HELIX
Environmental Planning

Simpson Farms Project

Agricultural Resources Report

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January 2016

Prepared for:
County of San Diego
Planning & Development Services
5510 Overland Avenue, Suite 310
San Diego, CA 92123

Prepared by:
HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942

Agricultural Resources Report

Simpson Farms Project

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Submitted to:
County of San Diego
Planning & Development Services
5510 Overland Avenue, Suite 310
San Diego, CA 92123

Project Proponent:
Gotham Management, LLC
861 Sixth Avenue, Suite 310
San Diego, CA 92101

Prepared by:
Dennis Marcin
County-approved Agricultural Resources Report Preparer
HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942

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GLOSSARY OF TERMS AND ACRONYMS

Terms

Agricultural Resource

The term Agricultural Resource refers to any of the following: (1) a site with an active agricultural operation; (2) a site designated as, *and that meets the definition of*, an Important Farmland Category (Prime Farmland, Farmland of Statewide Importance, Unique farmland, and Farmland of Local Importance) as defined by the California Department of Conservation, Farmland Mapping and Monitoring Program (FMMP); and (3) a site with a history of agricultural production based on aerial photography or other data sources identifying agricultural land uses. Examples of other data sources that identify agricultural land use include data from the San Diego County Department of Agriculture, Weights and Measures (AWM), the California Department of Water Resources (DWR) land use data, and vegetation data from the County of San Diego Planning & Development Services (PDS).

Active Agricultural Operations

Active agricultural operations refer to the routine and ongoing commercial operations associated with a farm, orchard/grove, dairy, or other agricultural business and shall include: (1) the cultivation and tillage of soil; crop rotation; fallowing for agricultural purposes; the production, cultivation, growing, replanting and harvesting of any agricultural commodity including viticulture, vermiculture, apiculture, or horticulture; (2) the raising of livestock, fur bearing animals, fish or poultry, and dairying; (3) any practices performed by a farmer on a farm as incident to or in conjunction with farming operations, including the preparation for market, delivery to storage or to market, or delivery to carriers for transportation to market; and (4) ordinary pasture maintenance and renovation and dry land farming operations consistent with rangeland management. All such activities must be consistent with the economics of commercial agricultural operations and other similar agricultural activities.

Row Crops

For purposes of this report, the term row crops is defined to include commodities such as cultivated (i.e., non-container stock) outdoor vegetable, flower, and berry crops.

Important Agricultural Resource

An agricultural resource determined to be important pursuant to the County Local Agricultural Resource Assessment (LARA) Model.

Acronyms

AMSL	above mean sea level
APN	Assessor's Parcel Number
AWM	Department of Agriculture, Weights and Measures (County of San Diego)
CDC	California Department of Conservation
DU	dwelling unit
DWR	California Department of Water Resources
ESA	Environmental Site Assessment
ºF	degrees Fahrenheit
FAR	floor area ratio
FMMP	Farmland Mapping and Monitoring Program
FMZ	Fuel Management Zone
GPA	General Plan Amendment
I-8	Interstate 8
LARA	Local Agricultural Resource Assessment
LBZ	Limited Building Zone
MUP	Major Use Permit
N/A	not applicable
NPDES	National Pollutant Discharge Elimination System
NRCS	U.S. Natural Resources Conservation Service
OWD	Otay Water District
PACE	Purchase of Agricultural Conservation Easement
PDS	Planning & Development Services (County of San Diego)
RCA	Resource Conservation Area
ROW	right-of-way
SCS	U.S. Soil Conservation Service
SDCWA	San Diego County Water Authority
SR	Semi-Rural
SR-94	State Route 94
TM	Tentative Map
USDA	U.S. Department of Agriculture
ZOI	Zone of Influence

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EXECUTIVE SUMMARY

The proposed Simpson Farms Project (Project or Proposed Project) includes an approximately 162-acre site in an unincorporated portion of San Diego County (County) near the community of Jamul. The Project site is located adjacent to State Route 94 (SR-94 or Campo Road) along the southwestern property boundary, and is approximately 6.3 miles south of Interstate 8 (I-8) at its closest point. Principal site access is from SR-94, Jefferson Road and Olive Vista Drive.

The Proposed Project consists of a mixed-use development with 95 single-family dwelling units (DUs), a neighborhood commercial site and related facilities within a total disturbance area of approximately 109.2 acres. The proposed development would be conducted in two phases identified as Units 1 and 2. Specifically, Unit 1 would include all proposed development except the 11.8-acre commercial site (Lot No. 99), with Unit 1 activities on Lot 99 limited to the construction of graded pads and roads (and no new uses proposed). Subsequent on-site commercial development would require additional discretionary approval from the County. Specifically, Lot 99 contains a Special Area "P" designator, and would require approval of a Major Use Permit (MUP) prior to approval of any associated development.

Proposed residential development includes 95 single-family residential DUs, with 91 DUs on dedicated residential lots and 4 DUs on combined residential and detention basin lots. Residential lots (including the combined lots) range in size from 1.0 to 2.19 acres (with the largest lot including a 0.13-acre road/trail dedication), with associated development including graded pads, driveways and septic systems/leach fields.

The proposed development also incorporates a number of related facilities and uses, including: (1) an internal private roadway system; (2) four connections to existing/modified roadways including SR-94 (one access point), Jefferson Road (two access points), and Olive Vista Drive (one access point); (3) improvements (e.g., widening) to portions of Jefferson Road adjacent to the Project site and utility connections in Jefferson Road and Olive Vista Drive, with all proposed improvements/connections to be located within the existing road right-of-way (ROW) boundaries or on the Project site (i.e., within an expanded ROW); (4) a storm drain system to accommodate post-development flows in conformance with applicable regulatory requirements (including off-site facilities); and (5) two designated open space lots (Lot Nos. 97 and 98). As indicated, proposed off-site activities associated with road widening/utilities are limited to modifications along Jefferson Road, as well as utility connections within existing ROW boundaries along Jefferson Road and Olive Vista Drive. Because the off-site portions of these proposed improvements/connections would be confined to previously developed or disturbed areas within current ROW limits, they would not directly affect off-site properties or associated agricultural resources. The noted off-site drainage improvements are proposed west of Lot No. 97 and Jefferson Road, with these facilities located outside of the associated ROW (and related potential impacts assessed as part of the Project agricultural analysis).

On-site topography is characterized by relatively level to rolling terrain, with an overall east to west grade. Surface drainage from most of the Project site flows primarily to the east and northeast, with some variability in direction due to local topography, and associated off-site flows continuing generally west to the Sweetwater River. The site is not currently used for

agriculture, although agricultural operations on the Project site were initially conducted in the early part of the 20th Century and continued at variable levels until approximately 1999.

The Project site is located within a semi-rural area encompassing a mix of generally low- to medium-density urban development, relatively minor agricultural uses, and open space. Local urban development includes low- to medium-density residential uses along portions of the northern, eastern and southern site boundaries; and commercial development adjacent to the southwestern site corner and a portion of the southern property boundary. Nearby agricultural uses include olive orchards to the east and west, and a former commercial nursery operation (Simpson's Garden Town Nursery) located near the southwestern site boundary. Open space adjacent to the site is limited to minor areas along the east-central site boundary and the northwestern property corner. Additional nearby land uses include low-to medium-density residential development with supporting commercial and institutional uses (e.g., schools) in all directions; minor agricultural (primarily mixed orchard) uses in all directions, with these areas typically associated with estate residential properties; larger agricultural uses further to the east and southeast, including apparent citrus/avocado orchards, vineyards and seasonal dry farming; variably sized disturbed areas that may have been used previously for seasonal dry farming to the northeast, southeast, south and west; and extensive undeveloped open space in all directions. No Williamson Act Contract Lands or agricultural preserves are located within the Project site or the associated Zone of Influence (ZOI).

Pursuant to applicable County Guidelines, identified agricultural resources within the Project site encompass approximately 89.3 acres. Specifically, on-site agricultural resources include areas used historically for agricultural operations such as seasonal dry farming and nursery activities, as well as applicable areas of California Department of Conservation (CDC)-designated Farmland Mapping and Monitoring Program (FMMP) Important Farmlands. Portions of the site not identified as agricultural resources generally include areas not available or suitable for agricultural use due to soil quality, environmental, and/or economic concerns, such as previously developed/disturbed sites and eucalyptus woodland. The County has approved a local methodology that is used to determine the importance of agricultural resources in the unincorporated area of San Diego County, known as the Local Agricultural Resource Assessment (LARA) Model. The LARA Model takes into account six factors, including water, climate, soil quality, surrounding land uses, land use consistency, and slope, in determining the importance of agricultural resources. Based on evaluation under the described LARA Model, the Project site was determined to be an “important agricultural resource.”

The Proposed Project would result in approximately 50.4 acres of significant direct impacts to on-site (50.3 acres) and off-site (0.1 acre) agricultural resources, based on the results of the LARA Model analysis and related evaluation described in Section 2.0. Pursuant to County Agricultural Guidelines, the Project applicant would be required to either: (1) retain 50.4 acres of applicable on-site areas as “available and viable” for agricultural use (e.g., through Limited Building Zone [LBZ] easements); (2) provide off-site mitigation for the noted 50.4-acre impact area at a 1:1 ratio through the acquisition of agricultural mitigation credits via the County Purchase of Agricultural Conservation Easement (PACE) Program; or (3) provide a combination of PACE mitigation credits and applicant-purchase of off-site agricultural lands or LBZ easements totaling 50.4 acres that meet the intent of the County Agricultural Guidelines. With

the described mitigation, direct Project-related impacts to on-site agricultural resources would be reduced below a level of significance.

The Proposed Project would not result in significant indirect (interface) impacts to existing off-site agricultural operations/resources including olive and mixed-use orchards, row crops, or Williamson Act contract lands. This conclusion is based on considerations including: (1) the nature, location and extent of proposed development and off-site agricultural operations/designations; (2) the inclusion of open space, setbacks (including a 100-foot fuel management zone [FMZ] along applicable portions of the eastern site boundary) and landscaping in the Proposed Project design (including extensive tree and shrub plantings to provide screening/blending, refer to Appendix D, with the FMZ and landscape plan included as a Project Design Consideration); and (3) Project conformance with regulatory requirements, including County septic system standards and County and related National Pollutant Discharge Elimination System (NPDES) hydrology and water quality criteria. In addition, the project proposes one- to two-acre lots, which would allow orchards and gardens on individual residential lots to provide opportunities for associated lot owners to implement transitional uses/buffers in relation to off-site agricultural uses (although potential indirect impacts related to interface conflicts would be less than significant as previously noted, and lot-specific orchards and gardens are not proposed as part of the Project design or landscape plans).

Project implementation would not result in substantial air contaminant generation (HELIX 2014c), and would conform to applicable NPDES hydrology/water quality standards as noted. These design and regulatory conformance measures would ensure that interface conflicts such as pollutant discharge, dust, and odors would not generate associated indirect impacts that could result in the conversion of agriculture.

The Proposed Project would also not generate, or be subject to, significant impacts related to theft/vandalism and nuisance factors associated with off-site agricultural operations. This conclusion is based on the presence of perimeter fencing on nearby orchard properties, and the proposed use of open space, setbacks and landscaping as part of the Project design. Specifically, such facilities and design efforts would serve to maintain security and provide buffers and screening from off-site agricultural areas.

The Proposed Project would be consistent with applicable land use and agricultural goals/policies contained in the County General Plan and Jamul/Dulzura Subregional Plan, County Zoning Ordinance, County Board of Supervisors Policy I-38, and the County Agricultural Enterprises and Consumer Information Ordinance. Specifically, such conformance would be provided through efforts including conformance with existing land use and zoning designations (i.e., with no proposed designation changes), appropriate on-site land use types and lot sizes, the provision of municipal water and on-site wastewater systems, appropriate lot and street design, allowance of on-site uses such as orchards and gardens on applicable lots as noted above, consistency with existing or potential future agricultural uses and designations, provision of notification to prospective property buyers regarding the potential for nearby agricultural activities and associated nuisance effects, and implementation of required mitigation for direct impacts to on- and off-site agricultural resources.

Because the Proposed Project would be consistent with all applicable General Plan land use designation and zoning requirements as noted above, Project implementation would not result in any associated cumulative impacts related to agricultural resources beyond those evaluated in the current adopted General Plan and associated General Plan Update Final Environmental Impact Report (County 2011a and County 2010, respectively).

1.0 INTRODUCTION

1.1 Purpose of the Report

Based on criteria contained in the County of San Diego *Guidelines for Determining Significance and Report Format and Content Requirements, Agricultural Resources* (Agricultural Guidelines, County of San Diego 2007), the purpose of this report includes the following specific goals:

- Identify Project direct on- and off-site impacts, as well as design considerations and/or mitigation measures that would avoid or minimize significant adverse effects from implementation of the Proposed Project.

- Determine potential indirect impacts to surrounding active agricultural operations and resources, as well as Williamson Act contract lands and agricultural preserves, from implementation of the Proposed Project.

- Assess potential cumulative impacts to agricultural resources and operations from the implementation of the Proposed Project, based on conformance with the County of San Diego General Plan.`

1.2 Project Location and Description

Project Location

The proposed Simpson Farms Project (Proposed Project or Project) includes an approximately 162-acre site in an unincorporated portion of San Diego County (County) near the community of Jamul (Figures 1 and 2). The site includes 2 individual parcels, with Assessor's Parcel Numbers (APNs) 596-180-01 and 596-180-02 (refer to Figure 2). The Project site is located adjacent to State Route 94 (SR-94 or Campo Road) along the southwestern property boundary, and is approximately 6.3 miles south of Interstate 8 (I-8) at its closest point. The Project site is also adjacent to Jefferson Road on the west, Olive Vista Drive on the north, and primarily low-density residential uses to the east and south (with minor commercial development along the western and southern site borders). Principal site access is from SR-94 and the noted adjacent roadways, with secondary access available from additional local roads including Lyons Valley Road (the southern extension of Jefferson Road), Proctor Valley Road and Maxfield Road (Figure 2).

Project Description

The Proposed Project consists of a mixed-use development within a total disturbance area of approximately 109.2 acres, with 95 single-family dwelling units (DUs), a neighborhood commercial site, and related uses such as access roads, drainage facilities and open space. As shown on the Project Site Plan (Figure 3), individual lot categories include 91 dedicated residential lots (with 91 associated DUs), 4 lots with combined residential and detention basin use (Lot Nos. 21, 31, 41 and 96, with 4 associated DUs), 1 commercial lot (Lot No. 99), 1 dedicated detention basin lot (Lot No. 7), 2 open space lots (Lot Nos. 97 and 98), and 7 roadway lots (Lot Nos. 100 to 106, with these lots not depicted on Figure 3). Summary

descriptions of the noted lot types and associated uses are provided below, with additional information shown on Figure 3.

Project development would be conducted in two phases, identified as Units 1 and 2 on Figure 3. Specifically, Unit 1 would include all proposed development except the commercial site (Lot No. 99), with commercial development requiring additional subsequent discretionary approval from the County and thus identified as Unit 2 (as outlined below).

Residential Development

As noted above, the Proposed Project includes 95 single-family residential DUs, with 91 DUs on dedicated residential lots and 4 DUs on combined residential and detention basin lots. The dedicated residential lots range in size from 1.0 to 2.07 acres, while the combined residential/detention basin lots range between 2.05 and 2.19 acres (including associated trail/access dedications). Associated development on all 95 lots encompassing residential uses includes graded pads, driveways and septic systems/leach fields, as shown on Figure 3.

Commercial Development

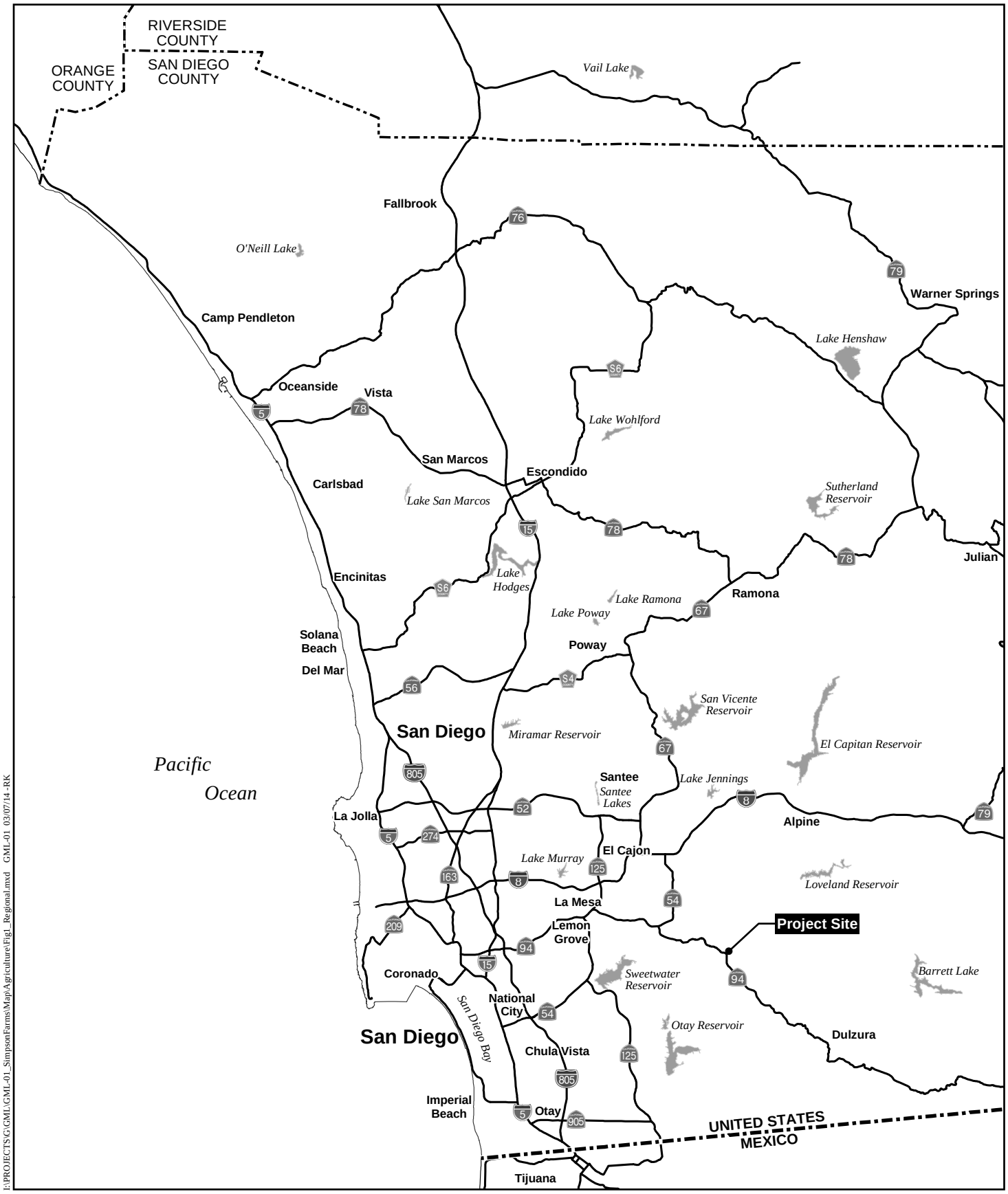
The proposed commercial site would be located on Lot No. 99 in the southwestern corner of the site, at the intersection of SR-94 and Jefferson Road. This lot includes 11.8 acres, with related activities under the Proposed Project limited to the construction of graded pads and roads, and the central area encompassing existing structures to remain undisturbed (refer to Figure 3). Lot No. 99 also contains a Special Area "P" designator, and would require approval of a Major Use Permit (MUP) prior to approval of any associated development.

Internal Roadways and Site Access

The Proposed Project design includes a network of internal private access roads within the described disturbance area, as shown on Figure 3. Internal roadways would encompass four connections to existing/modified roadways, including SR-94 (one access point), Jefferson Road (two access points), and Olive Vista Drive (one access point, refer to Figure 3). Portions of Jefferson Road adjacent to the Project site would be widened and improved to accommodate Project-related access and traffic. These proposed improvements would be located within the existing road right-of-way (ROW) boundaries or on the Project site (i.e., within an expanded ROW), with no related disturbance to occur on off-site properties. All proposed private (on-site) streets and improvements to Jefferson Road would conform to applicable County standards regarding criteria such as lane widths, grades, surfacing, intersection design and access.

Drainage Facilities

The Proposed Project would include a storm drain system to accommodate post-development flows in conformance with applicable regulatory requirements, including County storm water standards and related National Pollutant Discharge Elimination System (NPDES) criteria. Specific identified facilities include a network of variably sized inlets, pipelines, catch basins, brow ditches and the five previously noted detention basins shown on Figure 3, with this system to incorporate natural drainages where applicable and feasible.



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Regional Location Map

SIMPSON FARMS

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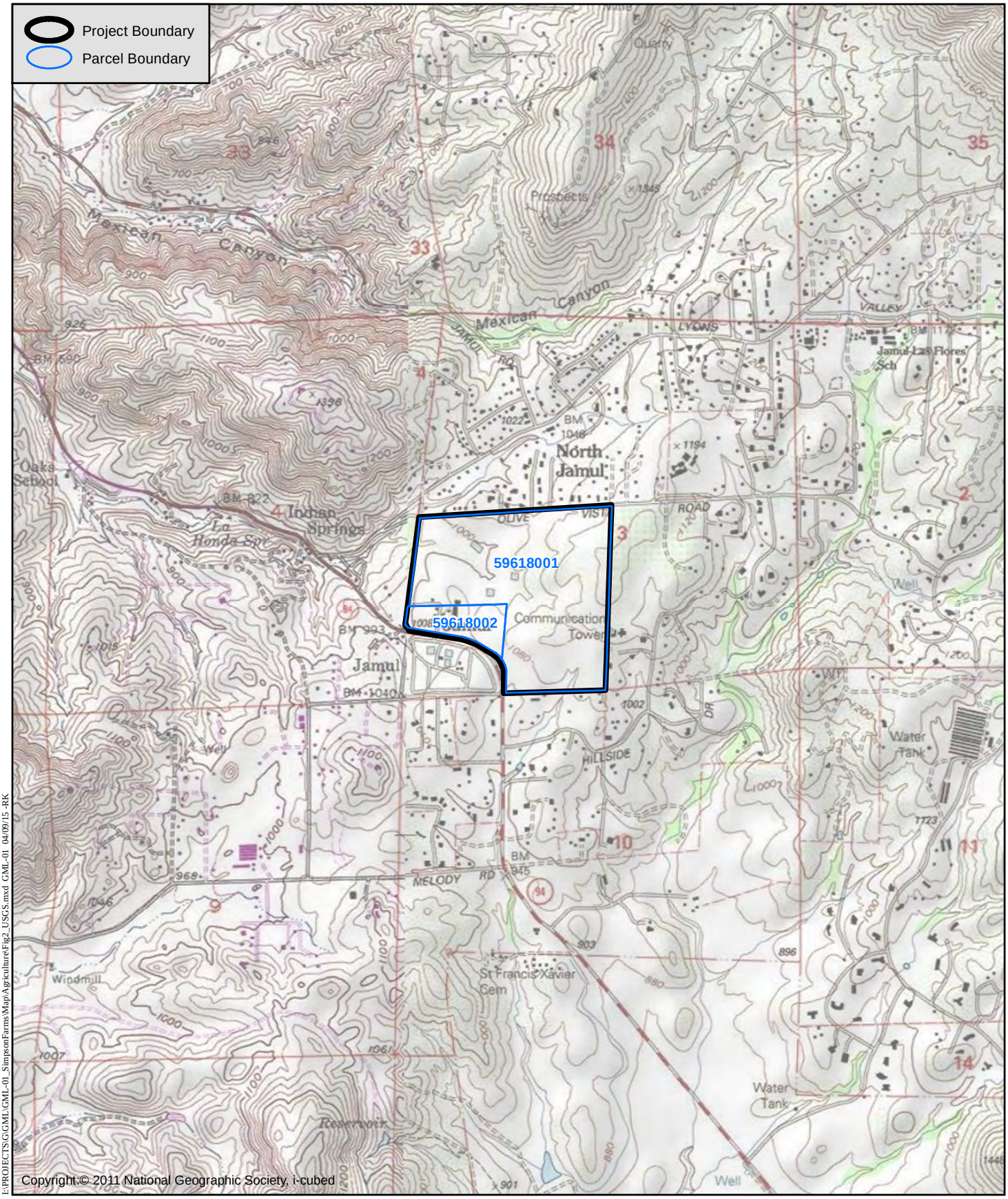
N 0 8 Miles

Figure 1



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Project Location Map

SIMPSON FARMS

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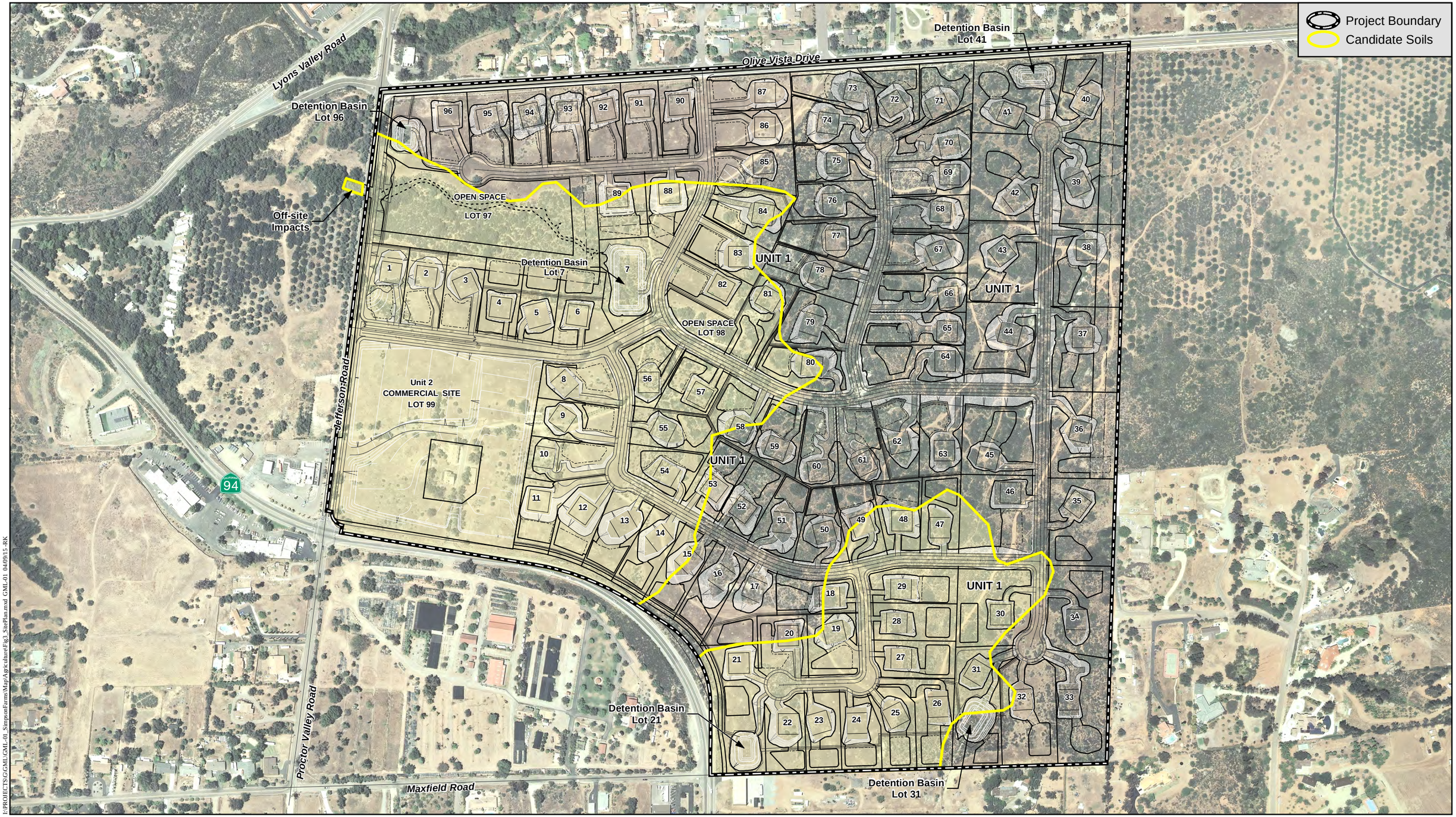
Figure 2



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Site Plan

SIMPSON FARMS

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Figure 3

Open Space

The proposed site plan includes two designated open space lots (Lot Nos. 97 and 98), with a combined area of approximately 7.17 acres. Both of these lots are associated with sensitive habitats, drainage courses and/or floodplain limits, with no proposed development and Project-related activities limited to fuel (i.e., brush) management in association with adjacent residential lots in applicable areas.

Off-site Facilities

Proposed off-site activities include the modifications along Jefferson Road as previously described, utility connections within existing ROW boundaries along Jefferson Road and Olive Vista Drive, and drainage improvements west of Lot No. 97 and Jefferson Road (including a pipeline extension and associated headwall and riprap energy dissipation structures, refer to Figure 3). Because the off-site portions of the proposed roadway improvements and related utility connections would be confined to previously developed or disturbed areas within current ROW limits, they would not directly affect off-site properties or associated agricultural resources. The off-site drainage improvements west of Lot 97/Jefferson Road are outside of the associated ROW, however, and related potential impacts are assessed below in Section 2.3.2.

1.3 Analysis Methods

Methods used in the analysis of agricultural resources and potential Project-related effects involved a variety of data sources and evaluation techniques as summarized below. These data sources and methods were chosen based on direction in the County Agricultural Guidelines (2007), as well as coordination with County planning and technical staff.

- Review/use of the following information sources: (1) current and historical aerial photographs dated 2012, 2002, 1989, 1981, 1971, 1968, 1953, and 1928 (HELIX 2015, HistoricAerials.com 2014a and 2014b, and Google Earth 2012, refer to Appendix C); (2) U.S. Geological Survey topographic quadrangle maps; (3) pesticide use records for the site and adjacent parcels from the San Diego County Department of Agriculture, Weights and Measures (AWM; County 2014a); (4) California Department of Conservation (CDC) Farmland Mapping and Monitoring Program (FMMP) data bases (including Important Farmland Maps, CDC 2007a, 2004); (5) Williamson Act Contract records; (6) local planning documents (including the San Diego County General Plan [2011a], San Diego County Zoning Ordinance, and Jamul/Dulzura Subregional Plan [2011b]); (7) climatic data bases (e.g., the Generalized Western Plantclimate, or "Sunset" Zones); (8) soil data bases (e.g., the U.S. Natural Resources Conservation Service [NRCS] Soil Series Data for San Diego County, 2007); (9) the CDC *FMMP Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance, San Diego County* (CDC 2010); and (10) three reports prepared for a previously proposed development on the Project site, including a Cultural Resources Inventory (KEA Environmental, Inc. [KEA] 2001), an Agricultural Analysis (RECON Environmental, Inc. [RECON] 2006), and a Phase I/II Environmental Site Assessment (ESA, Rincon Consultants, Inc. [Rincon] 2005).

- Reconnaissance of agricultural and other land uses within the Project site and the identified Project Zone of Influence (ZOI, as outlined in Section 1.4.3) by vehicle and on foot, on February 18, 2014.

- Completion and interpretation of a Project-specific Local Agricultural Resource Assessment (LARA) Model, pursuant to the County Agricultural Guidelines (2007), to identify and evaluate direct on-site Project impacts. Specifically, the LARA Model involves the consideration of water, climate and soil quality factors (required factors), as well as surrounding land uses, land use consistency and topography (complementary factors), to determine if the Project site is an "important agricultural resource," as defined in the referenced Guidelines, and provides criteria for identifying and assessing associated impacts.

- Assessment of potential direct off-site agricultural impacts related to proposed drainage facilities.

- Evaluation of potential indirect effects in relation to potential conflicts with surrounding agricultural uses identified within the Project ZOI, including the conversion of farmland operations or designations (e.g., Williamson Act Contract lands) to non-agricultural use, that may result from project-related "changes in the environment." Specifically, such changes may encompass physical effects from the proposed development (e.g., air or water contamination), restrictions on agricultural uses such as chemical pesticide/herbicide applications in surrounding areas due to the development of sensitive uses within the Project site, and the resultant development pressures to convert existing off-site farmlands to non-agricultural uses.

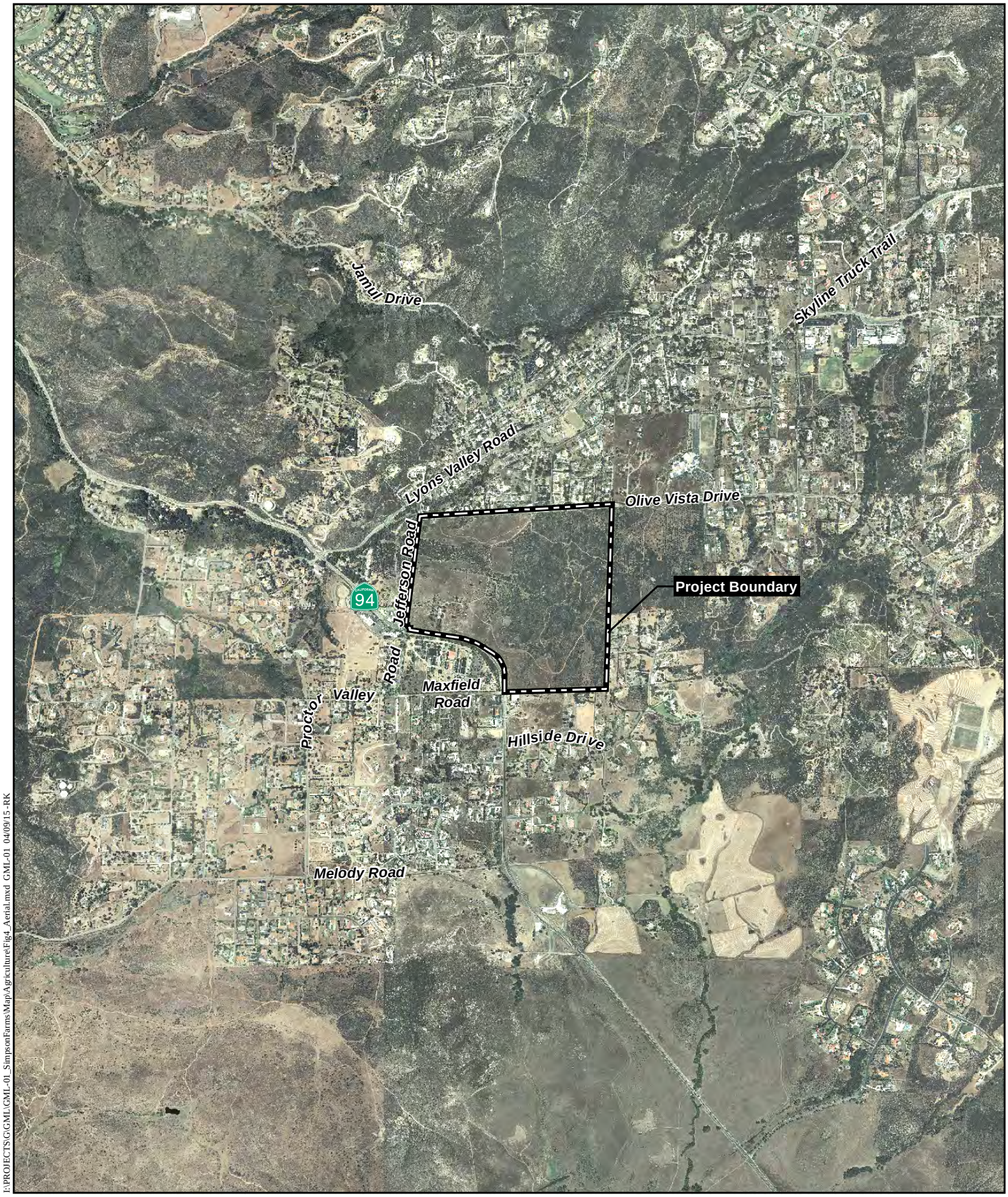
- Assessment of potential cumulative impacts based on Project consistency with the County General Plan (2011a) and related land use and zoning designations.

- Identification of Project design considerations and mitigation measures that would avoid or minimize significant adverse effects from implementation of the Proposed Project.

1.4 Environmental Setting (Existing Conditions)

1.4.1 Regional Context

The Project site is located adjacent to SR-94 and approximately six miles south of I-8 in a semi-rural area encompassing a mix of generally low- to medium-density urban development, relatively minor agricultural uses, and open space (Figure 4). Local urban development includes low- to medium-density residential uses along portions of the northern, eastern and southern site boundaries; and commercial development adjacent to the southwestern site corner and a portion of the southern property boundary. Nearby agricultural uses include olive orchards along portions of the eastern and western site boundaries, and a former commercial nursery operation (Simpson's Garden Town Nursery) located along the southwestern site boundary (with additional description provided below). Open space adjacent to the site is limited to minor areas along the east-central site boundary and the northwestern property corner, with more extensive open space present in areas further from the site in all directions. Additional nearby land uses include



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Project Location and Surrounding Region

SIMPSON FARMS

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N 0 2,000 Feet

Figure 4

low- to medium-density residential development with supporting commercial and institutional uses (e.g., schools) in all directions; minor agricultural (primarily mixed orchard) uses in all directions, with these areas typically associated with estate residential properties; larger agricultural uses to the east and southeast, including apparent citrus/avocado orchards, vineyards and seasonal dry farming (refer to Figure 5); variably sized disturbed areas that may have been used previously for seasonal dry farming to the northeast, southeast, south and west; and extensive undeveloped open space in all directions as previously noted.

The principal local agricultural sites pertinent to this report include the described olive orchards near the eastern and western Project site boundaries (with these areas totaling approximately 39.5 acres, refer to Figure 5). Specifically, there are two areas of olive orchards to the west, encompassing approximately 7.16 acres and 0.9 acre (8.06 acres total), with these areas assumed not to be active, based on the following observations; (1) the presence of extensive understory development, including grasses and established native shrubs; (2) the lack of observable equipment and infrastructure (with the site fenced and not directly accessible); (3) the non-maintained condition of several observable internal access roads, including eroded/rutted areas; and (4) the presence of "For Sale" signs posted on the property perimeter fencing. The olive grove near the eastern site boundary includes approximately 31.43 acres and exhibits a more maintained appearance, with a groomed understory surface lacking significant vegetation, and is assumed to be active for purposes of this report. The former nursery site to the southwest included a mix of container stock, in-ground plantings and associated structures/facilities on approximately 23 acres, with this operation closed in November 2011 and reportedly used currently for charitable fund raising events such as car shows and an annual chili cook-off (U-T San Diego 2011). Additional discussion of off-site agricultural resources in the vicinity of the Project site is provided below in Section 1.4.3.

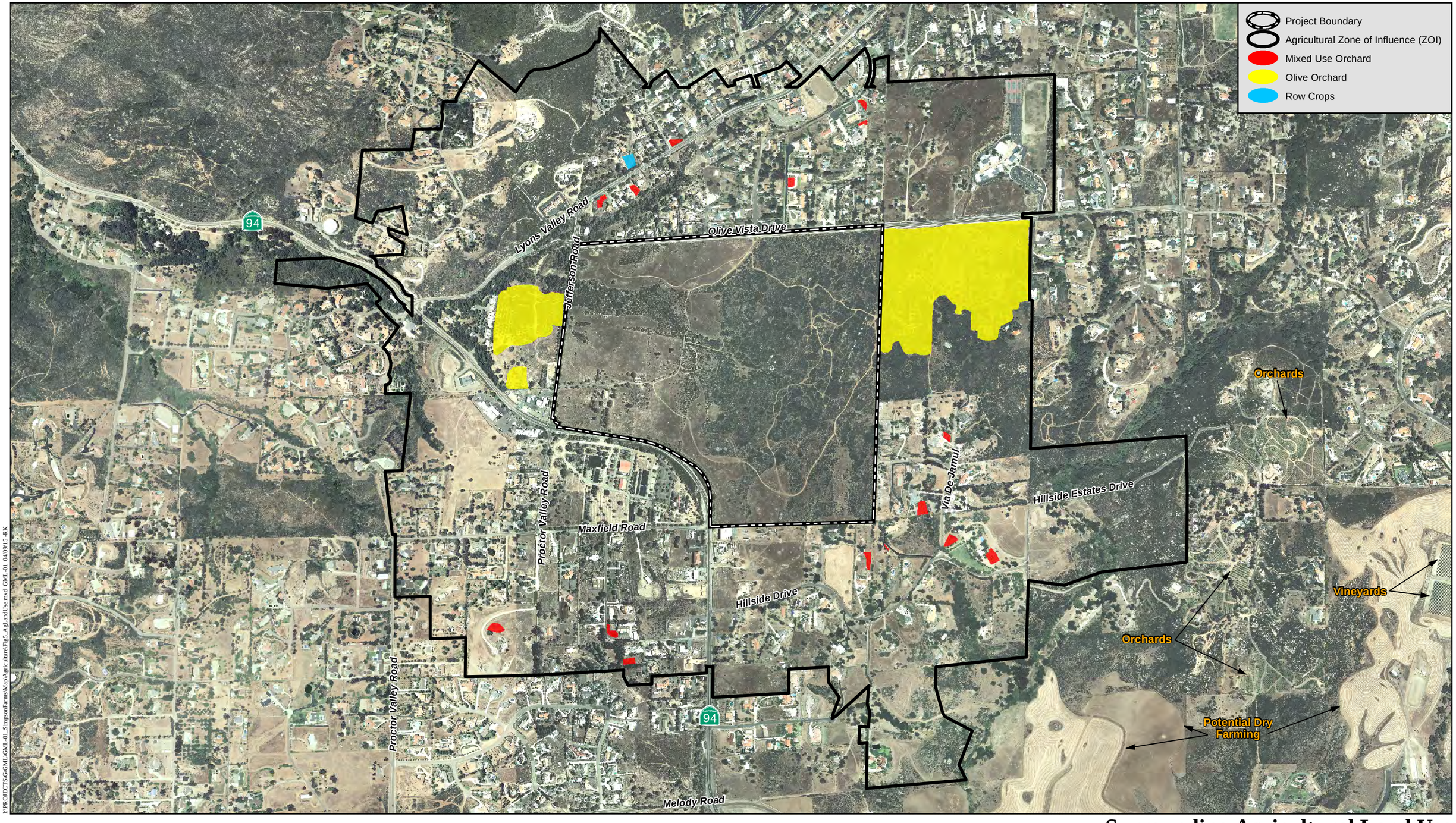
Local elevations in the Project site vicinity range from approximately 800 feet above mean sea level (AMSL) along portions of low-lying drainages to the southeast, to 1,400 feet AMSL on an unnamed peak approximately 0.5 mile northwest of the site (refer to Figure 2). The Project site region is characterized by a Mediterranean climate, with moderate year-round temperatures and relatively low precipitation levels, most of which falls during the winter months. Municipal water service is available in much of the described area (particularly the more developed portions), including the Project site which is within the San Diego County Water Authority (SDCWA) and Otay Water District (OWD) service areas. A number of existing OWD facilities are present in the immediate site vicinity, including a 14-inch water line located within Jefferson Road along the western site boundary, and a 10-inch water line within Olive Vista Drive along the northern site boundary. The more rural outlying areas within the Project vicinity likely utilize groundwater in lieu of (or to supplement) municipal service. While groundwater is not known to have been used previously (or currently) on the site (with no known production wells present), two groundwater monitoring wells are located in the northwestern and south-central portions of the site.

Soils in the Project site vicinity are characterized by generally well- to excessively drained, fine- to coarse-grained sandy loams with clayey subsoils in the valleys and drainages, and coarse-grained sandy to rocky loams in the upland areas. On-site soils consist primarily of well-drained sandy loams, with additional description provided below in Section 1.4.2.

As referenced above in Section 1.3, the FMMP produces Important Farmland maps and statistical data used for categorizing agricultural lands and analyzing related impacts (CDC 2007a, 2004). Agricultural lands are rated according to soil quality and irrigation status, with Important Farmland maps scheduled for update every two years based on aerial photograph review, computer mapping analysis, public input, and field reconnaissance. There are eight land use categories identified on the Important Farmland maps, including Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Grazing Land, Urban and Built-up Land, Other Land, and Water (with all designations defined below in Section 1.4.2 except Water, which includes perennial water bodies with a minimum surface area of 40 acres). The locations of mapped Important Farmland designations within the Project site and associated ZOI are shown on Figure 6 (refer also to Section 1.4.3). As seen from this figure, the Project site vicinity includes large contiguous areas of Other Land in developed and open space areas; smaller blocks of Urban and Built-up Land in denser urban development; small areas of Farmland of Statewide Importance and/or Unique Farmland to the east, west and south of the Project site; and relatively large areas of Farmland of Local Importance and Grazing Land within the site and areas to the east and west. The Prime Farmland and Water designations are not mapped within the Project site or associated ZOI. Additional discussion of FMMP Important Farmland designations within the Project site and ZOI is provided below in Sections 1.4.2 and 1.4.3.

The majority of the Project site vicinity is privately owned, with surrounding public lands consisting primarily of a number of local parks and schools, a fire station, a County open space preserve, County designated Resource Conservation Areas (RCAs), and portions of the Cleveland National Forest. Specifically, local public lands in the Project vicinity include: (1) the Indian Springs RCA, located just northwest of the Project site at its closest point (with this area associated primarily with riparian and oak woodland habitats along portions of the SR-94 corridor); (2) Steele Canyon County Park, an 8.3-acre neighborhood park located approximately 2.4 miles northwest of the Project site; (3) Jamacha Elementary School, approximately 2.4 miles to the northwest (located just north of Steele Canyon County Park); (4) Steele Canyon High School, approximately 2.75 miles to the west-northwest; (5) the McGinty Mountain - Sequan Creek - Japatul Road - Loveland Drainage - Loveland Reservoir RCA, located approximately 0.5 mile north of the site at its closest point; (6) Oak Grove Middle School, approximately 0.15 mile to the east-northeast; (7) the Jamul Primary and Intermediate schools, and the Jamul-Dulzura Union School District office, all located on the same property approximately 0.7 mile northeast of the Project site at its closest point; (8) San Diego Rural Fire District Station No. 36, approximately 0.6 mile south of the site; (9) the Otay County Open Space Preserve located approximately 4.3 miles south of the site at its closest point; and (10) portions of the Cleveland National Forest located approximately 5.8 miles to the north and 7.2 miles to the east. None of the described public lands are located within the Project site, with only a portion of the Indian Springs RCA and Oak Grove Middle School located within the associated ZOI.

No Williamson Act contract lands or agricultural preserves are located within the Project site or associated ZOI, with additional discussion of such designations in more distant areas provided below in Section 1.4.3.



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Surrounding Agricultural Land Use

SIMPSON FARMS

HELIX Environmental Planning

N 0 850 Feet

Figure 5

Project Boundary

Agricultural Zone of Influence (ZOI)

Farmland

- Farmland of Statewide Importance
- Farmland of Local Importance
- Unique Farmland
- Grazing Land
- Other Land
- Urban and Built-up Land

Note: Approximately 1.47 acres of Urban and Built-up Land are present along portions of the northern and southwestern Project site boundaries, while approximately 1.49 acres of Other Land occur along the southeastern boundary.

Lyons Valley Road
Olive Vista Drive
Jefferson Road
Proctor Valley Road
Maxfield Road
Hillside Estates Drive
Hillside Drive
Pioneer Way
Proctor Valley Road
Melody Road
94

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FMMP Important Farmland Map

SIMPSON FARMS

HELIX Environmental Planning

0 850 Feet

Figure 6

1.4.2 Description of On-site Conditions and Agricultural Resources

On-site topography is characterized by relatively level to rolling terrain, with an overall east to west grade. On-site elevations range from approximately 960 feet AMSL near the northwestern site corner, to 1,160 feet AMSL along portions of the eastern property boundary. Surface drainage from most of the Project site flows primarily to the west and northwest, with some variability in direction due to local topography. The principal on-site drainage course flows primarily southeast to northwest, and exits the site near the northwestern property corner (refer to Figure 2). Associated off-site flows continue generally west for approximately 3.8 miles to the Sweetwater River, which drains generally south for approximately three miles to the Sweetwater Reservoir, and then continues generally southwest to San Diego Bay. The site is not currently used for commercial agriculture, although as described below in this section under History of Agricultural Use, agricultural operations on the Project site were initially conducted in the early part of the 20th Century and continued at variable levels until approximately 1999.

The determination of on-site agricultural resources was based on the following efforts/data sources: (1) a site visit conducted on February 18, 2014; (2) review of current/historic aerial photographs dated 2012, 2005, 1989, 1981, 1971, 1968, 1953, and 1928; (3) review of the Project Biotechnical Report (HELIX 2014a); (4) review of the previously referenced Agricultural Analysis, Cultural Resource Inventory and Phase I/II ESA conducted for a prior development proposal at the Project site; and (5) review of FMMP Important Farmland maps, and Prime Farmland/Farmland of Statewide Importance candidate soils.

For purposes of this analysis, and pursuant to Attachment A of the County Agricultural Guidelines (2007), agricultural resources are generally defined to encompass areas that are available and viable for agricultural use, and specifically include: (1) active agricultural operations; (2) areas designated as, and meeting the associated definition of, FMMP Prime Farmland, Farmland of Statewide Importance, Unique Farmland or Farmland of Local Importance (as defined below in this section); and (3) areas with a history of agricultural production based on data sources such as aerial photographs. Identified agricultural resources within the Project site encompass a total of approximately 89.3 acres, including areas used historically for agricultural operations (dry farming and nurseries, refer to Section 1.4.1), as well as areas of FMMP-designated Farmland of Local Importance (Figure 7). Portions of the site not identified as agricultural resources include: (1) areas that do not encompass active agricultural use or applicable FMMP designations as noted above (and with no history of agricultural use); (2) developed and unavailable areas such as roads and structures; and (3) eucalyptus woodland habitat (Figure 7). The exclusion of these areas from on-site agricultural resources is due to the fact that they have likely not been previously used for agriculture, and/or their assumed unavailability for future agricultural use based on the following considerations:

- The underlying soil quality in developed areas has likely been compromised through grading, compaction and/or fill placement (per the discussion in Section 3.1.3 of the County Guidelines, refer to Footnote 9).

- Removal of eucalyptus woodland to accommodate commercial agriculture would likely be prohibitively expensive, due to requirements including tree and stump/root system removal. Specifically, costs for a recent (2012) eucalyptus removal effort on a property

in northern San Diego County ranged between approximately $50,000 to $75,000 per acre (including tree/stump/root system removal and disposal), based on site-specific conditions such as access and equipment requirements (HELIX 2014b). While the referenced effort entailed more extensive tree removal and more difficult access conditions than the Proposed Project site, even costs at or below the low end of the listed range would represent a substantial economic burden to implementing agricultural operations in areas of eucalyptus woodland habitat on the Project site.

On-site soils, Important Farmlands, agricultural history, climate and water resources associated with the Project site (and the identified 89.3 acres of on-site agricultural resources) are described below, along with Williamson Act contract/agricultural preserves.

Soils

Soils within the Project site and vicinity have been mapped by the NRCS (2007, 1973). As shown on Figure 8 and Table 1, the Project site includes four distinct soil series and eight individual soil types. The SCS soil classification system also includes assessments of Land Capability Classification and Storie Index ratings, with summary definitions provided below and on-site soil ratings included in Table 1. Three of the identified soil types within the Project site are identified as meeting the criteria for CDC *FMMP Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance* (CDC 2010), as depicted in Table 1. While the entire site has been mapped for topsoils as shown on Figure 8, approximately 7.98 acres have been developed for uses such as structures and roads, with the underlying soils likely altered or lost due to grading, compaction, and/or placement of fill.

Storie Index

The Storie Index designation "[e]xpresses numerically the relative degree of suitability, or value, of a soil for general intensive agriculture. The rating is based on soil characteristics only. It does not take into account other factors such as the availability of water for irrigation, climate, and distance from markets, which might determine the desirability of growing specific crops in a given locality" (NRCS 1973). The four factors that represent the inherent characteristics and qualities of the soil (profile characteristics, texture of surface soil, slope, and other conditions that limit use of the soil) are considered in the index rating. The final rating can fall between 100 (excellent) and less than 10 (very poor), with Storie Index ratings for soils within the Project site shown in Table 1. The noted ratings of 10 to 51 represent Grade 3 through Grade 5 soils, with the following applicable characterizations provided from the Soil Survey (NRCS 1973): (1) Grade 3 soils (94.92 acres onsite) are suitable for a few, or special crops, with management; (2) Grade 4 soils (64.21 acres onsite) are severely limited for all crops and require special management; and (3) Grade 5 soils (2.86 acres onsite) are not suited for cultivated crops but may be used for pasture or range.

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Agricultural Resources Map

SIMPSON FARMS

HELIX Environmental Planning

N 0 350 Feet

Figure 7

Project Boundary

Prime/Statewide Candidate Soils

Soil Type

- Cieneba coarse sandy loam, 15 to 30 percent slopes, eroded
- Cieneba rocky coarse sandy loam, 9 to 30 percent slopes, eroded
- Fallbrook rocky sandy loam, 9 to 30 percent slopes, eroded
- Fallbrook sandy loam, 15 to 30 percent slopes, eroded
- Fallbrook sandy loam, 5 to 9 percent slopes, eroded
- Fallbrook sandy loam, 9 to 15 percent slopes, eroded
- Placentia sandy loam, 5 to 9 percent slopes, eroded
- Ramona sandy loam, 5 to 9 percent slopes, eroded

Within Off-site Impact Area

Lyons Valley Road

Olive Vista Drive

Jefferson Road

94

Proctor Valley Road

Maxfield Road

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NRCS Soils Map

SIMPSON FARMS

Figure 8

HELIX Environmental Planning

N 0 350 Feet

Land Capability Classification

The Land Capability Classification concept is defined as follows in the *San Diego Area Soil Survey* (NRCS 1973):

> Capability groupings show, in a general way, the suitability of soils for most kinds of field crops. The groups are made according to the limitations of the soils when used for field crops, the risk of damage when they are used, and the way they respond to treatment. The grouping does not take into account major and generally expensive landforming that would change slope, depth, or other characteristics of the soils; does not take into consideration possible but unlikely major reclamation projects; and does not apply to rice, cranberries, horticultural crops, or other crops requiring special management. In the capability system, all kinds of soils are grouped at three levels: the capability class (Roman numeral designation), the subclass (letter designation), and the unit (Arabic numeral designation).

Soils are divided into Classes I through VIII, with these designations representing a range in quality from Class I soils that have few limitations for agricultural use, to Class VIII soils that have no commercial crop production capability. Capability Classes are further divided into subclasses and capability units to define limitations for agricultural use. Subclasses indicate soil limitations based on erodibility (e), water regime (w), depth and/or texture (s), and climate area (c). Capability units further reveal the main limitation for the placement of a soil into the given class and subclass. Numerals used to designate units within the classes and subclasses include: (0) sand and gravel in the substratum; (1) erosion hazard; (2) wetness caused by poor drainage or flooding; (3) slow or very slow permeability; (4) coarse texture or excessive gravel; (5) fine or very fine textured soil; (6) salts or alkali; (7) cobblestones, stones or rocks; (8) nearly impervious bedrock or hardpan; and (9) toxicity or low fertility. Capability classifications within the Project site are shown in Table 1, with the associated ratings indicating soils with severe to very severe limitations based on the noted criteria (NRCS 1973).

FMMP Important Farmland Designations

The CDC Division of Land Resource Protection, FMMP, produces Important Farmland maps and statistical data as described in Section 1.4.1. Four of the previously listed eight Important Farmland designations are located within the Project site, including Farmland of Local Importance, Grazing Land, Urban and Built-up Land, and Other Land. These designations, are summarized below, and are shown on Figure 6 and Table 2 (along with mapped FMMP Important Farmlands in the Project site ZOI, refer to Section 1.4.3). Additionally, although not present on the Project site, the definitions of Prime Farmland, Farmland of Statewide Importance and Unique Farmland are also provided below.

Table 1
ON-SITE SOILS, LAND CAPABILITY UNITS, STORIE INDEX RATINGS, CROP SUITABILITY AND CANDIDATE SOIL STATUS

Soil Symbol[1]	Capability Unit	Storie Index Rating/Grade	Acreage On Site	Crop Suitability	Prime/Statewide Candidate Soil?
ClE2	VIe-1	15/5	2.84	Fair for avocados	No
CmE2	VIIs-8	10/5	0.02	N/A	No
FeE2	VIe-7	27/4	41.62	Fair for avocados and citrus	No
FaE2	VIe-1	35/4	22.59	Fair for avocados and citrus	No
FaC2	IIIe-1	51/3	30.75	Good for flowers, fair for avocados, citrus, truck crops and tomatoes	Yes
FaD2	IVe-1	48/3	20.62	Fair for avocados, citrus, tomatoes and flowers	No
PeC2	IVe-3	44/3	1.43	Good for flowers, fair for tomatoes	Yes
RaC2[2]	IIIe-1	51/3	42.12	Good for flowers, fair for citrus, truck crops and tomatoes	Yes
		TOTAL	**161.99[3]**	--	

Source: NRCS (2007, 1973)

[1] Refer to Figure 8 for soil locations and Appendix B for soil names.

[2] An additional approximately 0.1 acre of this soil type is located within the off-site drainage improvement area located west of Lot No. 97 and Jefferson Road, refer to Figures 3 and 8.

[3] Total may vary slightly from those in other portions of this report due to rounding.

N/A = No listing in the referenced Soil Survey.

Important Farmland Designations Within the Project Site

Farmland of Local Importance

Farmland of Local Importance includes areas other than Prime Farmland, Farmland of Statewide Importance or Unique Farmland that are either currently producing crops, have the capability of such production, or are used for the production of confined livestock. Farmland of Local Importance may be important to local economies due to its productivity or value, and is defined by each county's local advisory committee and adopted by its Board of Supervisors. For San Diego County, the definition of Farmland of Local Importance is given by the CDC (2007b) as:

> 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 suited for truck crops (such as tomatoes, strawberries, cucumbers, potatoes, celery, squash,

romaine lettuce, and cauliflower) and soils suited for orchard crops (avocados and citrus).

Approximately 77.71 acres of Farmland of Local Importance are mapped in the western, southern and northeastern portions of the Project site, with no current associated on-site agricultural uses.

Grazing Land

Grazing Land does not include areas designated as any other Important Farmland categories or lands with restrictions to livestock movements (e.g., steep slopes), and is defined to include areas "[o]n which the existing vegetation, whether grown naturally or through management, is suitable for grazing or browsing of livestock" (CDC 2007a). The minimum mapping unit for Grazing Land is 40 acres. Approximately 81.29 acres of Grazing Land are mapped on-site, including portions of the northern, eastern and central property, with no related current agricultural uses.

Urban and Built-up Land

Urban and Built-up Land includes areas used for residential, industrial, commercial, institutional, and other developed purposes. Transportation facilities (e.g., highways and railroads) and vacant (non-agricultural) areas surrounded by urban development and less than 40 acres in size are mapped as part of associated Urban and Built-up Land, while uses such as farmsteads, commercial feedlots, and poultry facilities are not included within this designation. Approximately 1.47 acres of this designation is located along portions of the northern and southwestern Project site boundaries.

Other Land

Areas not included in any other Important Farmland mapping category are designated as Other Land. Common examples include low density rural developments; brush, timber, wetland and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; vacant and non-agricultural areas larger than 40 acres and surrounded by urban development; and strip mines, borrow pits and water bodies smaller than 40 acres. Approximately 1.49 acres of Other Land are mapped along portions of the southeastern property boundary.

Important Farmland Designation Not Present Within the Project Site

Prime Farmland

Prime Farmland includes areas that have the best combination of physical and chemical characteristics for the production of crops, including (but not limited to) moisture regime, soil temperature, pH, groundwater depth, sodium content, flooding, erodibility, permeability, rock fragment content and rooting depth. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods. Prime Farmland must have been used for the production of irrigated crops at some time during the two update cycles (4 years) prior to the mapping date.

Farmland of Statewide Importance

Farmland of Statewide Importance includes areas other than Prime Farmland that have a good combination of physical and chemical characteristics for the production of crops (including all characteristics listed for P rime Farmland except permeability and rooting depth). It must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date.

Unique Farmland

Unique Farmland includes areas that do not meet the criteria for Prime Farmland or Farmland of Statewide Importance, but that have been used for the production of specific high economic value crops during the two update cycles prior to the mapping date. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high quality and/or high yields of a specific crop when treated and managed according to current farming methods. Examples of such crops may include oranges, olives, avocados, rice, grapes, and cut flowers.

Table 2
FMMP IMPORTANT FARMLAND DESIGNATIONS
WITHIN THE PROJECT SITE AND ZOI
(ACRES)[1]

Important Farmland Designations	Project Site	ZOI
Prime Farmland	0	0
Farmland of Statewide Importance	0	3.93
Unique Farmland	0	41.21
Farmland of Local Importance	77.71	34.19
Grazing Land	81.29	113.38
Urban and Built-up Land[2]	1.47	229.31
Other Land[2]	1.49	262.34
TOTAL	**161.96[3]**	**684.36[3]**

[1] See Figure 6 for mapped locations.
[2] Urban and Built-up land is present along portions of the northern and southwestern Project site boundaries, while Other Land occurs along the southeastern property boundary.
[3] Totals may vary slightly from those in other portions of this report due to rounding.

History of Agricultural Use

Available historic information from a previous Cultural Resources Inventory (KEA 2001) indicates that the Project site was included in a homestead in the late 1800s, with a house built on-site by 1891 and unspecified "crops" and horse ranching beginning sometime thereafter. Historic use of the site for agriculture is evaluated below in the discussion of historic aerial photographs, including photos obtained from the current Project cultural resources study (HELIX 2015) and online sources (HistoricAerials.com 2014a and 2014b). The noted photos evaluated

below are dated 1928, 1953, 1968, 1971, 1981, 1989, and 2005, as well as a current (2012) photo (with the 2012 photo provided as Figure 4, and the remaining photos included in Appendix C).

- 1928 Photograph – The 1928 photo encompasses the Project site and adjacent properties. This photo depicts extensive cleared areas in the western and southern portions of the site, smaller cleared areas in the northeast and east-central site, and related residential and other structures in essentially the same location (although not as extensive) as the current structures (i.e., the southwestern portion of the site, refer to Figure 4). The cleared areas on-site are similar in appearance (albeit more extensive) to cleared areas in more recent photos known to be used for on-site seasonal dry farming of oat hay (as outlined below), and are assumed to be of similar use. A number of unpaved roads are also present on-site, primarily in association with the noted structures and cleared areas in the central and northeastern portions of the site. Similar cleared areas are also present on adjacent or nearby properties in all directions, and are assumed to be associated with seasonal dry farming. In addition, orchards and related residential uses are present in areas to the east and west (similar to current orchards as previously described); as well as nearby areas to the southeast, south and southwest. While the nature of these orchards cannot be ascertained with certainty, they are assumed to consist primarily of olives, citrus and/or avocados based on current conditions. From the described information, the noted cleared areas within the Project site are assumed to have been in agricultural production by at least 1928.

- 1953 Photograph – The 1953 photo includes the Project site and adjacent areas in all directions. This photo depicts similar on-site uses as noted above for 1928, although the extent of agricultural activity is less. Specifically, the cleared areas (as described for the 1928 photo) are limited primarily to the southwestern portion of the site, with previously cleared areas in other on-site locations apparently encompassing disturbed (i.e., recovering) native habitat. The on-site structures appear essentially unchanged from 1928, although several additional unpaved roads are present in various portions of the site. Off-site cleared areas are generally the same as those described for the 1928 photo in corresponding areas, although off-site coverage is slightly more limited in the 1953 photo. Similarly, visible orchards in areas to the east, west and southwest are similar to 1928, but are smaller or absent in areas to the southeast and south.

- 1968 Photograph – The 1968 photo includes similar on- and off-site coverage as noted for the 1953 photo. On-site conditions in 1968 were generally similar to those described in 1953, although additional cleared areas are present in the northern and southern portions of the site (including areas identified as recovering native habitat in 1953). Additional structures are also present at the previously described building complex in the southwestern site area, along with an apparent fenced pasture, and a number of additional unpaved roads are present throughout much of the site. Off-site cleared areas are generally the same as noted for 1953, with additional residential development to the north and south, and off-site orchards to the east and southwest supporting fewer trees.

- 1971 Photograph – The 1971 photo includes similar on- and off-site coverage as noted for the 1953 and 1968 photos. Conditions are generally similar as described for 1968 in the western and southern portions of the site, although more extensive clearing is present

in the eastern area. Because much of the additional cleared area in the eastern and northeastern portions of the site includes relatively steep topography and numerous rock outcrops (with access roads generally lacking in these locations), it is considered likely that agricultural use in these areas, if present, was limited to grazing rather than cultivated crops. Additional structures and an apparent paved access road are present in the southwestern building complex, along with a small orchard. Off-site cleared areas are less extensive than described for previous photos, with other off-site conditions generally similar to those described for 1968.

- 1981 Photograph – The 1981 photo includes similar on- and off-site coverage as noted for the 1953 through 1971 photos. On-site conditions are substantially different than those described in previous photos, with agricultural activities limited generally to the western half of the site, and the eastern areas encompassing primarily disturbed (recovering) native habitat. Agricultural activities within the western half of the site are also substantially different from previous photos, with two relatively large nursery sites located in the southwestern and west-central portions of the site. These areas apparently included both in-ground and container plantings, and may have been associated with the nearby Simpson's Garden Town Nursery, which is present in 1981 for the first time. Portions of the previously cleared areas in the northwestern site (along Olive Vista Drive) are also apparently reverting back to native habitat, although the presence of established vegetation is not as apparent in these locations. Off-site conditions are also different from previous photos in a number of locations, including the noted presence of the Simpson's Garden Town Nursery and additional urban development in all directions (with some minor orchards associated with residential properties). The off-site orchards to the east and west are similar to previous photos, although additional previously described orchards in other off-site locations are no longer present.

- 1989 Photograph – The 1989 photo includes similar on- and off-site coverage as noted for the 1953 through 1981 photos. On-site conditions are generally similar to those described for 1981, although the on-site nursery facilities are more extensive, and cleared areas potentially used for seasonal dry farming are limited to two relative small parcels in the northwestern portion of the site. Much of the eastern and southeastern portions of the site encompassed primarily disturbed (recovering) native habitat in 1989, along with a few additional unpaved roads. Off-site conditions are generally similar to those described above for the 1981 photo, with additional residential development to the north and southeast, commercial development to the west, and the nearby orchard to the east encompassing additional trees (similar to current conditions).

- 2002 Photograph – The 2002 photo includes similar coverage as noted above for 1953 to 1989 photos. On-site conditions are substantially different than those described for 1989, and are generally the same as the current (2012) photo (Figure 4). Specifically, the previously noted on-site nursery development is absent, cleared areas in the western and southern portions of the site are similar in extent to current conditions and support non-native grassland (with portions of these areas continuing to transition back to native habitat), and much of the western site area supports native habitat (again, similar to current conditions). Based on an Agricultural Analysis prepared for a previous development plan on the Project site, the most recent agricultural use of the site was dry

farmed oat hay cultivation in 1999 (RECON 2006). Off-site uses in 2002 were essentially the same as described for current conditions, with the exception of the Simpson's Garden Town Nursery, which was still operational in 2002.

- 2012 Photograph – The 2012 photo included as Figure 4 displays current conditions in the site and applicable off-site areas. Specifically, no on-site agricultural uses are present, with portions of the previously cleared areas used in the past for dry farmed oat hay and/or nursery operations supporting non-native grassland with variable levels of recovering native habitat.

Pursuant to the above information, the apparent lack of on-site agricultural use over approximately the last 15 years, pesticide and metals testing conducted for on-site soils in 2005 (Rincon 2005), and information received from the County AWM, the potential for pesticide residues to be present within the site is considered low. Specifically, soil sampling/testing for pesticides and metals was conducted in May 2005 as part of a Phase II ESA completed for a previous development plan on the Project site. The noted testing included soil samples from 12 on-site borings at depths of between 0.5 and 2 feet, with these sample sites located in areas "…historically used for agriculture…" in the northern, western and southern portions of the property. The results of this testing indicated that while pesticides and metals were detected in a number of on-site samples, all observed levels were below the associated "…thresholds established by the United States Environmental Protection Agency…and State of California Department of Toxic Substances Control…" and the report concludes that "…no further assessment is recommended." (Rincon 2005). Regarding AWM data, agricultural-related pesticide use records for the Project site and the nearby agricultural (olive grove) properties to the east and west indicate that no recorded pesticide use and/or storage occurred in these areas during the period of 2009 to 2013 (County of San Diego 2014a).

Climate

As noted in Section 1.4.1, the Project site region is characterized by a Mediterranean climate, with moderate year-round temperatures and relatively low precipitation levels, most of which falls during the winter months. Average annual precipitation at the nearest reporting station (Jamul, CA 91935) is approximately 12.78 inches, with the highest average rainfall totals occurring in January (2.40 inches), February (2.51 inches), and March (2.41 inches). The driest months are June, July, and August, with average rainfall totals of 0.08, 0.04, and 0.03 inches, respectively (Weather.com 2014). July, August, and September are the warmest average months in the Project site area, with average daily highs of 84ºF for July, 86ºF for August and 85ºF for September. Corresponding average lows are 63º F for July and September, and 65ºF for August. December, January and February represent the coldest months, with average high temperatures of 69ºF for December and February, and 70ºF for January. Corresponding average lows for December through February are 46º, 47º and 48ºF, respectively. Temperature extremes are relatively uncommon in the Project vicinity, with a record high temperature of 109ºF recorded in 1988, and a record low of 26ºF in 1949 (Weather.com 2014).

The County is divided into a series of "plant climates," which are defined as areas "[i]n which specific plants, groups or associations are evident and will grow satisfactorily, assuming water and soil are favorable." (Gilbert 1970). Plant climates in San Diego County occur as a series of

five generally north-south trending linear zones, including the Maritime, Coastal, Transitional, Interior and Desert zones. These areas are influenced by factors including topography and proximity to the ocean and are generally gradational inland, with the Project site located in the Transitional Zone (County of San Diego 2006). The Maritime and Coastal zones located west of the Project site exhibit relatively low relief and are dominated by oceanic influences, with typically narrow diurnal and seasonal temperature changes and relatively high humidities. These factors begin to decline further inland, with the Transitional Zone displaying more topographic and climatic variation and often alternating between (or combining characteristics of) both the oceanic and inland areas. Specifically, the Transitional Zone includes a series of valleys that are partially screened from maritime/coastal and interior/desert influences by topography, and exhibits more variable temperature and humidity fluctuations than areas further west, but with generally higher humidity levels and lower temperature extremes than the Interior and Desert zones to the east.

More localized climate zones were adapted from the described plantclimates, and are termed Generalized Plant Climate Zones, or Sunset Zones, based on the Sunset Western Garden Books that popularized their use (County of San Diego 2007, 2006). Sunset Zones differentiate local microclimates, freeze/frost potential, and air/water drainage based on conditions such as latitude, elevation, topography and the influence of oceanic and/or continental air masses. The Project site and vicinity are located in Sunset Zone 23, which represents thermal belts of the Coastal Zone and is one of the most favorable for growing subtropical plants, particularly avocados. Sunset Zones also incorporate the U.S. Department of Agriculture (USDA) hardiness ratings, which designate 11 zones depicting the lowest temperature at which individual plant species will thrive (County of San Diego 2007). The Project site is located in USDA hardiness Zone 9b, which exhibits an average minimum temperature range of 25º to 30ºF (USDA 2012).

Based on the described information, the Project site climate exhibits generally mild year round temperatures and infrequent episodes of freezing and severe frost. These conditions make it potentially suitable for a number of temperature-sensitive crops such as olives, citrus, avocados, row crops, and nursery products.

Water Resources

Municipal water service is currently provided to the Project site area by the OWD, with a number of associated water lines located along or adjacent to the western and northern site boundaries as previously described. While two groundwater monitoring wells are located on-site as previously noted, no known current or previous production wells are located within or adjacent to the site (and no known monitoring data are available from the two on-site wells).

Williamson Act Contracts and Agricultural Preserves

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act (California Administrative Code §51200 et. seq.), enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. The issuance of such a contract precludes non-agricultural development of the subject property for a period of 10 years. In return, the landowner receives property tax assessments that are lower than normal because the assessments are based on

farming and/or open space uses rather than full market value. Local governments receive an annual subvention of forgone property tax revenues from the state via the Open Space Subvention Act of 1971. Contracts issued under the Williamson Act automatically renew each year for a new 10-year period, unless the landowner files a Notice of Non-renewal to terminate the contract at the end of the current 10-year period. During the 10-year cancellation period, property taxes are gradually raised to the appropriate level for developable land.

The Williamson Act also authorizes cities and counties to establish agricultural preserves, with these areas intended to identify locations wherein the issuing city or county is willing to enter into Williamson Act contracts. Agricultural preserves are generally intended to avoid areas where public utility improvements and related land acquisitions may be required. The Williamson Act does not specifically address the issue of compatible land uses in sites adjacent to agricultural preserves or contract lands, other than to require that "[c]ities and counties shall determine the types of uses to be deemed 'compatible uses' in a manner which recognizes that a permanent or temporary population increase often hinders or impairs agricultural operations." (California Administrative Code §51220.5).

No Williamson Act contract lands or agricultural preserves are located within the Project site or associated ZOI. Several existing Williamson Act parcels and overlying agricultural preserves are located in more distant areas to the north, south and east, however, as described below in Section 1.4.3.

1.4.3 Off-site Agricultural Resources

A ZOI was identified for the Project site pursuant to the County agricultural resource guidelines (County of San Diego 2007), and includes an area of approximately 684 acres. As noted above and shown on Figure 9, no Williamson Act contract lands or agricultural preserves are located within the Project site or ZOI, although several such designations are present in more distant areas to the north, south and east. Specifically, the closest of these designations include the Daley No. 2 Agricultural Preserve located approximately 4,000 feet south of the Project site (and 1,600 feet south of the ZOI) at its closest point, and the Willow Glenn Williamson Act Contract (No. 71-18), located approximately 1.6 miles north of the site (and 1.3 miles north of the ZOI) at its closest point.

Several FMMP Important Farmland designations and areas of active agriculture are present within the Project ZOI, with these designations and uses outlined below.

FMMP Important Farmland Designations

Important Farmland designations mapped within the Project site and ZOI are depicted on Figure 6, with associated mapped acreages provided in Table 2. As seen from these data, six of the eight previously identified Important Farmland categories occur within the Project ZOI, including Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Grazing Land, Other Land and Urban and Built-up Land. All of these Important Farmland categories were previously defined in Section 1.4.2, with a summary description of the Important Farmland categories within the Project ZOI provided below.

Farmland of Statewide Importance

Approximately 3.93 acres of Farmland of Statewide Importance are present within the ZOI, all within a single area located just west of the Project site. Agricultural use in this area consists of olive orchards, although as previously described this is not considered an active operation.

Unique Farmland

Approximately 41.21 acres of Unique Farmland are present within the ZOI, with these areas located east, west and south of the Project site. Current and former agricultural uses associated with Unique Farmland include portions of the previously described olive orchards east and west of the site, along with portions of the former Simpson's Garden Town Nursery site to the south.

Farmland of Local Importance

Approximately 34.19 acres of Farmland of Local Importance are present within the ZOI, with these areas located primarily east, west and southwest of the Project site. Associated current and former agricultural uses within the ZOI include portions of the noted olive orchards in areas to the east and west, as well as a small portion of the former Simpson's Garden Town Nursery site.

Grazing Land

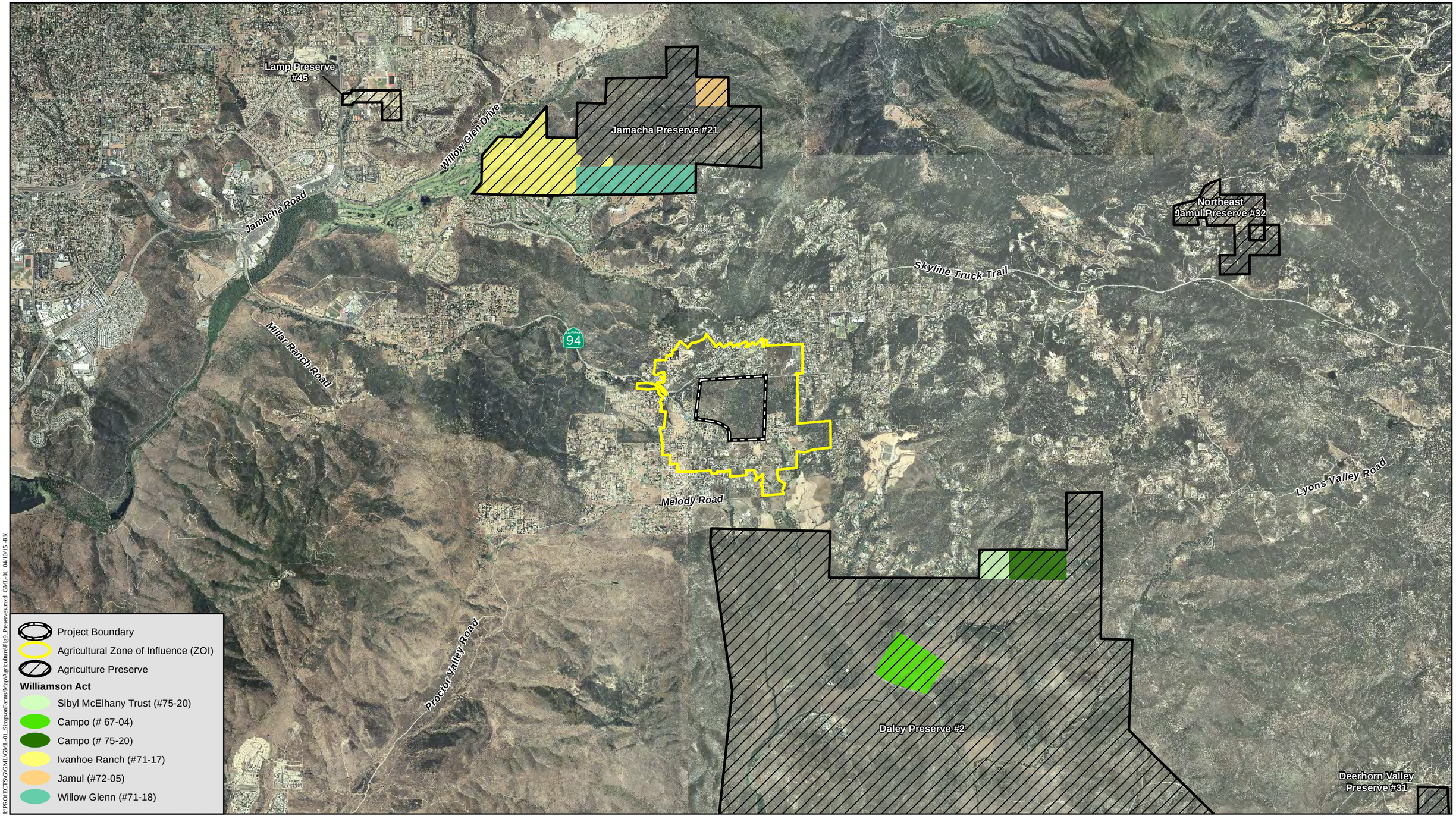
Approximately 113.38 acres of Grazing Land are located with the ZOI, including relatively large areas east and northwest of the site, and a small area to the southwest. No active agricultural uses are located within these areas, although a small portion of the former Simpson's Garden Town Nursery site is within this designation.

Other Land

Approximately 262.34 acres of Other Land are present within the Project ZOI in areas primarily to the east, west and south of the site. Agricultural uses present within this designation include minor areas of mixed-use orchards associated with residential properties to the east and south of the Project site (consisting predominantly of citrus, but locally including other varieties as outlined below under Active Agricultural Operations). It should also be noted that a number of previously described disturbed areas occur within this designation, with these sites potentially used previously for seasonal dry farming. Based on field investigation, however, none of these areas within the ZOI appear to have been active for agricultural use in recent years, based on the following considerations: (1) most of the described sites exhibit a dense cover of non-native grasses, typically either associated with estate residential uses and mowed, or exhibiting native shrub growth (indicating that these areas have not been recently tilled); and/or (2) a number of the noted areas encompass, or are located adjacent to, active equestrian facilities (e.g., corrals, rings and jumping structures), and are apparently being used as equestrian-related pasture and/or training sites.

Urban and Built-up Land

Approximately 229.31 acres of this designation are located within the Project ZOI, with these areas occurring mainly to the north, west and south of the site. Agricultural uses in this



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Williamson Act and Agricultural Preserve Map

SIMPSON FARMS

HELIX Environmental Planning

N 0 4,000 Feet

Figure 9

designation include minor areas of mixed-use orchards north and south of the site, and one small (0.27-acre) area of row crops (cabbage) to the north. This designation also includes minor disturbed areas that are being used as equestrian-related related pasture and/or training sites, as described above for Other Land.

Active Agricultural Operations

As described in Section 1.4.1 and shown on Figure 5, the Project ZOI encompasses generally scattered agricultural operations, including olive orchards, minor areas of mixed-use orchards associated with residential properties, and a small row crop site (also associated with a residential property). More distant (outside the ZOI) agricultural uses include several relatively large areas of potential seasonal dry farmed/fallow areas to the south and southeast, a relatively large vineyard operation to the southeast, and several larger orchards to the east and southeast (with these orchards apparently consisting mainly of citrus and/or avocados, although the properties were not directly accessible during field reconnaissance due to gated roads, refer to Figure 5). In addition, a former commercial nursery site, Simpson's Garden Town Nursery, is located just southwest of the Project site, although this operation was closed in November 2011 as previously noted. Based on this information and the fact that there are no known existing or planned efforts to reestablish commercial nursery (or other agricultural) activities at this site, it is not considered an agricultural use for purposes of this report. Summary descriptions of active agricultural operations within the Project ZOI are provided below.

Olive Orchards

Relatively large areas of active olive orchards are located near the eastern and western Project site boundaries, with these operations including approximately 39.5 acres as previously described. These orchards are located on generally level to rolling terrain, in areas designated as Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Urban and Built-up Land. As previously noted, the olive orchards near the eastern site boundary are assumed to be active, while the orchards to the west are considered currently inactive.

Mixed-use Orchards

This designation consists primarily of citrus orchards in the Project ZOI, with minor additional potential uses such as avocados, nuts and other fruits (e.g., persimmons or pomegranates). Observed mixed-use orchards within the Project ZOI are small and associated with estate residential development, ranging in size from approximately 0.02 to 0.26 acre. A total of approximately 2.24 acres of mixed-use orchards are mapped within the Project ZOI, at distances ranging between approximately 330 to 2,200 feet from the Project site (refer to Figure 5)

Row Crops

One small (0.27-acre) area of row crops is located approximately 700 feet north of the site, and within the Project ZOI. This area is associated with an estate residential property and is currently being cultivated for cabbage, with an associated sign advertising “Cabbage For Sale” posted along the adjacent shoulder of westbound Lyons Valley Road.

1.4.4 Zoning and General Plan Designations

Zoning

The Project site is currently zoned for Limited Agriculture (A-70) and General Commercial (C-36), with residential use allowable under the A-70 Zone at minimum lot sizes of 1 to 2 acres (and these densities associated with the on-site General Plan land use designations outlined below). The A-70 zone goals include creating and preserving areas for agricultural crop production, with additional allowable agricultural uses such as keeping limited numbers of small farm animals and processing agricultural products raised on the premises. The C-36 Zone is intended to create and enhance commercial areas with a range of retail goods and services, and is typically applied to support community or regional shopping complexes.

Land Use Designations

The existing regional land use category for the Project site is Semi-Rural (SR), with associated General Plan designations of Semi-Rural 1, Semi-Rural 2 (SR-1 and SR-2), and Rural Commercial (C-4). The majority of the site (approximately 111.62 acres) is designated as SR-1, which allows one DU per 1, 2 or 4 gross acres, with certain types of agricultural use identified as compatible, including orchards and vineyards. Approximately 38.53 acres along the eastern boundary of the site are designated as SR-2, which allows one DU per 2, 4 or 8 gross acres, with agricultural uses such as orchards and vineyards also identified as compatible under this designation. The on-site C-4 designation includes approximately 11.8 acres, and is generally intended for small-scale commercial and civic development (with a maximum floor area ratio [FAR] of 0.35 for Semi-Rural areas). As previously described, the on-site commercial lot would not be fully developed under the Proposed Project, with associated activities limited to the construction of graded pads and roads (and an MUP would be required prior to approval of any associated development as previously noted).

Implementation of the Proposed Project would be consistent with the noted existing zoning and land use designations, with no associated changes to zoning or land use designations proposed.

2.0 IMPACTS TO ON-SITE AGRICULTURAL RESOURCES

2.1 Local Agricultural Resource Assessment (LARA) Model

The County of San Diego has approved a local methodology that is used to determine the importance of agricultural resources in the unincorporated area of San Diego County, known as the Local Agricultural Resource Assessment (LARA) Model. The LARA Model takes into account six factors, including water, climate, soil quality, surrounding land uses, land use consistency, and slope, in determining the importance of agricultural resources.

The following subheadings provide a description of the Project site rating for each LARA Model factor, including justification for the factor ratings assigned to the Project site. Each factor receives a rating of high, moderate or low importance based on site-specific information, as detailed in the LARA Model instructions (*Section 3.1, LARA Model Instructions, from the*

Agricultural Guidelines for Determining Significance, County 2007, see Appendix A). The factor ratings for the Project site are summarized in Table 3, *Summary of LARA Model Factor Findings*, with the final LARA Model results based on the associated combination of factor ratings shown in Table 4, *Interpretation of LARA Model Results* (refer to Section 2.1.2).

2.1.1 LARA Model Factors

Descriptions of the LARA Model factor evaluations conducted for the Proposed Project are outlined below, with additional information provided in the referenced LARA Model Instructions included as Appendix A of this report.

Required Factors

Water

The LARA Model water rating for the Project site is high, based on the site location within the SDCWA service area, and the fact that existing water infrastructure and metered water service is currently provided in adjacent areas by the OWD (refer to Sections 1.4.1 and 1.4.2). The Project site is located within a fractured crystalline rock groundwater aquifer, with two existing on-site monitoring wells, but no known production wells (refer to Sections 1.4.1 and 1.4.2). Pursuant to Section 3.1.1 and Table 3 of Appendix A, sites where imported water is available receive the highest water rating in the LARA Model, regardless of groundwater availability. This conclusion is based on the fact that imported water is considered essential to long-term agricultural use in San Diego County, due to the limited availability of local rainfall and groundwater resources.

Climate

The Project site climate rating is high, based on its location within Sunset Zone 23, as described under the Climate heading in Section 1.4.2. Specifically, Zone 23 is rated high in Table 6 of Appendix A, based on factors including the favorable climate and proximity to urban areas and infrastructure.

Soil Quality

Pursuant to the LARA Model, soil quality within the Project site is rated as moderate, based on the fact that the site yielded a Soil Quality Matrix score of 0.46 and has a minimum of 10 acres of contiguous mapped CDC Prime Farmland or Farmland of Statewide Importance candidate soils (refer to Table 2, Figure 8 and Appendix B of this report, and Table 8 in Appendix A). A copy of the Soil Quality Matrix Worksheet used to determine the Project site score is included as Table B-1 in Appendix B of this report. As outlined in Section 3.1.3 of Appendix A, the presence of CDC Prime Farmland and Farmland of Statewide Importance candidate soils is used in the LARA Model soil quality rating because these designations are used in the corresponding FMMP Prime Farmland and Farmland of Statewide Importance categories (as defined below), as well as the fact that limited quantities of these high quality soils occur in San Diego County.

Complementary Factors

Surrounding Land Use

The surrounding land use rating for the Proposed Project is high, based on the fact that more than 50 percent of lands within the Project ZOI are "compatible with agriculture," as shown on Table 9 of Appendix A. Specifically, approximately 531 acres (or 78 percent) of the 684-acre ZOI encompass lands that are compatible with agriculture (per Section 3.1.4 of Appendix A), including existing agricultural uses (see Figure 5), open space, and areas developed or zoned as rural residential areas (i.e., areas with parcel sizes of two acres or more). Surrounding land use is included as a complementary factor in determining the importance of agricultural resources due to the fact that compatible land uses make a site generally more attractive for agricultural use. This is based on the expectation that such compatible uses will result in fewer potential nuisance issues (noise, dust, etc.) with non-agricultural neighbors than would likely occur in association with more urban uses. Accordingly, while agricultural uses can be viable in a more urban setting (depending on the type of agricultural use), the likelihood of establishing agricultural operations and the long-term viability of such pursuits will generally be higher in areas with compatible land uses as described.

Land Use Consistency

The land use consistency rating for the Proposed Project is high, based on the fact that the median lot (parcel) size of the Project site is smaller than the median parcel size within the ZOI (per Table 10 in Appendix A). Specifically, the Project site includes 97 applicable parcels with a median size of approximately 1.11 acres, while the ZOI includes 262 parcels with a median size of 1.14 acres. As outlined in Section 3.1.5 of Appendix A, land use consistency is included as a complementary factor in determining the importance of agricultural resources based on the assumption that larger parcel sizes will generally represent areas that have not been significantly urbanized and are more likely to support and be compatible with viable agricultural operations. Median parcel size is used in the analysis to account for the fact that a small number of very large or very small parcels could potentially skew the results if the average parcel size was utilized (i.e., where more than two parcels are involved).

Topography

The topographic (slope) rating identified for the portion of the Project site that is "available for agricultural use" (as shown in Table B-1 of Appendix B) in the LARA Model is high, based on the fact that the noted portion of the Project site exhibits an average slope between zero and 15 percent. The Project site slope is included as a complementary factor in the LARA Model to reflect the fact that topography can represent an important element in the overall viability of a property for agricultural use. Specifically, sites with more level terrain can typically accommodate a greater range of potential agricultural uses, and are more amenable to efforts such as the use of mechanized operations and the effective management of irrigation runoff and erosion.

2.1.2 LARA Model Results

A summary of the LARA Model factor ratings described above are in provided in Table 3, followed by an interpretation of these results in Table 4.

As seen from the information in Table 3, the LARA Model results exhibit: (1) high ratings for two required factors (water and climate); (2) a moderate rating for the third required factor (soils); and (3) high ratings for all three complimentary factors. Accordingly, per the rating factors shown in Table 4, the site conforms to Scenario Two and is an important agricultural resource.

Table 3
SUMMARY OF LARA MODEL FACTOR RATINGS

Factors	LARA Model Rating		
	High	Moderate	Low
Required Factors			
Climate	X		
Water	X		
Soil Quality		X	
Complementary Factors			
Surrounding Land Use	X		
Land Use Consistency	X		
Topography (Slope)	X		

Source: County of San Diego (2007)

Table 4
INTERPRETATION OF LARA MODEL RESULTS

LARA Model Results			LARA Model Interpretation
Possible Scenarios	Required Factors	Complementary Factors	
Scenario 1	All three factors rated high	At least one factor rated high or moderate	The site is an important agricultural resource
Scenario 2	Two factors rated high, one factor rated moderate	At least two factors rated high or moderate	
Scenario 3	One factor rated high, two factors rated moderate	At least two factors rated high	
Scenario 4	All factors rated moderate	All factors rated high	
Scenario 5	At least one factor rated low	N/A	The site is not an important agricultural resource
Scenario 6	All other model results		

Source: County of San Diego (2007)

2.2 Guidelines for Determination of Significance

The following significance guideline is the basis for determining the significance of impacts to important on-site agricultural resources, as defined by the LARA Model, in San Diego County. Direct impacts to agricultural resources are potentially significant when a project would result in the following:

> 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 the site for agricultural use.

2.3 Analysis of Project Effects

2.3.1 Project Site Effects Related to the LARA Model Results

Based on the information provided above in Sections 1.4.2 and 2.2, the Project site includes approximately 89.3 acres of agricultural resources, and was determined to be an important agricultural resource based on the noted LARA Model results. From the described information on agricultural resources and candidate soils (refer to Figures 7 and 8), Project-related impacts to identified on-site agricultural resources that occur within areas of Prime Farmland or Farmland of Statewide Importance candidate soils encompass approximately 50.3 acres, and include applicable proposed developed and graded areas per the Project site plan (refer to Figures 3 and 7). The remaining, approximately 39 acres of identified on-site agricultural resources would either not be directly impacted by the Project, and/or do not encompass Prime Farmland or Farmland of Statewide Importance candidate soils (and would thus not be subject to significant impacts per the significance guideline noted above and in Section 2.2 of the County Agricultural Guidelines, Report Format and Content Requirements). The 50.3 acres of impacts include areas proposed to be placed within a road right-of-way; in the location of proposed structures or paving/grading, and within proposed residential structure pads and associated grading (including areas within 15 feet of front and side yards of residences and within 30 feet from the rear yard of residences as a result of the project).

Based on the described considerations, the significance guideline identified in Section 2.2, and the related criteria identified in the County Agricultural Guidelines (2007), the Proposed Project would impact a total of 50.3 acres of on-site agricultural resources that encompass Prime Farmland or Farmland of Statewide Importance candidate soils, and thus would substantially impair the ongoing viability of the site for agricultural use. Accordingly, associated potential direct impacts to important agricultural resources within the site would be significant.

2.3.2 Direct Impacts From Off-site Facilities

As described in Section 1.2, proposed off-site facilities include drainage improvements located west of Lot No. 97 and Jefferson Road, roadway improvements along Jefferson Road, and utility connections along Jefferson Road and Olive Vista Drive. The off-site drainage improvements include an impact area of approximately 0.1 acre within CDC candidate soils (Ramona sandy loam, 5 to 9 percent slopes, refer to Table 1), and would constitute a significant impact.

Accordingly, off-site mitigation at a ratio of 1:1 would be required for this impact (in addition to the mitigation requirements identified above for direct on-site impacts), as outlined below in Section 2.4. Because all of the other identified off-site improvements and connections would be contained within existing roadway ROW boundaries, no associated impacts to off-site agricultural resources would result.

2.4 Mitigation Measures and Design Considerations

Mitigation Measures

Based on the above discussion in Section 2.3, implementation of the Proposed Project would result in approximately 50.4 acres of direct impacts to agricultural resources, including 50.3 acres of on-site impacts and 0.1 acre of off-site impacts (with the on- and off-site areas requiring mitigation depicted on Figure 7). Based on related criteria in the County Guidelines, these impacts would require mitigation at a 1:1 ratio through either preservation of on-site agricultural resources encompassing Prime or Statewide candidate soils that are "available and viable" for agricultural use, or off-site mitigation (as outlined below). The Project applicant has determined that on-site preservation of 50.4 acres of the identified area of agricultural resources encompassing CDC candidate soils through efforts such as establishing on-site limited building zone (LBZ) easements would not be feasible, based on the following considerations (refer to Figure 3):

- Based on existing/proposed on-site land use and zoning designations (refer to Section 1.4.4), the majority of the proposed on-site residential lots are less than 2 acres (i.e., 76 out of 95 lots, or 80 percent), and the areas that will not be impacted are irregular in shape and size (typically encompassing less than 0.5 acre). Accordingly, it would be difficult to have agriculture in these areas, and they are thus not suitable for preservation of areas "available and viable" for agricultural use through LBZ easements, pursuant to Section 5.1.1 of the County Guidelines.

- Of the 19 residential lots that are two acres or larger, 12 lots (Nos. 33 and 35 through 45) are located completely outside the area of mapped CDC candidate soils (and can therefore not be used for on-site mitigation), 3 lots (Nos. 21, 31 and 96) encompass detention basins, which effectively preclude their use for on-site mitigation due to the area required for basin construction and maintenance, and the remaining four lots (Nos. 30, 32, 34 and 46) do not contain an adequate amount of CDC candidate soils outside of proposed impact footprints to accommodate the required mitigation area of 50.4 acres (with a combined total of 1.6 acres of available candidate soils on these lots and no associated LBZ easements proposed, refer to Figure 3).

- Section 5.1.1 of the Guidelines provides different options for mitigating impacts to agricultural resources.

- Agricultural uses on the subject property and the majority of the neighboring properties have either been discontinued or decreased.

- The County of San Diego has adopted the PACE Program that provides applicants an option to utilize as off-site mitigation for agricultural impacts resulting from private development projects.

Based on the above discussion, the Proposed Project would be required to provide appropriate off-site mitigation at a ratio of 1:1 for identified impacts per the referenced County Guidelines. Potential options to implement off-site mitigation for the described direct impacts to agricultural resources include either: (1) providing mitigation for the noted 50.4-acre impact area at a 1:1 ratio through the acquisition of agricultural mitigation credits via the County Purchase of Agricultural Conservation Easement (PACE) Program; or (2) providing a combination of PACE mitigation credits and applicant-purchase of off-site agricultural lands or LBZ easements totaling 50.4 acres that meet the intent of the County Agricultural Guidelines. . Additional discussion of the PACE Program and the noted mitigation options is provided below. With implementation of the described mitigation, direct Project-related impacts to on- and off-site agricultural resources would be reduced below a level of significance.

Under the PACE program, willing agricultural property owners are compensated for placing a perpetual easement on their agricultural property that limits future uses and development potential. As a result, the agricultural land is preserved and the property owner receives compensation that can make its continued use for agriculture more viable. The pilot phase of this Program was completed in 2013, with several agricultural easements established (County 2013b). On September 17, 2014, the Board of Supervisors approved the PACE Program as an agricultural mitigation credit Program. Accordingly, under this scenario project applicants will be able to purchase "mitigation credits" for impacts to agricultural resources (County 2014d).

Project Design Considerations

No Project design considerations are required or proposed in association with Project-related direct impacts to applicable on- and off-site agricultural resources.

2.5 Conclusions

Potential Project-related direct impacts to applicable on- and off-site agricultural resources would total approximately 50.4 acres, and would be significant pursuant to the County Agricultural Guidelines (County 2007). Based on these Guidelines, the Project applicant would be required to provide associated mitigation at a 1:1 ratio, or a total of 50.4 acres. This mitigation may be provided through acquiring off-site mitigation credits via the County PACE Program, or a combination of PACE mitigation credits and applicant-purchase of off-site agricultural lands or LBZ easements totaling 50.4 acres that meet the intent of the County Agricultural Guidelines (and are approved by the County). With the described mitigation, direct Project-related impacts to on- and off-site agricultural resources would be reduced below a level of significance.

3.0 IMPACTS TO OFF-SITE AGRICULTURAL RESOURCES

As described in Sections 1.2 and 2.3.2, the Proposed Project would directly impact approximately 0.1 acre of off-site CDC candidate soils in association with drainage improvements located west of Lot No. 97 and Jefferson Road, These impacts and associated mitigation requirements are addressed as part of the on-site analysis in Section 2.0, with no additional evaluation of these impacts provided below.

3.1 Guidelines for the Determination of Significance

The following significance guidelines are derived from the San Diego County Agricultural Guidelines (2007), and are the basis for determining the significance of indirect impacts to off-site agricultural resources and Williamson Act Contract lands in San Diego County:

a. The project proposes a non-agricultural land use within one-quarter mile of an agricultural operation or land under a Williamson Act Contract (Contract) and as a result of the project, land use conflicts between the agricultural operation or Contract land and the Proposed Project would likely occur and could result in conversion of agricultural resources to a non-agricultural use.

b. The project proposes a school, church, day care or other use that involves a concentration of people at certain times within one mile of an agricultural operation or land under Contract and as a result of the project, land use conflicts between the agricultural operation or Contract land and the proposed project would likely occur and could result in conversion of agricultural resources to a non-agricultural use.

c. The project would involve other changes to the existing environment, which due to their location or nature, could result in the conversion of off-site agricultural resources to a non-agricultural use or could adversely impact the viability of agriculture or land under a Contract.

3.2 Analysis of Project Effects

As described above in Section 1.4.3, the Project ZOI encompasses a number of agricultural operations, including orchards and one minor area of row crops. These areas are shown on Figure 5 and described below with respect to proximity to the Project site and related potential impacts.

3.2.1 Project Effects To and From Nearby Agricultural Resources

Implementation of the Proposed Project would result in the development of a residential/commercial property in an area with generally minor, albeit nearby, agricultural uses including two olive orchards, a small row crop operation, and minor areas of mixed-use orchards. This scenario could potentially generate interface conflicts with nearby agricultural resources and related impacts, as outlined below. For purposes of the following analysis, "nearby" agricultural resources are defined to include existing and potential agricultural operations within the Project ZOI.

Properties with existing agricultural operations and agricultural zoning or designations (i.e., areas that could potentially accommodate various types of agricultural use) that are within the Project ZOI include the following (refer to Figure 5): (1) olive orchards in close proximity to the site on the east and west; (2) a small (0.27-acre) row crop operation approximately 700 feet north of the site; (3) minor areas of mixed-use (primarily citrus) orchards to the north, south and east in association with estate residential uses; and (4) several currently undeveloped properties in surrounding areas. Potential interface conflicts to and from these properties are discussed below to determine whether such conflicts could result in the conversion of agriculture to a non-agricultural use. As previously discussed, a former commercial nursery site (Simpson's Garden Town Nursery) is located just southwest of the Project site, but has been closed since November 2011 and was observed to be closed/inactive during the February 18, 2014 field survey (with this site currently used for non-agricultural purposes).

Olive Orchards

Relatively extensive olive orchards are located in areas near the Project site to the east and west. As previously described, the orchard areas to the west are not considered active based on observations such as substantial understory growth and apparent disrepair of access roads, while the orchard area to the east is assumed to be active. Despite these assumptions, both described areas of nearby olive orchards were assessed for potential interface conflicts, with these orchards not expected to result in substantial conflicts with the Proposed Project based on the following considerations:

The County Agricultural Guidelines (2007) note in Section 4.2.2 that "…a project located near but not adjacent to orchard crops, will not usually result in significant indirect impacts to these resources.." and "…orchard crops such as avocados and citrus are often compatible with residential uses…" These conclusions are also considered applicable to olive orchards, which typically do not entail substantial noise, dust or vector generation (as compared to more intensive agricultural operations), and generally do not require the extensive use of pesticides (California Olive Committee [COC] and California Minor Crops Council [CMCC] 2003). Specifically, the principal pest for olive growers in California is the olive fruit fly, which is typically more of an issue in coastal areas than in inland locations with dryer conditions and greater temperature extremes (Western Farm Press 2002). The olive fruit fly, as well as other types of potential olive pests (including olives mites and psyllids, olive scale, black scale and California red scale), are also not identified as "A" or "Q" category pest ratings[1] in the 2013 County Crop Statistics and Annual Report (County 2013c). While spray and other broadcast-type applications of insecticides are used for control of olive fruit flies (with a number of low toxicity and/or organically-approved sprays available), the most common controls are bait, sticky and pheromone traps that involve contained pesticides or non-toxic materials (The Olive Oil Source 2014, County of Napa 2014, University of California Online Integrated Pest Management Program 2009). Based on these considerations, as well as the presence of existing residential, commercial and school sites in close proximity to the noted olive orchards (including several

[1] The "A" rating is assigned to organisms of "known economic importance subject to state or agricultural commissioner action." The "Q" rating is assigned to organisms "requiring a temporary "A" rating pending determination of a permanent rating."

adjacent residences, refer to Figure 5), they are considered generally compatible with most urban uses, including the Proposed Project.

- The Project design involves minimum one-acre lots along the western boundary and two-acre minimum lots along the eastern boundary. The lots along the eastern boundary adjacent to off-site olive orchards include an intervening 100-foot fuel management zone (FMZ), while the lots along the western boundary adjacent to inactive olive orchards include the intervening (approximately 40-foot wide) Jefferson Road corridor. In addition, development along the western site boundary would be limited to the following four lots: (1) potential future Unit 2 commercial uses (Lot No. 99); (2) one residential lot with an intervening detention basin (Lot No. 96) and the associated building pad located approximately 250 feet from the off-site orchards; (3) one dedicated residential lot (Lot No. 1), with the associated building pad located approximately 105 feet from the off-site orchards; and (4) one open space lot with no associated development (Lot No. 97, refer to Figure 3). Accordingly, building pads associated with proposed residential lots are set back 100 feet or more in areas with nearby off-site orchards (refer to Figures 3 and 5).

- While significant impacts related to interface conflicts with off-site orchards are not anticipated as noted above, the Proposed Project Landscape Concept Plan (Project Design Consultants [PDC] 2015, see Appendix D) would provide screening and blending between on-site residential lots and off-site orchards through the previously noted 100-foot FMZ along applicable portions of the eastern site boundary (as well as in other areas adjacent to on-site open space), along with the following elements: (1) extensive use of native and/or naturalized tree and shrub plantings along the western (Jefferson Road), northern (Olive Vista Drive) and southern SR-94) site boundaries, as well as along all internal roadways; (2) use of trees and larger shrub plantings in areas such as building pad slopes and detention basins; and (3) retention of open space with native vegetation in the western portion of the site, including areas along the western property boundary. Implementation of the noted landscape plan (and FMZ) is included as a Project Design Consideration below in Section 3.3, *Mitigation Measures and Design Considerations*.

- The Proposed Project would not be anticipated to result in potential conflicts with nearby orchards, such as trespassing, theft, and vandalism, based on the fact that the noted orchard areas include perimeter chain-link fencing and "No Trespassing" signs.

- Implementation of the Proposed Project would also not result in conditions or effects related to substantial air contaminant generation that would adversely impact or be incompatible with nearby orchards (i.e., due to the nature of proposed development, HELIX 2014c), and Project implementation would include both short-term (construction) and long-term measures to avoid or minimize drainage and water quality effects to surrounding areas. Specifically, this would involve efforts such as designing storm drain systems to accommodate 100-year flows and prevent on- or off-site flooding, and controlling contaminant discharge through conformance with applicable regulatory requirements (e.g., County and NPDES standards). In addition, the proposed used of septic systems for on-site wastewater disposal would comply with all applicable regulatory requirements related to system design, operation and maintenance, including

applicable standards of the County Department of Environmental Health (e.g., surface and groundwater quality protection criteria).

Row Crops

As previously described, one minor (0.27-acre) area of row crops is located approximately 700 feet north of the Project site (with this area observed to be under cultivation during the February 18, 2014 field investigation). Due to the small extent of this area and the intervening distance to the Project site (as well as the fact that the row crop site is surrounded by existing residential development, refer to Figure 5), any associated nuisance factors such as dust, noise or chemical applications are expected to be minimal. Accordingly, no associated significant interface conflicts or impacts related to residential uses are anticipated from implementation of the Proposed Project.

Mixed-use Orchards

Minor areas of mixed-use orchards (totaling approximately 2.24 acres) are located in numerous locations surrounding the Project site in association with estate residential uses, at distances ranging from approximately 330 to 2,220 feet. The mixed-use orchards are primarily citrus, with associated crops also potentially including nut and other fruit trees (e.g., persimmons and pomegranates). Based on the intervening distances, as well as the fact that these types of uses generally do not result in substantial interface conflicts with residential uses (as described above for olive orchards), no associated significant effects would result from implementation of the Proposed Project. In addition, as outlined above for olive orchards, the Proposed Project Landscape Concept Plan includes several elements to provide opportunities for enhancing buffers and visual screening of on-site residential lots from off-site agricultural areas, including provision of a 100-foot FMZ along applicable portions of the eastern site boundary, and use of extensive landscape treatments in areas including Project site boundaries, internal roadways, and residential slopes/detention basins (with this plan included as a Project Design Consideration, refer to Section 3.3).

Undeveloped Areas

A number of undeveloped sites associated with estate residential uses are located in nearby areas surrounding the Project site (primarily to the west and south), with several of these locations potentially used previously for agricultural activities such as dry farming for oat hay (refer to Figure 5 and the History of Agricultural Use discussion in Section 1.4.2 for additional information). Based on field investigation, none of the noted areas are currently used for agriculture, with observed sites primarily supporting maintained (mowed) non-native grassland and/or pasture used for equestrian activities on associated estate residential properties. From review of online historic aerial photographs (with these photos not included in Appendix C), similar non-agricultural uses have occurred on the described properties over approximately the past 25 years, with no discernable evidence depicting related cultivation (or other agricultural use). Based on these conditions, as well as the fact that several of the noted properties are zoned as Rural Residential (RR, County of San Diego 2014b), no associated significant interface conflicts or impacts to/from proposed on-site uses are anticipated from implementation of the

Proposed Project. Specifically, pursuant to the County of San Diego Zoning Ordinance (County of San Diego 2014c), the RR designation, while allowing agricultural uses, is intended to:

> …create and enhance residential areas where agricultural use compatible with a dominant, permanent residential use is desired. Typically, the RR Use Regulations would be applied to rural or semi-rural areas where urban levels of service are not available and where large lots are desired. Various applications of the RR Use Regulations with appropriate development designators can create buffers between residential and agricultural uses, family or small farm areas, or large lot rural residential.

Based on these regulations, along with the fact that nearby undeveloped areas encompass and/or are adjacent to existing residential uses (typically intervening and/or in closer proximity relative to the Project site, refer to Figure 5), any associated future agricultural uses would likely consist of compatible operations such as orchards (with additional discussion of agricultural zoning in surrounding areas provided below).

Agricultural Zoning and Williamson Act Contract Lands

Surrounding areas within the Project site ZOI include a number of zoning designations that are associated with agricultural uses, such as A-70. Accordingly, currently undeveloped properties in surrounding areas, as well as the previously described former Simpson's Garden Town Nursery site, could potentially be subject to future agricultural use. No associated significant interface conflicts or related impacts from Project residential uses would be anticipated, however, based on the following considerations: (1) off-site A-70 zoning designations are not exclusive to agriculture, with agricultural activities in these areas typically associated with additional uses such as estate residential development, which permits and anticipates the co-existence of single-family estate housing and high-value crop production, such as orchards (County 2007); (2) existing residential uses are present within or adjacent to many of the noted areas exhibiting agricultural zoning, with a number of these uses located in closer proximity to agricultural zoned areas than the Project site, and/or occurring on intervening properties; and (3) the previously described former Simpson's Garden Town Nursery site to the southwest is currently used for non-agricultural purposes, and includes adjacent residential uses in closer proximity than those identified for the Proposed Project (which provides minimum setbacks of approximately 250 feet in the noted area, refer to Figure 3).

As previously described, no Williamson Act Contract lands or agricultural preserves occur within the Project site or ZOI, with the closest preserve and Contract lands located approximately 4,000 feet and 1.6 miles from the Project site, respectively (refer to Section 1.4.3 and Figure 9). Based on the intervening distances, no associated significant interface conflicts or related impacts are anticipated from implementation of the Proposed Project.

3.2.2 Project Effects To and From More Distant Agricultural Resources

As previously described and depicted on Figures 5 and 9, existing agricultural designations/operations in more distant areas include relatively large areas of (presumably) citrus/avocado orchards and vineyards to the east, seasonal dry farmed and/or fallowed areas to

the east and south, and several Williamson Act contracts and agricultural preserves to the north and south. None of these existing uses/designations are anticipated to involve substantial interface conflicts with (or impacts to/from) the Proposed Project, however, based on the intervening distances to the Project site, and/or the nature of associated operations (i.e., for similar reasons as noted above for such uses within the Project site ZOI).

A number of the more distant agricultural uses described above, as well as currently vacant properties in surrounding areas with suitable topography and/or soils, may potentially be subject to future agricultural development as previously discussed for nearby agricultural sites. Based on the intervening distances, however, no associated substantial interface conflicts with (or associated significant impacts to/from) the Proposed Project would result from such conversions/development.

3.2.3 Project Effects to and From Agricultural Resources Related to Proposed School, Church, Day Care or other Applicable Uses

Because the Project does not include any proposed schools, churches, day care facilities or other applicable uses, no associated impacts would result from Project implementation. In addition, the commercial lot (Lot No. 99) also contains a Special Area "P" designator, and would require approval of an MUP prior to approval of any associated development.

3.2.4 Summary of Impacts to Off-site Agricultural Resources

The Proposed Project is not expected to result in significant effects related to interface conflicts with existing or potential future off-site agricultural operations. This conclusion is based on the following considerations, with additional information provided above in Sections 3.2.1 through 3.2.3: (1) larger-scale agricultural operations in close proximity to the site are limited to olive orchards, which are generally compatible with residential and urban uses; (2) the Project design includes one-acre minimum lot development, appropriate setbacks from nearby orchards along applicable boundaries (including a 100-foot FMZ along applicable portions of the eastern site boundary), and extensive on-site landscaping to provide buffers and screening; (3) other agricultural uses in the Project site vicinity (including mixed-use orchards and row crops) are very minor in extent and encompass relatively substantial intervening distances (i.e., approximately 700 feet for row crops, and between 330 and 2,220 feet for mixed-use orchards), with any associated nuisance factors expected to be minimal; (4) other existing agricultural uses and Williamson Act Contract lands/preserves are located at more substantial distances from the Project site; (5) nearby undeveloped areas zoned for rural residential or agriculture use are intended for (RR) or allow (A-70) residential development, and include existing on-site and/or adjacent residential uses (typically intervening and/or in closer proximity relative to the Proposed Project site), with any associated potential future agricultural activities likely to consist of compatible operations such as orchards; and (6) potential indirect impacts to off-site agricultural resources related to trespassing, theft, vandalism or air/water contamination are not anticipated, based on the presence of existing perimeter fencing and proposed Project design measures such as setbacks and landscaping (including the 100-foot FMZ in applicable portions of the site), as well as required conformance with applicable regulatory standards. In addition, while significant impacts related to interface conflicts with off-site agricultural operations are not anticipated as previously noted, orchards and gardens (although not proposed

as part of the Project design or landscaping plans and not required to address interface conflicts) would be allowable within individual residential lots, allowing associated property owners an opportunity to provide transitional/buffer areas to increase blending and screening in relation to nearby off-site orchards.

3.3 Mitigation Measures and Design Considerations

Mitigation Measures

Because no significant impacts to off-site agricultural resources were identified, associated mitigation measures are not required.

Project Design Considerations

- Implementation of the Proposed Project will include a landscape plan approved by the County to provide (among other pertinent elements) applicable screening and blending to/from off-site agricultural uses/areas, and implementation/maintenance of a 100-foot FMZ along applicable portions of the eastern site boundary (i.e., areas adjacent to off-site olive orchards).

3.4 Conclusions

Pursuant to the discussion in Section 3.2, the Proposed Project would result in less than significant impacts to off-site agricultural resources. Specifically, implementation of the Proposed Project would not result in any significant impacts to existing or potential future off-site agricultural uses, including orchards and row crops, as well as Williamson Act contract lands and agricultural preserves. This conclusion is based on considerations including: (1) the nature and location of those operations/designations; (2) the inclusion of open space, landscaping and setbacks in the Proposed Project design (as outlined in the associated Project Deign Consideration); and (3) required Project conformance with regulatory standards including NPDES hydrology and water quality criteria and septic system requirements. In addition, while not proposed as part of the Project design or landscaping plans (and not required to address interface conflicts), orchards and gardens would be allowable within individual residential lots, allowing associated property owners an opportunity to provide transitional/buffer areas to increase blending and screening in relation to nearby off-site orchards.

The Proposed Project would also not generate, or be subject to, significant impacts related to theft/vandalism and nuisance factors associated with off-site agricultural operations. This conclusion is based on the presence of perimeter fencing on nearby orchard properties, and the proposed use of open space, setbacks (including the noted 100-foot FMZ), and landscaping as part of the Project design (as outlined in the associated Project Deign Consideration). Specifically, such facilities would serve to maintain security, provide setbacks and screening, and increase blending with off-site agricultural areas.

4.0 CONFORMANCE WITH AGRICULTURAL POLICIES

4.1 Applicable General Plan and Related Policies

4.1.1 San Diego County General Plan

The existing regional land use category for the Project site is Semi-Rural (SR), with associated General Plan designations of SR-1, SR-2 and C-4. The SR Regional Category is intended to encompass a mix of uses including lower-density residential neighborhoods, agricultural operations, and commercial development that supports rural communities. Semi-Rural areas often function as a transition between Village (higher density) and Rural Lands (lower density) categories, with design elements intended to blend development and natural landscapes. Specific design goals include preservation of contiguous open space and agricultural operations.

The majority of the site (approximately 111.62 acres) is designated as SR-1, which allows one DU per 1, 2 or 4 gross acres. Approximately 38.53 acres along the eastern boundary of the site are designated as SR-2, which allows one DU per 2, 4 or 8 gross acres, with allowable densities for both the SR-1 and SR-2 designations dependent on slope conditions. Specifically, DU allowances are calculated as follows: (1) for slopes of less than 25 percent, the SR-1 designation allows 1 DU per 1 gross acre, and the SR-2 designation allows 1 DU per 2 gross acres; (2) for slopes of between 25 and less than 50 percent, the SR-1 designation allows one DU per 2 gross acres, and the SR-2 designation allows 1 DU per 4 gross acres; and (3) for slopes of 50 percent or more, the SR-1 designation allows 1 DU per 4 gross acres, and the SR-2 designation allows one DU per 8 gross acres. Residential development in SR designations is not typically served by municipal sewer systems, but is often served by municipal water, especially in areas supporting high-intensity agricultural crops such as orchards.

Approximately 11.8 acres within the site are designated as C-4, which is generally intended for small-scale commercial and civic development and has a maximum FAR of 0.35 in Semi-Rural areas.

General Plan Goals and Policies Related to Agriculture

The General Plan Land Use and Conservation and Open Space Elements include a number of goals and policies related to agriculture, as outlined below, with assessment of related Project consistency provided in Section 4.2.

Land Use Element

- Goal LU-5; Climate Change and Land Use. This goal is primarily intended to implement land use and development patterns that reduce greenhouse gas emissions per associated regulatory standards, with related Policy LU-5.3, Rural Land Preservation, requiring that such actions "Ensure the preservation of existing open space and rural areas (e.g., forested areas, agricultural lands, wildlife habitat and corridors, wetlands, watersheds, and groundwater recharge areas) when permitting development under the Rural and Semi-Rural Land Use Designations."

- Goal LU-6; Development – Environmental Balance. This goal is intended to provide a built environment in balance with the natural environment, scarce resources, natural hazards, and the unique local character of individual communities. Associated policy LU-6.4, Sustainable Subdivision Design, requires that "…residential subdivisions be planned to conserve open space and natural resources, protect agricultural operations including grazing, increase fire safety and defensibility, reduce impervious footprints, use sustainable development practices, and, when appropriate, provide public amenities."

- Goal LU-7; Agricultural Conservation. This goal is intended to implement land use plans that retain and protect farming and agriculture as beneficial resources that contribute to rural character within the County. Related Policies LU-7.1 and LU-7.2 include the following requirements related to agriculture:

  - Policy LU-7.1 – Agricultural Development: Protect agricultural lands with lower-density land use designations that support continued agricultural operations.

  - Policy LU-7.2 – Parcel Size Reduction as Incentive for Agriculture: Allow for reductions in lot size for compatible development when tracts of existing historically agricultural land are preserved in conservation easements for continued agricultural use.

Conservation and Open Space Element

- Goal COS-6; Sustainable Agricultural Industry. This goal is intended to support a viable and long-term agricultural industry and sustainable agricultural land uses in the County that provide a beneficial resource and contribute to the County rural character and open space network. Applicable related Policies COS-6.2 and COS-6.3 include the following requirements related to agriculture:

  - Policy COS-6.2 – Protection of Agricultural Operations: (1) limit the ability of new development to take actions to limit existing agricultural uses by informing and education new projects as to the potential impacts from agricultural operations; (2) allow agricultural uses in agricultural areas and design development and lots to facilitate agricultural use within the development; (3) Require development to minimize potential conflicts with adjacent agricultural operations by incorporating adequate buffers, setbacks, and project design measures to protect surrounding agriculture; and (4) support local and State right-to-farm regulations.

  - Policy COS-6.3 – Compatibility with Recreation and Open Space: encourage siting recreational and open space uses and multi-use trails that are compatible with agriculture adjacent to the agricultural lands when planning for development adjacent to agricultural land uses.

4.1.2 Jamul/Dulzura Subregional Plan

The Jamul/Dulzura Subregional Plan is intended to guide future Subregion development in conformance with associated criteria under the County General Plan. Applicable policies in the Subregional Plan related to Semi-Rural land use and agriculture are summarized below.

Semi-Rural Land Use

Semi-Rural residential lots should meet the following criteria:

- Policy 2a. All lots should have imported water and be able to provide for on-site sewage disposal.

- Policy 2e. All future developments should meet County standards for lot design and street patterns.

Agriculture

- Policy 9. Encourage all types of agriculture, large or small, which provide a local or regional source of food/fiber or livestock and when water and land resources are available.

- Policy 10. Strongly support a study of the long-range availability of groundwater for agricultural uses.

- Policy 11. Keeping animals and other agricultural land uses on residential parcels of one acre or larger is desirable. As land holdings increase in size, the number of animals permitted should also be increased. Land use regulations permissive enough to allow such agricultural uses are appropriate throughout the community.

- Policy 12. Encourage agricultural preserves and land conservation contracts in the Jamul/Dulzura Subregion unless the land is unsuitable for any type of agricultural use.

- Policy 13. Encourage the cooperation of federal and State agencies, along with the local government, to promote agricultural development through the use of soil and water conservation projects.

4.1.3 San Diego County Zoning Ordinance

The Project site is zoned A-70 and C-36, with residential use allowable under the A-70 Zone at minimum lot sizes of 1 to 2 acres (with these densities associated with the previously described SR-1 and SR-2 General Plan land use designations). The A-70 zone goals include creating and preserving areas for agricultural crop production, with additional allowable agricultural uses such as keeping limited numbers of small farm animals and processing agricultural products raised on the premises. The C-36 Zone is intended to create and enhance commercial areas with a range of retail goods and services, and is typically applied to support community or regional shopping complexes.

4.1.4 County Board of Supervisors Policy I-38

Pursuant to the discussion in Section 1.4.2, the referenced policy establishes criteria for implementing the Williamson Act such as eligibility standards, zoning and lot size requirements, fee/tax schedules, contract provisions, and formation of agricultural preserves.

4.1.5 San Diego County Agricultural Enterprises and Consumer Information Ordinance (§63.401 et seq.)

This ordinance is intended primarily to identify and limit the circumstances under which agricultural activities may constitute a nuisance. The ordinance notes that agricultural uses may be converted to other uses or zones, whether or not the parcels are zoned for agricultural uses. It prohibits land use changes in the vicinity of existing agricultural uses, however (when such uses have been established for a minimum of three years), that would result in the existing agricultural uses to be deemed a nuisance if they were not a nuisance prior to the proposed land use change. In addition, the ordinance requires prospective property buyers in unincorporated areas to be notified that agricultural activities may occur in the vicinity, and that associated inconveniences, irritations or discomforts could potentially result.

4.2 Project Consistency with Applicable Policies

4.2.1 San Diego County General Plan

As described in Sections 1.2, 1.4.4, and 4.4.1, the Proposed Project includes minimum one-acre lots in areas designated SR-1 and two-acre minimum lots in areas designated as SR-2, in conformance with the previously described requirements. Specifically, these lot sizes are allowable given that the average slope gradient in the associated areas is less than 25 percent. In addition, while specific commercial development is not currently proposed for on-site areas, subsequent on-site commercial development would be required to obtain associated discretionary approval from the County, in conformance with applicable C-4 requirements. Accordingly, Project development would be consistent with the described General Plan land use requirements. Assessments of Project consistency with the General Plan goals and policies related to agricultural described in Section 4.1.1 are provided below.

Land Use Element

Goal LU-5 and Policy LU-5.3

Implement land use and development patterns that reduce greenhouse gas emissions per associated regulatory standards, and "Ensure the preservation of existing open space and rural areas (e.g., forested areas, agricultural lands, wildlife habitat and corridors, wetlands, watersheds, and groundwater recharge areas) when permitting development under the Rural and Semi-Rural Land Use Designations."

Consistency Determination

With respect to agriculture, this goal and related policy are intended to preserve existing agricultural lands in proposed development occurring under Rural and Semi-Rural designations.

While the Project site is designated Semi-Rural, includes approximately 89.3 acres of important agricultural resources, and is an "important agricultural site" per the County Guidelines (as described in Section 2.3.1), there are no associated existing agricultural operations and no such uses have occurred on-site over approximately the past 15 years (refer to the *History of Agricultural Use* discussion of Section 1.4.2). Based on these conditions, as well as the fact that Project implementation would require approximately 50.4 acres of mitigation in the form of off-site agricultural easement acquisition and/or purchase of PACE credits to address on- and off-site impacts to identified agricultural resources (per County Guidelines), the Proposed Project would be consistent with Goal LU-5 and Policy LU-5.3. The remaining on-site areas of identified agricultural resources (approximately 39 acres) would either not be directly impacted by the Project (approximately 14 acres) , and/or do not encompass Prime Farmland or Farmland of Statewide Importance candidate soils (approximately 25 acres, with these areas thus not subject to significant impacts per the County Agricultural Guidelines). In addition, as previously described, orchards and gardens (while not required to address impacts and not included as part of the Project design or landscape plans) would be allowable uses within proposed residential lots, including the portion of the identified 39 acres of on-site agricultural resources that would not be impacted by proposed development (i.e., approximately 14 acres),

Goal LU-6 and Policy LU-6.4

Provide a built environment in balance with the natural environment, scarce resources, natural hazards, and the unique local character of individual communities, and plan residential subdivisions to conserve open space and natural resources, protect agricultural operations including grazing, increase fire safety and defensibility, reduce impervious footprints, use sustainable development practices, and, when appropriate, provide public amenities.

Consistency Determination

The primary intent of this goal and related policy for agricultural purposes is to protect agricultural operations, including grazing. Because there are no existing agricultural operations (including grazing) currently occurring on-site as noted above for Goal LU-5 and Policy LU-5.3, as well as the fact that Project implementation would require approximately 50.4 acres of mitigation for direct on-site (50.3 acres) and off-site (0.1 acre) impacts in the form of off-site agricultural easement acquisition or purchase of PACE credits (per County Guidelines), the Proposed Project would be consistent with Goal LU-6 and Policy LU-6.4. Additionally, as outlined above in Section 3.0, implementation of the Proposed Project would not result in any additional significant direct impacts (i.e., beyond the identified 0.1 acre), or significant indirect impacts (i.e., interface conflicts) to off-site agricultural resources.

Goal LU-7 and Policies LU-7.1 and LU-7.2

Retain, protect and support "continued agricultural operations" and "existing historically agricultural land" through efforts such as providing lower-density land use designations, and reducing lot size requirements for compatible development associated with agricultural conservation easements.

Consistency Determination

With respect to agriculture, this goal and related policies are primarily intended to protect existing agricultural operations and agricultural lands. As previously noted, agricultural operations have not occurred onsite over approximately the past 15 years, although portions of the site have historically been used for agriculture. The Proposed Project would be consistent with this goal and related policies, based on the following considerations: (1) there are no active agricultural uses onsite; (2) the Project design conforms with current on-site land use and zoning designations (as outlined in Section 1.4.4); and (3) Project implementation would require approximately 50.4 acres of mitigation in the form of off-site agricultural easement acquisition or purchase of PACE credits (per County Guidelines) and does not impact approximately 14 acres of on-site important agricultural resources.

Conservation and Open Space Element

Goal COS-6 and Policies COS-6.2 and COS-6.3

Support and protect agricultural operations through efforts such as: (1) limiting the ability of new development to impact existing agricultural uses by informing and educating new projects on the potential impacts from agricultural operations; (2) allowing agricultural uses in agricultural areas and designing development and lots to facilitate agricultural use within the development; (3) requiring development to minimize potential conflicts with adjacent agricultural operations by incorporating adequate buffers, setbacks, and project design measures to protect surrounding agriculture; (4) supporting local and State right-to-farm regulations; and (5) siting compatible recreational, open space, and trail uses adjacent to agricultural lands.

Consistency Determination

The main objectives of this goal and related policies are to avoid or minimize the potential for new development to limit existing agricultural operations, and to site compatible uses adjacent to agricultural areas. Implementation of the Proposed Project would be consistent with this goal and related policies, based on the following considerations: (1) the Project design includes measures to provide consistency with adjacent and nearby off-site agricultural uses through efforts such as: (1) maintaining a minimum 100-foot setback between all proposed residential uses and adjacent off-site agricultural operations; (2) limiting residential development along the western site boundary near adjacent off-site agricultural uses to two lots, with minimum setbacks as noted; (3) use of extensive landscaping to provide screening and blending with off-site agricultural uses, including tree and shrub plantings along the western (Jefferson Road), northern (Olive Vista Drive) and southern SR-94) site boundaries, as well as along all internal roadways, building pad slopes and detention basins; and (4) retention of open space with native vegetation in the western portion of the site, including areas along the western property boundary adjacent to off-site agriculture. In addition, while not proposed as part of the Project design or landscape plans (and not required to address off-site interface conflicts), orchards and gardens would be allowable within individual residential lots, allowing associated property owners an opportunity to provide transitional/buffer areas to increase blending and screening in relation to nearby off-site orchards.

4.2.2 Jamul/Dulzura Subregional Plan

The Proposed Project would be consistent with applicable policies of the Jamul/Dulzura Subregional Plan related to land use and agriculture, based on the following conclusions.

Semi-Rural Residential Lots

Policy 2a

All lots should have imported water and be able to provide for on-site sewage disposal.

Consistency Determination

As discussed in Sections 1.2 and 1.4.1, the Proposed Project would be served by the OWD (with existing water facilities located in adjacent portions of Jefferson Road and Olive Vista Drive), and all on-site residential lots would include approved and functional septic systems and leach fields (refer also to Figure 3). Accordingly, Project implementation would be consistent with related water supply and wastewater goals.

Policy 2e

All future developments should meet County standards for lot design and street patterns.

Consistency Determination

Based on the information provided above in this section and in Section 1.2, the Proposed Project would meet all applicable requirements related to lot design and street patterns, with Project implementation therefore to be consistent with associated policies.

Agriculture

Policy 9

Encourage all types of agriculture, large or small, which provide a local or regional source of food/fiber or livestock and when water and land resources are available.

Consistency Determination

While the Proposed Project does not include agricultural operations per se, it does provide opportunities for on-site uses such as orchards and gardens, and would not result in substantial interface conflicts with existing or potential future off-site agricultural operations (as discussed in Sections 1.2 and 3.0). Accordingly, Project implementation would be consistent with the noted policy.

Policy 10

Strongly support a study of the long-range availability of groundwater for agricultural uses.

Consistency Determination

While this policy does not directly apply to private development such as the Proposed Project, site development would not entail the use of groundwater for consumptive or other purposes, and would conform with County septic system standards (refer to Section 3.2.1). Accordingly, the Proposed Project is considered consistent with the overall intent of this policy to protect groundwater availability for agricultural use.

Policy 11

Keeping animals and other agricultural land uses on residential parcels of one acre or larger is desirable. As land holdings increase in size, the number of animals permitted should also be increased. Land use regulations permissive enough to allow such agricultural uses are appropriate throughout the community.

Consistency Determination

While the Proposed Project does not currently include provisions for keeping agriculturally-related animals on-site, orchards and gardens would be allowable on all individual residential lots as previously described. As a result, the Proposed Project would be consistent with the intent of this policy to allow agricultural land uses on residential lots.

Policy 12

Encourage agricultural preserves and land conservation contracts in the Jamul/Dulzura Subregion unless the land is unsuitable for any type of agricultural use.

Consistency Determination

While the Proposed Project would not result in the establishment of any agricultural preserves or land conservation contracts, it is considered consistent with the above policy based on the following considerations: (1) the designation of an on-site agricultural preserve or land conservation contract would not be consistent with existing land use and zoning designations or the stated Project objectives, and no application for such an on-site preserve or contract has been filed; (2) proposed development would be compatible with existing and potential off-site agricultural operations as noted above, and would thus not conflict with any existing or future off-site agricultural preserves or land conservation contracts; and (3) agricultural operations have not been conducted on the site for approximately the last 15 years, and variable density urban development is present in most adjacent and surrounding areas.

Policy 13

Encourage the cooperation of federal and State agencies, along with the local government, to promote agricultural development through the use of soil and water conservation projects.

Consistency Determination

- While Policy 13 does not directly apply to private developments such as the Proposed Project, site development would require approximately 50.4 acres of mitigation in the form of off-site agricultural easement acquisition (per County Guidelines), and no agricultural preserves or land conservation contracts are proposed on-site as noted above for Policy 12. Based on these conditions, the Proposed Project is considered consistent with Policy 13.

4.2.3 San Diego County Zoning Ordinance

As described in Sections 1.4.4 and 4.1.3, the Proposed Project design would comply with all applicable zoning requirements (with no proposed zoning change), and would therefore be consistent with associated requirements under the Zoning Ordinance.

4.2.4 County Board of Supervisors Policy I-38

Because there are no existing or proposed Williamson Act properties within or adjacent to the Project site or the associated ZOI, implementation of the Proposed Project would be consistent with Policy I-38.

4.2.5 San Diego County Agricultural Enterprises and Consumer Information Ordinance (§63.401 et seq.)

As described above and in Section 3.2.1, proposed development would be compatible with existing and potential off-site agricultural operations, and would not conflict with any existing or future off-site agricultural operations or designations. In addition, existing off-site orchards nearest to proposed residential development along the western site boundary are considered currently inactive (refer to Section 1.4.1), while similar uses along the eastern boundary are adjacent or in close proximity to existing off-site residential and school uses with no apparent conflicts. Despite these conclusions, however, written notification would be provided to all prospective property buyers regarding the potential for nearby agricultural activities and associated nuisance effects (pursuant to requirements in the San Diego County Agricultural Enterprises and Consumer Information Ordinance**)**.

4.3 Conclusions

The Proposed Project would be consistent with applicable land use and agricultural goals/policies contained in the County General Plan, Jamul/Dulzura Subregional Plan, County Zoning Ordinance, County Board of Supervisors Policy I-38, and the County Agricultural Enterprises and Consumer Information Ordinance. Specifically, such conformance would be provided through efforts including implementation of required mitigation for direct impacts to on- and off-site agricultural resources, conformance with existing land use designation and zoning designations (i.e., with no proposed designation changes), appropriate on-site land use types and lot sizes, the provision of municipal water and on-site wastewater systems, appropriate lot and street design, use of appropriate setbacks and landscaping as part of the Project design, compatibility with existing or potential future agricultural uses and designations, and provision of notification to prospective property buyers regarding the potential for nearby agricultural

activities and associated nuisance effects. In addition, while not proposed as part of the Project design or landscaping plans (and not required to address off-site interface conflicts), orchards and gardens would be allowable within individual residential lots, allowing associated property owners an opportunity to provide transitional/buffer areas to increase blending and screening in relation to nearby off-site orchards.

5.0 CUMULATIVE IMPACTS

Cumulative impacts are those caused by the additive effects of impacts to agricultural resources from multiple projects over time. Individual impacts for a given project may be less than significant on an individual basis, although the additive (or cumulative) effect when viewed in connection with impacts from past, present and probable future projects may result in the significant loss or degradation of agricultural resources. Because the Proposed Project is consistent with requirements related to General Plan land use designations and zoning as previously noted, the following assessment of potential cumulative impacts is based on conformance with these criteria rather than the "list of projects" methodology.

5.1 Guidelines for the Determination of Significance

As stated above and pursuant to County Agricultural Guidelines and direction from technical staff, the following analysis is based on conformance with General Plan and zoning requirements.

5.2 Analysis of Project Effects

The Proposed Project would conform with applicable requirements related to General Plan land use designations and zoning categories as follows, with additional description of these categories and related requirements provided in Section 1.4.4: (1) the Project design includes minimum one-acre lots in areas designated as SR-1, and minimum two-acre lots in areas designated as SR-2; (2) proposed residential uses incorporating the described lot sizes and densities would be consistent with A-70 zoning requirements; and (3) proposed development in the on-site commercial lot (limited to grading of pads) would be consistent with C-36 zoning requirements (with subsequent commercial development subject to additional discretionary approval as previously described). Based on the noted conformance with applicable land use and zoning criteria, the Proposed Project would be in conformance with the County General Plan (2011a) and Zoning Ordinance, does not propose a General Plan Amendment (GPA) or zoning change, and would not result in any associated cumulative impacts related to agricultural resources beyond those identified in the adopted County General Plan and associated General Plan Update Final Environmental Impact Report (County 2011a and County 2010, respectively).

5.3 Mitigation Measures and Design Considerations

Because no significant cumulative impacts related to agricultural resources were identified in association with Project implementation, associated mitigation measures and/or project design considerations are not required.

5.4 Conclusions

The Proposed Project would be consistent with all applicable General Plan land use designation and zoning requirements, and would not result in any associated cumulative impacts related to agricultural resources beyond those evaluated in the current adopted General Plan and associated General Plan Update Final Environmental Impact Report (County 2011a and County 2010, respectively).

6.0 SUMMARY OF PROJECT IMPACTS AND MITIGATION

The Proposed Project would result in approximately 50.4 acres of significant direct impacts to on- and off-site agricultural resources, based on the results of the LARA Model analysis and related evaluations as described in Section 2.0. Pursuant to the County Agricultural Guidelines criteria described in Section 2.4, these impacts would be mitigated through the acquisition of agricultural mitigation credits totaling 50.4 acres, via the County PACE Program, or a combination of PACE mitigation credits and applicant-purchase of off-site agricultural lands or LBZ easements totaling 50.4 acres that meet the intent of the County Agricultural Guidelines (and are approved by the County).

The Proposed Project would not result in significant indirect impacts to existing off-site agricultural operations/resources including olive or mixed-use orchards; row crops; or Williamson Act contract lands/agricultural preserves (as described in Section 3.2).

Potential impacts to or from surrounding agricultural operations related to theft/vandalism and the generation of nuisance factors such as noise, odor and dust would also be less than significant as described in Section 3.2, with these potential issues to be further reduced through Proposed Project design considerations, including the use of open space, setbacks (including a 100-foot FMZ along applicable portions of the eastern site boundary), and landscaping. In addition, while not proposed as part of the Project design or landscape plans (and not required to address off-site interface conflicts), small orchards and gardens would be allowable within individual residential lots. The use of such plantings, particularly on larger lots along the eastern site boundary, would allow individual property owners an opportunity to provide transitional and/or buffer areas to increase blending and screening in relation to nearby off-site orchards.

The Proposed Project would be consistent with all applicable General Plan land use designation and zoning requirements, and would not result in any associated cumulative impacts related to agricultural resources beyond those evaluated in the current adopted County General Plan.

7.0 REFERENCES

California Olive Committee (COC) and California Minor Crops Council (CMCC). 2003. A Pest Management Strategic Plan for Olive Production in California. August. Available at: http://www.ipmcenters.org/pmsp/pdf/CAOLIVEPMSP.pdf.

California Department of Conservation (CDC). 2010. Farmland Mapping and Monitoring Program (FMMP), Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance, San Diego County. Updated through June 30.

2007a. Division of Land Resource Protection, Farmland Mapping and Monitoring Program. Available at: http://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx.

2007b. Farmland of Local Importance Definitions. Available at: http://www.conservation.ca.gov/dlrp/fmmp/Documents/Local_definitions_00.pdf.

2007c. Williamson Act Contract Lands and Agricultural Preserves in San Diego County, California. Available at: http://www.conservation.ca.gov/dlrp/LCA/Pages/Index.aspx.

2004. A Guide to the Farmland Mapping and Monitoring Program, Publication No. FM92-02. Division of Land Resource Protection.

County of Napa. 2014. Agricultural Commissioner's Office. Olive Fruit Fly. Available at: http://www.countyofnapa.org/AgCommissioner/OFF/.

County of San Diego. 2014a. Department of Agriculture, Weights & Measures. Letter From Ms. Karen Melvin, Deputy Agricultural Commissioner, regarding Request for Public Information (pesticide use records) on APN Nos. 506-071-10, 596-071-60, 596-180-01, 596-180-02, and 596-180-13. Tracking Number 14-RP014. February 28.

2014b. County of San Diego - PDS - Zoning & Property Information – Simplified, Interactive Zoning and Land Use Designation Map. March 10. Available at: http://sdcounty.maps.arcgis.com/home/webmap/viewer.html?webmap=f1b69ba9d3dd4940b8d1efcc9dac2ac4.

2014c. County of San Diego Zoning Ordinance, Ordinance Update No. 95. February 14. Available at: http://www.sdcounty.ca.gov/pds/zoning/z2000.pdf.

2014d. Personal communication between Mr. Dennis Campbell of the County of San Diego, and Mr. Dennis Marcin of HELIX. January 8 and August 13.

2013a. Letter Summary of Initial Consultation For Idle Project. RECORD ID: PDS2013-IC-13-062; Environmental Log No. 3910-05-19-023; APN 596-180-01 and 02; Trust Account No. 12-D-06-0070485. September 17.

County of San Diego (cont.)

2013b. Personal Communication with Mr. Matthew Schneider, Land Use/Environmental Planner, County of San Diego Policy & Ordinance Development – Planning & Development Services. August 15.

2013c. San Diego County 2013 Crop Statistics and Annual Report.

2011a. San Diego County General Plan. Adopted August 3.

2011b. Jamul/Dulzura Subregional Plan – San Diego County General Plan. Adopted on December 31, 1979, Updated Through August 3, 2011.

2010. Final EIR for San Diego County General Plan Update. October

2007. County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements, Agricultural Resources. March 19.

2006. Plant Climate Map. Available at: http://www.sdcounty.ca.gov/pds/docs/zones.pdf.

Gilbert, Dewayne E. 1970. California Plantclimates, University of California Agricultural Extension Service. November.

Google Earth. 2012. Aerial Photo Image for Jamul, California.

Gotham Management, LLC. 2014. Personal Communication with Mr. Chad Harris. April 10.

HELIX Environmental Planning, Inc. (HELIX). 2015. Cultural Resources Inventory and Assessment: Simpson Farms Jamul, San Diego County, California. April.

2014a. Biological Technical Report for the Simpson Farms Project. April.

2014b. Personal communication between Messrs. Justin Fischbeck and Dennis Marcin of HELIX Environmental Planning, Inc. January 3.

2014c. Air Quality Analysis Report, Simpson Farms Project. May.

HistoricAerials.com. 2014a. Historic aerial photographs for the Simpson Farms Site and Vicinity, photos dated 2005, 1989, 1981, and 1971. March 10.

2014b. Review of online photos dated 1989, 2003 and 2005. Available at: http://www.historicaerials.com/. March 7.

KEA Environmental, Inc. (KEA). 2001. Cultural Resource Inventory for the Simpson Farms Project, Jamul, San Diego County, California. May.

RECON Environmental, Inc. (RECON). 2006. Agricultural Analysis for the Simpson Farms Project, Jamul/Dulzura Community Plan Area, San Diego County, California. March 30.

Rincon Consultants, Inc. (Rincon) 2005. Phase I and Phase II Environmental Site Assessment, 159-Acre Property, Jamul, California. May 25.

The Olive Oil Source. 2014. Olive Fly Control. Available at: http://www.oliveoilsource.com/page/olive-fly-control. Accessed March 18.

University of California Statewide Integrated Pest Management Program. 2009. Relative Toxicities of Insecticides and Miticides Used in Olives to Natural Enemies and Honey Bees. Updated through January. Available at: http://www.ipm.ucdavis.edu/PMG/r583900111.html#REFERENCE.

U.S. Department of Agriculture (USDA). 2012. USDA Plant Hardiness Zone Map for Zip Code 91935. Available at: http://planthardiness.ars.usda.gov/PHZMWeb/.

U.S. Natural Resources Conservation Service (NRCS, Formerly the U.S. Soil Conservation Service [SCS]). 2007. Soil Series Data for San Diego County, California. Available at: http://soildatamart.nrcs.usda.gov/.

1973. *Soil Survey, San Diego Area, California*. December.

U-T San Diego. 2011. U-T On-line News Service Article; *Iconic East County Nursery to Close*. November 11. Available at: http://www.utsandiego.com/news/2011/Nov/02/iconic-east-county-nursery-to-close.

Weather.com. 2014. Monthly Averages for Jamul, CA (91935). February 17. Available at: http://www.weather.com/weather/wxclimatology/monthly/graph/USCA0523.

Western Farm Press. 2002. *Industry desperate to control pest: Olive fruit fly attract/kill traps coming*. August 3. Available at: http://westernfarmpress.com/industry-desperate-control-pest-olive-fruit-fly-attractkill-traps-coming.

8.0 LIST OF PREPARERS AND PERSONS AND ORGANIZATIONS CONTACTED

LIST OF PREPARERS

This report was prepared by HELIX Environmental Planning, Inc. (HELIX). The following individuals contributed to the preparation of this report:

HELIX

Dennis Marcin*	B.S., Geology, Michigan State University
Elizabeth Scott	B.A., M.A., Environmental Studies, University of Southern California
Justin Palmer	B.A., Geography, focus on Natural Resource and Environmental Conservation, San Diego State University
Rebecca Kress	B.A., Geography, San Diego State University; GIS Professional Certificate, University of Denver

*Mr. Marcin is the principal author and is approved to prepare Agricultural Resource Reports by the County of San Diego.

PERSONS AND ORGANIZATIONS CONTACTED

The following persons and organizations were contacted during preparation of this report:

County of San Diego – Planning & Development Services

Dennis Campbell
Michael Johnson
Matthew Schneider
Marisa Smith

County of San Diego – Department of Agriculture, Weights and Measures

Karen Melvin
Gemma Bilog

Gotham Management, LLC
Chad Harris

Project Design Consultants
Camille Passon
Josephine Villa

Appendix A

LARA MODEL INSTRUCTIONS

3.1 LARA Model Instructions[6]

Application of the LARA model is intended for use in evaluating the importance of agricultural resources when it is determined that a discretionary project could adversely impact agricultural resources located onsite. The LARA model takes into account the following factors in determining importance of the agricultural resource:

Required Factors:	**Complementary Factors:**
Water	Surrounding Land Uses
Climate	Land Use Consistency
Soil Quality	Topography

Directions for determining the rating for each LARA model factor are provided in sections 3.1.1 through 3.1.6 of this document. Upon rating each factor, it is necessary to refer to Table 2, Interpretation of LARA Model Results, to determine the agricultural importance of the site.

Table 2. Interpretation of LARA Model Results

LARA Model Results			LARA Model Interpretation
Possible Scenarios	**Required Factors**	**Complementary Factors**	
Scenario 1	All three factors rated high	At least one factor rated high or moderate	The site is an important agricultural resource
Scenario 2	Two factors rated high, one factor rated moderate	At least two factors rated high or moderate	
Scenario 3	One factor rated high, two factors rated moderate	At least two factors rated high	
Scenario 4	All factors rated moderate	All factors rated high	
Scenario 5	At least one factor rated low importance	N/A	The site is *not* an important agricultural resource
Scenario 6	All other model results		

Data Availability

To complete the LARA model, various data sources are needed. The most efficient approach to completing the model is through analysis within a GIS. To facilitate this approach, the GIS data layers required to complete the LARA model are available upon request from DPLU. Available data sources include: groundwater aquifer type, Generalized Western Plantclimate Zones or "Sunset Zones", and Prime Farmland and

[6] Various data sources referenced in this document are available from DPLU in hard copy format (maps) or in digital format for use within a Geographic Information System (GIS). Obtaining various data sources will be required to determine the importance of the resource.

Farmland of Statewide Importance soil candidates. Other data sources are available from the SANGIS webpage at http://www.sangis.org/.

3.1.1 Water

The water rating is based on a combination of a site's CWA service status, the underlying groundwater aquifer type and the presence of a groundwater well (Table 3). Due to the variability of well yields and the potential for groundwater quality problems to adversely impact the viability of the well for agricultural purposes, the water factor allows for a reduction in the water rating based on site specific well yield and quality data, if that data is available (Table 4).

Table 3. Water Rating [7]

County Water Authority (CWA) Service Status	Groundwater Aquifer Type and Well Presence	Rating
Inside CWA service area with existing water infrastructure connections and a meter	Any groundwater aquifer type	High
Inside CWA service area with infrastructure connections to the site, but no meter has been installed	The site is located in an Alluvial or Sedimentary Aquifer *and* has an existing well	High*
	The site is located in an Alluvial or Sedimentary Aquifer, but has no existing well	Moderate*
	The site is located on Fractured Crystalline Rock and has an existing well	Moderate*
	The site is located on Fractured Crystalline Rock, but has no existing well	Low*
Outside CWA or inside CWA but infrastructure connections are not available at the site and no meter is installed	The site is located in an Alluvial or Sedimentary Aquifer *and* has an existing well	Moderate*
	The site is located in an Alluvial or Sedimentary Aquifer, but has no existing well	Low*
	The site is located on Fractured Crystalline Rock (with or without a well)	Low*
	The site is located in a Desert Basin (with or without a well)	Low*

*These water ratings may be reduced based on available groundwater quantity and quality information, in accordance with Table 4. If no additional groundwater quantity or quality data is available, the ratings above shall apply.

[7] If more than one underlying groundwater aquifer type exists at a site, usually the aquifer type that could produce the most water should be used to obtain the water rating. If it would be more reasonable to apply the rating based on the aquifer that would produce less water, a clear justification and reason for doing so must be provided.

Water Quality and Quantity Limitations

Site specific limitations to groundwater availability and quality exist and can lower the overall water rating of a site when data is available to support the limitation. Sites with imported water availability may not receive a lower water rating based on groundwater quality or yield data. Table 4 outlines potential water availability and quality limitations and the associated effect on the LARA model water rating.

Table 4. Groundwater Availability and Quality Effects on Water Rating

Groundwater Availability and Quality	Effect on Water Rating
The site has inadequate cumulative well yield (<1.9 GPM per acre of irrigated crops); TDS levels above 600 mg/L; or another documented agricultural water quality or quantity limitation exists	Reduces water rating by one level (i.e. from high to moderate or from moderate to low)

A determination of inadequate cumulative well yield as stated in Table 4 means that a site's well cannot produce at least enough water for each acre of irrigated crops at the site. At least 1.9 GPM is required per acre of irrigated crops, equating to production of 3 Acre Feet/Year (AFY) based on the following conversion factor: 1 AFY = 325,851 Gallons per Year / 365 days / 1440 minutes = 0.62 GPM. Cumulative well yield means that the combined yield of all wells on site may be summed to meet the required groundwater yield. As an example, if a site has 5 acres of irrigated crops, then production would need to be at least 9.5 GPM to produce enough water to irrigate the 5 acres, equating to approximately 15 AFY. If residence(s) exist on the project site, the groundwater analysis must demonstrate that an additional supply of 0.5 AFY can be achieved to account for residential water use associated with each existing onsite residence. To allow a reduction in the water quality score, TDS levels above 600 mg/L must be documented. If other documented water quality limitations exist that are not captured in the water quality measure of TDS, the water quality data must be provided and an associated water rating reduction justified. Although these requirements assume that water needs are consistent for a crop throughout the year while water requirements are typically higher in the dryer months, average annual required yield is used as the best available general measure of the adequacy of groundwater yields.

The quality and availability of imported water is not included as a factor to allow a reduction in the water rating due to an assumption that the MWD will continue to deliver water with the 500 mg/L TDS objective. However, it should be recognized that the degradation of the quality of Colorado River water is a known issue that could preclude the production of certain crops in the future. If in the future, the MWD is unable to meet their adopted water quality objectives, a similar reduction for imported water quality may need to be developed for consideration in the water score. Similarly, there is uncertainty regarding the continued future reliability of agricultural water deliveries based on various external issues that may affect local imported water supply such as protection of the Salton Sea and the stability of the Sacramento/San Joaquin Delta. As the impacts from external sources to local agricultural water deliveries become realized, the treatment of the water score in this document may need to be reevaluated.

Water Rating Explanation

Sites with availability of imported water always receive the highest water rating regardless of groundwater availability because the availability of imported water is essential for the long term viability of agriculture due to the limited natural rainfall and limited availability of groundwater resources in the County. Sites within the CWA service area that have no existing water meter, but that have water infrastructure connections to a site (in or near an adjacent street), are assigned a higher water rating than sites without existing water infrastructure connections. This is because the cost of extending off-site water infrastructure and obtaining a water meter is much higher than only obtaining a water meter and constructing onsite infrastructure connections to existing adjacent imported water infrastructure. Furthermore, the presence of existing imported water infrastructure adjacent to a site is a good indication that imported water is likely to become available to the site in the future (more likely than for a site far from infrastructure for imported water).

The underlying groundwater aquifer type and the presence of a well are two additional factors that affect the water rating. In general, sites underlain by an alluvial or sedimentary aquifer receive the highest ratings because these substrates have a much greater capacity to hold water than fractured crystalline rock. A site underlain by an alluvial or sedimentary aquifer with an existing well receives a higher rating than a site underlain by these geologic formations but having no existing well because of the cost associated with well installation. Well installation costs are added to the initial capital outlay required to begin an agricultural operation, thereby reducing the water rating if no well is present. The availability of groundwater in fractured crystalline rock is highly uncertain. However, a site underlain by fractured crystalline rock that has an existing well and is located adjacent to imported water infrastructure receives a moderate rating to take into account the cost of well installation, and the increased likelihood that imported water may become available at the site in the near future. Additionally, while groundwater yield in fractured crystalline rock is generally limited compared to other aquifer types, it can provide a good source of groundwater, especially in valley areas where there may be saturated residuum overlying the fractured crystalline rock. Sites with a well located on fractured crystalline rock, but without imported water infrastructure connections to the site, always receive a low rating because such sites would likely be reliant on a limited groundwater resource for the foreseeable future.

Nearly all agriculture in the desert basins is located in Borrego Valley, where documented groundwater overdraft conditions limit the long-term sustainability of agricultural use. A site located in a desert basin receives a low water rating due to the absence of imported water, and low groundwater recharge rates, which can easily result in groundwater overdraft conditions as documented in Borrego Valley, where extraction rates far exceed natural recharge. The Borrego Municipal Water District is taking measures to reduce water use in the basin through encouraging the fallowing of agricultural land. In addition, the County of San Diego requires proposed projects to mitigate for significant impacts to groundwater supply in accordance with CEQA. Mitigation may be achieved through the fallowing of agricultural land. These factors make preservation of agriculture in Borrego Valley infeasible in the long term when

considering the need to reduce overall groundwater use to protect the public health and the sustainability of the community.

Groundwater Quantity and Quality Explanation

The following discussion explains the reasoning behind the water rating reductions detailed in Table 4, Groundwater Availability and Quality Effects on Water Rating. The lack of a well with adequate yield (1.9 GPM for each acre of irrigated crops) reduces the water rating by one factor. This standard is based on the well yield needed to achieve production of 3 AFY per acre, an average crop irrigation requirement for crops produced locally (Table 5).

Table 5. Crop Water Use Averages

Crop	Typical Water Usage Per Acre (AFY)
Indoor Flowering and Foliage Plants	3-4
Ornamental Shrubs and Trees	3
Avocados	3
Bedding Plants	3
Cut Flowers	2-3
Tomatoes	2
Citrus	2.5-3
Poinsettias	3-4
Strawberries	3
Average	**3**

Source: UC Cooperative Extension, County of San Diego

A well with poor water quality (as measured by TDS levels above 600 mg/L or another documented water quality limitation) may reduce the water rating by one factor to account for agricultural limitations associated with using poor quality water for crop production. Groundwater with TDS concentrations above 600 mg/L is the guideline for allowing a reduction in the water factor based on available research on the effects of TDS on crop production, with specific focus on the effects on crops important to the San Diego region. In general, as TDS levels rise, water has diminishing value for agricultural use as it can restrict the range of crops that can be irrigated with the water and increases the cost of irrigation system maintenance.

According to the San Diego County Water Authority Agricultural Irrigation Water Management Plan, TDS levels above 500 mg/L are problematic for many of the subtropical crops produced in San Diego County, and TDS levels over 1,000 mg/l are virtually unusable for many of the subtropical crops grown here (2001). While TDS concentrations above 500 mg/L can be problematic for many subtropical crops, concentrations above 600 mg/L was selected as the guideline to take into account the already elevated TDS concentrations in imported water sources. Another study (Peterson, 1999) identified the TDS tolerance of selected crops. Field crops such as oat hay, wheat hay and barley were found to tolerate water with TDS levels up to 2,500

mg/L, but these are among the lowest value crops produced in the County. Strawberries were found to be intolerant to TDS levels greater than 500 mg/L; apples, grapes, potato, onion, and peppers slightly tolerant to TDS levels up to 800 mg/L; and cucumbers, tomatoes, and squash moderately tolerant to TDS levels up to 1,500 mg/L. The Florida Container Nursery BMP Guide prepared by the University of Florida Agricultural Extension (2006) identified TDS levels and the associated degree of problem that will be experienced for microirrigated container nursery production at different TDS levels. TDS of 525 mg/L or less was identified as producing no problems, TDS from 525 to 2100 mg/L having increasing problems, and TDS greater than 2100 mg/L having severe problems. High levels of TDS can be overcome through planting more salt resistant crops; however salt resistant crops are typically lower in value and would not produce the economic returns necessary to sustain a viable farming industry in San Diego County (high cost of production and land generally require production of high value crops). In general as TDS levels rise, crop yields decline, maintenance of irrigation systems becomes more difficult, and the range of crops (particularly high value crops) that can be supported is reduced.

In summary, TDS levels in groundwater above 600 mg/L substantially impair the water as a source of irrigation for agriculture, justifying a reduction in the water rating by one factor to account for the potential for reduced yields, increased difficulty in maintaining irrigation systems, and reduction in the range of crops that can be produced.

It is important to note that TDS is only one measure of water quality and does not differentiate between the various types of dissolved solids or contaminants that may be present in water. High levels of certain constituents can cause severe problems for agricultural production. For example, high chloride content can damage certain crops, while nitrates can cause problems for livestock. If specific documented limitations exist that reduce the viability of the water supply for agriculture, the water rating should be reduced. The quality of imported water is not considered because it is assumed that the MWD will deliver water with a maximum TDS of 500 mg/L, their adopted TDS objective for imported water deliveries.

3.1.2 Climate

Ratings associated with each Generalized Western Plantclimate Zone or "Sunset Zone" are included in Table 6, Climate Rating. The table identifies and describes each zone and justification for the associated rating.[8] Detailed descriptions of the Sunset Zones in San Diego County are included in Attachment B.

[8] All Sunset Zones in the County are not included in the table. Zone 22 is a small area that occurs entirely within Camp Pendleton, therefore no rating is assigned to this zone. Zone 24 is the maritime influenced zone. Only limited portions of unincorporated communities exist in this zone (County Islands in National City and the west Sweetwater area). Although this zone is valuable for certain high value crops, it is not assigned any importance rating due to the very small area of unincorporated land that occurs in this zone and the fact that the land is fully urbanized.

Table 6. Climate Rating

Climate (Sunset Zone) Description	Rating	Justification
Zone 23 represents thermal belts of the Coastal Areaclimate and is one of the most favorable for growing subtropical plants and most favorable for growing avocados. Zone 23 occurs in coastal incorporated cities and also occurs in the unincorporated communities of Fallbrook, Rainbow, Bonsall, San Dieguito, Lakeside, western portions of Crest and Valle De Oro, Spring Valley, Otay, and western portion of Jamul-Dulzura.	**High**	Zone 23 is rated high because this climate zone is the most favorable for growing some of the County's most productive crops. Year round mild temperatures allow year round production and the proximity to urban areas and infrastructure facilitates efficient delivery to market.
Zone 21 is an air drained thermal belt that is good for citrus and is the mildest zone that gets adequate winter chilling for some plants. Low temperatures range from 23 to 36 degrees F, with temperatures rarely dropping far below 30 degrees.	**High**	Zone 21 is rated high because of the mild year round temperatures and lack of freezing temperatures that allow year round production of high value crops. The importance of this zone is also related to the conversion pressure that exists due to urban encroachment. Preserving agriculture in Zone 21 is essential to maintain the high returns per acre that are common in this County. Climate is the essential factor that allows high value production. The loss of significant agricultural lands in Zone 21 would eventually relegate agriculture to areas further east where most of the County's high value crops cannot be viably produced. Zone 21 is also favorable due to its location close to urban areas and transportation infrastructure which facilitates product delivery to market.
Zone 20 is a cold air basin that may be dominated by coastal influence for a day, week or month and then may be dominated for similar periods of time by continental air. Over a 20 year period, winter lows in Zone 20 ranged from 28 to 23 degrees F.	**High**	Zone 20 occurs the Ramona area. Citrus groves are common in Zone 20 in addition to a concentration of animal agriculture operations and vineyards. Most of Zone 20 falls within the 89,000-acre Ramona Valley viticultural area which was designated as its own appellation in 2006 and contains 17 vineyards currently cultivating an estimated 45 acres of wine grapes. The distinguishing factors of the Ramona Valley viticultural area include its elevation, which contrasts with the surrounding areas, and climatic factors related to its elevation and inland location. Due to the favorable climate, proximity to urban areas, and its potential to become a more widely recognized viticultural area, Zone 20 is rated as a climate of high importance.
Zone 19 is prime for citrus, and most avocadoes and macadamia nuts can also be grown here.	**High**	Zone 19 is rated high due to the suitability for growing the County's high value crops and its location close to urban areas.

Zone 18 is a mountainous zone subject to frosts. Citrus can be grown in Zone 18, but frosts require the heating of orchards to reduce fruit loss. Zone 18 is the home of Julian's apple orchards.	**Moderate**	Zone 18 is assigned a medium rating due to its frost susceptibility, reducing its potential for supporting year round production and frost sensitive crops. However, the ability to produce crops that require winter chilling makes it a climate zone of moderate importance.
Zone 13 covers low elevation desert areas (considered subtropical) and is the most extensive of the County's desert Plantclimate zones. Zone 13 includes the extensive agricultural uses in the Borrego Valley.	**Moderate**	Zone 13 is assigned a moderate rating due to the temperature extremes characteristic of this zone. These temperature extremes exclude some of the subtropicals grown in Zones 22 to 24, however numerous subtropicals with high heat requirements thrive in this climate such as dates, grapefruit, and beaumontia and thevetia (ornamentals).
Zone 11 is located below the high elevation Zone 3 and above the subtropical desert Zone 13.	**Low**	Zone 11 is assigned a low climate rating due the agricultural hazards of the climate including late spring frosts and desert winds.
Zone 3 occurs in the high elevation Palomar Mountains in addition to high elevation areas east of the Tecate Divide. These are locations where snow can fall and wide swings in temperature occur.	**Low**	Most of these lands are pubic lands, reducing their potential for commercial agriculture. The wide swings in temperature, including freezing temperatures in winter make this zone of low importance agriculturally. This zone is also far from transportation infrastructure; an important consideration for crop delivery to market.

While it is anticipated that the climate ratings would normally not be modified, it is important to acknowledge that microclimate conditions do exist that cannot be captured in the Sunset Zone definitions. For example, topography can create certain microclimate conditions such as frost susceptibility that could downgrade the climate importance of a site to marginal if frost tolerant crops cannot be grown at the site. Any downgrading or upgrading of a climate rating must be accompanied by site specific climate data to support the modification, and any identified climate limitations must be based on the range of crops that could be viable at the site. For example, if frost sensitive crops are the only crop identified to be viable at the site and the site would be subject to frequent frosts, this should be documented and a lower rating may be applied. It is not anticipated that climate modifications would be commonly used given the diversity of crops that a site would usually be able to support.

Sunset Zones are used as a standard measure of climate suitability due to the variability of microclimate conditions that the Sunset zones take into account. Recognizing that the Sunset Zones were not developed as a tool to determine the suitability for commercial agricultural production, their use is not intended to determine suitability for specific crops, rather they are a measure of overall climate suitability for the typical agricultural commodities produced in San Diego County. For example, the Sunset Zone designations take into account the USDA hardiness rating which identifies the lowest temperature at which a plant will thrive. Sunset Zones start with the USDA hardiness zones and add the effects of summer heat in ranking plant suitability for an area. The American Horticulture Society (AHS) heat zone map ranks plants for suitability to heat, humidity and dryness. The AHS heat zone map was developed under the direction of

Dr. H. Marc Cathey, who was instrumental in the organization of the USDA Plant Hardiness Map. Each AHS heat zone has "heat days," those days with temperatures of 86° F or above. 86° F is the point at which some plants suffer damage to cellular proteins. The USDA plant hardiness zone maps and/or the AHS heat zone map may be used to supplement the Sunset Zone information if the Sunset Zone descriptions are not accurate.

3.1.3 Soil Quality

The project's soil quality rating is based on the presence of Prime Farmland Soils or Soils of Statewide Significance (Attachment C) that are available for agricultural use and that have been previously used for agriculture. Land covered by structures, roads, or other uses that would preclude the use of the land for agriculture, are not typically considered in the soil quality rating. To determine the soil quality rating, the soil types on the project site must be identified. The soils data for the project site must be entered into Table 7, Soil Quality Matrix as detailed in the steps below:

Step 1.
Identify the soil types that are on the project site. Enter each soil type in Rows 1 through 13 of Column A. If the site has more soil types than available rows, add additional rows as needed.

Step 2.
Calculate the acreage of each soil type that occurs on the project site and enter the acreage of each in Column B. Enter the total acreage in Row 14, Column B. This number should equal the total acreage of the project site.

Step 3.
Calculate the acreage of each soil type that is unavailable for agricultural use[9] and enter the total in the corresponding rows of Column C.

Step 4.
Subtract the values in Column C from the acreages of each soil type identified in Column B. Enter the result in Column D.

[9] Soils unavailable for agricultural use include: 1) lands with existing structures (paved roads, homes, etc.) that preclude the use of the soil for agriculture, 2) lands that have been disturbed by activities such as legal grading, compaction and/or placement of fill such that soil structure and quality have likely been compromised (e.g., unpaved roads and parking areas), 3) lands that are primarily a biological habitat type that have never been used for agriculture, and 4) lands constrained by biological conservation easements, biological preserve, or similar regulatory or legal exclusion that prohibits agricultural use. The distinction between agriculture and biological resources is not always clear because agricultural lands commonly support sensitive biological species. Agricultural lands that incidentally support sensitive species should still be considered an agricultural resource; however, biological habitats that have never been used for agriculture should not be considered an agricultural resource. It is possible that non-native grasslands will be classified as both a biological resource and an agricultural resource since many non-native grasslands have been established based on a history of agricultural use.

Step 5.
Sum the acreage values in Column D and enter the total in Column D, Row 14.

Step 6.
Divide the acres of each soil type in Column D by the total acreage available for agricultural use (Column D, Row 14) to determine the proportion of each soil type available for agricultural use on the project site. Enter the proportion of each soil type in the corresponding row of Column E.

Step 7.
Determine whether each soil type is a soil candidate for Prime Farmland or Farmland of Statewide Importance. If yes, enter 1 in the corresponding row of Column F. If no, enter zero in the corresponding row of Column F.

Step 8.
Multiply Column E x Column F. Enter the result in the corresponding row of Column G.

Step 9.
Sum the values in Column G and enter the result in Column G, Row 15 to obtain the total soil quality matrix score.

Step 10.
Based on the total soil quality matrix score from Table 7, identify the corresponding soil quality rating using Table 8 Soil Quality Matrix Interpretation

Table 7. Soil Quality Matrix

	Column A	Column B	Column C	Column D	Column E	Column F	Column G
	Soil Type	Size of project site (acreage)	Unavailable for agricultural use	Available for agricultural use	Proportion of project site	Is soil candidate for prime farmland or farmland of statewide significance? (Yes = 1, No = 0)	Multiply Column E x Column F
Row 1							
Row 2							
Row 3							
Row 4							
Row 5							
Row 6							
Row 7							
Row 8							
Row 9							
Row 10							
Row 11							
Row 12							
Row 13							
Row 14	Total		Total				
Row 15						***Soil Quality Matrix Score***	

Table 8. Soil Quality Matrix Interpretation

Soil Quality Matrix Score	Soil Quality Rating
The site has a Soil Quality Matrix score ranging from 0.66 to 1.0 and has a minimum of 10 acres of contiguous Prime Farmland or Statewide Importance Soils	High
The site has a Soil Quality Matrix score ranging from 0.33 to 0.66 or the site has a minimum of 10 acres of contiguous Prime Farmland or Statewide Importance Soils	Moderate
The site has a Soil Quality Matrix score less than 0.33 and does not have 10 acres or more of contiguous Prime Farmland or Statewide Importance Soils	Low

Soil Quality Rating Justification

The presence of Prime Farmland Soils or Soils of Statewide Significance is used as the measure of quality soil in the LARA soil quality rating based on their use in defining soil candidates for the FMMP Farmland categories of Prime Farmland and Farmland of Statewide Importance. Soil candidates for the FMMP Prime Farmland designation are soils with the best combination of physical and chemical characteristics for the production of crops. Soil candidates for the FMMP Farmland of Statewide Importance designation are similar to the soil criteria for Prime Farmland, but include minor shortcomings, such as greater slopes or less ability to store soil moisture. Soil candidates for Farmland of Statewide Importance do not have any restrictions regarding permeability or rooting depth. Soil candidates for Farmland of Statewide Significance are included in this rating to capture quality soils with minor shortcomings that may not have been included, if the typical definition of Prime Agricultural Land as stated in Government Code Section 51201(c) was used. Soil criteria used in Government Code Section 51201(c) identifies any land with a LCC rating of I or II or a Storie Index Rating from 80 to 100 as land that meets the definition of prime agricultural land. Because San Diego County has limited quantities of soils that meet these criteria, locally defined NRCS soil candidates for Prime Farmland and Farmland of Statewide Importance are included to define quality soils in this locale given that 70% of these soils have LCC higher than I or II and 88% have SI ratings below 80. Details regarding the soil criteria that determine the applicability of a soil for the respective Farmland designation is included in Attachment C, Soil Candidate Criteria and Candidate Listing for Prime Farmland and Farmland of Statewide Importance.

Table 8, Soil Quality Matrix Interpretation, identifies high, moderate, or low importance ratings based on the soil quality matrix score from Table 7. The maximum possible soil quality matrix score is one and the minimum is zero because the score is based on the amount of the agricultural resources onsite that are Prime and Statewide Importance soil candidates. A site with a soil quality matrix score of 0.66 or higher means that two-thirds of the agricultural resources onsite have soils that meet the soil quality criteria for Prime Farmland or Farmland of Statewide Importance. A minimum of 10 contiguous acres is required for a site to be assigned the highest soil quality rating to reflect the need for high quality soils to be contiguous in order for them to be considered useful

agriculturally. If the site has a soil quality score from 0.33 to 0.66 or has 10 acres or more of contiguous soils that meet the soil quality criteria for Prime Farmland or Farmland of Statewide Importance, the site is assigned the moderate importance rating. If less than one-third of the site or less than 10 contiguous acres of the agricultural resources onsite have soils that meet the Prime or Statewide Importance soil criteria, the site is assigned the low importance rating for soil quality. A ten acre threshold is included in the ratings to capture the potential for a large project site to have a substantial quantity of high quality soils and still receive a low importance rating due to the project's size in relation to the acreage of quality soils. Ten acres is an appropriate acreage to use in this context because ten acres would typically be able to support a wide range of agricultural uses in San Diego County. Furthermore, to be eligible for a Williamson Act Contract in an Agricultural Preserve, the County of San Diego Board of Supervisor's Policy I-38 (Agricultural Preserves) recommends various minimum ownership sizes, with ten acres being the minimum, to be eligible for a contract. Ten acres is listed as the minimum size for various agricultural activities including poultry, tree crops, truck crops, and flowers. The requirement that the land be contiguous recognizes that small, scattered pockets of high quality soils are less valuable for agricultural use than an area of contiguous high quality soils.

3.1.4 Surrounding Land Use

Surrounding land use is a factor in determining the importance of an agricultural resource because surrounding land uses that are compatible with agriculture make a site more attractive for agricultural use due to lower expectations of nuisance issues and other potential impacts from non-farm neighbors. This factor also accounts for the degree to which an area is primarily agricultural, assigning a higher rating to areas dominated by agricultural uses than an area dominated by higher density, urban development. Surrounding land use is a complementary factor in the LARA model because the presence of compatible surrounding land uses can support the viability of an agricultural operation; however a lack of compatible surrounding land uses would not usually prohibit productive agriculture from taking place (depending on the type of production). Similarly, agriculture can be viable among urban uses, but its long term viability would generally be less than an agricultural operation conducting operations in an area dominated by agricultural uses because of lesser economic pressures to convert to urban uses. To determine the surrounding land use rating, the following information must be determined:

Step 1.
Calculate the total acreage of lands compatible with agricultural use[10] within the defined Zone of Influence (ZOI).[11] The location of agricultural lands can be determined using information from the DOC's Important Farmland Map Series, agricultural land use data available from the DPLU, aerial photography, and/or direct site inspection. Land within a ZOI that is observed to be fallow or with a history of agricultural use will usually be considered agricultural land, unless there is evidence that it has been committed to a non-agricultural use (such as having an approved subdivision map). The Department of Planning and Land Use may consult the Department of Agriculture, Weights and Measures if there are disputed interpretations.

Step 2.
Calculate the percentage of the acreage within the project's ZOI that is compatible with agricultural use.

Step 3.
Based on the proportion of lands within the ZOI that are compatible with agricultural use, identify the appropriate surrounding land use rating in accordance with Table 9, Surrounding Land Use Rating.

Table 9. Surrounding Land Use Rating

Percentage of Land within ZOI that is Compatible with Agriculture	Surrounding Land Use Rating
50% or greater	High
Greater than 25% but less than 50%	Moderate
25% or less	Low

Considering surrounding land uses within the ZOI is intended to provide a measurement of the long term sustainability of agriculture at the project site. Agriculture is generally

[10] Lands compatible with agricultural uses include existing agricultural lands, protected resource lands, and lands that are primarily rural residential. Protected resource lands are those lands with long-term use restrictions that are compatible with or supportive of agricultural uses including but not limited to Williamson Act contracted lands; publicly owned lands maintained as park, forest, open space, or watershed resources; and lands with agricultural, wildlife habitat, open space, or other natural resource easements that restrict the conversion of such land to urban or industrial uses. For the purposes of this factor rating, rural residential lands include any residential development with parcel sizes of two acres or greater and that contain elements of a rural lifestyle such as equestrian uses, animal raising, small hobby type agricultural uses, or vacant lands. Residential parcels with swimming pools, children's play areas, second dwelling units, or other accessory uses that occupy a majority of the usable space of a residential parcel should not be identified as land compatible with agriculture.

[11] Attachment F details the steps required to determine the Zone of Influence (ZOI). The ZOI methodology is taken from the Department of Conservation's Land Evaluation Site Assessment (LESA) model and includes a minimum area of ¼ mile beyond project boundaries and includes the entire area of all parcels that intersect the ¼ mile boundary. The ZOI developed by the Department of Conservation is the result of several iterations during development of the LESA model for assessing an area that would generally be a representative sample of surrounding land use. For example, a 160 acre project site would have a ZOI that is a minimum of eight times greater (1280 acres) than the project itself.

compatible with other agricultural land uses because they are more likely be tolerant of the typical activities and nuisances associated with agricultural operations than urban land uses would be. Primarily rural residential lands are included as a land use compatible with agriculture because rural residential lands are already common among agricultural uses and most active farms also have residences on the site. Although not all types of agriculture are compatible with rural residential land uses (i.e. confined animal facilities); many typical San Diego County farming operations are compatible with rural residential land uses as is evidenced by the existing viability of agricultural operations that are located among rural residential land uses. For example, in many North County communities, small parcels (two acres, for example) with a single family residence and a small orchard or other farming or equestrian use are common. These residential uses, due to their direct involvement in agriculture or a rural lifestyle, would tend to be more compatible with agriculture than a high density development where homeowners would be less likely to be directly involved in rural lifestyle activities (e.g. agriculture, equestrian, animal raising, etc.). Occupants of higher density residential uses are more likely to be disturbed by noise, dust, pesticides or other nuisances that do not fit with the peaceful perceptions of living in the countryside.

3.1.5 Land Use Consistency

The median parcel size associated with the project site compared to the median parcel size of parcels located within the ZOI is a complementary factor used in the LARA model. In order to determine the land use consistency rating for the project, the following information must be determined:

Step 1.
Identify the median parcel size associated with the proposed project if the proposed project consists of at least three parcels. If the proposed project consists of two parcels, use an average. If the proposed project consists of only one parcel, then no median or average is needed.

Step 2.
Identify the median parcel size of the parcels located within the project's ZOI.

Step 3.
Considering the project's median parcel size and the ZOI median parcel size, identify the land use consistency rating in accordance with Table 10.

Table 10. Land Use Consistency Rating

Project's median parcel size compared to ZOI median parcel size	Land Use Consistency Rating
The project's median parcel size is smaller than the median parcel size within the project's ZOI	High
The project's median parcel size is up to ten acres larger than the median parcel size within the project's ZOI	Moderate
The project's median parcel size is larger than the median parcel size within the project's ZOI by ten acres or more	Low

Land use consistency is used as a measure of importance to recognize the effect that surrounding urbanization has on the viability of ongoing agricultural uses and to recognize that as urbanization surrounds agricultural lands, opportunity costs[12] for agricultural operators increase, thus reducing the viability of an agricultural operation. A site surrounded by larger parcels indicates that the site is located in an area that has not already been significantly urbanized and the area is more likely to continue to support viable agricultural uses. On the other hand, a site surrounded by smaller parcels indicates a lower likelihood of ongoing commercial agriculture viability considering the greater expectations of land use incompatibilities that the site is likely to experience and the reduction in economic viability when considering forgone opportunity costs. The median parcel size is used instead of an average to account for the potential for a very large or very small parcel to exist that would skew the result if using an average.

3.1.6 Slope

To determine the Slope Rating for the site, the average slope for the area of the site that is available for agricultural use must be determined. Refer to Column D of Table 7, Soil Quality Rating Matrix, for the areas of the site considered available for agricultural use. When the average slope of the areas of the site that is available for agricultural use is determined, identify the corresponding topography rating as outlined in Table 11, below.

Table 11. Slope Rating

Average Slope	Topography Rating
Less than 15% slope	High
15% up to 25% slope	Moderate
25% slope and higher	Low Importance

[12] Opportunity cost is an economic term. It means the cost of something in terms of an opportunity foregone (and the benefits that could be received from that opportunity), or the most valuable foregone alternative. For example, if a land owner decides to farm his land, the opportunity cost is the value of one or more alternative uses of that land, such as a residential subdivision. If he continues to farm the land, the opportunity cost is the revenue that he does not receive from building houses. Thus, as opportunity costs rise, the viability of continuing the current action (i.e. agricultural use) decreases. This conclusion is based on the fact that agricultural use of land is primarily an economic decision. When factors, such as increased opportunity costs, make use of the land for agriculture less profitable than other uses, the long term viability of agriculture decreases.

Slope is included as a complementary factor in the LARA model to account for the importance that slope plays in the viability of a piece of land for agricultural production, a flat site allowing a greater range of potential agricultural uses and facilitating mechanization of operations. Gentle topography has other benefits such as reduced difficulty in managing irrigation runoff and reduced soil erosion as compared to more steep sites. Topography is not a required factor for a determination of importance because topography limitations can be overcome at a cost if the expected return on investment is high enough to warrant the expense (i.e. container based production, mass grading).

4.0 TYPICAL ADVERSE EFFECTS AND GUIDELINES FOR DETERMINING SIGNIFICANCE

4.1 Typical Adverse Effects

Typical adverse effects to agricultural resources are best considered in relation to the various types of impacts that are considered under CEQA: direct, indirect and cumulative. Direct impacts are straightforward: important agricultural resources are converted to a non-agricultural use, significantly reducing or eliminating the productive capacity of the land. Indirect effects are widely varied and require careful analysis of particular site conditions and farming operations. Indirect effects include significant impacts to active agricultural operations, Williamson Act Contracts, or to the viability of important agricultural resources. Indirect effects can result from growth inducement and the associated extension of infrastructure that can change rural character and increase the likelihood of agriculture urban interface conflicts. Indirect impacts can be caused by significant economic impacts to active agricultural operations that compromise their on-going viability and result in increased likelihood of conversion. Significant cumulative impacts result when a project's impacts are considerable when viewed in connection with the effects of past, present and probable future projects. Cumulative impacts are difficult to assess given the market driven and adaptable nature of agriculture. For example, a loss of agricultural land may occur in one area, while new land is converted to agriculture use elsewhere. Similarly, changes in agricultural commodity market prices could result in a shift in the type of agricultural commodities produced locally. Changes in the agricultural industry that result from external market factors could appear to be significant cumulative impacts to agriculture when they may only be a result of market adaptation to external economic conditions.

4.1.1. Direct Impacts

Direct impacts occur when a project would adversely impact locally important agricultural soils on a site that is determined to be important pursuant to the County LARA model. In San Diego County, important agricultural soils include not only soils with the USDA LCC ratings of I and II or Storie Index ratings of 80 or higher, but also includes soils of lesser quality as defined by the soil candidate listing for Prime Farmland and Farmland of Statewide Importance compiled by the USDA NRCS for San

Appendix B

SOIL QUALITY MATRIX WORKSHEET

Table B-1
SOIL QUANTITY MATRIX WORKSHEET

	Column A	Column B	Column C	Column D	Column E	Column F	Column G
	Soil Type	**Size of Project Site (acres)**	**Unavailable for Agricultural Use (acres)**	**Available for Agricultural Use (acres)**	**Proportion of Project Site**	**Is soil candidate for prime farmland or farmland of statewide significance? (Yes = 1, No = 0)**	**Multiply Column E x Column F**
Row 1	ClE2	2.84	U/D – 0.18 Total = 0.18	2.66	0.02	0	0.00
Row 2	CmE2	0.02	Total = 0	0.02	<1	0	0.00
Row 3	FeE2	41.62	U/D – 1.10 Total = 1.10	40.524	0.26	0	0.00
Row 4	FaE2	22.59	U/D – 2.95 Total = 2.95	19.64	0.13	0	0.00
Row 5	FaC2	30.75	EW – 0.12 U/D – 1.41 Total = 1.53	29.22	0.19	1	0.19
Row 6	FaD2	20.62	DCSS – U/D – 0.26 Total = 0.26	20.36	0.13	0	0.00
Row 7	PeC2	1.43	DCSS –U/D – 0.34 Total = 0.34	1.09	0.007	1	0.007
Row 8	RaC2	42.12	U/D – 1.74 Total = 1.74	40.38	0.26	1	0.26
TOTAL		**158.68**		**153.89**			
Soil Quality Matrix Score							**0.46***

*This total is slightly different from the sum of this column due to rounding.

Soil Types

ClE2	Cieneba coarse sandy loam, 15 to 30 percent slopes, eroded
CmE2	Cieneba rocky coarse sandy loam, 9 to 30 percent slopes, eroded
FeE2	Fallbrook rocky sandy loam, 9 to 30 percent slopes, eroded
FaE2	Fallbrook sandy loam, 15 to 30 percent slopes, eroded
FaC2	Fallbrook sandy loam, 5 to 9 percent slopes, eroded
FaD2	Fallbrook sandy loam, 9 to 15 percent slopes, eroded
PeC2	Placentia sandy loam, 5 to 9 percent slopes, eroded
RaC2	Ramona sandy loam, 5 to 9 percent slopes, eroded

Vegetation/Development Type

EW	Eucalyptus Woodland
U/D	Urban/Developed (roads, structures, etc.)

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Appendix C

HISTORIC AERIAL PHOTOGRAPHS

I:\PROJECTS\G\GML\GML-01_SimpsonFarms\Map\Misc\HistoricAerials.mxd GML-01 03/12/14 - RK

1928 Aerial Photograph

SIMPSON FARMS

HELIX Environmental Planning

N

0 500 Feet

I:\PROJECTS\G\GML\GML-01_SimpsonFarms\Map\Misc\HistoricAerials.mxd GML-01 03/12/14 - RK

1953 Aerial Photograph

SIMPSON FARMS

HELIX Environmental Planning

N

0 500 Feet

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1968 Aerial Photograph

SIMPSON FARMS

HELIX Environmental Planning

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1971 Aerial Photograph

SIMPSON FARMS

HELIX Environmental Planning

N

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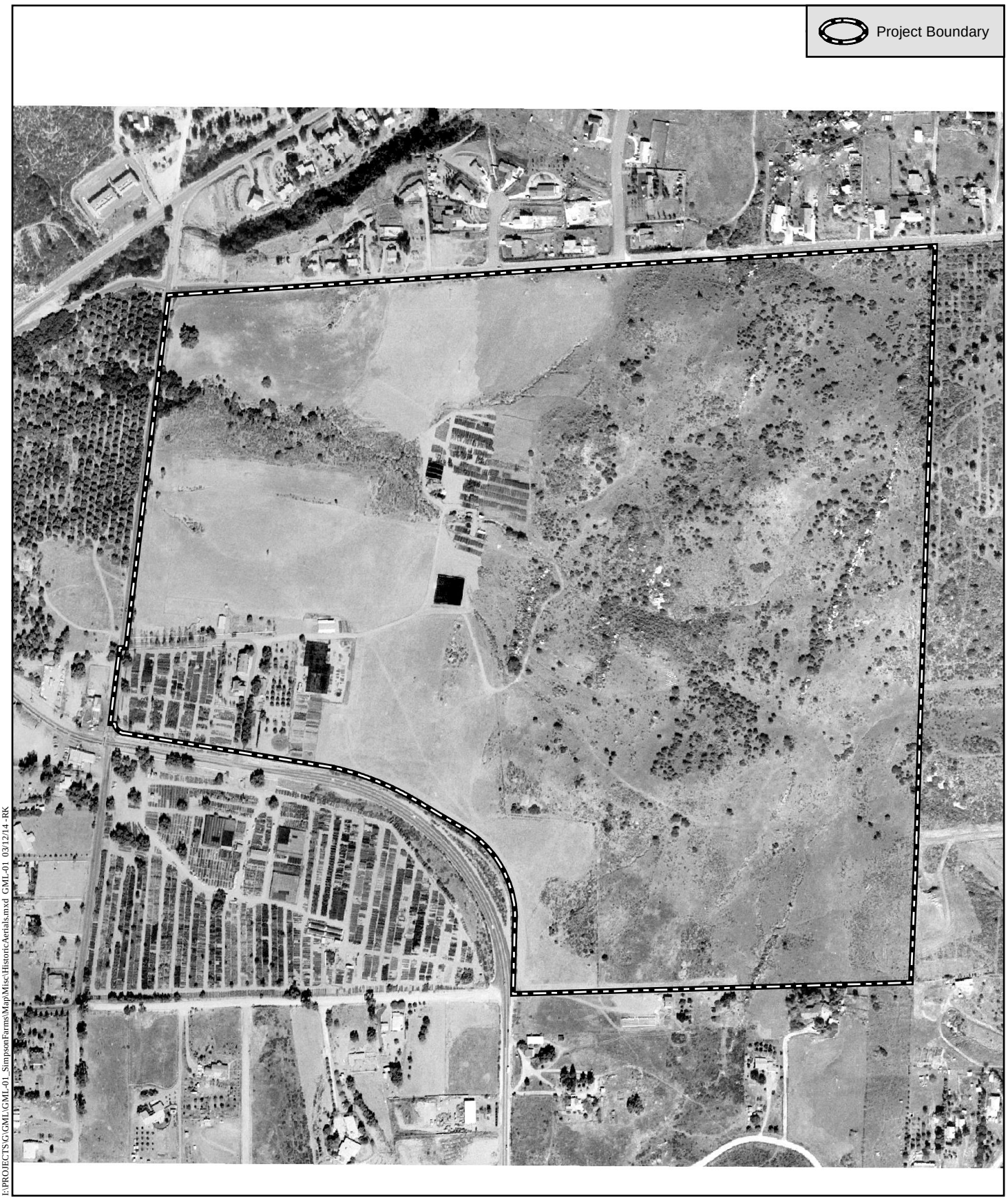

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1981 Aerial Photograph

SIMPSON FARMS

HELIX Environmental Planning

N

0 500 Feet

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1989 Aerial Photograph

SIMPSON FARMS

HELIX Environmental Planning

N

0 500 Feet

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2002 Aerial Photograph

SIMPSON FARMS

HELIX Environmental Planning

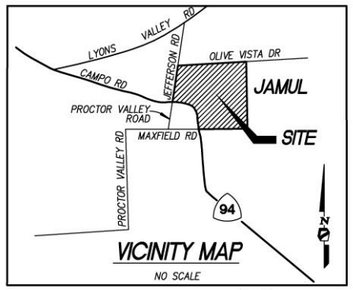
N

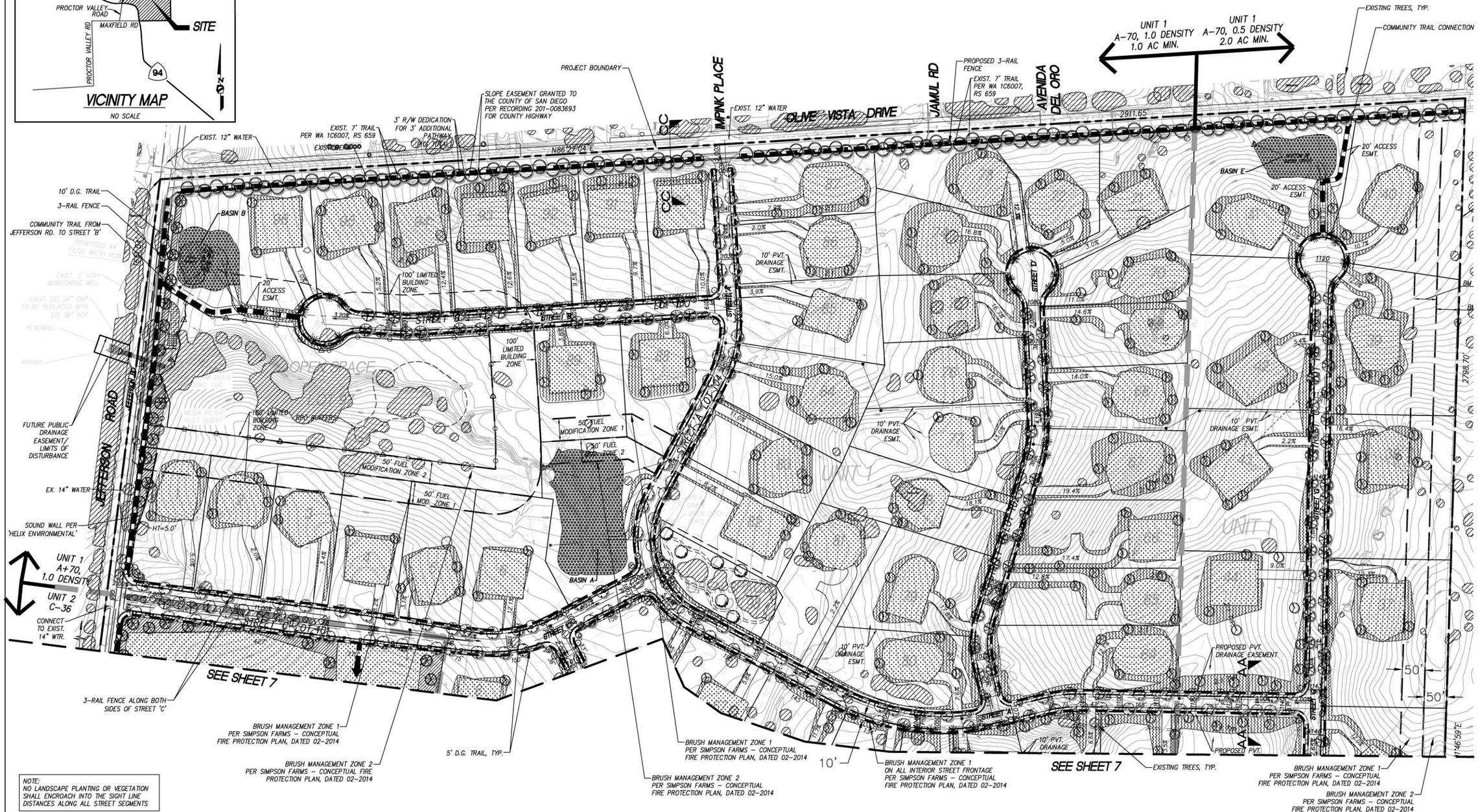
0 500 Feet

Appendix D

LANDSCAPE CONCEPT PLAN

LANDSCAPE CONCEPT PLAN FOR:
COUNTY OF SAN DIEGO TRACT No. 5460 RPL2 - "SIMPSON FARMS"





NOTE:
NO LANDSCAPE PLANTING OR VEGETATION SHALL ENCROACH INTO THE SIGHT LINE DISTANCES ALONG ALL STREET SEGMENTS

REFER TO SHEET 3-4 FOR PLANTING LEGEND/NOTES.
REFER TO SHEET 4 FOR BRUSH MANAGEMENT NOTES
REFER TO SHEET 5 FOR FENCE/MONUMENT DETAIL
REFER TO SHEET 5 FOR STREET SECTIONS

"I AM FAMILIAR WITH THE REQUIREMENTS FOR LANDSCAPE AND IRRIGATION PLANS CONTAINED IN THE COUNTY LANDSCAPE WATER CONSERVATION REGULATIONS, IN TITLE 8, DIVISION 6, CHAPTER 7. I HAVE PREPARED THIS PLAN IN COMPLIANCE WITH THOSE REGULATIONS. I CERTIFY THAT THE PLAN IMPLEMENTS THOSE REGULATIONS TO PROVIDE EFFICIENT USE OF WATER."

NORTH

0 50 100 200 300
GRAPHICAL SCALE: 1"=100'

REGISTERED LANDSCAPE ARCHITECT
JON JAY BECKER # 2542
Signature
Date
STATE OF CALIFORNIA
EXPIRES 7/31/17

ARCHITECT OF WORK

PROJECT DESIGN CONSULTANTS
701 "B" STREET, SUITE 800
SAN DIEGO, CA 92101
TELEPHONE: (619) 235-6471

JON JAY BECKER, LIC. NO. 2542
REGISTRATION EXPIRES 7/31/17

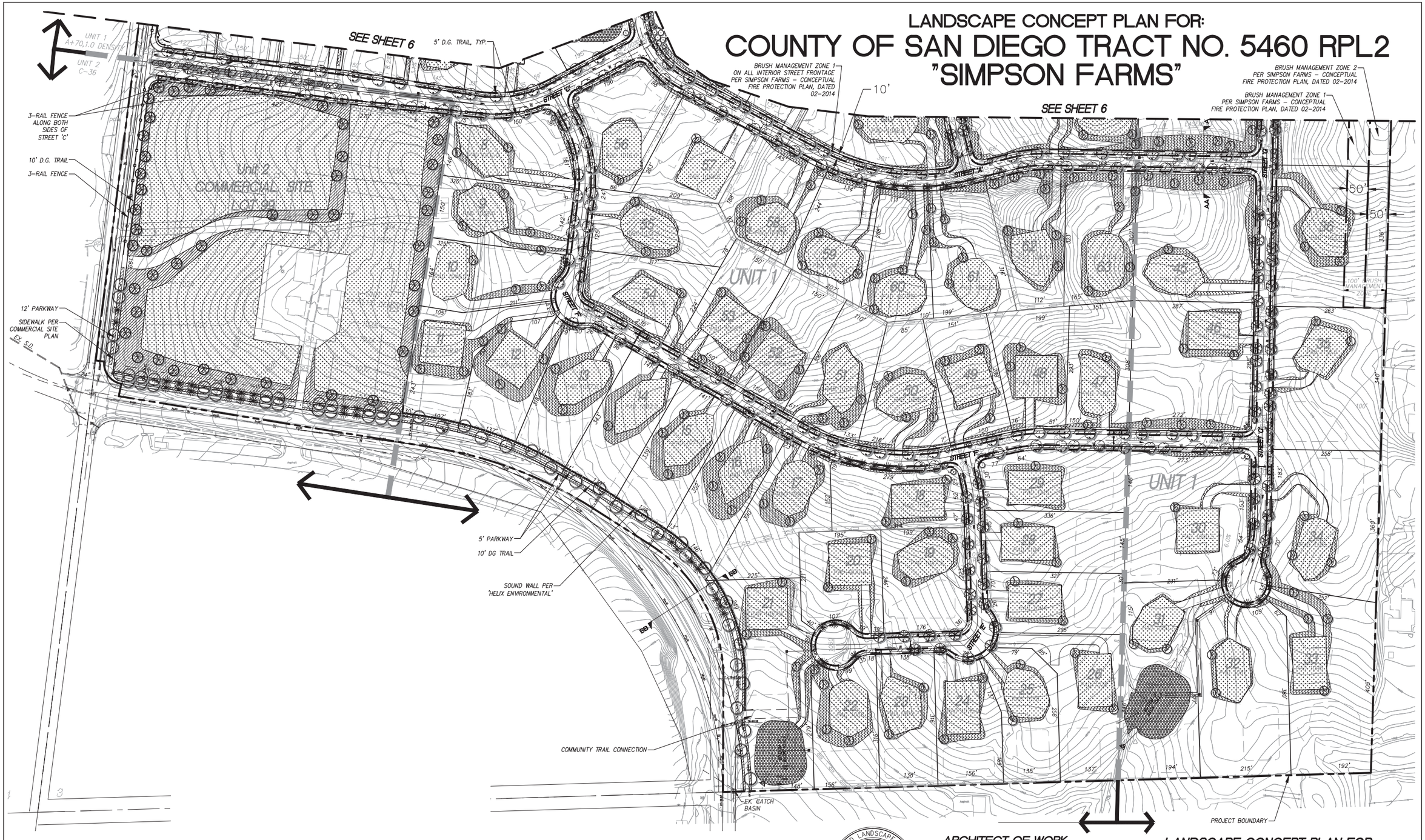
LANDSCAPE CONCEPT PLAN FOR:
COUNTY OF SAN DIEGO TRACT No. 5460 RPL2
"SIMPSON FARMS"

PROJECT DESIGN CONSULTANTS
Planning | Landscape Architecture | Environmental | Engineering | Survey
701 B Street, Suite 800
San Diego, CA 92101
619.235.6471 Tel
619.234.0349 Fax

2nd SUBMITTAL - JAN. ??, 2015

PROJECT DESIGN CONSULTANTS
619.235.6471

LANDSCAPE CONCEPT PLAN FOR:
COUNTY OF SAN DIEGO TRACT NO. 5460 RPL2
"SIMPSON FARMS"



REFER TO SHEET 8-9 FOR PLANTING LEGEND/NOTES.
REFER TO SHEET 9 FOR BRUSH MANAGEMENT NOTES
REFER TO SHEET 10 FOR FENCE/MONUMENT DETAIL
REFER TO SHEET 10 FOR STREET SECTIONS

NORTH

0 50 100 200 300

GRAPHICAL SCALE: 1"=100'

REGISTERED LANDSCAPE ARCHITECT
JON JAY BECKER # 2542
Signature
Date
STATE OF CALIFORNIA

EXPIRES 7/31/15

ARCHITECT OF WORK

PROJECT DESIGN CONSULTANTS
701 "B" STREET, SUITE 800
SAN DIEGO, CA 92101
TELEPHONE: (619) 235-6471

JON JAY BECKER, LIC. NO. 2542
REGISTRATION EXPIRES 7/31/15

LANDSCAPE CONCEPT PLAN FOR:
COUNTY OF SAN DIEGO TRACT No. 5460 RPL2
"SIMPSON FARMS"

PROJECT DESIGN CONSULTANTS
Planning | Landscape Architecture | Environmental | Engineering | Survey
701 B Street, Suite 800
San Diego, CA 92101
619.235.6471 Tel
619.234.0349 Fax

2nd SUBMITTAL – JAN. ??, 2015

PROJECT DESIGN CONSULTANTS
619.235.6471

LANDSCAPE CONCEPT PLAN FOR:

COUNTY OF SAN DIEGO TRACT No. 5460 RPL2 - "SIMPSON FARMS"

DESIGN STATEMENT:

THE PRIMARY GOAL OF THE LANDSCAPE DESIGN IS TO BLEND AND COMPLEMENT INTO THE EXISTING NATIVE PLANTING IN THE AREA. NATIVE LOW FUEL VOLUME SPECIES WILL BE USED TO RE-VEGETATE THE GRADED SLOPES. THE TREATMENT FOR THE INTERIOR SHALL PRIMARILY BE PARKWAY STREET TREES AND GROUNDCOVER, ORNAMENTAL IN NATURE, FIRE-RESISTENT, AND COMPLIMENT THE BUILDING ARCHITECTURE. THE RECREATION AREA WILL BE MIX OF ORNAMENTAL AND NATURALIZED MATERIAL AND LOW MAINTENANCE.

LANDSCAPE DESIGN OBJECTIVES:

1. PLANT MATERIALS SPECIFIED FOR USE ON THIS PROJECT WILL BE FROM THE PALETTE OF PLANTS KNOWN TO PERFORM WELL IN THIS CLIMATIC ZONE AND AMENDED SOIL TYPE.
2. THE PALETTE OF LANDSCAPE PLANT MATERIALS WILL PROVIDE VARIATIONS OF FOLIAGE, BARK, AND FLOWER FORM, TEXTURE, AND COLOR. THESE VARIATIONS WILL BE USED TO BLEND IN WITH EXISTING SURROUNDING LANDSCAPE TREATMENTS ESPECIALLY AT PERIMETER SLOPES.
3. LANDSCAPE PLANTING AREAS WILL BE GRADED TO ASSURE POSITIVE SURFACE DRAINAGE.
4. ONSITE SOILS WILL BE AMENDED TO COMPLY WITH THE RECOMMENDATION OF A CERTIFIED SOILS TESTING LABORATORY.
5. ALL SLOPE ASPECTS 2:1 OR STEEPER MAY RECEIVE JUTE MATTING (OR PER THE RECOMENDATION BY THE GEO-TECHNICAL ENGINEER).

IRRIGATION:

ORNAMENTAL LANDSCAPE AREAS SHALL HAVE A PERMANENT, AUTOMATIC CONTROLLER WITH A RAIN SENSING OVERRIDE DEVICE, OPERATING A MULTIPLE- VALVE IRRIGATION SYSTEM. THIS SYSTEM WILL BE EFFICIENT AND USE LOW PRECIPITATION HEADS, SEGREGATED BASED ON PLANT MATERIAL TYPE AND ASPECT, AND BE DESIGNED TO MINIMIZE OVERSPRAY ONTO ANY NATIVE AREAS, HARDSCAPE SURFACE. RECYCLED WATER MAY BE USED, IF AVAILABLE. PERMANENT IRRIGATION WILL BE PROVIDED FOR THE REQUIRED STREET TREES AN INTERIOR SLOPES PER THE PLANT LEGEND ON SHEETS 8 & 9. TEMPORARY IRRIGATION WILL BE PROVIDED FOR THE PERIMETER SLOPES TO REVEGETATE AND STABILIZE THE SLOPES FOR EROSION CONTROL. THE PROPOSED IRRIGATION SYSTEMS WILL USE AN APPROVED RAIN SENSOR SHUTOFF DEVICE.

DEVELOPER INSTALLED LANDSCAPE AREAS

INT. SLOPED AREAS	16 AC
EXT. SLOPED AREAS	.27 AC
COMMERCIAL SLOPED AREAS	2.2 AC
INT. PARKWAY AREAS	2.7 AC
DETENTION BASIN	2.5 AC
OLIVE VISTA DRIVE PARKWAY AREAS	.11 AC
JEFFERSON ROAD PARKWAY AREAS	.09 AC
CAMPO ROAD (HWY 94) PARKWAY AREAS	.34 AC

GRADING & LANDSCAPE NOTES:

1. PERMANENT REVEGETATION - ALL GRADED, DISTURBED, OR ERODED AREAS THAT WILL NOT BE PERMANENTLY PAVED OR COVERED BY STRUCTURES SHALL BE REVEGETATED.

2. TEMPORARY REVEGETATION - GRADED, DISTURBED, OR ERODED AREAS THAT WILL NOT BE PERMANENTLY PAVED, COVERED BY STRUCTURE, OR PLANTED FOR A PERIOD OVER 90 CALENDAR DAYS SHALL BE TEMPORARILY REVEGETATED WITH A NON-IRRIGATED HYDROSEED MIX, GROUND COVER, OR EQUIVALENT MATERIAL. TEMPORARY IRRIGATION SYSTEMS MAY BE USED TO ESTABLISH THE VEGETATION

3. ALL REQUIRED REVEGETATION AND EROSION CONTROL SHALL BE COMPLETED WITHIN 90 CALENDAR DAYS OF THE COMPLETION OF GRADING OR DISTURBANCE

4. ALL LANDSCAPE AREAS SHALL BE FINISH GRADED TO REMOVE ROCKS AND TO ENSURE SURFACE DRAINAGE AWAY FROM BUILDING

MAINTENANCE NOTE:

ALL REQUIRED COMMON LANDSCAPE AREAS SHALL BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION. THE LANDSCAPE AREAS SHALL BE MAINTAINED FREE OF DEBRIS AND LITTER AND ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY GROWING CONDITION. DISEASED OR DEAD PLANT MATERIAL SHALL BE SATISFACTORILY TREATED OR REPLACED PER THE CONDITIONS OF THE PERMIT.

MINIMUM TREE SEPARATION DISTANCE:

TRAFFIC SIGNAL, STOP SIGN	20 FEET
UDERGROUND UTILITY LINES	5 FEET
ABOVE GROUND UTILITY STRUCTURES	10 FEET
DRIVEWAYS	10 FEET
INTERSECTIONS	25 FEET
SEWERS	10 FEET

NOTES:

1. ALL LANDSCAPE AND IRRIGATION SHALL CONFORM TO THE COUNTY OF SAN DIEGO LANDSCAPE REGULATIONS GRADING ORDINANCE AND ALL REGIONAL STANDARDS FOR LANDSCAPE INSTALLATION AND MAINTENANCE.
2. NO IMPROVEMENTS, INCLUDING ENHANCED PAVING, IRRIGATION AND LANDSCAPING, SHALL BE INSTALLED IN OR OVER ANY PUBLIC EASEMENT PRIOR TO THE APPLICANT OBTAINING AN ENCROACHMENT MAINTENANCE AND REMOVAL AGREEMENT.
3. PERMANENT MONUMENT SIGNAGE MAYBE PROPOSED BY THE DEVELOPER.
4. MINIMUM 24-INCH BOX SIZE STREET TREES SHALL BE INSTALLED IN THE PUBLIC RIGHT-OF-WAY. TREE PLANTING AREAS SHALL HAVE A MINIMUM 40 SQUARE FEET OF AIR-AND-WATER, PERMEABLE AREA.
5. INSTALL ALL APPROVED LANDSCAPE AND OBTAIN ALL REQUIRED LANDSCAPE INSPECTION FORMS. COPIES OF THESE APPROVED DOCUMENTS MUST BE SUBMITTED TO THE COUNTY.
6. IMPROVEMENTS SUCH AS DRIVEWAYS, UTILITIES, DRAINS, AND WATER/SEWER LATERALS SHALL BE DESIGNED SO AS NOT TO PROHIBIT THE PLACEMENT OF STREET TREES, ALL TO THE SATISFACTION OF THE COUNTY.
7. TREE ROOT BARRIERS SHALL BE INSTALLED WHERE TREES ARE PLACED WITHIN 5 FEET OF PUBLIC IMPROVEMENTS INCLUDING WALKS, CURBS, OR STREET PAVEMENT OR WHERE NEW PUBLIC IMPROVEMENTS ARE PLACED ADJACENT TO EXISTING TREES. ROOT BARRIERS WHICH WRAP AROUND THE ROOT BALL ARE NOT PERMITTED
8. MULCH: ALL REQUIRED PLANTING AREAS SHALL BE COVERED WITH MULCH TO A MINIMUM DEPTH OF 2 INCHES, EXCLUDING SLOPES REQUIRING REVEGETATION AND AREAS PLANTED WITH GROUND COVER. ALL EXPOSED SOIL AREAS WITHOUT VEGETATION SHALL ALSO BE MULCHED TO THIS MINIMUM DEPTH.
9. NO TREES OR SHRUBS EXCEEDING THREE FEET IN HEIGHT AT MATURITY MAY BE LOCATED WITHIN TEN FEET OF ANY SEWER FACILITIES.
10. ALL REQUIRED STREET TREES ARE PLANTED OUTSIDE OF THE PUBLIC RIGHT-OF-WAY ON PRIVATE PROPERTY. IF TREE PLANTING IS PROPOSED WITHIN THE PUBLIC RIGHT-OF-WAY, A COPY OF AN ENCROACHMENT PERMIT ISSUED BY THE DEPARTMENT OF PUBLIC WORKS HAS BEEN INCLUDED WITH THIS SUBMITTAL.
11. EROSION CONTROL PLANTING IS PROVIDED FOR ALL SLOPES OVER 3 FEET IN VERTICAL HEIGHT AND ADDITIONAL PLANTING (AS PER SECTION 87.417 OF THE GRADING ORDINANCE) IS PROVIDED FOR SLOPES OVER 15 FEET IN VERTICAL HEIGHT.

WATER EFFICIENT LANDSCAPE WORKSHEET

A	B	C	D	E	F	G	H	I	J
Areas	Hydrozone #	Valve Circuit #	Irrigation Method (Code)	Plant Factor (average) (PF)	Hydrozone Area (sf) (HA)	% of Total Landscaped Area	PF x HA	IE	PF x HA / IE
1	Exterior Slopes	xxx	Rotator	0.4	11,016	1.2%	4,766.4	0.75	6,355.2
2	Interior Slopes	xxx	Rotator	0.4	673,386	65.7%	269,358.4	0.75	359,144.5
3	Commercial Slopes	xxx	Rotator	0.4	84,117	8.2%	33,646.8	0.75	44,862.4
4	Parkways	xxx	Rotator	0.5	131,436	12.8%	65,718.2	0.75	87,624.0
5	Street Trees	xxx	Bubbler	0.5	16,380	1.6%	8,040.0	0.8	10,050.0
6	Detention Basin	xxx	Rotator	0.2	107,750	10.5%	25,475.0	0.75	100,566.7
				SLA	0	0.0%		1.0	0.0
				TOTAL	1,024,695	100.0%			608,602.8

Maximum Applied Water Allowance (MAWA)		ETo =	51.0
MAWA Formula: (Eto)(0.62)[(0.7 x LA) + (0.3 x SLA)]		LA =	1,024,695.0
		SLA =	0.0
Maximum Applied Water Allowance	22,680,599.1 gallons per year	Percentage Allowance Used	84.85%
		MAWA - ETWU	3,436,578.6
Estimated Total Water Use (ETWU)		Efficiency	0.68
ETWU Formula: (Eto)(0.62)(Total of Column J)			
Estimated Total Water Use	19,244,020.5 gallons per year		

TREES FOR COMMERCIAL AND PERIMETER PUBLIC STREETSCAPE ALONG CAMPO RD, JEFFERSON RD AND OLIVE VISTA

THE COMMERCIAL STREETSCAPE AREAS ARE TO BE PLANTED WITH NATIVE OR NATURALIZED SPECIES TO BE SUSTAINABLE WITH MINIMAL SUPPLEMENTAL WATER. SELECTION TO BE IN CONFORMANCE WITH THE LANDSCAPE STREET TREE ORDINANCE. TREES ALONG THE REMAINING PERIMETER OF THE PROPERTY SHALL BE HIGHLY ADAPTABLE AND ABLE TO SURVIVE WITH NO PERMANENT IRRIGATION.
MAINTENANCE OF COMMERCIAL TREES AND SHOULDERS WILL BE MAINTAINED BY THE HOA

NATURALIZED STREET TREES, EVERGREEN, ROUND HEAD, SHADE TREE - 75% 24" BOX OR LARGER, 25% 15 GAL

BOTANICAL NAME	COMMON NAME	MATURE HT. & SPREAD	QTY.
AESCULUS CALIFORNIA	CALIFORNIA BUCKEYE	25' x 40'	29
ARBUTUS MARINA	MARINA STRAWBERRY TREE	35' x 30'	
CERCIS OCCIDENTALIS	WESTERN REDBUD	15' x 15'	
ERIOBOTRYA DEFLEXA	BRONZE LOQUAT	20' x 20'	
JACARANDA MIMOSIFOLIA	JACARANDA	40' x 40'	
LYONOTHAMNUS FLORIBUNDUS	CATALINA IRONWOOD	30' x 40'	
PISTACIA CHINENSIS	CHINESE PISTACHE	40' x 40'	
QUERCUS AGRIFOLIA	COAST LIVE OAK	40' x 40'	
QUERCUS ILEX	HOLLY OAK	50' x 50'	
QUERCUS SUBER	CORK OAK	40' x 40'	
RHUS LANCEA	AFRICAN SUMAC	30' x 25'	
SAMBUSCUS MEXICANA	ELDERBERRY	25' x 40'	

COMMERCIAL AND PERIMETER SLOPES ALONG CAMPO RD, JEFFERSON RD AND OLIVE VISTA (PERMENANT IRRIGATION)

THE PERIMETER SLOPE AREAS ARE TO BE PLANTED WITH CONTAINER MATERIAL IN CONFORMANCE WITH THE GRADING ORDINANCE AND BRUSH MANAGEMENT GUIDELINES AND HYDROSEEDED WITH A MIX OF NATIVE PLANT MATERIAL FOR SOIL EROSION PURPOSES. 50% OF SEED MIX TO BE PLANT MATERIAL THAT IS 24" OR LESS.

PLANT MATERIAL	COMMON NAME	FORM FUNCTION	MATURE HEIGHT & SPREAD	QTY.
TREES - 25% 24" BOX, 75% 15 GALLON				
LYONOTHAMNUS FLORIBUNDUS	CATALINA IRONWOOD	DECIDUOUS, FRAGRANT SHADE TREE	30-60' HT. x 30'+ SPRD	58
QUERCUS AGRIFOLIA	COAST LIVE OAK	EVERGREEN TREE, SPREADING CROWN	20-40' HT. x 35'+ SPRD	
RHUS LANCEA	AFRICAN SUMAC	EVERGREEN, FINE FOLIAGE, YELLOW GREEN FLOWERS	20-30' HT. x 20-30' SPRD	
SHRUBS-75% 1 GAL. , 25% 5 GAL.				
AGAVA AMERICANA 'VARIAGATA'	VARIEGATED AGAVE	LARGE ACCENT, SHOWY FLOWER	4-6' HT. x 4-6' SPRD	
ALOE ARBORESCENS	TORCH ALOE	ACCENT SHRUB RED COLOR	6-8' HT. x 4-5' SPRD	
ALOE FEROX	CAPE ALOE	VERTICAL ACCENT LARGE RED FLOWERS	6-8' HT. x 2-3' SPRD	
ALOE STRIATA	CORAL ALOE	LOW ACCENT, ORANGE FLOWERS	2-3' HT. x 1-2' SPRD	
BACCHARIS PILULARIS 'TWIN PEAKS #2'	DWARF COYOTE BRUSH	LOW GROWING SHRUB, EVERGREEN	1-2' HT. x 5-6' SPRD	
DASYLIRION LONGISSIMUM	MEXICAN GRASS TREE	EVERGREEN, FINE LEAF TEXTURE	4-6' HT. x 4-6' SPRD	
ERIOPHYLLUM CONFERTIFLORUM	GOLDEN-YARROW	SUB-SHRUB, ORANGE-YELLOW FLOWERS	1-3' HT. x 1.5' SPRD	
ROMNEYA COULTERI	MATILIJA POPPY	FRAGRANT EVERGREEN, WHITE FLOWERS	3' HT. x 3' SPRD	
HETEROMELES ARBUTIFOLIA	TOYON	LARGE EVERGREEN SHRUB, SHOWY RED BERRIES	8-15' HT. x 15'+ SPRD	
LOTUS SCOPARIUS	DEER WEED	FAST GROWING PERENNIAL, YELLOW FLOWERS	2-3' HT. x 3' SPRD	
RHAMNUS CALIFORNICA	COFFEEBERRY	EVERGREEN SHRUB, RAPID GROWTH	8-15' HT. x 12'+ SPRD	
YUCCA SCHIDIGERA	MOJAVE YUCCA	MEDIUM TREE LIKE SHRUB, WHITE FLOWERS	6-8' HT. x 6-8' SPRD	

NOTE: CONTAINER STOCK ARE TO BE PLACED AT A MINIMUM RATE OF ONE PLANT PER 100 S.F. OF DISTURBED AREA.

DETENTION BASIN SLOPES (TEMPORARY IRRIGATION)

PLANT MATERIAL	COMMON NAME	FORM FUNCTION	MATURE HEIGHT & SPREAD
TREES - 25% 24" BOX, 75% 15 GALLON			
LYONOTHAMNUS FLORIBUNDUS	CATALINA IRONWOOD	EVERGREEN TREE, UPRIGHT FORM	20' HT. x 15' SPRD
POPULUS FREMONTII	WESTERN COTTON WOOD	DECIDUOUS, MOTTLED WHITE BARK	50' HT. x 20' SPRD
PLATANUS RACEMOSA	CALIFORNIA SYCAMORE	DECIDUOUS, MOTTLED WHITE BARK	70' HT. x 40' SPRD
SAMBUCUS MEXICANA	MEXICAN ELDERBERRY	DECIDUOUS SHRUB TO SMALL TREE,CREAMY FLOWERS	25' HT. x 25' SPRD
SHRUBS-75% 1 GAL. , 25% 5 GAL.			
BACCHARIS SALICIFOLIA	MULE FAT	SEMI-DECIDUOUS SHRUB, REVEGETATION	4-10' HT. x 8' SPRD
CAREX SPISSA	SAN DIEGO SEDGE	CLUMPING PERENNIAL, FLOWERS RESEMBLE CATTAILS	3-4' HT. x 2-3' SPRD
IVA HAYSIANA	SAN DIEGO MARSH ELDER	PERENNIAL, EROSION CONTROL, FAST GROWING	1-3' HT. x 5' SPRD
JUNCUS ACUTUS	SPINY RUSH	CLUMPING PERENNIAL, SPIKED DARK GREEN BLADES	2' HT. x 2'+ SPRD
JUNCUS MEXICANUS	MEXICAN RUSH	CREEPING PERENNIAL, SLENDER DARK GREEN BLADES	2' HT. x 2'+ SPRD
MIMULUS GUTTATUS	GOLDEN MONKEYFLOWER	SMALL PERENNIAL, YELLOW FLOWERS, MOIST PLACES	1-3' HT. x 3' SPRD
OENOTHERA ELATA HOOKERI	YELLOW EVENING PRIMROSE	BIENNIAL, LARGE PALE YELLOW FLOWERS	1-4' HT. x 1' SPRD
PLUCHEA ODORATA	SWEETSCENT	ERECT ANNUAL, PINK-LAVENDER FLOWER CLUSTERS	1-3' HT. x 1-3' SPRD
ROSA CALIFORNICA	CALIFORNIA WILD ROSE	MOUNDING SEMI-DECIDOUS SHRUB, FRAGRANT PINK FLOWERS	3-6' HT. x 5'+ SPRD
RUBUS URSINUS	CALIFORNIA BLACKBERRY	MOUNDING SHRUB/VINE, WHITE FLOWER, FAST, REVEGETATION	2-5' HT. x 6'+ SPRD
SAMBUCUS MEXICANA	MEXICAN ELDERBERRY	DECIDUOUS SHRUB/SMALL TREE, CREAMY FLOWERS	6-20' HT. x 15'+ SPRD
SCIRPUS ROBUSTUS*	BULL TULE	PERENNIAL SHRUB, BROWN FLOWER, WETLANDS	3-5" HT. x 4' SPRD
SCIRPUS ACUTUS*	HARD-STEM BULRUSH	PERENNIAL SHRUB, BROWN FLOWER, WETLANDS	2-3' HT. x 3' SPRD
SCIRPUS PUNGENS*	COMMON THREESQUARE	PERENNIAL SHRUB, BROWN FLOWER, WETLANDS	4-6' HT. x 4' SPRD
RIBES SPECIOSUM	FUCHSIA FLOWERING GOOSEBERRY	DECIDUOUS SHRUB, MAROON-RED FLOWERS, ATTRACTS BIRDS	4-10' HT. x 7' SPRD
RIBES VIBURNIFOLIUM	EVERGREEN CURRANT	LOW EVERGREEN SHRUB, AROMATIC, UNDER OAKS	3-4' HT. x 6' SPRD
TYPHA LATIFOLIA*	BROAD-LEAVED CATTAIL	ERECT RHIZOMATOUS PERENNIAL, RED-BROWN FLOWERS	6'+ HT. x 3'+ SPRD

* PLANTS FOR DETENTION BASIN AREAS. GROUND WATER & SURFACE RUN-OFF ARE PROPOSED TO PROVIDE MOISTURE FOR PLANT SUSTAINABILITY.

REGISTERED LANDSCAPE ARCHITECT
JON JAY BECKER # 2542
Signature
Date
STATE OF CALIFORNIA
EXPIRES 7/31/15

ARCHITECT OF WORK

PROJECT DESIGN CONSULTANTS
701 "B" STREET, SUITE 800
SAN DIEGO, CA 92101
TELEPHONE: (619) 235-6471

JON JAY BECKER, LIC. NO. 2542
REGISTRATION EXPIRES 7/31/15

LANDSCAPE CONCEPT PLAN FOR:
COUNTY OF SAN DIEGO TRACT No. 5460 RPL2
"SIMPSON FARMS"

PROJECT DESIGN CONSULTANTS
Planning | Landscape Architecture | Environmental | Engineering | Survey
701 B Street, Suite 800
San Diego, CA 92101
619.235.6471 Tel
619.234.0349 Fax

2nd SUBMITTAL - JAN. ??, 2015

PROJECT DESIGN CONSULTANTS
619.235.6471

LANDSCAPE CONCEPT PLAN FOR:
COUNTY OF SAN DIEGO TRACT No. 5460 RPL2 - "SIMPSON FARMS"

DESERT SAGE SCRUB HYDROSEED MIX

PLANT MATERIAL	COMMON NAME	FORM FUNCTION	MATURE HEIGHT & SPREAD	LB/AC	% PURITY/ GERMINATION RECOMMENDED
ACMISPON GLABER	DEERWEED	PERENNIAL, NUMEROUS YELLOW FLOWERS, FAST GROWER	1-3' HT. x 1-3' SPRD	4	85
AMBROSIA DUMOSA	BURROWEED	BRANCHED SHRUB, SMALL YELLOW FLOWERS	1-5' HT. x 1-5' SPRD	2	50
AMBROSIA SALSOLA	BURROBRUSH	PERRENIAL SHRUB FRAGRANT FOLIAGE, YELLOW FLOWER	1-3' HT. x 1-3' SPRD	2	65
ATRIPLEX CAESCENS	FOUR-WING SALTBUSH	EVERGRAY SHRUB, SALT TOLERANT	6' HT. x 6' SPRD	2	35
ATRIPLEX POLYCARPA	ALLSCALE SALTBUSH	SHRUB, GRAY-SHITE FOLIAGE, SALT TOLERANT	2-3' HT. x 3' SPRD	4	35
CHRYSOTHAMNUS NAUSEOSUS	RUBBER RABBITBUSH	PERENNIAL, NUMEROUS YELLOW FLOWERS, FAST GROWER	3' HT. x 3' SPRD	3	10
ENCELIA FARINOSA	BRITTLEBUSH	SMALL PERENNIAL, GREY COLOR, YELLOW FLOWERS	3' HT. x 6' SPRD	3	25
ERIODICTYON CRASSIFOLIUM	THICK-LEAF YERBA SANTA	GREY PERENNIAL, BLUE FLOWERS	6' HT. x 6' SPRD	1	40
ESCHSCHOLZIA CALIFORNIA	CALIFORNIA POPPY	SUB-SHRUB, YELLOW FLOWERS, FAST GROWER	2' HT. x 2' SPRD	2	85
FESTUCA MICROSTACHYS	SMALL FESCUE	PERENNIAL BUNCHGRASS	1' HT. x .5' SPRD	8	85
LASTHENIA CALIFORNICA	DWARF GOLDFIELDS	ANNUAL HERB, YELLOW FLOWER	3" HT. x 1" SPRD	1	50
LUPINUS SPARSIFLORUS	COULTER'S LUPINE	ANNUAL HERB, PURPLE FLOWER	6" HT. x 6" SPRD	2	80
PERITOMA ARBOREA	BLADDERPOD	EVERGREEN, YELLOW FLOWERS, EDIBLE	3' HT. x 6' SPRD	2	55

NOTE: CONTAINER STOCK ARE TO BE PLACED AT A MINIMUM RATE OF ONE PLANT PER 100 S.F. OF DISTURBED AREA.

PLANTING FOR PRIVATE STREETS
H.O.A. MAINTAINED (PERMANENTLY IRRIGATED)

THE STREET RIGHT OF WAY AND RECREATIONAL AREAS ARE TO BE PLANTED WITH A MIX OF EVERGREEN AND SEASONALLY CHANGING SHADE TREES. ACCENT TREE ARE LOCATED AT INTERSECTIONS AND RECREATION AREAS WITH COLORFUL SHRUBS PROVIDING INTEREST AT A PEDESTRIAN SCALE. TRANSITIONAL EDGES TO OPEN SPACE SHOULD HAVE DROUGHT TOLERANT, AND ORNAMENTAL MATERIALS OF TREES, SHRUBS, AND NATURALIZED DROUGHT TOLERANT GRASSES) - MAINTAINED BY HOA

PLANT MATERIAL		MATURE HEIGHT & SPREAD	QTY.
STREET TREES EVERGREEN ROUND HEAD, SHADE TREE - 100% 24" BOX OR LARGER			
ARBUTUS MARINA	MARINA STRAWBERRY	35' x 30'	306
ERIOBOTRYA DEFLXA	BRONZE LOQUAT	20' x 20'	
RHUS LANCEA	AFRICAN SUMAC	30' x 25'	
TRISTANIA LAURINA	ELEGANT BRISBANE	25' x 25'	
STREET TREES DECIDUOUS ROUND HEAD, SHADE TREE - 100% 24" BOX OR LARGER			
ALBIZIA JULIBRISSIN	SILK TREE (MIMOSA)	40' x 80'	228
ARBUTUS MARINA	MARINA STRAWBERRY	40'X 25'	
JACARANDA MIMOSIFOLIA	JACARANDA	30' x 25'	
KOELREUTERIA PANICULATA	GOLDEN RAIN TREE	30' x 40'	
PLATANUS ACERIFOLIA 'BLOODGOOD'	LONDON PLANE TREE	70' x 35'	
PYRUS CALLERYANA	ORNAMENTAL PEAR	50' x 50'	
UPRIGHT VERTICAL ACCENT TREES - 100%			
BRACHYCHITON ACERIFOLIUS	FLAME TREE	40' x 15'	77
HYMENO SPORUM FLAUM	SWEET SHADE	25' x 20'	
PEDESTRIAN SCALE ACCENT TREE - 100% 24" BOX			
PYRUS CALLERYANA	FLOWERING PEAR	40' x 25'	69
CALODENDRUM CAPENSE	CAPE CHESTNUT	40' x 25'	
CERCIS OCCIDENTALIS	WESTERN REDBUD	12' x 25'	
TABEBUIA IPE	TABEBUIA	25' x 35'	
LARGE SCALE PARK TREE - 100% 24" BOX			
FRAXINUS UHDEI	SHAMEL ASH	35' X 35'	19
KOELREUTERIA BIPINNATA	CHINESE FLAME TREE	30' x 30'	
PISTACIA CHINENSIS	CHINESE PISTACHIO	30' x 30'	
TIPUANA TIPU	TIPU TREE	30' x 30'	
ULMUS PARVIFOLIA	CHINESE EVERGREEN ELM	50' x 60'	
LARGE / MEDIUM EVERGREEN SHRUB - 80% 1-GALLON, 20% 5 GALLON-3'-5' o.c.			
CISTUS PURPUREUS	ORCHID ROCKROSE	3' x 3'	
DIETES VEGATA	FORTNIGHT LILY	2' x 3'	
PHORMIUM TENAX 'MAORI QUEEN'	FLAX	3' x 3'	
LIGUSTRUM JAPONICUM 'TEXANUM'	PRIVET	5' x 4'	
XYLOSMA CONGESTUM	SHINEY XYLOSMA	6' x 6'	
WESTRINGIA FRUTICOSA	COAST ROSEMARY	4' X 4'	
SMALL / MEDIUM EVERGREEN FLOWERING SHRUB - 80% 1-GALLON, 20% 5 GALLON-3'-5' o.c.			
ABELIA GRANDIFLORA	GLOSSY ABELIA	4' x 4'	
CEANOTHUS SP.	WILD LILAC	3' x 3'	
HEMEROCALLIS HYBRIDA	DAYLILY	1.5' x 1.5'	
LEUCOPHYLLUM FRUITICOSUM	TEXAS RANGER	3' x 2'	
RAPHIOLEPSIS INDICA 'BALLERINA'	BALLERINA INDIAN HAWTHORN	2' x 2'	
VIGUIERA LACINIATA	SAN DIEGO SUNFLOWER	4' x 4'	
GROUNDCOVERS - 65% 1-GALLON, 35% FLATS-3'-5' o.c.			
BACCHARIS PILULARIS 'TWIN PEAKS'	TWIN PEAKS BACCHARIS	3' x 7'	
CEANOTHUS GRISEUS HORIZONTALIS 'YANKEE POINT'	SPREADING LILAC	1.5' x 7'	
COTONEASTER HORIZONTALIS	COTONEASTER	2' x 3'	
ESCHSHOLZIA CALIFORNICA	CALIFORNIA POPPY	3' x 3'	
GREVILLEA SPP.	GREVILLEA	2' x 1'	
HAZARDIA SQUARROSA	YELLOW SQUIRREL COVER	2' x 2'	
LANTANA MONTEVIDENSIS	LANTANA	2' x 2'	
LOTUS SCOPARIUS	DEERWEED	2' x 5'	
NEMOPHILA MENZIESII	BABY BLUE EYES	1.5' x 1.5'	

PLANT MATERIAL		MATURE HEIGHT & SPREAD
PUBLIC RIGHT-OF-WAY GROUNDCOVERS - 100% 1-GALLON-3'-5' o.c.		
CEANOTHUS SPP.	LILAC	3' x 3'
CISTUS PURPUREUS	ROCK ROSE	2.5' x 2.5'
LANTANA MONTEVIDENSIS	LANTANA	2' x 3'
RAPHIOLEPSIS INDICA 'CLARA'	INDIAN HAWTHORNE	5' x 5'
VIGUIERA LACINIATA	SAN DIEGO SUNFLOWER	4' X 4'

GRASSES & WILD FLOWERS (SEEDED) UNMANICURED GRASSES PERMENANTLY IRRIGATED TO BE WITHIN THE RIGHT OF WAY, WITHIN OPEN SPACE AREAS

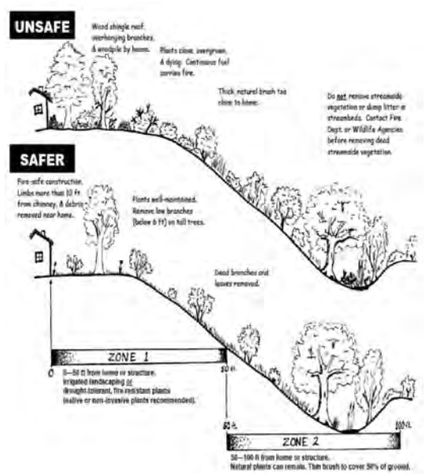
BROMUS CARINATUS	WILDFLOWERS (SEEDED)
ERIOPHYLLUM CONFERTIFLORUM	CLARKIA AMOENA
HORDEUM BRACHYANTHERUM	COLLINSIA HETEROPHYLLA
LASTHENIA CHRYSOSTOMA	LAYIA PLATYGLOSSA
LUPINUS BICOLOR	LINANTHUS GRANDIFLONRIS
LUPINUS NANUS	LUPINUS NANUS
NEMOPHILA MENZIESSI	ORTHOCARPUS PURPURASCENS
SISYRINCHIUM BELLUM	PHACELIA CAMPANULARIA
NASSELLA PULCHRA	

DROUGHT RESISTANT, SLOW GROWING TURF - SOD

FESCUE (UC VERDE BUFFALOGRASS) LAWN

BRUSH MANAGEMENT

FOR FUEL MODIFICATION ZONE, MAINTENANCE, DESIRABLE PLANT AND UNDESIRABLE PLANT INFORMATION, REFER TO SIMPSON FARMS - CONCEPTUAL FIRE PROTECTION PLAN, DATED 02-2014 AND APPENDIX G 'LOW WATER USE, IGNITION RESISTIVE PLANTS' OF THE COUNTY OF SAN DIEGO 'WATER EFFICIENT LANDSCAPE DESIGN MANUAL.



RESIDENTIAL INTERIOR SLOPES - PRIVATELY MAINTAINED (PERMENANT IRRIGATION)

THE INTERIOR SLOPE AREAS ARE TO BE PLANTED WITH COLORFUL CONTAINER MATERIAL WITH DEEP ROOTING CHARACTERISTICS IN CONFORMANCE WITH THE GRADING ORDINANCE. DROUGHT TOLERANT NATIVE AND NATURALIZED SPECIES ARE USED PLANTED IN AN INFORMAL PATTERN. SEASONAL MAINTENANCE BY HOMEOWNER ONCE ESTABLISHED.

SLOPE TREES - 25% 24" BOX, 75% 15 GALLON			QTY.
ARBUTUS MARINA	MARINA STRAWBERRY	35' x 30'	294
QUERCUS AGRIFOLIA	COAST LIVE OAK	50' x 50'	
PITTOSPORUM ANGUSTIFOLIUM	WEEPING PITTOSPORUM	25' x 15'	
PLATANUS RACEMOSA	CALIFORNIA SYCAMORE	70' x 40'	
SAMBUCUS MEXICANA	BLUE ELDERBERRY	30' x 20'	
SMALL TREES/LARGE SHRUBS- 50% 15 GAL, 50% 5GAL-10'-15' o .c.			
ARBUTUS UNEDO	STRAWBERRY TREE	10' X 10'	
CERCIS OCCIDENTALIS	WESTERN REDBUD	10' X 10'	
COMAROSTAPHYLIS DIVERSIFOLIA	SUMMER LEAF HOLLY	8' X 8'	
ERIOBOTRYA DEFLEXA	LOQUAT	12' X 18'	
FEIJOA SELLOWIANA	GUAVA	10' X 10'	
HETEROMELES ARBUTIFOLIA	TOYON	10' X 10'	
LAGERSTOEMIA INDICA	CRAPE MYRTLE	10' X 10'	
LYONOTHAMNUS FLORIBUNDUS SPP. ASPLENIFOLIUS	SANTA CRUZ IRONWOOD	20' X 15'	
PRUNUS ILLICIFOLIA	CATALINA CHERRY	15' X 10'	
RHUS LANCEA	AFRICAN SUMAC	25' X 25'	
TECOMARIA CAPENSIS	CAPE HONEYSUCKLE	5' X 8'	
LARGE/ MEDIUM SHRUBS-50% 1 GAL. , 50% 5 GAL.-3'- 4' o.c.			
ADOLPHIA CALIFORNICA	SPINE SHRUB	2' x 1.5'	
ELAEAGNUS PUNGENS	SILVERBERRY	4' x 3'	
RHUS INTEGRIFOLIA	LEMONADE BERRY	1.5' x 7'	
RIBES VIBURNIFOLIUM	EVERGREEN CURRENT	2' x 3'	
RIBES SPECIOSUM	FUCHSIA-FLOWERED GOOSEBERRY	2' x 4'	
CISTUS PURPUREUS	ORCHID ROCKROSE	2' x 2'	
DIETES VEGATA	FORTNIGHT LILY	2' x 1.5'	
PHORMIUM TENAX 'MAORI QUEEN'	FLAX	3' x 3'	
LIGUSTRUM JAPONICUM 'TEXANUM'	PRIVET	3' x 4'	
VIGUIERA LACINIATA	SAN DIEGO SUN FLOWER	4' x 4'	
SMALL/MEDIUM SHRUBS 80% 1 GAL. , 20% 5 GAL 2.5'-3' o.c.			
ALOE SPP.	ALOE	2' x 2'	
ABELIA GRANDIFLORA	GLOSSY ABELIA	4' x 4'	
AGAVE SPP.	AGAVE	4' X 4'	
CEANOTHUS SPP.	WILD LILAC	3' x 3'	
HEMEROCALLIS HYBRID	DAYLILY	1.5' x 1.5'	
LEUCOPHYLLUM FRUITICOSUM	TEXAS RANGER	3' x2'	
RAPHIOLEPSIS INDICA 'BALLERINA'	BALLERINA INDIAN HAWTHORN	2' x 2'	
ENCELIA CALIFORNICA	COAST SUNFLOWER	25' x12.5'	
LOTUS SCOPARIUS	DEERWEED	1.5' x1.5'	
GROUND COVERS-75% 1 GAL, 25% 5 GAL-6' o.c.			
BACCHARIS PILUARIS 'TWIN PEAKS'	DWARF COYOTE BRUSH	3' x 7'	
CEANOTHUS GRIS. HORIZ. YANKEE PT.	YANKEE POINT LILAC	1.5' x 7'	
ESCHSHOLZIA CALIFORNICA	CALIFORNIA POPPY	2' x13'	
GAZANIA LEUCOLAENA	TRAILING GAZANIA	3" X 16"	
LANTANA SPP.	LANTANA	2' x 5'	
SANTOLINA CHAMAECYPARISSUS	LAVENDER COTTON	1.5' x 4'	
SENECIO SERPENS	BLUE CHALKSTICKS	1' X 2'	

TEMPORARY PAD HYDROSEED (NON-IRRIGATED)

BASIC EROSION CONTROL MIX (CONTACT S&S SEEDS 805.684.0436)

BOTANICAL NAME	COMMON NAME	LB/AC	% PURITY/GERMINATION
BROMUS CARINATUS"CUCAMONGA	Cucamonga Brome	20	85
TRIFOLIUM WILLDENOVII	Tomcat Clover	4	85
VULPIA MICROSTACHYS	Small Fescue	8	85

PLANTING NOTE

ALL INVASIVE PLANT SPECIES FOUND ON-SITE SHALL BE REMOVED PRIOR TO THE INSTALLATION OF NEW PLANT MATERIALS.

REGISTERED LANDSCAPE ARCHITECT JON JAY BECKER # 2542 Signature Date STATE OF CALIFORNIA

EXPIRES 7/31/15

ARCHITECT OF WORK

PROJECT DESIGN CONSULTANTS
701 "B" STREET, SUITE 800
SAN DIEGO, CA 92101
TELEPHONE: (619) 235-6471

JON JAY BECKER, LIC. NO. 2542
REGISTRATION EXPIRES 7/31/15

LANDSCAPE CONCEPT PLAN FOR:
COUNTY OF SAN DIEGO TRACT No. 5460 RPL2
"SIMPSON FARMS"

PROJECT DESIGN CONSULTANTS
Planning | Landscape Architecture | Environmental | Engineering | Survey
701 B Street, Suite 800
San Diego, CA 92101
619.235.6471 Tel
619.234.0349 Fax

2nd SUBMITTAL - JAN. ??, 2015

PROJECT DESIGN CONSULTANTS 619.235.6471

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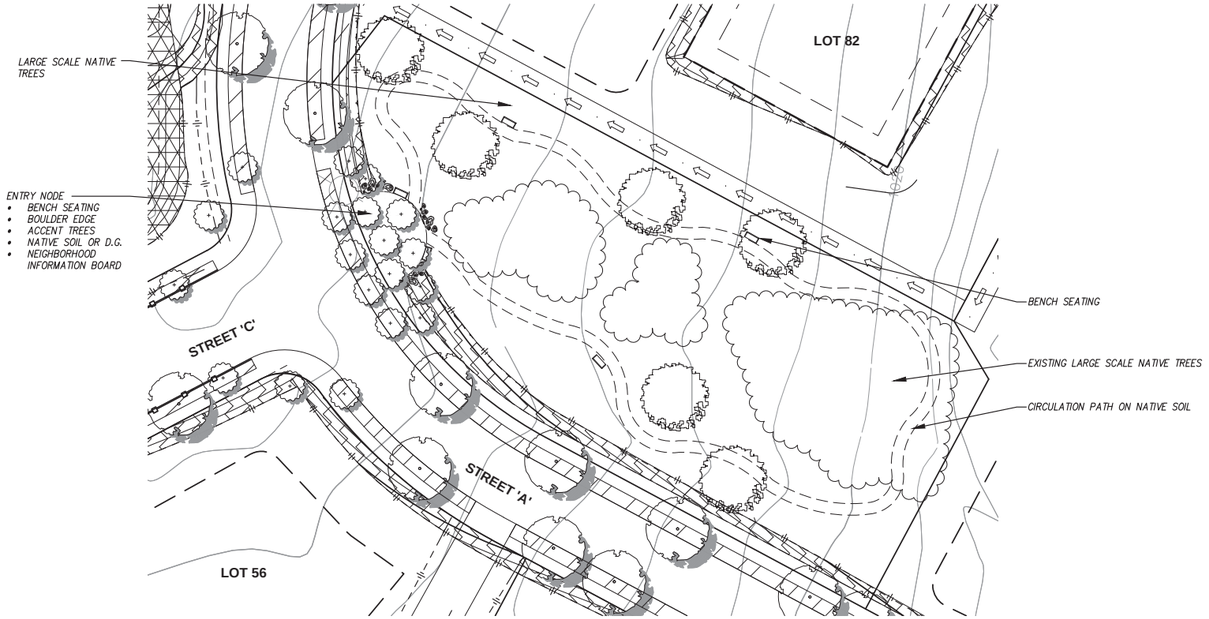


NEIGHBORHOOD PARK

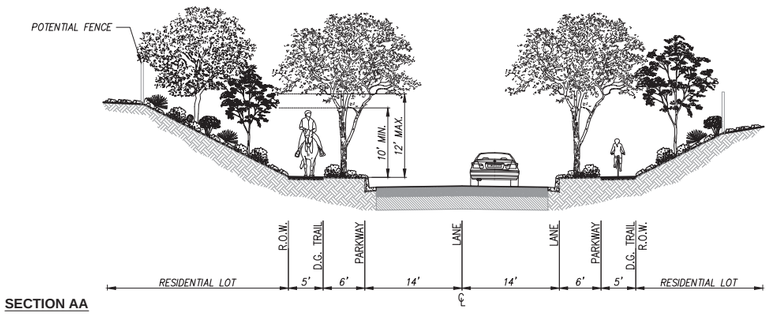
SCALE 1" : 30'

ELEVATION

COMMUNITY MONUMENT SIGN

N.T.S

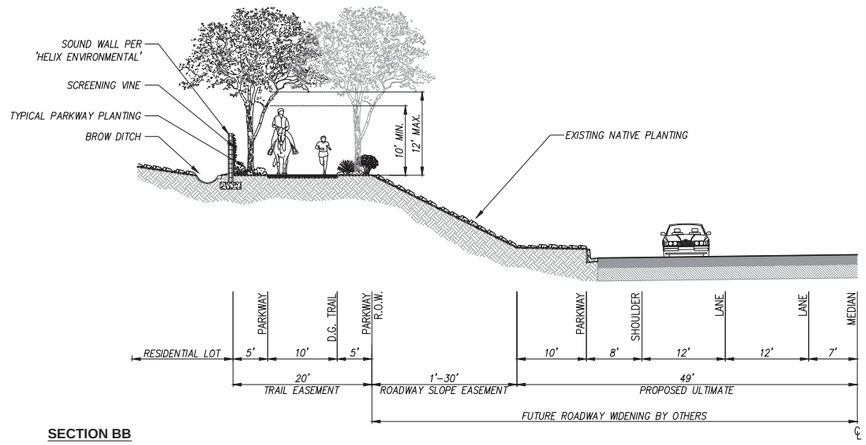
SYMBOL ON PLAN:



SECTION AA

TYPICAL RESIDENTIAL STREET

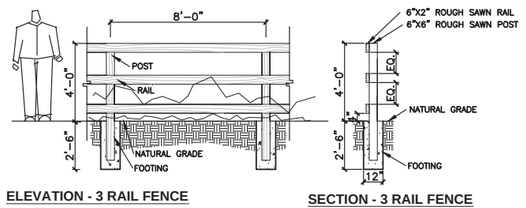
SCALE 1" : 10'



SECTION BB

CAMPO ROAD (STATE HWY 94)

SCALE 1" : 10'



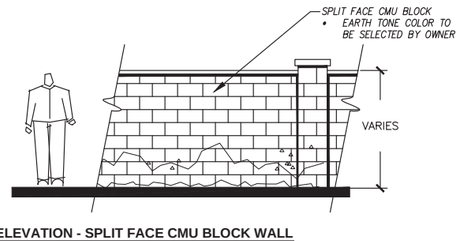
ELEVATION - 3 RAIL FENCE

SECTION - 3 RAIL FENCE

3-RAIL FENCE DETAIL

N.T.S

SYMBOL ON PLAN:



ELEVATION - SPLIT FACE CMU BLOCK WALL

SOUND WALL

N.T.S

SYMBOL ON PLAN:

REGISTERED LANDSCAPE ARCHITECT
JON JAY BECKER # 2542
Signature
Date
STATE OF CALIFORNIA

EXPIRES 7/31/15

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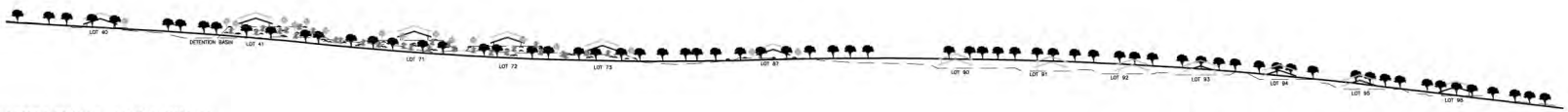
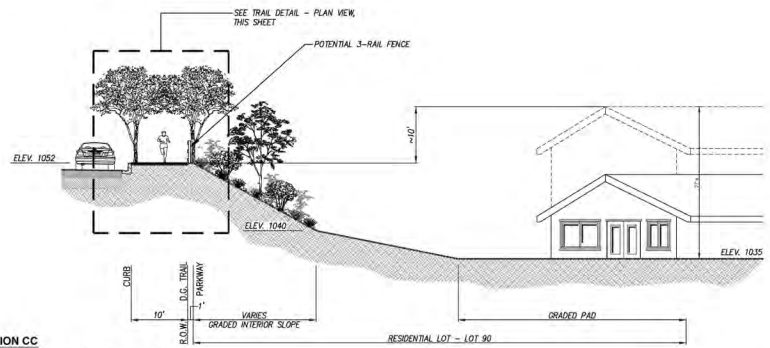


OLIVE VISTA DRIVE - VIEW SOUTH

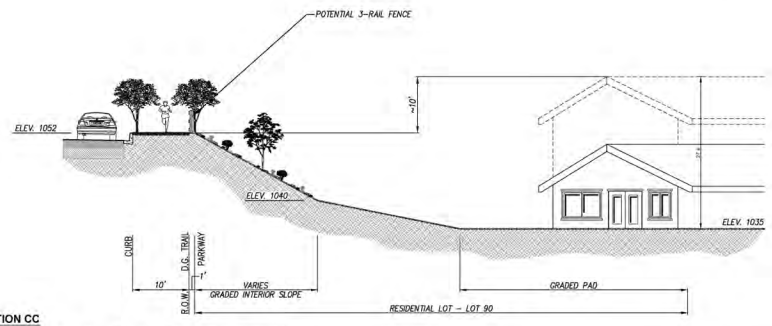
SCALE 1" = 100'



SECTION CC

OLIVE VISTA DRIVE - 5 YEAR

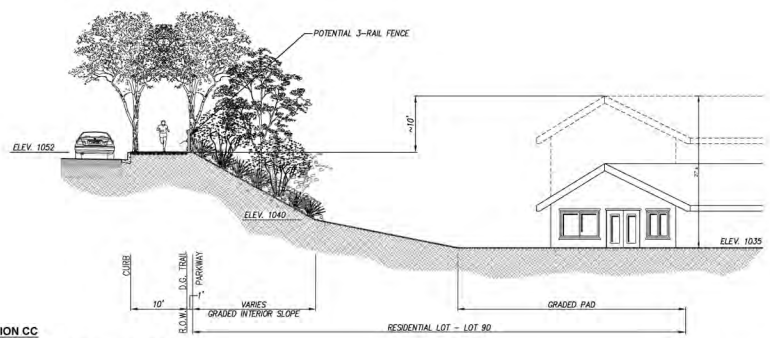
SCALE 1" = 10'



SECTION CC

OLIVE VISTA DRIVE - TIME OF INSTALLATION

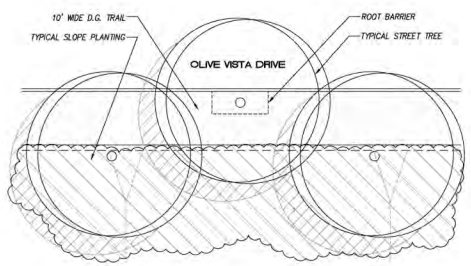
SCALE 1" = 10'



SECTION CC

OLIVE VISTA DRIVE - 10 YEARS

SCALE 1" = 10'



TRAIL DETAIL - PLAN VIEW

SCALE 1" = 10'

REGISTERED LANDSCAPE ARCHITECT
JON JAY BECKER
2542
Signature
Date
STATE OF CALIFORNIA

EXPIRES 7/31/17

ARCHITECT OF WORK

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