	None	No	0	0
28	81	Site Plan 05-011	Page Residence	None	No	0	0
29	82	MUP mod/dev 85-078	Catholic Conf. Site	None	No	0	0
30	84	MUP 97-005	Red Horse Winery	Winery	No	0	0
31	85	ZAP 01-102	Lundie 2nd DU	None	No	0	0
32	87	TPM 20571	Learn Subdivision	None	No	0	0
33	88	TPM 20474	Klucewich	None	No	0	0
34	89	MUP 82-081	Great Outdoor American Adv.	None	No	0	0
35	90	TM 4489	Julian Estates	None	No	0	0
					TOTAL	**0**	**11**

Maximum Daily Emissions Thresholds

MAXIMUM DAILY EMISSIONS THRESHOLDS (SAN DIEGO COUNTY GUIDELINES FOR DETERMINING SIGNIFICANCE FOR AIR QUALITY)		
Pollutant	**Construction**	**Operational**
NO_x	250 lbs/day	250 lbs/day
PM_{10}	100 lbs/day	100 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_x	250 lbs/day	250 lbs/day
CO	550 lbs/day	550 lbs/day
VOCs*	75 lbs/day	75 lbs/day

* Threshold for VOCs based on threshold of significance for VOCs from the South Coast Air Quality Management District for the Coachella Valley.

Summary of Construction Emissions (Pounds Per Day)
(With Project Design Considerations)

Construction Activities	VOC	NO_x	CO	SO_x	PM_{10*}	$PM_{2.5}$
Grading						
Fugitive Dust	0	0	0	0	42.57	8.89
Off-Road Equipment	3.18	26.46	12.98	0	1.33	1.23
Worker Trips	0.04	0.07	1.18	0	0.01	0
Underground/Infrastructure Activity						
Off-Road Equipment	2.63	21.28	10.51	0	1.20	1.11
Worker Trips	0.04	0.06	1.10	0	0.01	0
Paving						
Off-Gas Emissions	1.76	0	0	0	0	0
Off-Road Equipment	3.20	19.17	10.47	0	1.68	1.55
On-Road Equipment	0.38	5.81	1.96	0.01	0.25	0.21
Worker Trips	0.04	0.08	1.37	0	0.01	0.01
Off-Site Construction Activity						
Off-Site Construction	6.60	45.40	31.80	0	7.40	3.20
Building Construction Activity						
Off-Road Equipment	4.08	23.31	14.31	0	1.67	1.54
Vendor Trips	0.04	0.55	0.43	0	0.03	0.02
Worker Trips	0.14	0.24	4.43	0	0.03	0.02
Architectural Coatings Activity						
Architectural Coating	12.35	0	0	0	0	0
Worker Trips	0.01	0.01	0.16	0	0	0
Peak Day Mass Emissions	**34.49**	**142.44**	**90.70**	**0.01**	**56.19**	**17.78**
SD County Screening Level Thresholds (SLTs)	75	250	550	250	100	55
Significant?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Source: URBEMIS 2007 v 9.2.4 and Road Construction Emissions Model, Version 6.2.2 (See Appendix "D" for more details)

* Includes control efficiency for watering

Quantification of Carcinogenic Risks and Noncarcinogenic Hazards (Short-Term Construction Activity)

Source	Maximum Concentration		Weight Fraction	Contaminant	Carcinogenic Risk			GP Update Total Use (afy)		
					URF	CPF	RISK	REL	RfD	Index
(a)	(ug/m3) (b)	(ug/m3) (c)	(d)	(e)	(ug/m3) (f)	(mg/kg/day) (g)	(h)	(ug/m3) (i)	(mg/kg/day) (j)	(k)
Diesel	0.1192	1.4E-04	1.00E+00	Particulates	3.0E-04	1.1E+00	5.4E-07	5.0E+00	1.4E-03	2.5E-02

Summary of Operational Emissions (Summer) (Pounds Per Day)

Operational Activities	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area Source Emissions [a]	41.05	0.38	2.95	0	0.01	0.01
Operational Emissions [b]	11.02	11.25	101.73	0.08	13.35	2.62
Peak Day Mass Emissions	**52.07**	**11.63**	**104.68**	**0.08**	**13.36**	**2.63**
SD County Screening Level Thresholds (SLTs)	75	250	550	250	100	55
Significant?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

[a] Includes emissions of natural gas, landscape maintenance equipment, and architectural coatings emissions

[b] Includes emissions of vehicle emissions and fugitive dust related to vehicular travel

Summary of Operational Emissions (Winter) (Pounds Per Day)

Operational Activities	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area Source Emissions [a]	54.16	0.62	15.04	0.02	2.04	1.97
Operational Emissions [b]	9.51	16.45	112.57	0.07	13.35	2.62
Peak Day Mass Emissions	**63.67**	**17.07**	**127.61**	**0.09**	**15.39**	**4.59**
SD County Screening Level Thresholds (SLTs)	75	250	550	250	100	55
Significant?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

[a] Includes emissions of natural gas, landscape maintenance equipment, and architectural coatings emissions

[b] Includes emissions of vehicle emissions and fugitive dust related to vehicular travel

Source: URBEMIS 2007 v 9.2.4 (See Appendix "E" for more details)

Year	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
2016	0.00	237.46	237.46	0.06	0.00	238.81
2017	0.00	270.54	270.54	0.06	0.00	271.82
Total						510.63
Yearly Average Construction Emissions (Metric Tons/year over 20 years)						**25.53**
Expected Construction emissions are based upon CalEEMod modeling assumptions for equipment and durations listed in Table 4.1 above.						

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Expected Greenhouse Gas Construction CO_2 e Emissions Summary

Table 3-3-5

Year	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Area	56.9724.79	0.2910.69	57.2635.48	0.000.02	0.010.00	58.8336.57
Energy	0.000.00	91.3091.30	91.3091.30	0.000.00e	0.000.00	91.7091.70
Mobile	0.000.00	463.71463.71	463.71463.71	0.020.02	0.000.00	464.08464.08
Waste	5.745.74	0.000.00	5.745.74	0.340.34	0.000.00	12.8712.87
Water	0.500.50	10.2310.23	10.7310.73	0.050.05	0.000.00	12.2112.21
Total						639.68**617.43**
Amortized Construction Emissions (Table 5.1 above)						25.53**25.53**
Total Operations and Construction						665.22**642.96**
Sequestered Carbon from Land Use Change						51.72
Total GHG Emissions (CO_2e)						742.47

Data is presented in decimal format and may have rounding errors.
Mobile sources are assumed to ~~travel~~ be rural in nature~~30 miles each trip to and from the project site at a rate of 12 trips per dwelling unit~~

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Expected Greenhouse Gas Operational Emissions Summary

Table 3-3-6

Anticipated Groundwater Needs at Maximum Buildout

Use Type	Current GP Quantities	GP Update Quantities	Water Demand (afy)	Current GP Total Use (afy)	GP Update Total Use (afy)
On-site Residential	24 homes	homes	0.5/acre	12	12
Off-site Residential	192 homes	63 homes	0.5/acre	96	31.5
Offsite Cattle	100 head	100 head	0.016/head	1.6	1.6
Onsite Cattle	80 head	80 head	0.016/head	1.3	1.3
Offsite Orchards	30 acres	30 acres	2.9/acre	87	87
			Total	***198***	***133***