# Los Angeles County
# Department of Regional Planning

*Planning for the Challenges Ahead*

Richard J. Bruckner
Director

September 12, 2016

TO: Librarian
Chatsworth Branch Library
21052 Devonshire Street
Chatsworth, CA 91311

FROM: Lynda Hikichi
Department of Regional Planning
320 West Temple Street
Los Angeles, California 90012

**SUBJECT: PROJECT NO. 99-239-(5) / OAK TREE PERMIT NO. RPPL 2016003378**

The above mentioned permit is scheduled for a Public Hearing before the Hearing Officer of Los Angeles County on October 18, 2016.

Please have the materials listed below available to the public through November 4, 2016.

If you have any questions regarding this matter, please contact **Lynda Hikichi** of the Department of Regional Planning at (213) 974-6433.

Thank you.

Attachments:
1. Notice of Public Hearing
2. Vicinity Maps
3. Factual
4. Oak Tree Permit Burden of Proof
5. EIR Addendum
6. Oak Tree Exhibit Maps (3 sheets)
7. Oak Tree Report (CD)

Los Angeles County
Department of Regional Planning

*Planning for the Challenges Ahead*

Richard J. Bruckner
Director

September 12, 2016

TO: Librarian
San Fernando Library
217 N. Maclay Ave.
San Fernando, CA 91340

FROM: Lynda Hikichi LH
Department of Regional Planning
320 West Temple Street
Los Angeles, California 90012

**SUBJECT: PROJECT NO. 99-239-(5) / OAK TREE PERMIT NO. RPPL 2016003378**

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**THE DEPARTMENT OF REGIONAL PLANNING**
**COUNTY OF LOS ANGELES**

**NOTICE OF PUBLIC HEARING**

The Los Angeles County Hearing Officer will conduct a public hearing on the following project. You will have an opportunity to testify or submit written comments.

**Date and Time:** Tuesday, October 18, 2016 at 9:00 a.m.

**Hearing Location:** Room 150, 320 West Temple Street, Los Angeles, CA 90012

**Permit(s):** Project No. 99-239-(5) / Oak Tree Permit No. RPPL 2016003378

**Project Location:** North of the 118 Freeway between Topanga Canyon Boulevard and Canoga Avenue, Chatsworth

**Description:**
Oak Tree Permit to remove 56 oak trees and encroach into the protected zones of 40 oak trees (25 encroachments within the Deerlake Ranch (TR53138) project site and 15 encroachments within the Twin Lakes Sewer Improvement project site).

**Environmental Determination:**
Addendum to Final Environmental Impact Report No. 99-239. No additional or increase in impacts are anticipated.

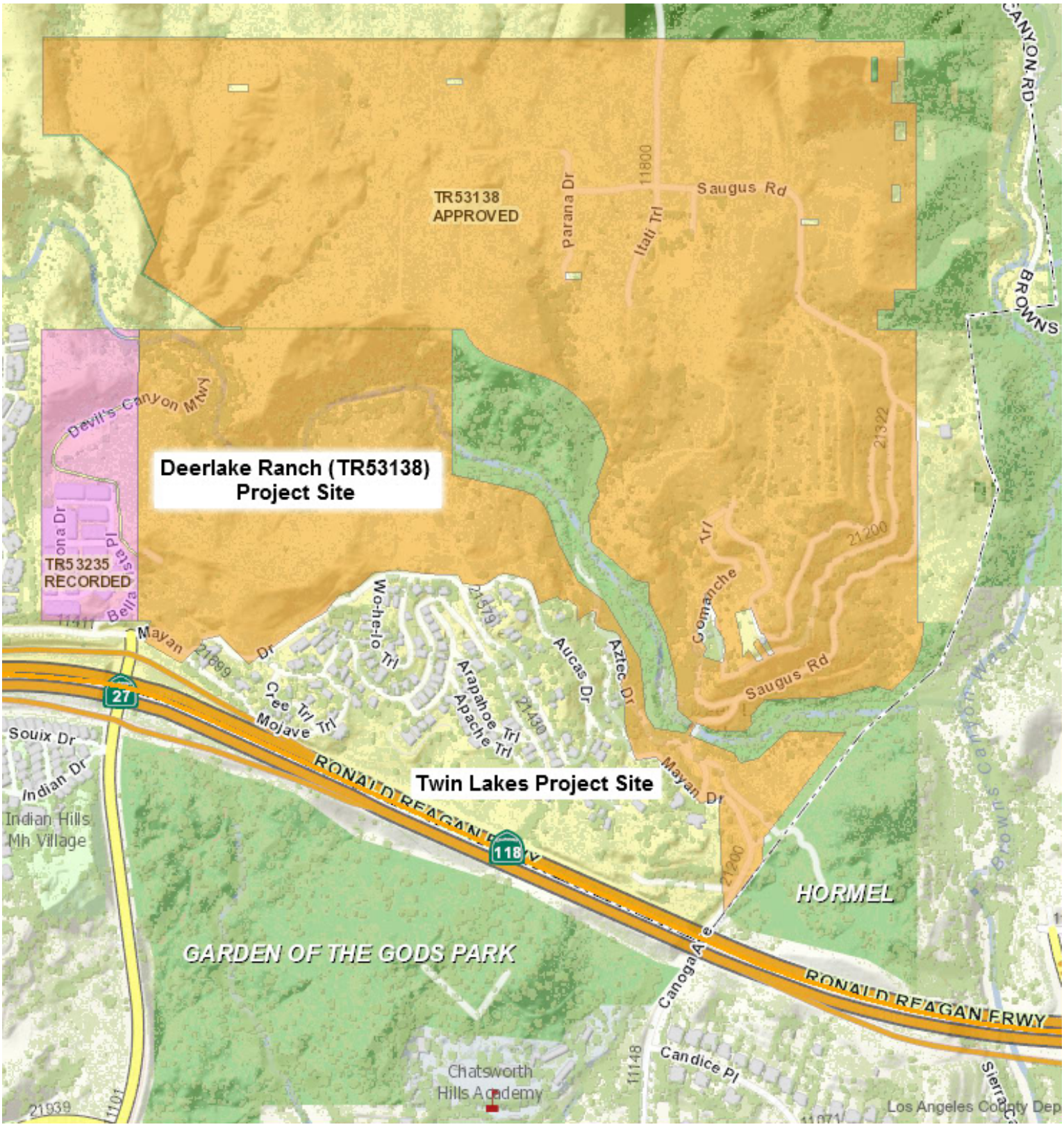
**Additional Information:**
Review case materials online at http://planning.lacounty.gov/case or at
Chatsworth Branch Library (818- 341-4276)
21052 Devonshire Street, Chatsworth, CA 91311

San Fernando Library (818- 365-6928)
217 N. Maclay Ave., San Fernando, CA 91340

**Contact:** Lynda Hikichi (E-mail: lhikichi@planning.lacounty.gov)
Dept. of Regional Planning, 320 W. Temple St., Los Angeles, CA 90012
Telephone: 213-974-6433 Fax: 213-626-0434

If you need reasonable accommodations or auxiliary aids, contact the Americans with Disabilities Act (ADA) Coordinator at 213-974-6488 (Voice) or 213-617-2292 (TDD) at least 3 business days notice.

**Si necesita más información por favor llame al 213-974-6466.**




# Created in GIS-NET3

## Vicinity Map

Printed: Sep 12, 2016

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Feet

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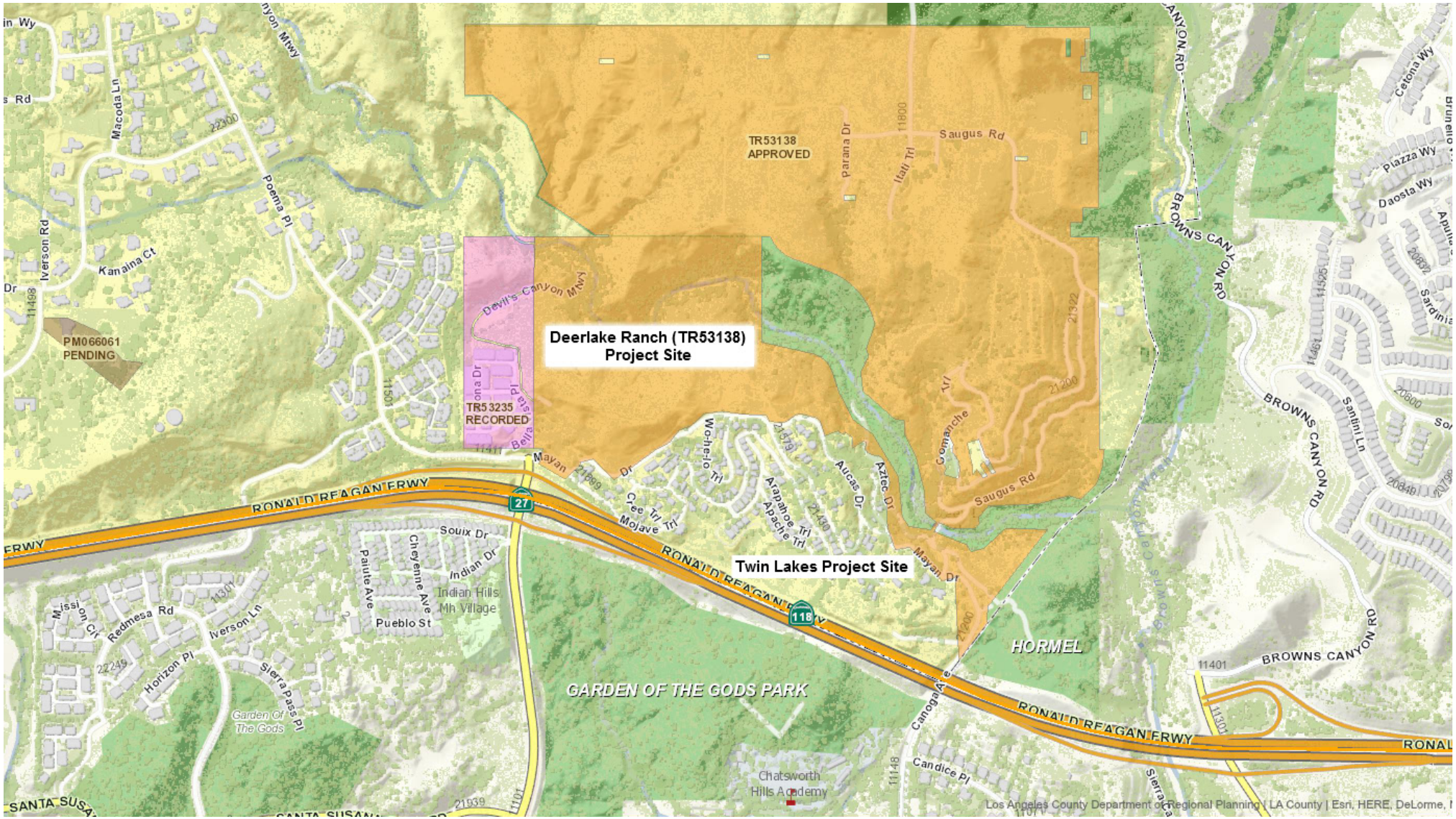


# Created in GIS-NET3

# Vicinity Map

Printed: Sep 12, 2016

0 1,000
Feet

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Department *of* Regional Planning
320 West Temple Street
Los Angeles, California 90012

# PROJECT SUMMARY

| PROJECT NUMBER | HEARING DATE |
|---|---|
| 99-239-(5) | October 18, 2016 |

**REQUESTED ENTITLEMENTS**

Oak Tree Permit No. RPPL 2016003378

| OWNER / APPLICANT | MAP/EXHIBIT DATE |
|---|---|
| Forestar Chatsworth, LLC (Steve Cameron) | August 2, 2016 |

**PROJECT OVERVIEW**

Oak Tree Permit to remove 56 oak trees and encroach into the protected zones of 40 oak trees (25 encroachments within the Deerlake Ranch (TR53138) project site and 15 encroachments within the Twin Lakes Sewer Improvement project site).

| LOCATION | ACCESS |
|---|---|
| North of the 118 Freeway between Topanga Canyon Rd. and Canoga Ave., Chatsworth | Canoga Avenue, Poema Place |

| ASSESSORS PARCEL NUMBER(S) | SITE AREA |
|---|---|
| See attached list. | 232 Acres |

| GENERAL PLAN / LOCAL PLAN | ZONED DISTRICT |
|---|---|
| Countywide General Plan | Chatsworth |

| LAND USE DESIGNATION | ZONE |
|---|---|
| R (Non-Urban), RC (Rural Communities) | A-1-1, R-1-6000 |

| PROPOSED UNITS | MAX DENSITY/UNITS | COMMUNITY STANDARDS DISTRICT |
|---|---|---|
| 314 | 314 | NA |

**ENVIRONMENTAL DETERMINATION (CEQA)**

Addendum to Final Environmental Impact Report No. 99-239.

**KEY ISSUES**

- Consistency with the Los Angeles County General Plan
- Satisfaction of Part 16 of Chapter 22.56 of Title 22 of the Los Angeles County Code:
  - Sections 22.56.2050ï 2260 (Oak Tree Permit)



| CASE PLANNER: | PHONE NUMBER: | E-MAIL ADDRESS: |
|---|---|---|
| Lynda Hikichi | (213) 974 - 6433 | lhikichi@planning.lacounty.gov |

53138

**Attached Pages**
Box 1 – Assessor's Parcel Numbers

| APN No. | APN No. |
|---|---|
| 2816007003 | 2818003017 |
| 2816007004 | 2818003018 |
| 2816007079 | 2818004051 |
| 2816007106 | 2818010034 |
| 2816011001 | 2818011033 |
| 2816011027 | 2818012029 |
| 2816012019 | 2818013046 |
| 2816013010 | 2818014028 |
| 2816014006 | 2818015045 |
| 2816014029 | 2818016025 |
| 2816014904 | 2818016027 |
| 2816014905 | 2818016039 |
| 2816014907 | 2818017021 |
| 2816015027 | 2818017023 |
| 2816016033 | 2818017024 |
| 2816017047 | 2818017025 |
| 2816018034 | 2818017026 |
| 2816019036 | 2818018001 |
| 2816019906 | 2818018026 |
| 2816019907 | 2818019007 |
| 2816019908 | 2818019029 |
| 2816019909 | 2818020032 |
| 2816019910 | 2818022022 |
| 2816019911 | 2818024009 |
| 2816020014 | 2818024010 |
| 2816020902 | 2818025059 |
| 2816020903 | 2819006024 |
| 2816020904 | 2819007020 |
| 2816021030 | 2819008011 |
| 2816022033 | 2819008020 |
| 2816023005 | 2819009001 |
| 2816023007 | 2819009004 |
| 2816024014 | 2819010013 |
| 2816025009 | 2819010905 |
| 2816025902 | 2819011020 |
| 2816026005 | 2819012022 |
| 2816027005 | 2819013013 |
| 2816028003 | 2819014038 |
| 2816029001 | 2819015019 |
| 2816030001 | 2819017018 |
| 2818001061 | 2819018047 |
| 2818003005 | 2819019013 |

# Oak Tree Permit Burden of Proof

## August 2, 2016 Oak Tree Permit Application submitted by Forestar Chatsworth, LLC regarding Deerlake Ranch and Twin Lakes Sewer line projects

A. That the proposed construction or proposed use will be accomplished without endangering the health of the remaining trees subject to Part 16 of Chapter 22.56, if any, on the subject property.

***Response:*** *The project will follow avoidance and protective measures, including those outlined in section 22.56.2180, subsection b of the County's oak tree ordinance, to preserve the long-term health of the remaining protected oak trees. See the oak tree report dated August 2, 2016.*

B. That the removal or relocation of the oak tree(s) proposed will not result in soil erosion through the diversion or increased flow of surface waters which cannot be satisfactorily mitigated.

***Response:*** *The project will implement erosion prevention techniques during construction per a required storm water pollution protection plan (SWPPP). All of the proposed oak tree removals will be within the future development and subject to approved drainage plans. Revegetation of slopes will be required to control and satisfactorily mitigate potential erosion.*

C. That in addition to the above facts, at least one of the following findings must apply:

1. That the removal of oak tree(s) proposed is necessary as continued existence at present location frustrates the planned improvement or proposed use of the subject property to such an extent that:
    a. Alternate development plans cannot achieve the same permitted density or that the cost of such alternative would be prohibitive, or
    b. Placement of such tree(s) precludes the reasonable and efficient use of such property for a use otherwise authorized, or
2. That the oak tree(s) proposed for removal or relocation interfere with utility service or streets and highways, either within or outside of the subject property, and no reasonable alternative to such interference exists other than removal of the tree(s), or
3. That the oak tree(s) proposed for removal, with reference to seriously debilitating disease or danger of falling, is such that it cannot be remedied through reasonable preservation procedures and practices.

*Response: 1 a. and 1b. The Deerlake Ranch project has recently acquired several previously "Not a Part" parcels that include oak trees. Those acquisitions allow for more efficient, contour, grading that will reduce hillside grading, eliminate the need for one large "Verdura" retaining wall located adjacent to the main drainage (Devil Canyon), and will significantly reduce the height and length of another large retaining wall located at the Canoga bridge entry point. In addition, a number of oaks that were defoliated and severely burned in the 2008 Sesnon fire and thought to be dead in the previous Oak*

*Tree Report have recovered to various degrees. Some of those recovering oaks are located in the authorized development areas. The continued existence of the oak trees located on those newly acquired parcels, as well as those in the development area that are now recovering from fire damage, precludes the reasonable and efficient use of such property by inhibiting more the efficient, contour, grading that will reduce hillside grading and eliminate the need for the large "Verdura" retaining wall. In other areas of the property, changes in grading and bridge designs will reduce the number of previously authorized oak removals and will preserve an oak woodland, while still achieving the approved density and efficient use of the property.*

*Response: 2. – The Deerlake Ranch project has been conditioned to install a sewer line for the adjacent Twin Lakes neighborhood. Installation of the sewer line will require temporary encroachments into the protected zones of oak trees that are located adjacent to the existing roadway system. No oak trees will be removed for the sewer line installation.*

D. That the removals of the oak tree(s) proposed will not be contrary to or be in substantial conflict with the intent and purpose of the oak tree permit procedure.

*Response: The requested removals will not be in substantial conflict with the intent and purpose of the oak tree permit procedure for the following reasons: 1) the proposed new oak tree permit will result in preservation of an oak woodland area that is currently approved for removal and has already been fully mitigated through the purchase and transfer of 60 acres of off-site oak woodland to the Mountains Recreation and Conservation Authority (MRCA); 2) although the current Oak Tree Permit authorized fewer removals than what is now proposed, the newly proposed Oak Tree Permit will continue to authorize fewer oak tree removals than the 61 authorized in the original Oak Tree Permit (OTP#99-239) and the Applicant has fully mitigated for the removal of 61 oak trees as analyzed in the Final EIR and allowed under the original permit. A total of 122 mitigation oak trees have been purchased by the Applicant and delivered to the MRCA for planting in an adjacent, off-site, mitigation area in Browns Canyon.*

*Since the proposed oak tree removals are less than 61 trees and the oak woodland will be preserved, the already accomplished mitigation measures, along with the full list of preservation and construction management guidelines and monitoring requirements outlined in the new oak tree report, will ensure that the requested change in tree removals will not be in substantial conflict with the intent and purpose of the oak tree permit procedure.*

CERTIFIED FINAL ENVIRONMENTAL IMPACT REPORT

# Third Addendum to the Deerlake Ranch Project

Los Angeles County, California

State Clearinghouse No: 2000061049

Project No. 99-239(5)
Vesting Tentative Parcel Map No. 53138
Conditional Use Permit/Oak Tree Permit No. 99239

August 2016

CERTIFIED FINAL ENVIRONMENTAL IMPACT REPORT

# Third Addendum to the Deerlake Ranch Project

Los Angeles County, California


Lead Agency:

**County of Los Angeles**
**Department of Regional Planning**
320 West Temple Street
Los Angeles, California 90012

Prepared By:

**ESA PCR**
233 Wilshire Boulevard, Suite 150
Santa Monica, California 90401


August 2016

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# I. PURPOSE OF ADDENDUM AND CEQA REQUIREMENTS

Deerlake Ranch is an approved residential subdivision consisting of 314 single family residential lots and related infrastructure and amenities ("Deerlake Ranch Project"). The Board of Supervisors ("Board") of the County of Los Angeles ("County") certified on August 10, 2004, the Deerlake Ranch Project Final Environmental Impact Report, State Clearinghouse Number 2000061049, which consists of the Draft Environmental Impact Report ("Draft EIR") dated November 2001 and certified at the time of project approval, Technical Appendices to the Draft EIR dated November 2001, the Additional Environmental Information dated July 2002, the Revised Project Design Summary for Deerlake Ranch dated May 2003, and the Final Environmental Impact Report, including Responses to Comments dated December 2003, collectively referred to as the ("Final EIR,") and found that the Final EIR was completed in compliance with the California Environmental Quality Act (Public Resources Code Section 21000, *et seq*.) ("CEQA"). The Board certified that it received, independently reviewed and considered the information contained in the Final EIR. Prior to the Board certification, the Final EIR was certified by the County Regional Planning Commission ("Commission") on January 14, 2004. Having been certified by the Commission and the Board, the Final EIR is herein referred to as the "Certified EIR".

This is a Third Addendum to the Certified EIR (State Clearinghouse No. 2000061049, herein referred to as the "Third Addendum"). The First Addendum to the Certified EIR was adopted by the Commission on July 18, 2012 (herein referred to as the "First Addendum") at which time the Commission approved amendments to the Board-approved vesting tentative tract map, including the reduction in single-family lots from 375 to 314 and reduction in project grading from 2.2 million cubic yards to 1.8 million cubic yards, and Second Addendum to the Certified EIR was adopted by the Los Angeles County Hearing Officer on November 17, 2015 (herein referred to as the "Second Addendum"), at which time the hearing officer approved minor amendments to the vesting tentative tract map, including the addition of a recreational facility serving the Deerlake Ranch community, relocation of two entry gates, reconfiguration of some lots, and increase in the multi-use trail length. This introduction describes the purpose of an addendum and provides a summary of the background of the planning and environmental review process conducted by the County for the Deerlake Ranch Project, including previously approved project modifications.

The original Oak Tree Permit No. 99-239 to allow the removal of 61 oak trees and encroachment into the protected zone of 11 oak trees was approved along with the Deerlake Ranch Project entitlements on August 10, 2004. Oak Tree Permit No. 200500037 was subsequently approved by the Los Angeles County Hearing Officer ("Hearing Officer") on September 6, 2005, to permit the removal of 47 oak trees and encroachment into the protected zones of ten oak trees, in addition to the removal of three dead oak trees. This permit superseded the original oak tree permit 99-239. Subsequently, Oak Tree Permit 201200001 ("ROAK 210200001") was approved by the Planning Commission on July 18, 2012, for the reduction in the number of oak tree removals from 47 to 42, and increased the number of encroachments into the protected zone at 13 oak trees.

This Third Addendum is prepared to assess the potential environmental effects associated with further discretionary approvals being considered by the Board in connection with the implementation of a Deerlake Ranch Project condition of approval requiring construction of an off-site sewer improvement and the installation of the Twin Lakes sewer improvement. This Third Addendum is also prepared to assess the potential environmental effects associated with further discretionary oak tree permit approvals being considered by the County in connection with proposed oak tree encroachments related to the Twin Lakes

sewer improvement and adjustment of oak tree encroachments and removals within the Deerlake Ranch Project.

The Deerlake Ranch Project conditional use permit 99-239 ("CUP"), Condition No. 69 as well as Vesting Tentative Tract Map Condition No. 8 in the Department of Public Works, Land Development Division, Sewer condition letter dated March 25, 2004 ("Twin Lakes Sewer Condition"), require the Deerlake Ranch Project proponent to construct and install off-site mainline and lateral stub sewer improvements and appurtenant structures within private streets in the adjacent Twin Lakes community ("Twin Lakes Sewer"). The connection cost and maintenance of the lateral stubs will be the responsibility of the individual lot owners.

Because the Twin Lakes Sewer is to be located within private roads, property interests in the form of easements to the County of Los Angeles are needed to undertake the construction as well as future operation, maintenance and use of the facility. The Deerlake Ranch Project proponent, or its predecessor, have already obtained approximately 134 easements but approximately 29 additional easements ("Remainder Easements") are needed which the Deerlake Ranch proponent is unable to obtain. Fewer than 29 additional easements may be needed at the time of the Third Addendum adoption since discussions are on-going with lot owners who have yet to grant sewer easements. Consequentially, the County will potentially undertake actions to obtain sufficient title and interest in the Remainder Easements to enable the Deerlake Ranch Project proponent to construct the Twin Lakes Sewer and enable the future operation, maintenance and use of the facility.

Installation of the Twin Lakes Sewer is planned for 2017 and has been designed as a gravity flow system, avoiding the need for pump stations. Installation will take place within the existing road with the sewer pipelines being buried from 5 to 20 feet below the ground surface. Excavation of approximately 40,000 cubic yards will be limited to temporary soil removal while the pipeline is installed and subsequent refilling of the excavation with the removed soils. Any excess excavated materials from the sewer pipeline installation would be incorporated into the Deerlake Ranch grading project. The diverse topography, and complexity and dimensions of the established Twin Lakes community roadway system, will require that only small equipment be used for sewer infrastructure installation, estimated to last from six to eight months.

The actions to be considered by the Board would include, but not be limited to, potential approval of an *Agreement for Tract 53138 Relating to the Acquisition of Offsite Real Property Interests* (the "Acquisition Agreement") and potential approval of a Board Resolution finding and determining that the public interest, convenience and necessity require the acquisition of the Remainder Easements for public purposes (the "Eminent Domain Resolution"). The Acquisition Agreement sets forth the relative financial and administrative responsibilities between the County and the Deerlake Ranch Project proponent with respect to the potential acquisition by the County of the Remainder Easements and creates a funding mechanism to fund the County's costs associated with such acquisition efforts. If adopted by the Board, the Eminent Domain Resolution would authorize the County to initiate legal proceeding to acquire the Remainder Easements through eminent domain. Together, the Acquisition Agreement and Eminent Domain Resolution are referred to as the proposed "Refined Sewer Implementation Project." The construction of the Twin Lakes Sewer was approved by the Board in 2004 when it approved the Deerlake Ranch Project and certified the Final EIR.

With respect to oak trees, two recently acquired "Not a Part" (NAP) parcels[1] that include oak trees allow for more efficient, contour grading that will reduce hillside grading, eliminate the need for one large "Verdura" retaining wall located adjacent to the main drainage (Devil Canyon), and will significantly reduce the height and length of another large retaining wall located at the Canoga Avenue bridge entry point to the Deerlake Ranch subdivision. Implementation of these efficiencies would require removal of several oak trees. In addition, a number of oaks that were severely burned and defoliated in the 2008 Sesnon fire, and consequently considered to be dead in the 2012 Oak Tree Report, have recovered from the fire to various degrees. However, in other areas of Deerlake Ranch, changes in grading and roadway designs would reduce the number of previously authorized oak removals and would preserve an oak woodland habitat. Based on the changes described above, the Deerlake Ranch Project would remove 56 oak trees and encroach into the protected zone of 25 oak trees. The Refined Sewer Implementation Project would encroach into the protected zone of 15 oak trees with installation of the Twin Lakes sewer mainline.

The purpose of this Third Addendum is to assess whether the proposed Refined Sewer Implementation Project, inclusive of oak tree impact modifications, triggers any of the conditions described in *State CEQA Guidelines* Section 15162 calling for preparation of a subsequent or supplemental EIR.

This Addendum presents a comparison of the environmental impacts of the Refined Sewer Implementation Project with the impacts previously identified in the Certified EIR, as amended by the First and Second Addenda, followed by an analysis of whether there is a significant change in environmental impacts caused by the Refined Sewer Implementation Project with respect to the following environmental topics, as organized in the Certified EIR:

> Aesthetics and Visual Resources, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hydrology and Water Quality, Noise, Public Services - Fire Protection, Public Services - Police Protection, Public Services - Schools, Public Services - Libraries, Transportation/Traffic, Utilities and Service Systems - Water Supply, Utilities and Service Systems - Wastewater, Utilities and Service Systems - Solid Waste, Utilities and Service Systems - Electricity, and Utilities and Service Systems - Natural Gas.

The Board and Commission determined, based on the Certified EIR, that Deerlake Ranch Project design features, mitigation measures, and conditions of approval will reduce Deerlake Ranch Project-specific impacts on all of the above elements and/or services to be less than significant. Consequently, no Statement of Overriding Considerations was needed.

The purpose of this Addendum is to analyze the Refined Sewer Implementation Project to determine whether any significant environmental impacts that were not identified in the original Certified EIR would result, or whether previously identified significant impacts would be substantially more severe. This document has been prepared in accordance with *State CEQA Guidelines* (Title 14, California Code Regulations, 15000 *et seq*.) Sections 15162 and 15164.

*State CEQA Guidelines* Section 15164(a) requires a Lead Agency to prepare an Addendum to a previously Certified EIR if changes or additions to the document are necessary, but none of the conditions described in Section 15162 are present. Section 15162(a) of the *State CEQA Guidelines* provides that, for a project covered

[1] *Not A Part (NAP) parcels are independently owned parcels within the Deerlake Ranch Project envelope consisting of existing Record of Survey lots, which have either existing single-family houses on them, or may be developed as additional single-family units in the future. These are not a part of the Deerlake Ranch Project but are located within the project development envelope.*

by a Certified EIR or adopted negative declaration, preparation of a subsequent EIR or negative declaration is not required unless one or more of the following conditions occur:

- Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- Substantial changes have occurred with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase the severity of previously identified significant effects; and
- New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time of the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:
    - The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
    - Significant effects previously examined will be substantially more severe than shown in the previous EIR or negative declaration;
    - Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
    - Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR or negative declaration would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measures or alternative.

Public circulation of an Addendum is not required by *State CEQA Guidelines* Section 15164. If new significant impacts or a substantial increase in the severity of significant impacts identified in the previous EIR would result, then preparation and circulation of a Subsequent or Supplemental EIR is required.

As discussed in this Addendum, the Refined Sewer Implementation Project, inclusive of the proposed oak tree impact assessment, does not propose substantial changes to the approved Deerlake Ranch Project, nor is there any new information of substantial importance that requires the preparation of a Subsequent or Supplemental EIR. The analyses of the subject areas listed above demonstrate that the proposed Project will not result in any new significant impacts, or any substantial increase in the severity of the impacts identified in the Certified EIR, as amended by the First and Second Addenda. In addition, no new information of substantial importance has been identified that indicates that the Refined Sewer Implementation Project would result in any new significant impacts or any substantial increase in the severity of the significant impacts identified in the Certified EIR, as amended by the previous Addenda.

## A. Changed Circumstances

Section 15162 of the *State CEQA Guidelines* states that a Subsequent EIR would be required if (1) substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously

identified significant effects; (2) substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or (3) new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified, becomes available.

First, there are no changes to the Deerlake Ranch Project required for implementation of Board conditions of approval. The Twin Lakes Sewer Condition already requires the construction of the off-site main line sewer, with a sewer lateral "stubbed out" to the edge of the easement for the mainline sewer for each lot within the Twin Lakes community. The installation of the mainline sewer and laterals was part of the original Deerlake Ranch Project approval and the proposed Refined Sewer Implementation Project is in the same location as the approved mainline sewer construction with additional details with a refined design consistent with the 2004 Deerlake Ranch Project approval. There would be 15 oak tree encroachments for the Twin Lakes Refined Sewer Implementation Project resulting from the refinement to final mainline sewer design. However, the presence of oak trees within the Twin Lakes community is not new information as the same oak trees were growing in the same location within Twin Lakes adjacent to the roadway system as at the time of Deerlake Ranch Project approval in 2004. Thus, the construction of the Twin Lakes Sewer was part of the original approval. Previous Deerlake Ranch Project changes assessed in the First and Second Addenda have already reduced environmental impacts by reducing the number of residential units. Overall, the number of proposed residential units for the Deerlake Ranch Project site has been reduced from 375 single-family residences in the originally approved design to 314 single-family residences in the subsequently approved design.

The Deerlake Ranch Project has not been completed and is at the beginning of the construction phase. That change did not affect the original entitlement approvals or the requirement to construct the off-site sewer infrastructure. The Deerlake Ranch Project would require the removal of 56 oak trees and encroachments into the protected zone of 25 oak trees. This change is 14 more oak trees proposed for removal than currently approved and 14 more encroachments into the protected zone than are currently authorized. An additional 15 oak tree encroachments would result from the Refined Sewer Implementation Project Twin Lakes sewer mainline installation. However, the proposed change in oak tree impacts would result in a smaller impact area to oak woodland habitat. The currently proposed Project would result in the acquisition of up to 29 Remainder Easements within the Twin Lakes community. Fewer than 29 additional easements may be needed at the time of the Third Addendum adoption since discussions are on-going with lot owners who have yet to grant sewer easements. The purpose of the Refined Sewer Implementation Project is to implement the Twin Lakes Sewer conditions of approval already authorized by the Board when it approved the Certified EIR and the Deerlake Ranch Project approvals. The Twin Lakes Sewer conditions are not being changed, and as demonstrated in this Third Addendum, implementation of the Refined Sewer Implementation Project to facilitate the already approved Twin Lakes Sewer conditions would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

There have been no substantial changes in plans, policies, and regulations that would present new conflicts resulting in significant or substantially more severe physical impacts on the environment. Additionally, no substantial changes to the environmental setting in the Refined Sewer Implementation Project area have been identified since the approval of the Certified EIR. Overall, no substantial changes in circumstances have occurred since approval of the Certified EIR, including the Mitigation Monitoring Program (MMP) adopted at

the time of certification, that would result in new significant impacts or substantial increases in the severity of previously identified significant impacts. No new mitigation measures are required as a consequence of the project changes. Lastly, no other additional information of substantial importance has been found that would warrant preparation of a Subsequent EIR pursuant to Section 15162 of the *State CEQA Guidelines*.

Based on the analysis presented herein and with the implementation of applicable mitigation measures contained in the MMP adopted at the time of Deerlake Ranch Project approval, it has been determined that the Refined Sewer Implementation Project would not result in any new significant impacts or a substantial increase in the severity of an impact disclosed in the Certified EIR and amended by the previous Addenda or otherwise require preparation of a subsequent or supplemental EIR. If none of the conditions identified in *State CEQA Guidelines* section 15162 calling for the preparation of a subsequent EIR are triggered, then the lead agency "shall prepare an addendum." Additional details about sewer implementation are now known, and the Addendum is the appropriate environmental document for disclosure. Therefore, this Third Addendum to the Certified EIR is the appropriate CEQA document for the Refined Sewer Implementation Project. The environmental analysis relies in part on the analyses completed in the Certified EIR, as amended by the previous Addenda and directly references these documents, where appropriate.

# II. INTRODUCTION

## A. Project Location

The Deerlake Ranch Project site is located in the Chatsworth community of the County of Los Angeles, north of the 118 Freeway between Canoga Avenue and Topanga Canyon Boulevard; refer to **Figure 1.0**, *Regional Location Map* and **Figure 2.0**, *Aerial Photograph*. The irregularly-shaped property is 230.58 gross acres in size with flat to hilly terrain. A large portion of the property is generally a plateau that is bordered to the west and south by Devil Canyon and to the east by Browns Canyon.

The Deerlake Ranch Project development will take access from Canoga Avenue, a variable width dedicated public street, and Poema Place, a 64-foot wide dedicated public street, via Topanga Canyon Boulevard. Internal access will be provided by 34-foot or 36-foot wide private driveways and fire lanes.

Domestic water service will be provided by Las Virgenes Municipal Water District (LVMWD). Domestic sewer service will also be provided through the LVMWD via a contractual agreement with the City of Los Angeles. The project is within the boundaries of the Los Angeles Unified School District (LAUSD).

The Refined Sewer Implementation Project would facilitate implementation of a previously approved off-site condition requiring sanitary sewer construction within the Twin Lakes community adjoining the Deerlake Ranch Project site.

The Twin Lakes community is a development between the southern boundary of the Deerlake Ranch Project site and State Route 118 (SR-118), consisting of approximately 100 existing single-family

units out of the 338 original Record of Survey subdivision; **Figure 3.0**, *Twin Lakes Community*. The Twin Lakes community was originally envisioned as a vacation community and subdivided in the 1920s. The roads within the Twin Lakes community are private with access to County maintained roads at Poema Place and Canoga Avenue. Wastewater disposal within the community occurs currently through individual on-site wastewater treatment systems (septic systems). The decision to hook up to the sewer mainline will be independently determined by individual homeowners.

## B. Project Background

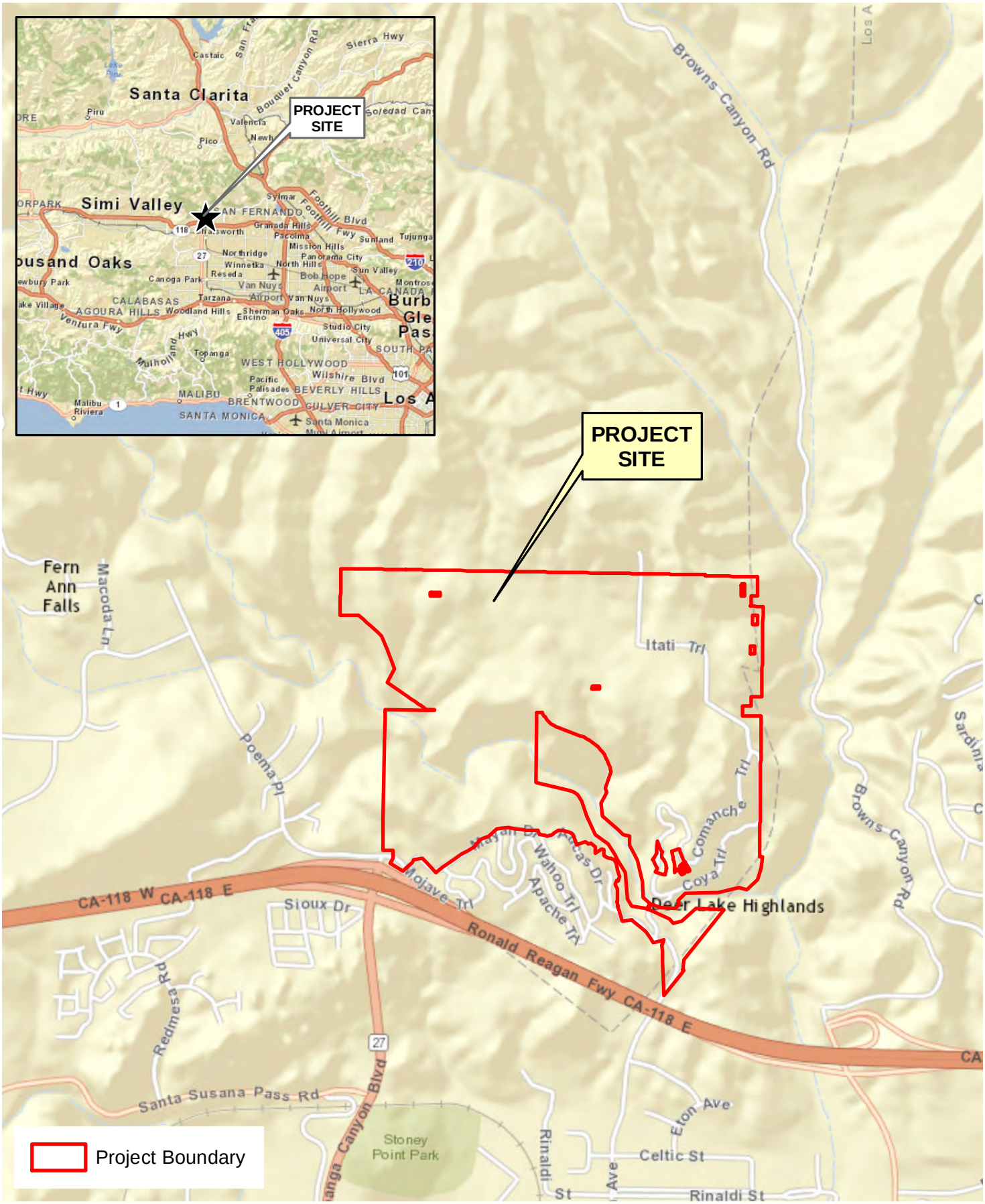
Pursuant to the provisions of CEQA, as discussed above, the County, serving as the Lead Agency, released the Draft EIR for the Deerlake Ranch Project on November 28, 2001 for public comment [County Project Number 99-239; State Clearinghouse #2000061049]. The comment period was 45 days, ending on January 11, 2002. An Additional Environmental Information document was made available for public review from July 22, 2002 until August 21, 2002. A Revised Project Summary Document was distributed for review June 10, 2003. The Commission approved the Certified EIR on January 14, 2004, while the Board approved the Certified EIR on August 10, 2004.

Vesting Tentative Tract Map 53138 (the "VTTM") was approved by the Board on August 10, 2004 to authorize the creation of 375 single-family lots, 21 open space lots, 14 private and future street lots, four debris basin lots, one helispot lot, one sheriff's storefront facility, and four designated remainder parcels, on approximately 230.58 acres. Grading consisted of 2.2 million cubic yards of cut and fill. Additional approvals included CUP Case No. 99-239-(5), to authorize a density controlled residential development in a non-urban hillside management area; and Oak Tree Permit Case No. 99-239-(5) to permit the removal of 61 oak trees and encroachment into the protected zone of 11 oak trees ("Original Project Approval").

Subsequent to the Original Project Approval, additional modifications to the VTTM and CUP were approved. Since approval of the Certified EIR by the County, the project applicant revised the project design to reduce the number of single-family residential lots to 314. Additional approved revisions to the Original Project, all of which have been discussed in the previous Addenda, include previous the reduction in grading to 1.8 million cubic yards, the reduction in the removal of oak trees to 42 removals but an increase of oak tree encroachments to 13, and modification to both map and CUP conditions. Overall, development impacts have been significantly reduced from the Original Project Approval.

To address the proposed Refined Sewer Implementation Project, inclusive of proposed oak tree impacts, a Third Addendum to the Certified EIR has been prepared. The County has determined that an addendum is the appropriate subsequent CEQA document to address the Refined Sewer Implementation Project pursuant to the *State CEQA Guidelines* Section 15164, as explained in more detail above in Section I, *Purpose of Addendum and CEQA Requirements*. Pursuant to *State CEQA Guidelines* Section 15164(c), this Addendum is not required to be circulated for public review, but will be attached to the Certified EIR.

Oak trees are protected under the Los Angeles County Oak Tree Ordinance (Ord. 82-0168 §2 (in part), 1982; Ord. 88-0157 §2, 1988) as outlined in Chapter 22.56.2050 et seq. of the Los Angeles County Code. The County's ordinance requires protection of all members of the genus Quercus (oaks) that measure 25 inches or more in circumference (eight inches in diameter) for trees with a single trunk and 38 inches of combined circumference (12 inches in diameter) for any two trunks of trees with multiple stems, as measured at breast height, or 4.5 feet above natural grade (diameter at breast height, or "DBH"). The Oak Tree Ordinance defines the "protected zone" of the oak trees as extending to five feet outside of the dripline of the oak tree, or 15 feet from the trunk(s) of a tree, whichever distance is greater. Additionally, the Oak Tree Ordinance protects all qualifying oak trees that fall within 200-feet of project construction. An oak tree report is required to be prepared that map and document the coast live oak trees occurring within the project site and any of these trees that would be removed or would have impacts within the canopy or protected zones of qualifying oak trees (encroachment). Projects proposing impacts by removal or encroachment to oak tree require an oak tree permit approval prior to project implementation.

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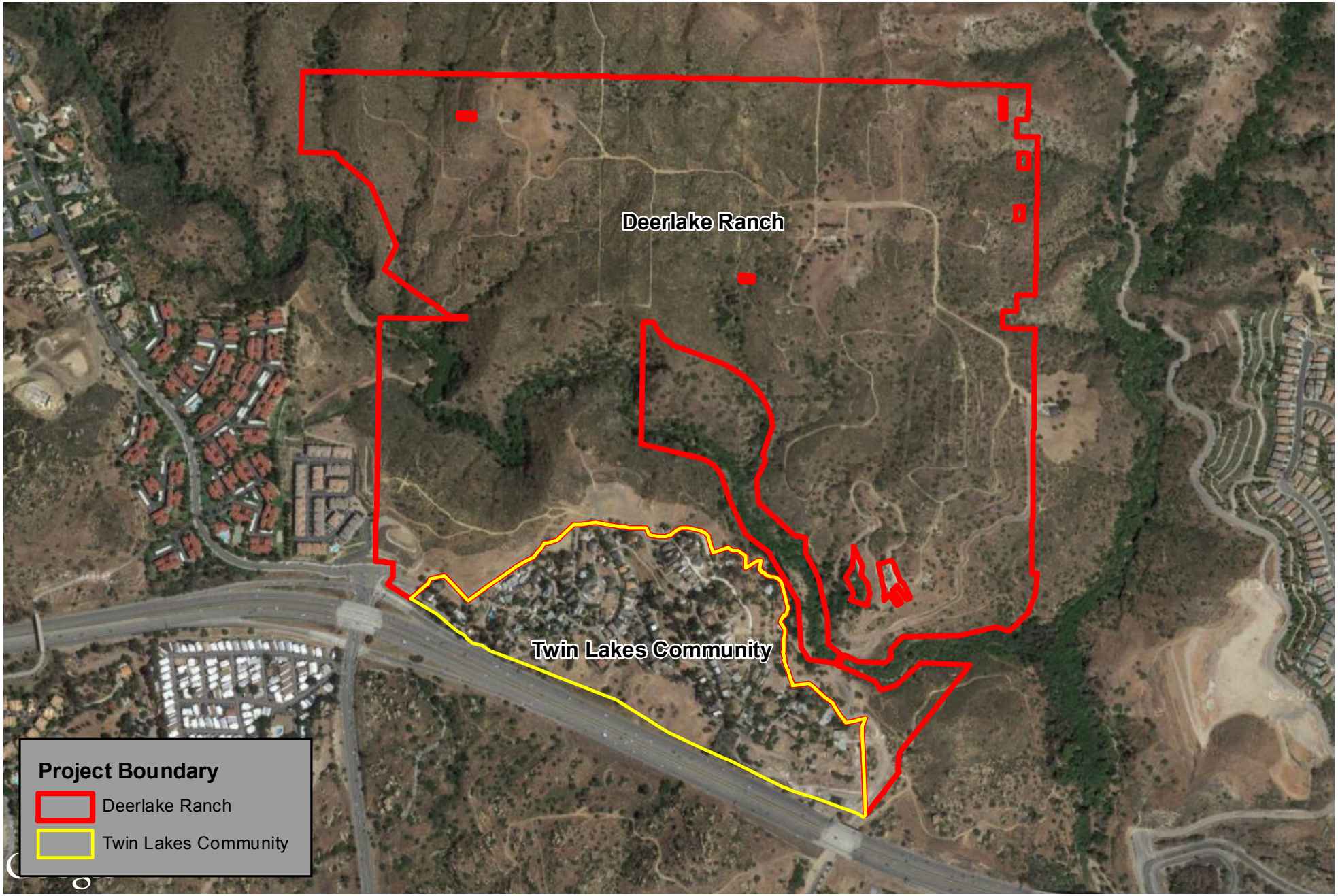
## Regional Location Map

**Deerlake Ranch Addendum**

Source: ESRI Street Map, 2009; PCR Services Corporation, 2015.

FIGURE

**1**

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**Aerial Photogaph**

**Deerlake Ranch Addendum**

Source: Google Maps, 2015 (Aerial); PCR Services Corporation, 2016.

FIGURE

**2**

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## Twin Lakes Community

**Deerlake Ranch Addendum**

Source: Los Angeles County Department of Regional Planning, 2016.

FIGURE

**3**

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# III. APPLICATION OF PREVIOUSLY CERTIFIED ENVIRONMENTAL DOCUMENTATION TO THE PROJECT

## A. Deerlake Ranch Project

The Deerlake Ranch Project analyzed in the Certified EIR entailed site preparation and construction on the approximately 230.6 acres of the Deerlake Ranch Project site consisting of 375 single-family lots, 21 open space lots, 14 private and future street lots, four debris basin lots, one helispot lot, one sheriff's storefront facility, and four designated remainder parcels, on approximately 230.6 acres. Grading consisted of 2.2 million cubic yards of cut and fill. Additional approvals included CUP Case No. 99-239-(5), to authorize a density controlled residential development in a non-urban hillside management area; and Oak Tree Permit Case No. 99-239-(5) to permit the removal of 61 oak trees and encroachment into the protected zone of 11 oak trees.

The original Oak Tree Permit No. 99-239 to allow the removal of 61 oak trees and encroachment into the protected zone of 11 oak trees was approved along with the Deerlake Ranch Project entitlements on August 10, 2004. Oak Tree Permit No. 200500037 was subsequently approved by the Los Angeles County Hearing Officer on September 6, 2005, to permit the removal of 47 oak trees and encroachment into the protected zones of ten oak trees, in addition to the removal of three dead oak trees. This permit superseded the original oak tree permit 99-239. Subsequently, Oak Tree Permit 201200001 ("ROAK 210200001") was approved by the Planning Commission on July 18, 2012, for the reduction in the number of oak tree removals from 47 to 42, and increased the number of encroachments into the protected zone at 13 oak trees.

The total area of coast live oak woodland identified on the project site is approximately 5.73 acres. Coast live oak woodland is a native woodland community and is located adjacent to drainages or on shaded, north-facing slopes. The dominant species is coast live oak (Quercus agrifolia). Individual coast live oak trees are located in other plant communities on the site. The total area of oak/willow woodland on the project site is approximately 0.58 acre and is characterized by small stands dominated by coast live oaks and willows (Salix ssp.) found on stream terraces above Devil Canyon Creek upstream from the Devil Canyon debris dam. Implementation of the original project design would result in the permanent loss of 0.68 acre of coast live oak woodland and another 0.62 acre from the implementation of fuel modification. The oak/willow woodland would not be impacted by the project.

Conditional Use Permit 99-239, Condition No. 69 requires the following:

> "In the event that a Community Facilities District ("CFD") is proposed to fund public facilities for the project, prior to recordation of a final map for Tract Map No. 53138, the permittee shall request that the CFD include funding for the design and construction of public main-line sewers, including five foot lateral stubs in the public right-of-way, to serve the existing Twin Lakes community. To the extent authorized by law and subject to the County's sale of CFD bonds for that purpose, such CFD funding may be used to make a contribution to a County Improvement District ("CID") which may be formed by the Board, at the request of the Twin Lakes community, specifically for the design, acquisition of rights of way through grant or condemnation, and construction of main line sewers within that community. Alternatively, in the event a CID is not formed in a timely manner, or is deemed by the County to be an inappropriate means of implementation, the permittee may construct the public mainline

sewers under a private contract, subject to funding by the CFD and acquisition of right-of-way through grants of easements or condemnation by the County. Under either alternative, upon completion of construction to the satisfaction of the Department of Public Works, the mainline sewer shall be transferred for ownership and maintenance to the Los Angeles County Sewer Maintenance District. Performance of the permittee under this condition shall be subject to the following:

A. Upon expiration of all appeal periods, and statutes of limitation for legal challenges to the project, without the filing by any party of litigation challenging the project, the permittee shall prepare all necessary easement documents, including legal descriptions, for each easement required to construct the Twin Lakes sewer across applicable private parcels;

B. Prior to recordation of the first final map, the permittee shall request formation of the CFD to fund public facilities for Deerlake Ranch, and, subject to the County's sale of CFD bonds for that purpose, include funding for the complete design and construction of public main line sewers, including five foot lateral stubs in the public right of way, to serve the existing Twin Lakes Community;

C. Following the submission of an application for the formation of a CFD for this project that specifically lists the Twin Lakes sewer as an approved facility to receive funding, the permittee shall have 90 days to obtain all necessary grants of easements and consents;

D. At the end of the 90-day period, the permittee shall present the County with a list, including legal descriptions, of all parcels that have not voluntarily granted easements necessary to construct the Twin Lakes sewer. The County shall commence proceedings to acquire the remaining required sewer easements through eminent domain;

E. Permittee shall construct or cause to be constructed the sewer facilities for Twin Lakes regardless of the final cost and regardless of whether a CFD is approved by the County of Los Angeles. Upon recordation of all easements necessary to construct the Twin lakes sewer, the permittee shall commence construction in a timely manner, in coordination with the installation of the project sewer main to Canoga Avenue.

Prior to approval of the first final unit map, the permittee shall enter into an agreement with the County to thereafter complete the improvements at the permittee's sole expense. The permittee shall guarantee its performance of the agreement by furnishing cash, a certificate of deposit, a letter of credit, or other instrument acceptable to the Director of the Department of Public Works, which shall be returned to the permittee at such time as the sewer facilities are completed by the permittee and accepted by the Department of Public Works.

F. In addition to the construction of the main line sewer, permittee shall "stub out" the sewer lateral to the edge of the easement for the main line sewer for each lot in "old" Twin

Lakes. Property owners will be responsible for their own hookup fees (estimated in 2002 to cost $3,900) and for the construction of their own private connections between their house and the main sewer line easement; and

G. Following the installation of the main line sewer, all roads disturbed by the trenching for the main line sewer shall be paved with an asphalt overlay of the existing road base. Any damage by permittee's sewer contractor to Twin Lakes community roads not disturbed by the sewer installation shall also be repaired to their prior state to the satisfaction of the Department of Public Works."

Consequently, CUP Condition No. 69 requires the Deerlake Ranch Project proponent to construct a mainline sewer with lateral stubs to the adjacent community of Twin Lakes.

Similarly, VTTM Condition No. 8 in the Department of Public Works, Land Development Division, Sewer condition letter dated March 25, 2004 states, "As directed by the Board of Supervisors (BOS), construct a mainline sanitary sewer system for the adjoining Twin Lakes community. The sewers in Twin Lakes shall be constructed and accepted by Public Works prior to the issuance of a final inspection for the 190th home."

## B. Refined Sewer Implementation Project

### Overview of the Refined Sewer Implementation Project

The proposed Refined Sewer Implementation Project involves the acquisition by the County of certain property interests to implement the Deerlake Ranch Project conditions of approval, including the previous approval for installation of a public mainline sewer as required under Condition 69 for Conditional Use Permit 99-239. The Board will be requested to consider the discretionary approval of the Acquisition Agreement and the Eminent Domain Resolution. The Acquisition Agreement sets forth the relative financial and administrative responsibilities between the County and the Deerlake Ranch Project proponent with respect to the potential acquisition by the County of the Remainder Easements and creates a funding mechanism to fund the County's costs associated with such acquisition efforts. If adopted by the Board, Eminent Domain Resolution would authorize the County to initiate legal proceedings to acquire the Remainder Easements through eminent domain property interests necessary to implement the Twin Lakes sewer off-site conditions. As stated above, the Deerlake Ranch Project entitlements authorize the subdivision and use of the Deerlake Ranch Project property for a single family residential uses and related infrastructure. As a condition of approval, the Board required the design, rights of way acquisition, and construction of the Twin Lakes mainline sewer and contemplated the acquisition of property by the County, through eminent domain if necessary, to ensure adequate title and interest in property to construct the sewer. The construction of the Twin Lakes Sewer was included in the approved Deerlake Ranch Project for which an EIR was certified by the Board in 2004.

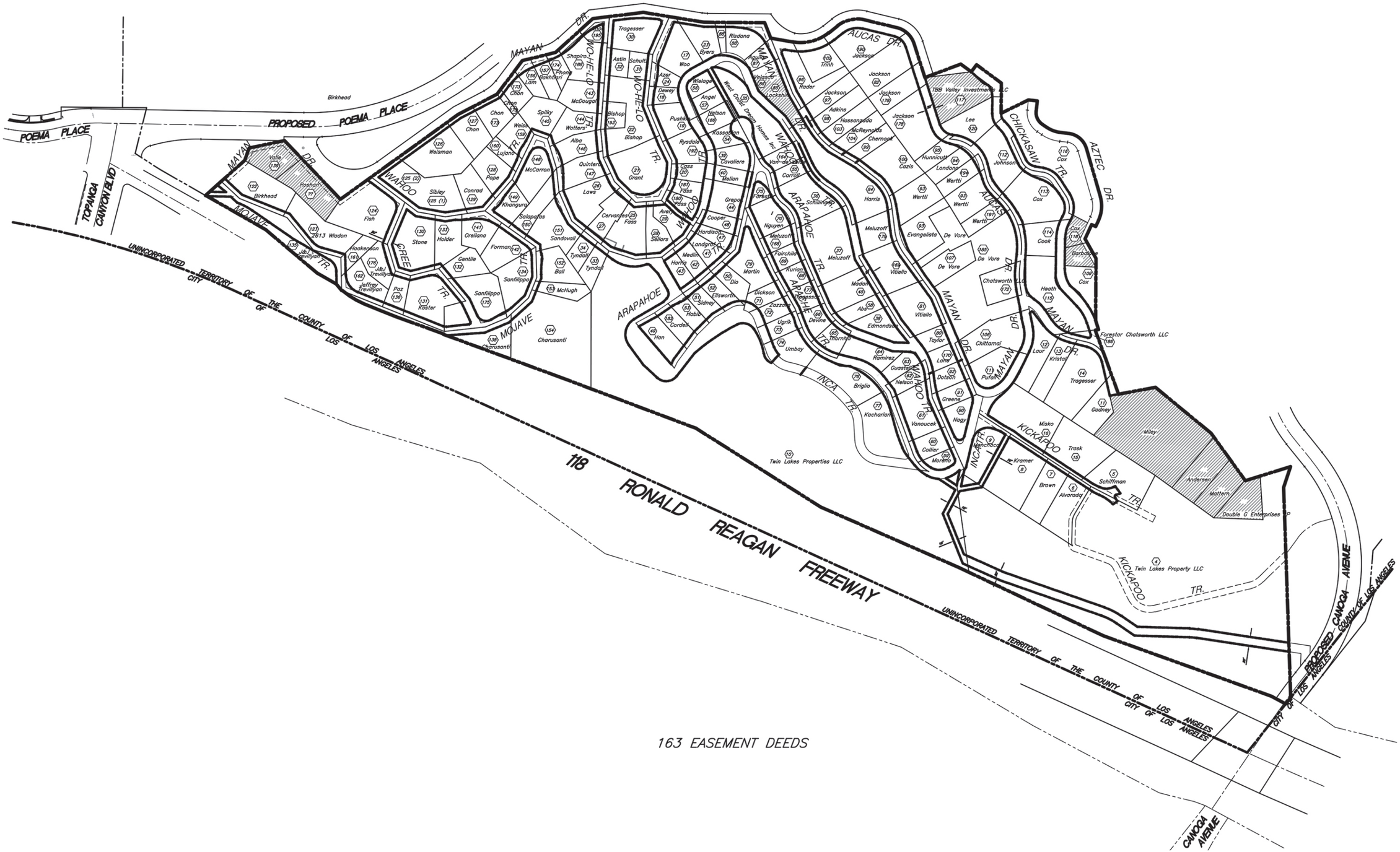
The Twin Lakes Sewer is to be constructed and/or installed within the private streets shown on **Figure 4** ("Offsite Properties"), as was included in the Certified EIR. Once constructed to the satisfaction of the County, the sewer mainline will be transferred to the Los Angeles County Consolidated Sewer Maintenance District for operation and maintenance. The connection cost and maintenance of the lateral stubs, including construction of their own private connections between the house and the mainline sewer, will be the responsibility of the individual property owners.

The Deerlake Ranch Project proponent has acquired approximately 134 easements in the Offsite Properties for the construction, operation, maintenance, and use of the Twin Lakes Sewer as depicted on **Figure 5** ("Acquired Easements"). However, in addition to the Acquired Easements, additional Offsite Properties are needed to fully construct the Twin Lakes Sewer. Neither the Deerlake Ranch Project proponent nor the County have sufficient title or property interest in the Remainder Easements depicted in **Figure 6** ("Remainder Easements") needed to fully construct the Twin Lakes Sewer to satisfy of the requirements of the Twin Lakes Sewer Condition. In CUP Condition No. 69, the Board contemplated the use of eminent domain to acquire sufficient title and interest in the Remainder Properties to the extent the Deerlake Ranch Project proponent was unable to obtain all such interests itself. The Remainder Properties are those remaining easements which need to be acquired by the County to facilitate construction of the Offsite Improvements. For the purposes of this Third Addendum, the County will potentially acquire up to 29 Remainder Properties in order to facilitate complete construction of the Twin Lakes Sewer. However, fewer than 29 additional easements may be needed at the time of the Third Addendum adoption since discussions are on-going with lot owners who have yet to grant sewer easements.

Installation of the Twin Lakes Sewer is planned for 2017 during Phase 3 of the Deerlake Ranch Project construction. The Twin Lakes Sewer has been designed as a gravity flow system, avoiding the need for pump stations. Installation will take place within the existing road and the sewer pipelines will be buried from 5 to 20 feet below the ground surface. Excavation will be limited to temporary soil removal while the pipeline is installed and subsequent refilling of the excavation with the removed soils. Any excess excavated materials from the sewer pipeline installation would be incorporated into the Deerlake Ranch balanced grading project. A conservative estimate of excavated soil materials for sewer pipeline installation is approximately 40,000 cubic yards, an amount within the scope of impacts in the original total grading quantities of the Certified EIR Deerlake Ranch Project analysis of 2.2 million cubic yards, subsequently amended to 2.0 million cubic yards of cut and 2.2 million cubic yards of fill, but balanced within the project boundary. Because of the diverse topography, and the complexity and dimensions of the established Twin Lakes community roadway system, only small equipment will be used for sewer infrastructure installation. Installation activities are estimated to last from six to eight months.

As a consequence of the Refined Sewer Implementation Project, there would be 15 oak tree encroachments resulting from the final mainline sewer design. No oak trees are proposed for removal and the encroachments would occur within the existing paved roadways within the Twin Lakes community. A new oak tree permit would be needed in order to construct the Refined Sewer Implementation Project in compliance with the County Zoning Code. The presence of coast live oak trees overhanging the Twin Lakes sewer mainline alignment requires compliance with the County Oak Tree Ordinance for potential impacts. In addition, the Deerlake Ranch Project would require the removal of 56 oak trees and encroachments into the protected zone of 25 oak trees, as described below in Section 4.3 – Biological Resources.

In addition, the Project will not result in a substantial alteration or material deviation from the terms and conditions of the previously approved CUP.

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**Offsite Properties**

**Deerlake Ranch Addendum**

Source: United Civil, Inc., 2016.

FIGURE

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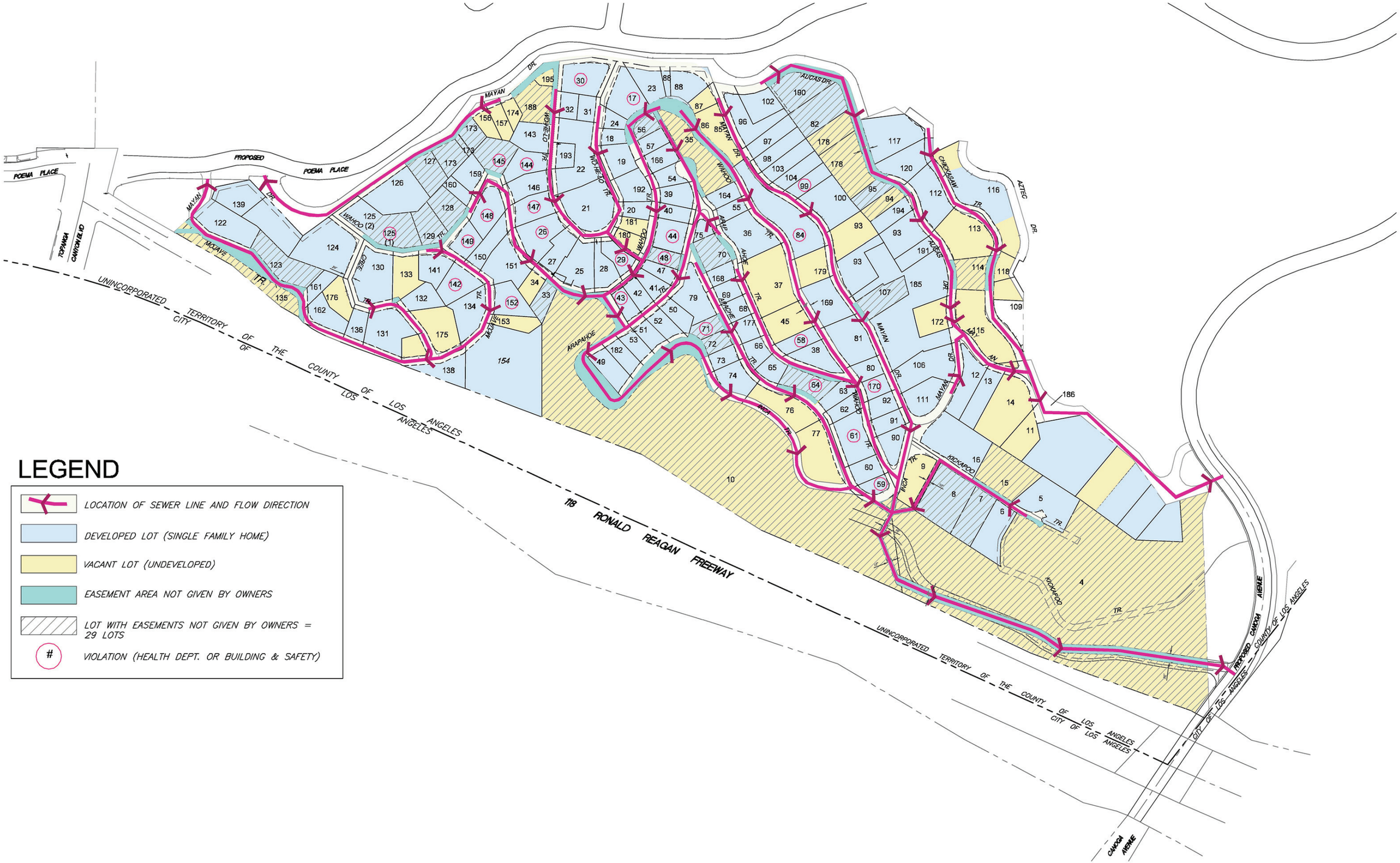
## Acquired Easements

**Deerlake Ranch Addendum**

Source: United Civil, Inc., 2016.

FIGURE

**5**

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**Remaining Easements**

**Deerlake Ranch Addendum**

Source: United Civil, Inc., 2016.

FIGURE

**6**

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# IV. ENVIRONMENTAL IMPACT ANALYSIS

## SUMMARY

This analysis section includes separate subsections for each environmental topic addressed in the Certified EIR, as amended by the previous Addenda. Each topical section first presents a summary of the information and conclusions of the analysis in the Certified EIR. For each topic a determination is also made whether the Refined Sewer Implementation Project would result in any new significant impacts or any substantial increase in the severity of the impacts identified in the Certified EIR, as amended by the previous Addenda. Impact analysis topics in this section are presented in the same order as in the Certified EIR.

The Certified EIR analyzed the following potential project impacts: Aesthetics and Visual Resources, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hydrology and Water Quality, Noise, Public Services - Fire Protection, Public Services - Police Protection, Public Services - Schools, Public Services - Libraries, Transportation/Traffic, Utilities and Service Systems - Water Supply, Utilities and Service Systems - Wastewater, Utilities and Service Systems - Solid Waste, Utilities and Service Systems - Electricity and Utilities and Service Systems – Natural Gas. Impacts on all of these elements and/or services were found to be less than significant after appropriate mitigation, as identified in the Certified EIR and the MMP. Subsequently, the Commission, as analyzed in the First Addendum, found that impacts due to the Second Amended Map on all of the above-described elements and/or services were found to be less than significant with the mitigation identified in the Certified EIR and MMP. Similarly, the Hearing Officer found impacts due to the Fourth Amended Map on all of the above-described factors and/or services were found to be less than significant with the mitigation identified in the Certified EIR and MMP.

The *State CEQA Guidelines* Appendix G has been modified subsequent to the certification of the EIR to include the additional environmental factors of Agriculture/Forest, Energy, and Greenhouse Gas Emissions. The Deerlake Ranch Project, including the Refined Sewer Implementation Project, would have no impact on Agriculture/Forest because there are no agricultural operations within the Project site or on adjacent properties and the Project site is not designated as Prime Farmland, Unique Farmland or Farmland of Statewide Importance. The project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use; would not conflict with existing zoning for agricultural use, with a designated Agricultural Opportunity Area, or with a Williamson Act contract; would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code § 12220 (g)), timberland (as defined in Public Resources Code § 4526), or timberland zoned Timberland Production (as defined in Government Code § 51104(g)); would not result in the loss of forest land or conversion of forest land to non-forest use; and would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use, or conversion of forest land to non-forest use.

The Deerlake Ranch Project, including the Refined Sewer Implementation Project, would have a less than significant impact on Energy through compliance with Los Angeles County Green Building Standards Code (Title 31) and with efficient use of energy resources.

The Deerlake Ranch Project, including the Refined Sewer Implementation Project, is anticipated to have the same impact on Greenhouse Gas Emissions as the original approved Project because the project evaluated in

the Certified EIR has been reduced in size from the original Deerlake Ranch Project design and because the Refined Sewer Implementation Project would not appreciably generate greenhouse gas (GHGs) emissions.

The Deerlake Ranch Project Initial Study prepared for the original environmental determined that the environmental factors of Hazards/Hazardous Materials (Environmental Safety), Land Use/Planning, Mineral Resources, Population/Housing, and Recreation to have no or less than significant impacts. No further analysis of these factors was required in the EIR.

## Certified EIR Section 4.1 - Aesthetic and Visual Resources

### Summary of Analysis in Certified EIR

The Certified EIR states that implementation of the proposed project would result in a significant impact upon aesthetics and visual resources, as defined in *State CEQA Guidelines,* if any of the following occurs:

- The project would have a substantial adverse effect on a scenic vista;
- Project development would substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- The project would substantially degrade the existing visual character or quality of the site and its surroundings; and/or
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

The County of Los Angeles criteria for significance include consideration of the following:

- Is the project site substantially visible from or will it obstruct views along a scenic highway (as shown on the Scenic Highway Element), or is it located within a scenic corridor or will it otherwise impact the viewshed?)
- Is the project substantially visible from or will it obstruct views from a regional riding or hiking trail?
- Is the proposed use out of character in comparison to adjacent uses because of height, bulk, or other features?
- Is the project site located in an undeveloped or undisturbed area that contains unique aesthetic features?
- Is the project likely to create substantial sun shadow, light or glare problems?

The Certified EIR concludes that implementation of the Deerlake Ranch Project would not exceed any of the identified *State CEQA Guidelines* or County criteria that establish a significant aesthetic impact. If a project meets one or more of the listed criteria to a substantial degree, it can be concluded that the project could result in a significant visual impact. The project will not introduce elements which will substantially detract from the existing aesthetic character or primary aesthetic resources of the area. The height and bulk of structural elements proposed by the project would be compatible, and create a visual relationship, with existing development in the project vicinity. The project would not obstruct views from County designated scenic highways. The primary natural topographic feature of the project site, Devil Canyon, would not be significantly impacted. The required perimeter and interior fuel modification zones would impact near

distant views of the project site on a temporary basis until planted materials become mature. Additionally, the project would contain landscaping that would blend in with the existing vegetation and terrain of the area. Further, the proposed project would not be visually inconsistent with the surrounding development and would not conflict with County goals or policies relating to visual resources.

Although significant impacts to aesthetic and/or visual resources would not result with implementation of the project, the following mitigation measures are proposed to further reduce insignificant impacts:

4.1-1. The primary east-west ridgeline along the northern project boundary shall be retained in undisturbed natural open space to provide for a natural viewshed backdrop;

4.1-2. Approximately 70 acres of the project site has been or is proposed to be dedicated to the Santa Monica Mountains Conservancy for preservation of significant aesthetic resources. Those portions not currently dedicated as undisturbed open space shall be dedicated prior to issuance of a grading or building permit, whichever occurs first; and

4.1-3. A comprehensive landscape plan shall be approved by the County, prior to the issuance of a grading permit or building permit, whichever occurs first.

No unavoidable significant impacts with regard to aesthetics and visual resources would result with the implementation of the project, as concluded in the Certified EIR.

### Analysis of the Refined Sewer Implementation Project

The First and the Second Addenda each analyzed a modified development of 314 residential units, a reduction of 61 residential units from the Certified EIR (375 residential units), which reduced the overall impacts upon aesthetics and visual resources. Further, the approved Deerlake Ranch Project includes 82.7 acres of open space lots, an increase of 11.3 acres of open space from the Certified EIR (71.4 acres). Lastly, the First and Second Addenda analyzed a reduction in grading quantities from the Certified EIR (2.2 million cubic yards) to 1.8 million cubic yards. All grading limits and building envelopes will remain the same as those of the First and Second Addenda. However, more recent grading design calculations indicate that grading will consist of 2.0 million cubic yards of cut and 2.2 million cubic yards of fill, but balanced within the project boundary. Limited excavation will be needed to install the Twin Lakes Sewer.

The Refined Sewer Implementation Project involves only the acquisition of property interests for the purpose of implementing the Deerlake Ranch Project Twin Lakes Sewer Condition. As such, the Acquisition Agreement does not create any long term visual impacts. The Twin Lakes Sewer itself would be placed from 5 to 20 feet below the ground surface within an existing road easement. Consequently, neither the Refined Sewer Implementation Project nor the already approved construction it facilitates would result in any changes to visual impacts.

As such, the Refined Sewer Implementation Project impacts will not be significantly different (and in fact may be less) from the project analyzed in the Certified EIR, as amended by the previous Addenda, and the same mitigation measures (4.1-1 through 4.1-3) will be implemented as set forth in the Certified EIR and required by the MMP. Therefore, no new important information or substantial changes to visual impacts resulting from project circumstances or design revisions beyond those previously identified in the Certified

EIR as amended by the previous Addenda would occur as a result of the Refined Sewer Implementation Project. No additional mitigation measures are required.

## Certified EIR Section 4.2 - Air Quality

### Summary of Analysis in Certified EIR

The Certified EIR states that: construction and operation of the proposed project would generate pollutant emissions from the following activities: (1) grading operations/soil disturbance; (2) emissions from construction activity and vehicular trips; (3) fugitive dust emissions from construction activity; (4) erosion "spill-over" from construction activity; (5) application of architectural surface treatments; and (6) vehicular exhaust (traffic) from project operation.

Temporary grading and construction emissions would occur during project buildout and include on-site generation of dust and equipment exhaust, and off-site emissions from construction vehicular traffic and Twin Lakes Sewer installation.

Air pollution emissions associated with project occupancy and operation would be generated by the operation of motor vehicles traveling throughout Southern California. Secondary impact potential would be derived from energy consumption in power plants or on-site heaters, stoves, water heaters, etc.

The Certified EIR recommends several mitigation measures (4.2-1 through 4.2-3) to reduce air quality impacts associated with construction activities to less than significant (see Section 4.2.2 of the Certified EIR for a complete list of mitigation measures).

The Certified EIR further states that although all mobile source emissions are predicted to be at or below SCAQMD significance thresholds, the following mitigation is recommended:

4.2-1. Dust Control: The following dust control measures shall be implemented:

- Active construction areas shall be watered at least twice daily.
- All haul trucks shall be covered or shall maintain at least two feet of freeboard.
- All unpaved parking or staging areas shall be watered four times daily.
- Site access points shall be swept or washed within 30 minutes of any visible dirt deposition on any public roadway.
- On-site stockpiles of debris, dirt or other dusty material shall be covered or watered twice daily.
- Operations on any unpaved surface shall be suspended if winds exceed 25 miles per hour.
- Any cleared area, which is to remain inactive for more than 96 hours after clearing, shall be stabilized.
- Grading operations shall comply with Rule 403 of the SCAQMD pertaining to control of fugitive dust.

4.2-2. The following measures shall be implemented to control emissions related to construction activities:

- Off-road construction equipment built within the last ten years shall be utilized.
- Off-road construction equipment shall have low-NOx tune-ups every 90 days.
- Idling of trucks and heavy equipment shall be limited to 10 minutes.

4.2-3. The following measures shall be implemented to control emissions related to off-site impacts:

- Lane closures shall be limited to off-peak travel periods.
- Construction vehicles shall not be parked on heavily traveled roadways.
- Receipt of materials shall be encouraged during non-peak traffic hours.
- Ride-share incentives shall be provided for contractor and subcontractor personnel.

4.2-4. Although all mobile source emissions are predicted to at or below SCAQMD significance thresholds, the following mitigation is recommended due to the non-attainment status of the Basin:

- Homes shall be built to meet minimum statewide energy conservation requirements.

4.2-5. Homes shall include as an option the following residential design features that encourage trip elimination or trip diversion to alternative transportation:

- Pre-wired for various telecommunications systems access for in-home offices
- Pre-wired for 220V electric vehicle charging systems

The Certified EIR concludes that the proposed project would contribute to the continued regional air quality degradation by exceeding SCAQMD significance thresholds as construction activity related emissions would exceed significance thresholds. With incorporation of the recommended mitigation measures, short-term construction activity impacts would remain significant, but the number of days that thresholds would be exceeded would be reduced. Operational impacts would not be significant; however, mitigation measures are recommended due to the non-attainment status of the (South Coast Air) Basin.

### Analysis of the Refined Sewer Implementation Project

Since approval of the Certified EIR, the Commission approved on July 18, 2012, the reduction to 314 residential units and reduced grading quantities from 2.2 million cubic yards to 1.8 million cubic yards without any corresponding reduction in the mitigation measures previously approved, as discussed in the First and Second Addenda. As such, the mitigation measures (4.2-1 through 4.2-5) originally approved exceed those that would be required for the modified approved Deerlake Ranch Project, inclusive of the Twin Lakes Sewer. However, more recent grading design calculations indicate that grading will consist of 2.0 million cubic yards of cut and 2.2 million cubic yards of fill, but balanced within the project boundary.

The Refined Sewer Implementation Project involves only the acquisition of property interests for the purpose of implementing the Deerlake Ranch Project Twin Lakes Sewer Condition. The Twin Lakes Sewer

itself would be placed under an existing road from 5 to 20 feet below the ground surface over an estimated six to eight month construction period during Phase 3, anticipate occurring in 2017. The Twin Lakes Sewer construction does not change the grading quantities, already approved by the Board in 2004 and discussed in the Certified EIR, as amended by the previous Addenda. Because of the dimensions and complexity of the established Twin Lakes community roadway system and the diverse topography, only small equipment will be used for sewer infrastructure installation and limited excavation will be needed. As such, the Refined Sewer Implementation Project results in no significant change to already approved physical improvements and would not increase construction or operational air quality impacts over those analyzed in the Certified EIR as amended by the previous Addenda, with the same mitigation measures to be implemented as stated in the Certified EIR and required by the MMP. No additional mitigation measures are required.

## Certified EIR Section 4.3 - Biological Resources

### Summary of Analysis in Certified EIR

The Certified EIR states that the Deerlake Ranch Project would result in direct impact on the initial loss of habitats by grading and construction, and indirect impact related to disturbance from construction, such as dust and noise, or from activities of future residents. There would be a total of 142 acres of permanent impact to on-site vegetation by project implementation, including a loss of 2.39 acres of coastal sage scrub/non-native grassland, a loss of 0.68 acres of coast live oak woodland, a loss of 0.02 acre of willow woodland, and a loss of 2.53 acres of non-native grassland.

The original Deerlake Ranch Project design required the removal of 61 of a total 353 oak trees (all of which are of the species *Quercus agrifolia*) in order to construct the Project. None of these oak trees are of heritage status. Project design would require the encroachment into the protected zone of 11 oak trees. Although impacts to specific oak trees may be significant, those impacts would be reduced to less than significant with the implementation of the required mitigation measures (Mitigation Measures 4.3-10 and 4.3-12).

Impacts to non-native annual grassland are considered to be below a level of significance. The removal of 0.01 acre of eucalyptus grove is considered to be beneficial and below a level of significance. Previously developed and graded areas provide little habitat for native species, thus a loss of approximately 11.19 acres would result with implementation of the project and is considered to be below a level of significance.

Regarding impact to wildlife, the EIR states: Implementation of the project would not result in an impact to any state or federally listed wildlife species. As indicated in Section 4.3.1, specific sensitive species surveys have been conducted for the coastal California gnatcatcher, least Bell's vireo, southwestern willow flycatcher and the California red-legged frog. None of these sensitive species were identified on-site, nor are they expected to occur on-site.

The following mitigation measures were recommended in the Certified EIR to ensure biological resource impacts would be less than significant. If sensitive plant and wildlife species are found on the additional 13 acres, additional mitigation measures shall be developed under approval of the appropriate agencies.

4.3-1. An off-site mitigation parcel shall be dedicated to Los Angeles County or a public conservation agency to the satisfaction of Los Angeles County Department of Regional Planning. The mitigation parcel shall be of a minimum size of the collective total of all on-site

project sensitive vegetation impacted (but not less than 68 acres) and shall be adjacent to or and contiguous with permanent open space of comparable size;

4.3-2. The applicant shall mitigate impacts to 0.03 acre of on-site willow woodland based on recommendations of the project biologist (see Appendix G of the Certified EIR) and to the satisfaction of the California Department of Fish and Game ("CDFG", now California Department of Fish and Wildlife) and the Los Angeles County Department of Regional Planning. The mitigation plans shall be reviewed and approved by these agencies prior to the issuance of grading permits. This mitigation measure will be implemented on the mitigation parcel with 0.12 (Section 3.3.2, Revision C of Final EIR) acre (representing a minimum 4:1 ratio);

4.3-3. All eucalyptus shall be removed from open space portions of the project site to enhance the biological values of open space areas, reduce the risk of a canopy fire, and prevent further encroachment of eucalyptus into native habitats to the satisfaction of the Los Angeles County Department of Regional Planning prior to the issuance of grading permits. To avoid impacts to nesting birds such removal shall be implemented outside of the avian nesting season from March 15 to August 15;

4.3-4. Impacts to Plummer's mariposa lily shall be mitigated through a 2:1 replacement of impacted individuals and an additional 2:1 replacement through preservation. Relocated Plummer's mariposa lily will be planted on the mitigation parcel. A qualified biologist/botanist shall oversee all aspects of this mitigation plan per the recommendations of the project biologist (included in Appendix G of the Certified EIR);

4.3-5. If earthmoving activities are scheduled to start at the site between April 10 and August 15 (the vireo nesting season) a qualified biologist will perform a one-day survey of the potential vireo habitat for the presence of nesting vireos not more than seven days prior to the start of such earthmoving activities. If any nesting vireos are observed, no work (vegetation clearing, earthmoving, or construction) may occur on the plateau above the riparian habitat within 150 feet of the nest, or in the riparian habitat within 500 feet of the nest. If any nesting vireos are observed, the qualified biologist will monitor activities occurring with 1,000 feet of the nest to ensure compliance with this condition;

4.3-6. If earthmoving activities start outside the vireo nesting season (August 16 through April 9), no additional vireo surveys will be required, unless (during the vireo nesting season) said work ceases for a period of more than 15 days before beginning again. In such case, the restart of earthmoving activities will be considered as a new start of earthmoving activities, subject to the condition above;

4.3-7. A storm water pollution prevention plan (SWPPP) shall be in place to direct prevention and/or minimization of storm water runoff from the work site during construction to prevent/minimize impacts to riparian/wetland vegetation and its associated species;

4.3-8. Special construction methods as recommended by the project bridge engineer (see Appendix D of the Certified EIR) shall be implemented to incorporate clear spans across Devil Canyon for the proposed bridges;

4.3-9. Coastal sage impacts of 2.39 acres will be mitigated to the satisfaction of the Los Angeles County Department of Regional Planning through the preservation of a minimum 4.78 acres of coastal sage scrub or coastal sage scrub/chaparral ecotone on the mitigation parcel;

4.3-10. Coast live oak woodland impacts of 1.3 acres will be mitigated to the satisfaction of the Los Angeles County Department of Regional Planning through the preservation of 2.6 acres (which represent a 2:1 mitigation ratio) on the project site and the mitigation parcel.

4.3-11. All manufactured slopes outside of the irrigated fuel modification zone shall be landscaped with locally indigenous plant materials in accordance with the landscape concept contained in Exhibit 2.9 and to the satisfaction of the Los Angeles County Department of Regional Planning.

4.3-12. All impacted oak trees, totaling 61, shall be mitigated (2:1 replacement with 15 gallon trees). All oak tree mitigation shall be monitored by a qualified arborist, in accordance with the established preservation program included in the Oak Tree Report (see Appendix H of the Certified EIR);

4.3-13. Copies of the final Oak Tree Report and the Los Angeles County approved Oak Tree Permit will be maintained on-site during construction. Implementation of work approved by the Oak Tree Permit shall not begin prior to issuance of a grading permit;

4.3-14. Prior to any construction activity, the applicant shall have a qualified biologist survey the project site for the presence of any occupied raptor nests, as protected by the Migratory Bird Treaty Act. If such a nest is found, it will be avoided and protected until nesting activity has ended to ensure compliance with Section 3503.5 of the California Fish and Game Code based on the recommendations of the project biologist (see Appendix G of the Certified EIR). During nesting (March 15$^{th}$ to August 15$^{th}$) occupied nests shall be avoided through implementation of a 300 foot buffer zone for nesting bird and a 500 foot buffer zone for nesting raptors. Should construction activities encroach into these identified buffer zones, noise barriers shall be constructed to minimize noise impacts to the birds and ensure that noise levels do not exceed 65db CNEL;

4.3-15. Light poles shall be 14 feet high instead of 26 feet high and all streetlights potentially affecting open space areas shall be fitted with baffles to eliminate direct shine into open space areas. Security lighting shall be low intensity, shielded, directed downward and away from open space areas. Use of motion detectors shall be maximized for outdoor lighting; and

4.3-16. Mitigation required for impacts to areas identified within the jurisdiction of the Corps Clean Water Act Section 404 Permit and/or a CDFG Section 1603 Streambed Alteration Agreement shall be determined during agency permitting subsequent to EIR certification. The applicant shall be responsible for the development of a mitigation plan in accordance with the Corps' Mitigation and Monitoring Guidelines.

The Certified EIR concludes that with implementation of the recommended mitigation measures, no significant impacts to biological resources would occur.

**Analysis of the Refined Sewer Implementation Project.**

The Refined Sewer Implementation Project involves the acquisition of property interests for the purpose of implementing the Deerlake Ranch Project Twin Lakes Sewer Condition. Installation of the Twin Lakes Sewer would occur within an established residential community and be placed under an existing road in an already disturbed area where native plant communities have already been removed. The Refined Sewer Implementation Project would not result in any change to impacts on biological resources with the implementation of the same mitigation measures required by the MMP, especially Mitigation Measure 4.3-14 for the avoidance of disturbance for nesting birds, with the exception of potential impacts to native oak trees from encroachment during construction. No native oak trees are required to be removed for the Twin Lakes sewer construction.

The approved ROAK 201200001 authorizes the removal of 42 oak trees, and encroachment into the protective zones of 13 oak trees. Subsequent to project approval, two additional Not A Part (NAP) parcels occurring within the project envelope have been acquired by the project proponent. These NAP parcels consist of existing Record of Survey lots and are depicted in Figure 2.7, Potential Development of Not A Part (NAP) Areas, in the Draft EIR. The NAP parcels were evaluated in the environmental analysis of the DEIR as a cumulative impact. As a consequence of these NAP parcel acquisitions and a recent oak tree survey associated with the Deerlake Ranch grading plan[2], 59 additional oak trees were surveyed that had not previously been accounted in ROAK 201200001. The Deerlake Ranch Project would result in an overall change to the project impacts to coast live oak trees as compared to ROAK 201200001. The Deerlake Ranch Project would require the removal of 56 oak trees and encroachments into the protected zone of 25 oak trees, as depicted on **Figure 7** ("Deerlake Ranch Oak Tree Map"). The additional oak trees proposed for removal are not a component of an oak woodland habitat but are individual trees occurring in scrub or chaparral habitat. While the number of oak tree removals have increased by 14 as compared to the last approved oak tree permit (ROAK 201200001), the number of proposed removals would still be less than the original 61 oak trees approved for removal in 2004 and analyzed by the Final EIR. The proposed 25 oak tree encroachments within Deerlake Ranch are more than authorized under ROAK201200001 and more than analyzed by the Final EIR. However, oak tree encroachments are not considered to be a potentially significant impact since individual oak trees are avoided in project design with retention given priority. Moreover, with the proposed change in oak tree encroachments and removals, less Deerlake Ranch oak woodland habitat would be impacted and greater habitat value would be preserved. A new oak tree permit would be needed in order to construct the Deerlake Ranch Project in accordance with the County Zoning Code for the protection of oak trees.

The Refined Sewer Implementation Project would result in a change to the project impacts to coast live oak trees. The Refined Sewer Implementation Project would require encroachment into the protected zone of 15 ordinance-sized oak trees found within the Twin Lakes community, depicted on **Figure 8** ("Twin Lakes Community Oak Tree Map;" see Supplemental Oak Tree Report, Deerlake Ranch, Los Angeles County, VTTM 53138, CUP 99-239 and OTP 201200001, prepared by Carlberg Associates, July 2016).

There would be 15 oak tree encroachments for the Twin Lakes Refined Sewer Implementation Project not previously reported in the Certified EIR because the final mainline sewer design required further refinement. The presence of oak trees within the Twin Lakes community is not new information as the same oak trees

[2] *Carlberg Associates. 2016. Supplemental Oak Tree Report, Deerlake Ranch, Los Angeles County, VTTM 53138, CUP 99-239 and OTP 201200001. Prepared for Forestar Chatsworth, LLC. July 22. 2016.*

were growing in the same location within Twin Lakes adjacent to the roadway system at the time of Project approval in 2004. As indicated above, oak tree encroachments are not considered to be a potentially significant impact since no oak trees are proposed for removal and the encroachments would occur within the existing paved roadways within the Twin Lakes community. However, in cases where the oak tree encroachment results in damage in which an oak tree dies within the monitoring period of three (3) years, replacement oak trees would be required. A new oak tree permit would be needed in order to construct the Refined Sewer Implementation Project in accordance with the County Zoning Code.

The Refined Sewer Implementation Project area within Twin Lakes was surveyed in May and June, 2016.[3] The results from those surveys found no special-status plant species in the survey area and no special-status wildlife species reported for the area. The report concluded that coast horned lizard (*Phrynosoma blainvillii*), has a low potential to occur within the survey area but is not expected to occur within the disturbance area of the paved roadways. The report states that no sensitive plant communities were observed within the survey area. However, the presence of coast live oak trees overhanging the Twin Lakes sewer mainline alignment requires compliance with the County Oak Tree Ordinance for potential impacts.

As such, the Refined Sewer Implementation Project results in no significant change to already approved physical improvements and would not result in an increased impact on biological resources from those analyzed in the Certified EIR as amended by the previous Addenda. On a cumulative basis, there would be no greater oak tree impacts than that proposed and approved in the Certified EIR, which concluded that there would be no cumulatively considerable impact to biological resources. All mitigation measures will be implemented as identified in the Certified EIR and required by the MMP. No additional mitigation measures are required. The Project proponent has initiated implementation of the oak tree mitigation measures consistent with the terms of Project approval. Implementation of Mitigation Measures 4.3-10 and 4.3-12 has been completed on the off-site Browns Canyon Resource property, dedicated to the Mountains Recreation and Conservation Authority (MRCA) in compliance with Mitigation Measure 4.3-1.

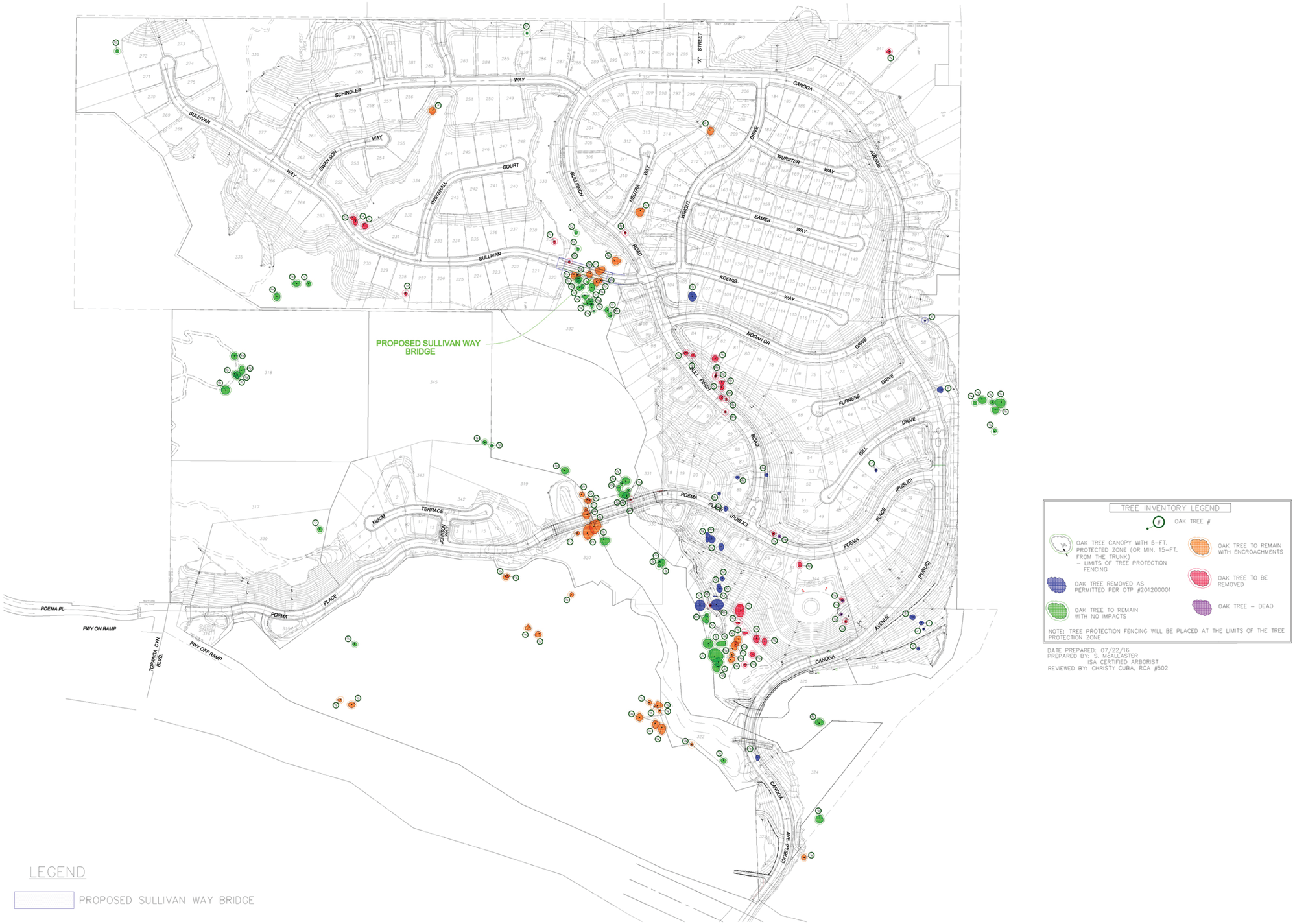
## Certified EIR Section 4.4 - Cultural Resources

### Summary of Analysis in Certified EIR

In accordance with CEQA Section 21083.2 and Appendices G and K of the *State CEQA Guidelines*, project impacts to archaeological resources are considered significant if project activities could cause the loss, destruction or other damage to a prehistoric or historic archaeological site that has been identified as unique or important. Further outlined in *State CEQA Guidelines* Appendix G, implementation of the proposed project would result in a significant impact upon cultural resources if the project:

- Causes a substantial adverse change in the significance of a historical or archaeological resource;
- Directly or indirectly destroys a unique paleontological resource or site or unique geologic feature; and
- Disturbs any human remains, including those interred outside of formal cemeteries.

[3] *Envicom Corporation. 2016. Biological Resources Reconnaissance, Refined Twin Lakes Sewer Implementation Report. Prepared for Foremost Chatsworth, LLC. July 18, 2016.*

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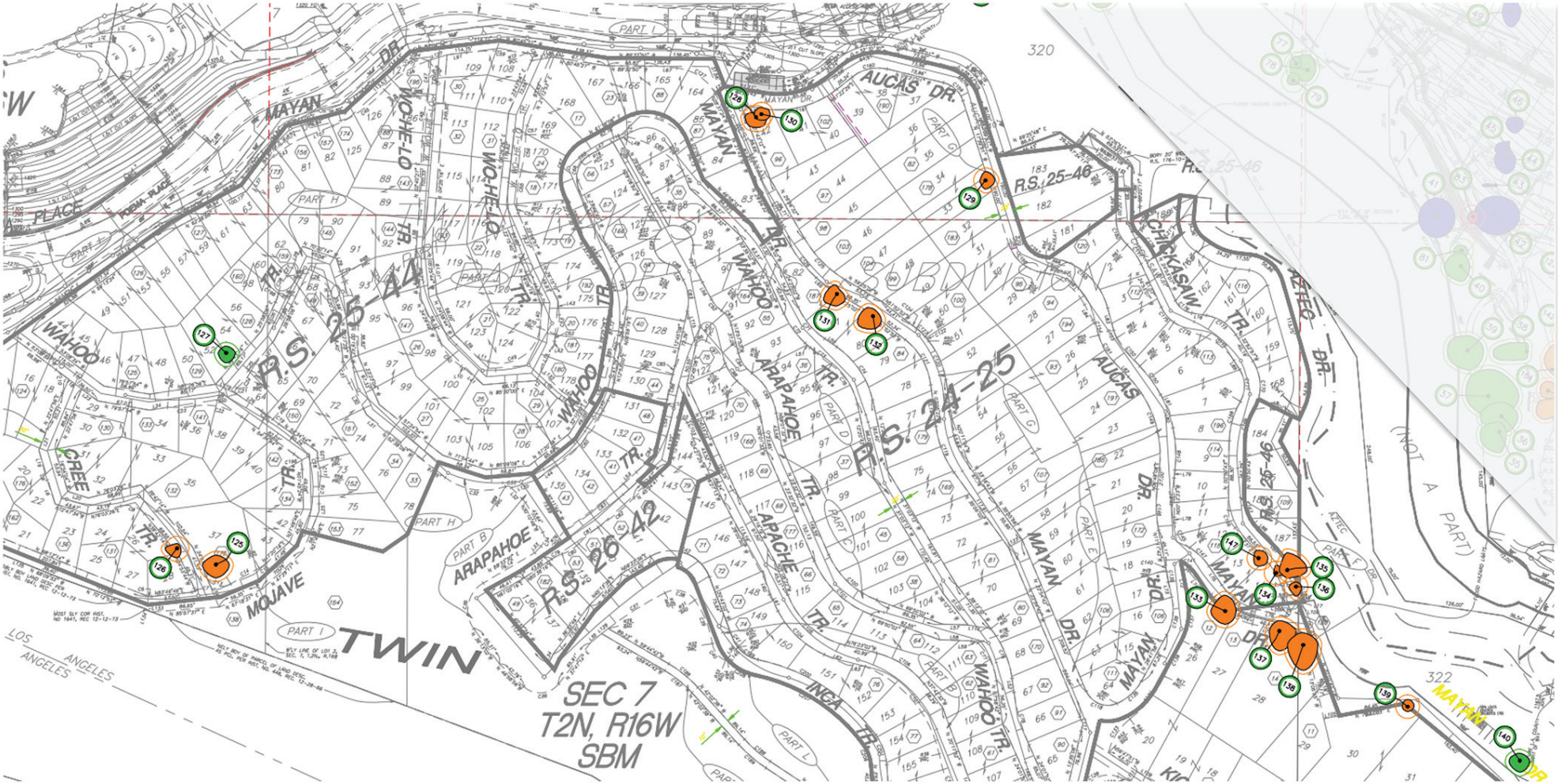
**Deerlake Ranch Oak Tree Map**

**Deerlake Ranch Addendum**

Source: Carlberg Associates, 2016.

FIGURE

**7**




Not to scale

## Twin Lakes Community Oak Tree Map

**Deerlake Ranch Addendum**

Source: Carlberg Associates, 2016.

FIGURE

**8**

The Deerlake Ranch Project site was intensively surveyed on two occasions. Initially, eight archaeological sites were recorded (Bissell and Becker, 1990). The following three sites were thought to be historical in nature: CA-LAN-1740, -1741H, and –1742H. The remaining five sites, (CA-LAN-209, -649, -1743, -1744, and –1745) are all prehistoric. A subsequent survey (W&S Consultants, 2000a) resulted in the identification and recording of two additional prehistoric archaeological sites as shown on Figure 4.4.1 of the Certified EIR: CA-LAN-2826 (W&S-1) and CA-LAN-2827 (W&S-2). In addition, a survey was completed in December 2000 on an additional 13 acres acquired by the applicant subsequent to the initial site surveys. No cultural resources of any kind were identified within this additional property (W&S Consultants, 2000c).

Preliminary assessments of these resources suggested that the seven prehistoric archaeological sites were all intact and had the potential to be significant. Two of the three previously recorded historical sites (CA-LAN-1741H and –1742H) were found to consist of the foundations of demolished structures that were associated with contemporary trash and debris. Although they appear to be post World War II and possibly may have met the minimum age requirement of 50 years for historical resources, they were found to be entirely lacking in integrity and thus have no significance from an archaeological perspective. Based on these considerations, they were not considered significant or unique cultural resources. The last historical site (CA-LAN-1740H) is a sandstone and mortar bridge that was thought to be potentially significant from historical, architectural and/or engineering perspectives.

Phase II fieldwork on the archaeological sites of the Deerlake Ranch project site and adjacent properties were completed in August 2000. It was apparent that the project development, inclusive of the Twin Lakes Sewer area, does not have a potential to result in adverse impacts to significant cultural resources (W&S Consultants, 2000b). The following mitigation measure was recommended in the Certified EIR to ensure cultural resource impacts would be less than significant.

4.4-1. A qualified archaeological monitor shall be present during grading in areas of the previously recorded and examined archaeological sites.

The Certified EIR concludes that the Deerlake Ranch Project would not result in significant adverse impacts to cultural resources.

### Analysis of the Refined Sewer Implementation Project.

The Refined Sewer Implementation Project involves only the acquisition of property interests for the purpose of implementing the Deerlake Ranch Project Twin Lakes Sewer Condition. The Twin Lakes Sewer would be placed within the acquired sewer easements and would impact only the project areas previously approved for disturbance in the Certified EIR for the construction of the Twin Lakes Sewers, as approved by the Board in 2004.

As such, the Refined Sewer Implementation Project results in no significant change to already approved physical improvements and would not result in an increase in impacts on cultural resources from those analyzed in the Certified EIR as modified by the previous Addenda. Installation of the Twin Lakes Sewer will occur in the previously disturbed roadways for which no previously recorded cultural site locations have been identified. Mitigation Measure 4.4-1 will be implemented as stated in the Certified EIR and required by the MMP. No additional mitigation measures are required.

## Certified EIR Section 4.5 - Geology and Soils

### Summary of Analysis in Certified EIR

As defined in the *State CEQA Guidelines*, project impacts to geological resources are considered significant if any of the following occurred:

- The project would pose an increased risk, which is greater than average for the southern California region, to public safety or destruction of property by exposing people, property, or infrastructure to seismically-induced hazards such as; earthquakes, landslides, mudslides, ground failure and other similar hazards;
- The project results in substantial soil erosion or the loss of topsoil;
- The project is located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;
- The project is located on expansive soil, creating substantial risks to life or property; and
- Soils are incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

The Certified EIR states that no observable Holocene Age faults occur on the project site. Older faulting does occur on-site as existing zones of weakness that may be susceptible to minor displacement as a secondary response to primary faulting along nearby active faults. However, the project has been designed to mitigate this condition through the construction of uniform, engineered fill cap in conjunction with stiffened foundation systems in these locations. The depth of removal and recompaction associated with the construction of these fill caps will be developed as part of the final project grading plans. Therefore, impacts would be less than significant.

Implementation of the Deerlake Ranch Project would involve a grading program to excavate an estimated 2.0 million cubic yards of earth with the majority of the cuts less than 40 feet deep. Soils within the Deerlake Ranch Project area would be subject to exposure to wind and water erosion during site preparation. However, erosion associated with site preparation would be temporary and would cease upon completion of construction activities. The potential for erosion also exists associated with the sandy terrace and crystalline bedrock materials that would be used to construct fill slopes and for natural slopes above the graded pad and parking areas. Where needed, appropriate slope stabilization would be implemented to mitigate these impacts. No significant erosion impacts would result from the project.

The Deerlake Ranch Project would not pose an increased risk, greater than generally accepted under current codes and standards for the southern California region, to public safety with regard to seismic hazards. Nor would the project result in the destruction of a unique geologic feature. The potential for slope instability and erosion does exist with implementation of the project; however adherence to applicable regulations, standards, and procedures would reduce these impacts to less than significant."

Specific Geology and Soils mitigation measures (4.5-1 through 4.5-15) are listed in Section 4.5.4 of the Certified EIR, in addition to below.

4.5-1. All grading shall be accomplished under the discretion of the project geotechnical engineer in accordance with the requirements of the County of Los Angeles.

4.5-2. A uniform, engineered fill cap shall be constructed in conjunction with stiffened foundation systems to manage ground rupture potential. The depth of removal and re-compaction associated with construction of these fill caps should be on the order of 5 to 10 feet to provide a homogenous buffer to the overlying foundations. These precise locations of these fill caps, including thickness shall be developed as a part of a detailed geotechnical report in conjunction with the final project grading plans.

4.5-3. Design of structures shall be based on the UBC (Uniform Building Code) 1997 seismic design methods incorporating the PGA values as computed in the geotechnical report.

4.5-4. Shallow soils shall be removed beneath structures and/or proposed fill.

4.5-5. Where development is proposed at the top and/or toe of slope and development and cannot be avoided within a 2:1 projection from the toe of the slope (i.e., an area within the northeasterly portion of the site), slope stabilization shall be completed, which may consist of dewatering, offloading, or supporting these slopes using conventional hillside development methods and shall be designed on the basis of a detailed slope stability analysis as part of the final project grading plan.

4.5-6. Proposed cut slopes and fill slopes shall be at a slope no steeper than 2:1. These slopes shall be constructed using typical slope drainage systems in accordance with 1997 UBC, including mid-slope drainage swales and brows ditches, and are subject to typical homeowners maintenance requirements.

4.5-7. Prior to grading, the project site shall be grubbed and cleared of all vegetation and debris. The vegetation and debris shall be properly disposed of off-site.

4.5-8. Site preparation and earthwork operations shall be performed in accordance with applicable provisions of the 1997 UBC unless specifically revised or amended by the geotechnical engineer, and in accordance with all applicable requirements.

4.5-9. On slopes flatter than 5:1 and in drainage swales, separate cleanout operations may be necessary. During benching colluvium shall be removed to firm material as evaluated by the geotechnical engineer. The overexcavated materials shall be moisture conditioned and recompacted as structural fill in accordance with the recommendations for engineered fill. The specific depth and extent of removals shall be evaluated during the actual earthwork operations, based on grading observations and testing.

4.5-10. Subsurface exploration, sampling and laboratory analysis shall be performed to provide shrink/bulk estimates to be used in conjunction with design civil and contractor information for similar projects in similar earth units.

4.5-11. All fill soils shall be compacted as engineered fill. Engineered fill shall be uniformly moisture-conditioned to near optimum moisture content, placed in horizontal lifts less than eight inches in loose thickness, and compacted to at least 90 percent relative compaction. All fill

placed at depths greater than 50 feet below final site grades shall be compacted to at least 95 percent relative compaction. Additional fill lifts shall not be placed if the previous lift did not meet the required dry density or if soil conditions are not stable.

4.5-12. The following measures shall be completed to reduce temporary cut slope failure during construction:

- Reducing the time between slope excavation and reconstruction operations to the extent possible.
- Preventing water infiltration into slope materials prior to and during excavation.
- Constructing slopes at inclinations no steeper than 1.5:1.
- The project schedule shall be adjusted as needed so that temporary slopes are excavated and left exposed only during the dry months of the year.

4.5-13. In areas where steep slopes may be unstable and exist adjacent to proposed areas of development, stabilization can be accomplished by typical hillside methods. Such slope reinforcement methods range from revegetation to construction of mechanically stabilized earth (MSE) systems and retention systems.

4.5-14. Proposed structures maybe supported on shallow, reinforced concrete, spread footings founded entirely on engineered fill. Footings shall not transition from fill to bedrock conditions. Foundations shall have a minimum width of 24 inches and shall be placed at a minimum depth of 18 inches below the lowest adjacent grade or adjacent finish floor elevation, whichever is lower. An allowable pressure of 3,000 pounds per square foot (psf) for dead plus sustained live loading is suitable for preliminary design. Foundation preparation necessary to improve soils to provide this capacity shall be evaluated during the design.

4.5-15. A corrosion engineer shall be retained to evaluate the corrosion potential of the site to propose improvements, recommend further testing as required, and to provide specific corrosion tests as requested by the applicant.

The Geology and Soils mitigation measures reduce Deerlake Ranch Project impacts to less than significant.

### Analysis of the Refined Sewer Implementation Project.

The modified approved Deerlake Ranch development proposes 82.7 acres of open space lots, an increase of 11.3 acres of open space from the Certified EIR (71.4 acres). The First and Second Addenda proposed a reduction in grading quantities from the Certified EIR (2.2 million cubic yards) to 1.8 million cubic yards. All grading limits and building envelopes of the approved development are those analyzed in the First and Second Addenda. However, more recent grading design calculations indicate that grading will consist of 2.0 million cubic yards of cut and 2.2 million cubic yards of fill, but balanced within the project boundary. The Refined Sewer Implementation Project actions by the Board would involve the acquisition of property interests for the purpose of implementing the Deerlake Ranch Project Twin Lakes Sewer Condition. The Twin Lakes Sewer would be placed under an existing road. The Twin Lakes community is underlain by the same Chatsworth Formation as the majority of the Deerlake Ranch project boundary. Soils are light gray to light brown, hard, thick-bedded sandstone with thin layers of micaceous siltstone, and generally non-

expansive with isolated layers of moderately expansive siltstone layers. Because of the dimensions and complexity of the established Twin Lakes community roadway system and the diverse topography, only small equipment will be used for sewer infrastructure installation and limited excavation will be needed. Consequently, the Refined Sewer Implementation Project would not change the grading quantities or areas of disturbance for construction of the Twin Lakes Sewer from what was approved by the Board in 2004. The potential for slope instability and erosion does exist with implementation of the proposed project; however adherence to applicable regulations, standards, and procedures would reduce these impacts to less than significant.

As such, the Refined Sewer Implementation Project results in no significant change to already approved physical improvements and would not result in an increase in impacts on site geology and soils from those analyzed in the Certified EIR as amended by the previous Addenda, with the same mitigation measures to be implemented as stated in the Certified EIR and required by MMP. No additional mitigation measures are required.

## Certified EIR Section 4.6- Hydrology and Water Quality

### Summary of Analysis in Certified EIR

The Deerlake Ranch Project site is located within the 1,608 square mile Los Angeles River Watershed, which is composed of five primary drainage basins, including the Upper Los Angeles River Basin, and discharges into the Pacific Ocean through the Los Angeles/Long Beach Harbor. This basin includes the San Fernando Hydrographic Unit, which in turn, is comprised of five tributary drainages, including Bell Canyon. The Bell Canyon drainage includes the Browns Canyon Wash, which is the receiving drainage for storm water runoff from the project site, via Devil Canyon.

The Deerlake Ranch Project site is located within a 325-acre sub-drainage area tributary to the Devil Canyon/Browns Canyon drainages. The site constitutes 235 acres of that sub-drainage area, of which 226.3 acres discharge into Devil Canyon, and 8.7 acres discharge through a 30-inch pipe into Caltrans (SR-118) right-of-way and into Brown Canyon.

The Deerlake Ranch Project site is subject to the following regulatory oversight with regard to hydrology and water quality.

- Federal Clean Water Act (NPDES): Established regulations for municipal and industrial storm water discharges under the National Pollutants Discharge Elimination System (NPDES) program, which requires NPDES permits for storm water discharges from storm drain systems[5] to waters of the United States.
- Standard Urban Storm Water Mitigation Plan: The municipal storm water NPDES permit issued to Los Angeles County by the Los Angeles RWQCB requires the development and implementation of a program addressing storm water pollution issues in development planning for private projects. This requirement is based on federal and state statutes, including: Section 402 (p) of the Clean Water Act, Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990, and the California Water Code. The Standard Urban Water Mitigation Plan (SUSMP) was developed as part of the NPDES program to address storm water pollution from new development by the private sector. This SUSMP

contains a list of the minimum required Best Management Practices (BMPs) that must be used for a designated project.

As stated in the Certified EIR, a significant project impact would occur if one or more of the following were to occur:

- The peak storm water runoff from the site after development (Q50c) would exceed the existing peak runoff (Q50bb);
- Peak runoff from the site would exceed the capacities of existing storm drain structures and/or drainage courses;
- Peak runoff from the site would increase high water elevations within existing drainage courses;
- The project would cause flooding of adjacent or downstream properties;
- The project would increase existing storm water runoff pollutant loads, or introduce new pollutants, which would be discharged into existing drainage courses;
- The project would adversely impact those Total Maximum Daily Loads (TMDL) criteria within the Los Angeles River Watershed which are listed in the Unified Watershed Assessment (UWA); and
- The project failed to employ BMPs and otherwise not comply with the Urban Storm Water Mitigation Plan ("USWMP").

The Certified EIR further states that although peak storm water runoff from these pervious surfaces would increase during significant storm events, the total peak storm water runoff volume from the entire drainage area, including the site after development, would be reduced because of the removal of approximately 4,590 cubic yards of solid (bulk and burn) materials by four proposed debris basins (see Figure 4.6.2 of the Certified EIR), and the removal of 44.2 acres of vegetation for building and paving. Specifically, the total peak storm water runoff after development from the drainage area discharging through Location "A" will be reduced from Q50bb = 876.4 cubic feet per second (cfs) to Q50c = 458.0 cfs. In addition, peak storm water runoff after development discharging at Location "B" will be reduced from Q50bb = 61.5 cfs to Q50c = 48.2 cfs. Therefore, the existing 30-inch CMP will still be adequate to accommodate the storm water discharge after development.

As a result of this reduction in the volume of peak storm water runoff, downstream drainages would not be adversely impacted in regard to increased peak flow, velocity or water surface elevations.

The Certified EIR states that the project would be constructed to the standards and specifications of the Los Angeles County Flood Control District and the Department of Public Works. In addition, the project would be designed and constructed in compliance with the Standard Urban Storm Water Mitigation Plan for Los Angeles County and Cities in Los Angeles County (SUSMP), NPDES permit and all other applicable state regulations.

A Storm Water Pollution Prevention Plan (SWPPP) would be prepared, utilizing BMP's, as listed in the SUSMP, to ensure compliance with the above regulations both during and after construction. BMP's would include measures which would prevent or minimize storm water pollutants of concern, including the TMDL criteria specified in the Watershed Management Initiative as it pertains to the Los Angeles River Basin.

The Certified EIR concludes that implementation of the Deerlake Ranch Project would result in a decreased flow due to inclusion of four debris basins in the project design. The Deerlake Ranch Project would be constructed to the standards and specifications of the Los Angeles County Department of Public Works. In addition, a SUSMP would be developed for the project to further ensure impacts would be less than significant. The Deerlake Ranch Project is not anticipated to result in a significant adverse impact on the capacities of existing or proposed storm drain facilities, nor is it anticipated to adversely impact downstream hydrology or water quality.

Specific Hydrology and Water Quality mitigation measures (4.6-1 through 4.6-4) are listed in Section 4.6.4 of the Certified EIR, in addition to below.

4.6-1. The proposed project shall be designed and constructed in compliance with National Pollution Discharge Elimination System (NPDES) permit and all applicable state and local water quality requirements.

4.6-2. A Storm Water Pollution Prevention Plan (SWPPP) shall be developed for the project site which shall identify pollutant sources that may affect storm water quality discharges during construction. The SWPPP shall include various pollution prevention measures such as erosion control, dust control and will provide comprehensive Best Management Practices (BMPs) Guide to contractors during site construction, as contained in the Best Management Practice Handbook, California Stormwater Quality Task Force, Sacramento, CA 1993, or latest revised edition.

4.6-3. A Standard Urban Storm Water Mitigation Plan (SUSMP) shall be developed for the project site identifying any pollutant sources that may affect storm water quality after project completion. The following measures shall be included in the SUSMP:

- Inserts shall be included in catch basins and continuous deflection units to filter storm water runoff prior to discharging to the ocean storm drain system, consistent with Compliance Strategies for trash reduction implementation measures of the Draft Basin Plan, Draft Trash Total Maximum Daily Loads for the Los Angeles River Watershed, dated January 22, 2001 (see Table 8 of the Plan).
- Catch basins and storm drain inlets shall be labeled "No Dumping - Drains to Ocean" to discourage illegal dumping.
- Streets within the proposed residential development shall be swept on a regular basis.
- Signs shall be posted through the proposed development with prohibitive language and/or graphical icons to discourage illegal dumping.
- Non-toxic pesticides and fertilizers shall be used in landscaped areas of the project.
- All graded slopes shall be planted on a timely basis to prevent erosion.
- Homeowners shall be provided with information from the County Department of Public Works (DPW) Environmental Planning Division's concerning recycling of household products, disposal of hazardous wastes, disposal of yard wastes, tire recycling, and preventing pollution of storm drain systems with trash (detailed information is available on the DPW website at: www.888cleanla.com or by telephone at 888CleanLA).

- Require developer-owners to execute and record the County DPW's Maintenance Covenant for Standard Urban Stormwater Mitigation (SUSMP) pursuant to Section 106.4.3 of the County Building Code and Title 12, Chapter 12.8 of the County Code.

4.6-4. Required project drainage facilities shall be constructed in compliance with the approved Drainage Concept Plan, which details the location and sizes of stormdrains, debris basins, and inlet/outlet structures.

The Hydrology and Water Quality mitigation measures reduce Deerlake Ranch Project impacts to less than significant.

### Analysis of the Refined Sewer Implementation Project.

After approval of the Certified EIR, the previous Addenda were approved in conjunction with a reduction in the number of residential units from 375 to 314, a reduction in grading quantities from 2.2 million to 1.8 million cubic yards, an increase in open space lots from 71.4 acres to 82.7 acres. In addition, sections of four major drainage courses traversing the property were left in their natural state by the 2012 Amended Map assessed in the First Addendum and the Fourth Amendment Map assessed in the Second Addendum. All grading limits and building envelopes will remain the same as analyzed in these previous Addenda. However, more recent grading design calculations indicate that grading will consist of 2.0 million cubic yards of cut and 2.2 million cubic yards of fill, but balanced within the project boundary. The Refined Sewer Implementation Project actions by the Board would involve only the acquisition of property interests for the purpose of implementing the Deerlake Ranch Project Twin Lakes Sewer Condition. Installation of the Twin Lakes Sewer could improve overall water quality for the Refined Sewer Implementation Project area by providing an option to homeowners who may choose to remove an existing septic system from the Twin Lakes Community. Construction of the Twin Lakes Sewer requires limited excavation, which would not change the grading quantities already assessed in the Certified EIR as amended by the previous Addenda. Drainage patterns will not change since Twin Lakes Sewers would be placed under an existing road from 5 to 20 feet below the ground surface. Existing Deerlake Ranch Project mitigation measures (Mitigation Measures 4.6-1 and 4.6-2) required to address potential water quality impacts during construction will be implemented.

As such, the Refined Sewer Implementation Project results in no significant change to already approved physical improvements that would not result in a significant increase in hydrology or water quality impacts from that analyzed in the Certified EIR as amended by the previous Addenda with the same mitigation measures to be implemented as stated in the Certified EIR and required by the MMP including Mitigation Measures 4.6-1 and 4.6-2 specifically requiring compliance with NPDES and SWPPP water quality protections during construction. No additional mitigation measures are required.

## Certified EIR Section 4.7 - Noise

### Summary of Analysis in Certified EIR

The State Department of Health Services has prepared Land Use Compatibility Guidelines for evaluating community noise impacts. The County of Los Angeles has adopted local guidelines which are consistent with the state community noise guidelines for use in evaluating the compatibility of various land use types with a range of noise levels. A CNEL value of 65 dB(A) is considered the dividing line between clearly acceptable

and normally acceptable noise environments for many noise sensitive receptor land uses, including residential uses such as those within the project area.

An interior CNEL of 45 dB(A) is mandated by multiple family dwellings in Title 24 of the California Code of Regulations. In 1988, the State Building Standards Commission recommended that the 45 dB CNEL interior standards be expanded to include all habitable rooms for all residential occupancy, including single family. The County of Los Angeles has required a 45 dB(A) CNEL interior standard for all occupancies well before the adoption of the statewide guidelines. Since typical noise attenuation within residential structures with closed windows is about 20 dB, an exterior noise exposure of 65 dB CNEL is generally the noise land use compatibility guideline for new residential dwellings in threshold where noise begins to substantially interfere with enjoyment of any outdoor recreational amenity. Mitigation of exterior noise to at least 65 dB CNEL is normally required for residential projects in Los Angeles County for any usable outdoor space.

Construction noise sources are not strictly relatable to a 24-hour community noise standard, because they only occur during selected times and the source strength varies sharply with time. Further, construction activities would not represent a chronic permanent noise source. To abate the potential nuisance from construction noise, especially in very close proximity to any nearby noise-sensitive development, the Los Angeles County Noise Ordinance (Section 12.08.440) limits the hours of allowable construction activities and establishes noise performance standards at the nearest residential structures.

Varying levels of construction noise may be heard in different parts of the project site during the project's total construction period. The noise strength of construction equipment ranges widely as a function of the equipment used. Further, short-term variations are strongly influenced by topographical factors that may change during the course of the construction activities. As noise levels generated by heavy equipment can range from approximately 68 dB(A) to noise levels in excess of 100 dB(A) when measured at 50 feet. However, noise levels would diminish rapidly with distance from the construction area at a rate of approximately 6.0 dB(A) per doubling distance.

Noise levels generated during the construction of the Deerlake Ranch Project would primarily affect the off-site residents of the Twin Lakes community. Any locations with an uninterrupted line of sight to the construction noise sources could periodically be exposed to temporary noise levels which could exceed the County's Noise Ordinance standards for construction equipment. However, such events would be intermittent due to the intervening terrain. However, the terrain of the project site would shield nearby Twin Lakes residents. In addition, enforcement of the noise ordinance would provide a reasonable measure of protection for nearby residences in those localized instances where major earthwork would occur within close proximity.

With the combination of an adequate distance buffer for most major earthwork associated with the project, terrain shielding for many residential units adjacent to the site, and compliance with County ordinances, construction activities would not result in a significant noise impact on the project site or the adjacent Twin Lakes community.

The following mitigation measures were recommended in the Certified EIR to ensure noise impacts would be less than significant.

4.7-C1. All construction activity occurring on the project site shall adhere to the requirements of the County of Los Angeles Noise Ordinance, Title 12, Section 12.08.440;

4.7-O2. Residential lot building pads that are subject to noise greater than the 65 dBA noise contour shall include the following features to reduce interior noise levels to acceptable County standards. These measures shall be completed prior to the issuance of the Certificate of Occupancy to ensure that the noise levels with the proposed mitigation features are within the adopted County standards:

- Solid cement block walls shall be placed between the rear yards. The wall shall be as high as eight feet, but not less than six feet;
- Exterior walls shall be 2x4 feet wood frame construction, with 7/8 stucco (or similar material) on the exterior, ½ inch gypsum board on the interiors and R-13 cavity (minimum) in the cavity;
- Minimal window surface facing SR-118 and windows shall be mounted with low air-infiltration rate frames (0.5 cfm/foot or less per ANSI specifications);
- Sliding glass doors shall have minimum sound transmission class of 34;
- Roof or attic vents shall be located away from SR-118 or baffled;
- Second floor windows facing SR-118 shall be glazed with ¼ inch laminated glass; and
- Central air conditioning shall be standard.

4.7-O3. All stationary and point sources of noise occurring in the project site shall adhere to the requirements of the County of Los Angeles Ordinance No. 11743.

Without consideration of background freeway noise, the project would create a maximum off-site traffic noise impact of 6.9 dB above the future no project contribution along Mayan Drive east of Topanga Canyon Boulevard. However, this roadway has a high freeway background noise level that would mask any local roadway noise changes. When the background freeway noise is considered, the project increase would be less than 1.0 dB.

Per the *Land Use Compatibility Guidelines* utilized by the County, the project would result in a significant impact if it causes on-site exterior locations to be exposed to noise levels above County Noise Ordinance standards of 65 dB CNEL. Significant off-site noise impacts would occur when:

- An increase of 5.0 dB(A) or greater noise level occurs from project related activities if levels remain within the same land use compatibility classification; or
- An increase of 3.0 dB(A) or greater in noise level occurs from project related activities which results in a change in land use compatibility classification.

All construction activity occurring on the project site shall adhere to the requirements of the County of Los Angeles Noise Ordinance, Title 12, Section 12.08.440. All stationary and point sources of noise occurring in the project site shall adhere to the requirements of the County of Los Angeles Ordinance No. 11743. There would be no change to the mainline sewer implementation or operation from what was known at the time of the Certified EIR, as amended by the previous Addenda. There would be no new noise source as operational

noise of the Refined Sewer Implementation Project, including maintenance, would be the same as was known at the time of EIR certification.

Certified EIR concluded that implementation of the Deerlake Ranch Project would not result in significant short-term noise impacts associated with construction activities, due to the complex terrain and compliance with County noise ordinances. Construction traffic noise would not result in significant impact as construction staging would occur outside of the Twin Lakes community. On-site noise exposure associated with the project would not be significant with implementation of the above mitigation measures and the proposed project design.

### Analysis of the Refined Sewer Implementation Project.

Since approval of the Certified EIR, the previous Addenda were certified with a reduction in the number of residential units from 375 to 314, a reduction in grading quantities from 2.2 million cubic yards to 1.8 million cubic yards, an increase in open space lots from 71.4 acres to 82.7 acres. However, more recent grading design calculations indicate that grading will consist of 2.0 million cubic yards of cut and 2.2 million cubic yards of fill, but balanced within the project boundary

The Deerlake Ranch Project as modified in 2012 and 2015 includes a slightly reduced amount of grading from the amount analyzed in the Certified EIR, but resulting in similar short term construction noise and long term traffic noise. The Refined Sewer Implementation Project actions by the Board would involve only the acquisition of property interests for the purpose of implementing the Deerlake Ranch Project Twin Lakes Sewer Condition. The established Twin Lakes community roadway system limits sewer infrastructure installation operations to the use of small equipment only. Limited excavation will be needed. Compliance with noise regulations in County Code 12.08.440, as required by Mitigation Measure 4.7-C1, restricts construction activities between the weekday hours of 7:00 a.m. and 7:00 p.m. Installation of the Twin Lakes Sewer does not change the grading quantities nor significantly increase noise impacts from that analyzed in the Certified EIR.

As such, the proposed Refined Sewer Implementation Project proposes no significant change in physical improvements that would increase impact on site-generated noise from that analyzed in the Certified EIR as amended by the previous Addenda, with the same mitigation measures (4.7-1 through 4.7-3) to be implemented as stated in the Certified EIR and required by MMP. No additional mitigation measures are required.

## Certified EIR Section 4.8 – Public Services - Fire Protection

### Summary of Analysis in Certified EIR

The Deerlake Ranch Project would receive fire protection services from County Fire Station No. 75, located at 23310 Lake Manor Drive in Chatsworth. The station is approximately 5.4 miles southwest of the project site and maintains a three-person engine company. Also, the County Fire Department has an automatic aid agreement with the City of Los Angeles in the event that additional services are needed during an incident. The first-due response unit to the project site would be City Station No. 96, located at 21800 Marilla Avenue in Chatsworth, approximately three miles south of the project site. In addition to Station No. 96, fire protection services would also be provided by City Station No. 28, located at 11641 Corbin Avenue in Porter Ranch, approximately two miles east of the project site.

The Deerlake Ranch Project is located within a Fire Zone 4, Very High Fire Hazard Severity Zone (VHFHSZ). The County of Los Angeles General Plan defines a Fire Zone 4 area as one which has the highest fire hazard potential. Such areas are susceptible to wildland fires because of the hilly terrain, dry weather conditions, and nature of plant cover. The Forester and Fire Warden of the County Fire Department has designated a variety of regulatory programs and standards including an approved fuel modification plan, directed toward the abatement of this fire hazard and reduction of risk to tolerable levels.

As defined in the *State CEQA Guidelines* the project would result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection agencies, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives.

The Deerlake Ranch Project would have additional significant impact on fire and emergency services if:

- It generates demand for additional fire protection or emergency medical service that substantially exceeds the staff and equipment capabilities of any County Fire Department stations serving the property;
- It does not comply with applicable County Fire Department Code and ordinance requirements or standards for construction, water mains, fire-flow and fire hydrants; or
- The proposed project would impair emergency access to the site or cause an increase in emergency response times.

Development of the Deerlake Ranch Project would result in the construction of residential uses in an area designated as Fire Zone 4 (Very High Fire Hazard Severity Zone). To mitigate the potential spread of dry brush or wildfire that could occur in this area, it is required that the project applicant implement a fuel modification plan to minimize or retard the spread of dry brush and wildfire into a development area. With implementation of the approved Fuel Modification Plan, wildfire impacts would be reduced to less than significant.

The County of Los Angeles Fire Department has determined that development of the Deerlake Ranch Project would require 44 new fire hydrants, located throughout the project site. As indicated, the minimum fire flow requirement is 1,250 gallons per minute (gpm) for two hours with a current required minimum residual pressure of 20 psi. It has been determined by the LACFD that the proposed system would be able to provide fire flow to all hydrants at pressures greater than this required minimum. No significant impacts on fire-flow requirements or fire regulations would occur with implementation of the project.

The Certified EIR noted that although no significant impacts are anticipated with regard to implementation of the Deerlake Ranch Project, the following mitigation measures have been recommended to ensure impacts are minimal.

4.8-1. The project shall incorporate the following County Fire Department requirements regarding access, water mains, fire flows, fire hydrants, and brush clearance into project design:

- Every building constructed shall be accessible to fire department apparatus by way of access roadways, with an all weather surface of not less than the prescribed width, unobstructed,

clear-to-sky. The roadway shall be extended within 150 feet of all portions of the exterior walls when measured by an unobstructed route around the exterior of the building.

- All bridges required to be used as part of a fire access road shall be constructed and maintained in accordance with nationally recognized standards and designed for a live load sufficient to carry a minimum of 75,000 pounds.
- Access to existing fire fighting motorways shall be maintained.
- Fire hydrant spacing shall be 600 feet and shall meet the following requirements:
  - No portion of lot frontage shall be more than 450 feet via vehicular access from a public fire hydrant.
  - No portion or structure should be placed on a lot where it exceeds 750 feet via vehicular access from a properly spaced public fire hydrant.
  - When cul-de-sac depth exceeds 450 feet on a residential street, hydrants shall be required at the corner and mid-block. Additional hydrants shall be required if hydrant spacing exceeds specified distances.

4.8-2. Streets or driveways within the development shall be provided with the following widths in accordance with County Fire Department and Department of Public Works standards:

- Provide 36 feet width on all collector streets and those streets where parking is allowed on both sides.
- Provide 34 feet width on cul-de-sacs up to 700 feet in length. This allows parking on both sides of the street.
- Provide 36 feet width on cul-de-sacs from 701 to 1,000 feet in length. This allows parking on both sides of the street.

4.8-3. All dwelling units shall be fully sprinkled per NFPA pamphlet 13 D to offset potential response time impacts.

4.8-4. The proposed project shall comply with the fuel modification plan, which has been approved by the Forestry Division of the Fire Department (see Appendix E of the Certified EIR).

4.8-5. The proposed project shall comply with all applicable County Fire Code and Ordinance requests including standards for construction, installation of sprinkler and alarm systems, fire extinguishers, and emergency exits.

As stated above, the Deerlake Ranch Project would not conflict with applicable County Fire Department Code and ordinance requirements or standards for construction, access, water mains, fire-flow and fire hydrants and would not impair emergency access to the site or cause an increase in emergency response times. Impacts on fire protection services would not be significant. Mitigation measures are recommended to ensure impacts would remain minimal.

### Analysis of the Refined Sewer Implementation Project.

Since approval of the Certified EIR, as amended by the previous Addenda were approved in conjunction with a reduction in the number of residential units from 375 to 314. All mitigation measures (4.8-1 through 4.8-

5) previously identified within the Certified EIR, including fuel modification plans and requirements, will be implemented as part of the modified approved Deerlake Ranch Project.

As with the Certified EIR and the previous Addenda, the Deerlake Ranch Project as modified in 2012 and 2015, including the recreation center, would be subject to County Building and Safety and Fire Code requirements for Fire Zone 4, as well as conditions of approval specified by the Los Angeles County Fire Department. The Refined Sewer Implementation Project actions by the Board would involve only the acquisition of property interests for the purpose of implementing the Deerlake Ranch Project Twin Lakes Sewer Condition. The Twin Lakes would be placed under an existing road over an estimated six to eight month construction period. No permanent above ground structures will be constructed and no fire hazard results from the presence of the Twin Lakes Sewer under the roadway. The private streets within the Twin Lakes community will remain private streets and not subject to County Fire Department street standards required of the new Deerlake Ranch Project development.

As such, the proposed Refined Sewer Implementation Project propose no significant change in already approved physical improvements that would increase impact on fire protection services from those analyzed in the Certified EIR and the previous Addenda, with the same mitigation measures to be implemented as stated in the approved Certified EIR and required MMP. No additional mitigation measures are required.

## Certified EIR Section 4.9 - Public Services - Police Protection

### Summary of Analysis in Certified EIR

Police protection services within the County are provided by the Los Angeles County Sheriff's Department. The Deerlake Ranch Project would be served by the Lost Hills/Malibu Station which is located at 27050 Agoura Road in Calabasas, approximately 25 miles southwest of the project site.

As defined in the *State CEQA Guidelines* the proposed project would result in substantial adverse physical impacts associated with the provision of new or physically altered police protection agencies, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives.

Additionally, Deerlake Ranch Project impacts on police protection services would be considered significant if either of the following would result:

- The population increase resulting from the project substantially reduces the standard officer to population ratio of the County (one officer per 1,000 populations) in which the project is located.
- Emergency response times are inhibited by increasing roadway congestion within an area either during construction or upon post-construction occupancy.

As stated in the Certified EIR, the addition of 538 residences would increase calls for police protection service to this area and may necessitate a change in the Lost Hills/Malibu Station's deployment of deputies. However, implementation of the Deerlake Ranch Project would serve to increase the existing funding mechanisms (i.e., property taxes) for any additional officers required to serve the project area. Therefore, impacts would not be considered significant.

Emergency access to the Deerlake Ranch Project would be provided by the existing and proposed street system. Further, implementation of the Deerlake Ranch Project would improve emergency access to the existing Twin Lakes community. The project would be designed in accordance with Los Angeles Municipal Code requirements, including regulation of street widths, street lighting, and street signage. Implementation of mitigation measures would reduce impacts on all affected intersections to less than significant. Therefore, no significant impact with regard to emergency access would result.

Although no significant impacts are anticipated, the following mitigation measures are recommended to ensure impacts upon police protection services remain less than significant:

4.9-1 Prior to recordation of the Final Tract map, the applicant shall provide the Los Angeles County Sheriff's Department's with a diagram of the project, including access routes, addresses, and any information that might facilitate police response.

4.9-2 Prior to recordation of the Final Tract map, the applicant shall provide the Los Angeles County Sheriff's Department's with building plans to ensure that the proposed project is designed so as to minimize crimes against property. Features may include, but are not limited to: good sight lines, exterior lighting, and strong exterior doors, windows and locks.

4.9-3 A facility suitable for use as a Sheriff's Department Substation to service the project area will be constructed near the Topanga Canyon Boulevard entrance to the project site (Figure 2.8 of Final EIR). The new facility would be approximately 800 square feet. (Note: Although not part of the original DEIR, the Certified EIR included the requirement to construct a Sheriff's Storefront Facility on the site)

Although this increase would not result in a significant change in the current officer to resident ratio, the Sheriff's Department indicated implementation of the project would require additional officers. However, the increase in existing funding mechanisms (i.e., property taxes) would provide for the additional personnel. Therefore, no significant impacts are anticipated.

### Analysis of the Refined Sewer Implementation Project.

Since approval of the Certified EIR, the First and Second Addenda were certified in conjunction with a reduction in the number of residential units from 375 to 314. All mitigation measures (4.9-1 through 4.9-3) previously identified will be implemented as part of the modified approved Deerlake Ranch Project development, including the construction of a Sheriff's Storefront Facility in the southwesterly portion of the project to enhance police services for the project and the surrounding community. The Refined Sewer Implementation Project actions by the Board would involve only the acquisition of property interests for the purpose of implementing the Deerlake Ranch Project Twin Lakes Sewer Condition. The Twin Lakes Sewer would be placed under an existing road over an estimated six to eight month construction period and would not result in any greater impact on the police services.

As such, the proposed Refined Sewer Implementation Project results in no significant change to already approved physical improvements that would increase the impact on police protection services from those analyzed in the Certified EIR as amended by the previous Addenda, with the same mitigation measures to be implemented as stated in the Certified EIR and required MMP. No additional mitigation measures are required.

## Certified EIR Section 4.10 - Public Services - Schools

### Summary of Analysis in Certified EIR

The project site currently has no student population. LAUSD provides primary and secondary public education services for the project area. The Deerlake Ranch Project is located within the attendance boundaries of four public schools (see Figure 4.8.1 of the Certified EIR). These schools are: Chatsworth Elementary School (Grades K-5); Germain Elementary School (Grades K-5); Lawrence Middle School (Grades 6-8); and Chatsworth Senior High School (Grades 9-12).

In addition, two private schools serve the project area: Sierra Canyon School (K-12 grades), and Chatsworth Hills Academy (K-8 grades).

As defined in the *State CEQA Guidelines*, the proposed project would result in substantial adverse physical impacts associated with the provision of new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, or other performance objectives.

In addition, based on criteria established by the County and input from LAUSD, impacts associated with the Deerlake Ranch Project upon school facilities would be considered significant if any of the following occurred:

- The population increase resulting from the project, based on the increase in residential units, would create or exacerbate over capacity conditions at a school that serves the project or create capacity problems at the district level.
- Population increases from the project would result in construction of new school facilities, a major redistribution of students or classrooms, major revisions to the school calendar, or other capacity-accommodating actions.

There are two elementary schools which students from the project could attend. The project site is located within the existing boundaries for both Chatsworth Elementary School and Germain Elementary School. These schools, projected to have 125 and 228 student spaces available, respectively, would have sufficient space to accommodate all 231 elementary students generated by the project (see Table 4.10.3). Lawrence Middle School, which is projected to have space to accommodate 914 additional students, would have sufficient space for the 135 students generated by the project. Finally, Chatsworth Senior High School is projected to have space to accommodate an additional 1,291 students and would also have sufficient space for the 184 students generated by the project. Therefore, the estimated elementary, middle, and high school students generated as a result of the project are not anticipated to result in significant impacts to LAUSD elementary, middle, or high school services.

Section 65995 of the California Government Code requires developers to pay a one-time fee for capital acquisitions and improvements. Such fees are paid at the time building permits are issued. The fees are paid into a general fund and may or may not be used to offset the impacts of the development generating the fees. California Government Code Section 65995(b) establishes the maximum school impact fee at $3.50 per square foot for new residential building space. Currently, specific designs and square footage for the single-family residences has not been developed. However upon issuance of a building permit, the developer would

pay the applicable fees to offset potential capacity deficits in local schools. Therefore, as stated in the EIR, no significant impact would result and no additional mitigation measures would be necessary.

4.10-1. The applicant shall pay developer fees, as required under Section 65995 of the California Code, for school improvements. The applicant will enter into discussions with LAUSD and the Porter Ranch master developer to investigate the possibility of accelerating the Porter Ranch elementary and middle school construction schedule.

### Analysis of the Refined Sewer Implementation Project.

The Refined Sewer Implementation Project involves only the acquisition of property interests for the purpose of implementing the Deerlake Ranch Project Twin Lakes Sewer Condition. The acquisition of property interests and construction of the Twin Lakes Sewer in the already established Twin Lakes community would not result in an impact on schools.

As such, the proposed Refined Sewer Implementation Project proposes no significant change in already approved physical improvements and would not increase the impact on school services from those analyzed in the Certified EIR as amended by the previous Addenda. The Deerlake Ranch Project is still subject to the same mitigation measures to be implemented as stated in the Certified EIR and required MMP. No additional mitigation measures are required.

## Certified EIR Section 4.11 - Public Services - Library Services

### Summary of Analysis in Certified EIR

The Los Angeles County Public Library operates facilities and services Countywide in both unincorporated and incorporated areas of the County. The Chatsworth Branch Library is located at 21052 Devonshire Street, Chatsworth.

Significance threshold criteria for library services are not specified in the *State CEQA Guidelines*. Library facilities and materials are considered a part of the Development Monitoring System of Los Angeles County, which relies upon the service provider to determine the requirements of new development relative to the service provided. In keeping with this procedure, this impact analysis relies upon the County of Los Angeles Public Library standards for library service as a threshold of project significance. Therefore, impacts associated with the project upon library facilities would be considered significant if any of the following occurred:

- The population increase resulting from the project, based on the increase in residential units, would create or exacerbate over capacity conditions at a library that serves the project.

Development of the Deerlake Ranch Project would increase demand for library services, thereby increasing the need for additional facilities and materials (e.g., books, periodicals, audio tapes, videos, etc.).

To ensure sufficient library capacity is available for Deerlake Ranch Project generated students, Los Angeles County Ordinance (Section 22.72 Library Facilities Mitigation Fee) requires that new residential subdivisions pay a library fee in effect at the time, when permits are pulled, per residential unit for the project area) to ensure that new projects mitigate impacts to library facilities. As the developer would pay the applicable

fees to offset potential impacts, no significant impact is anticipated. In addition, no additional mitigation beyond that which is identified for the project is recommended for cumulative development projects, and cumulative impacts would be less than significant.

4.11-1. The applicant shall pay library fee, as required per Los Angeles County ordinance, of $626 or the fee in effect at the time, where permits are pulled, per residential unit for the project area to ensure that new projects mitigate impacts to library facilities.

### Analysis of the Refined Sewer Implementation Project.

Since approval of the Certified EIR, the First and Second Addenda were certified in conjunction with a reduction in the number of residential units from 375 to 314. The Refined Sewer Implementation Project actions by the Board would involve only the acquisition of property interests for the purpose of implementing the Deerlake Ranch Project Twin Lakes Sewer Condition. Construction of the Twin Lakes Sewer in the already established Twin Lakes community would not impact library services.

As such, the Refined Sewer Implementation Project proposes no significant change in already approved physical improvements and would not result in an increased impact on library services from those analyzed in the Certified EIR as modified by the previous Addenda. The Deerlake Ranch Project remains subject to the same mitigation measures to be implemented as stated in the Certified EIR and required by the MMP. No additional mitigation measures are required.

## Certified EIR Section 4.12 – Transportation/Traffic

### Summary of Analysis in Certified EIR

The Deerlake Ranch Project site is located in the unincorporated hillside area of Los Angeles County, north of SR-118 in between where Topanga Canyon Boulevard and Canoga Avenue currently terminate at SR-118. While the project site is located in an unincorporated area of Los Angeles County, some study intersections are located within the City of Los Angeles. Therefore, the traffic analysis follows County of Los Angeles and City of Los Angeles traffic study guidelines and has been approved by County of Los Angeles.

Traffic study application of the County's and City threshold criteria "with Proposed Project" scenario indicates at three study intersections are anticipated to be significantly impacts by the project during the A.M. and P.M. peak hours.

The study intersections were determined by LADOT staff, and confirmed with staff from the Los Angeles County Department of Public Works (LACDPW), Traffic and Lighting Division. While the project is located within an unincorporated area of Los Angeles County, 11 of the 13 study intersections are located within the City of Los Angeles.

A detailed evaluation of existing and future traffic conditions was completed for each of the following 13 study intersections:

- Topanga Canyon Boulevard & Poema Place/Mayan Drive (County)
- Topanga Canyon Boulevard & SR-118 WB On/Off Ramps (County and CMP monitoring station)

- Topanga Canyon Boulevard & SR-118 EB On/Off Ramps
- Topanga Canyon Boulevard & Santa Susana Pass Road
- Topanga Canyon Boulevard & Chatsworth Street
- Topanga Canyon Boulevard & Devonshire Street (CMP monitoring station)
- Canoga Avenue & Rinaldi Street
- Canoga Avenue & Chatsworth Street
- Canoga Avenue & Devonshire Street
- De Soto Avenue & SR-118 WB & EB On/Off Ramps
- De Soto Avenue & Chatsworth Street
- De Soto Avenue & Devonshire Street

The Deerlake Ranch Project is expected to create significant impacts because it exceeds the City's impact thresholds at the following intersections:

- Topanga Canyon Boulevard and SR-118 WB On/Off-ramps
- Topanga Canyon Boulevard and SR-118 EB On/Off-ramps
- De Soto Avenue and Chatsworth Street

The Certified EIR concluded that Project-related significant impact is anticipated at the intersection of Topanga Canyon Boulevard & SR-118 WB On/Off-ramps during the A.M. and P.M. peak hours. In addition, the project is expected to result in significant impacts at the three study intersections. The following mitigation measures are recommended to reduce impacts to less than significant levels:

4.12-1 The applicant shall install a traffic signal at the intersection of Topanga Canyon Boulevard and Poema Place/Mayan Drive. The traffic signal shall be interconnected and operated in conjunction with the existing traffic signal at the Topanga Canyon Boulevard & SR-118 WB On/Off-ramps.

4.12-2 The applicant shall widen and restripe the WB SR-118 off-ramp to provide exclusive right-turn lane. This would result in a left-turn lane, a shared through/left-turn lane, and a right-turn only lane in the westbound approach.

4.12-3 The applicant shall widen and restripe the westbound Mayan Drive approach to County Collector Street standards to provide a second left turn lane. This would result in a left-turn land and a shared through/left-turn land in the westbound Mayan Drive approach.

4.12-4 The applicant shall widen and restripe the EB Poema Place approach to provide a second right-turn lane. This would result in a right-turn lane and a shared through/right-turn lane in the eastbound Poema Place approach.

4.12-5 The applicant shall contribute to the City of Los Angeles' Automated Traffic Surveillance and Control (ATSAC) system for the following intersections:

- Topanga Canyon Boulevard and SR-118 EB On/Off-ramps.
- De Soto Avenue and Chatsworth Street.

4.12-6 Prior to the recordation of the first final subdivision map for the project, not including large-lot parcel maps for sale purposes, the applicant's traffic engineer will submit to the City of Los Angeles Department of Transportation a study to assess the need for the following improvements:

- Left-turn traffic signal phasing shall be implemented related to eastbound Chatsworth Street traffic at DeSoto Avenue intersection. Additional paving shall be included along the northern edge of Chatsworth Street to lengthen the existing eastbound left-turn lane by approximately 100 feet.
- Left-turn traffic signal phasing shall be completed related to southbound Canoga Avenue traffic at the Chatsworth Street intersection, and construction of approximately 100 feet of paving along the western edge of Canoga Avenue to provide for a left-turn lane onto eastbound Chatsworth Street. This paving would be considered temporary, pending a City of Los Angeles project to widen this portion of Canoga Avenue to City standards.
- Subject to approval by the California Department of Transportation (Caltrans), City of Los Angeles, and County of Los Angeles, the existing pavement on southbound Topanga Canyon Boulevard shall be restriped to provide a second left-turn lane onto the eastbound SR-118 on-ramp.

4.12-7 The applicant shall request that the CFD, which is proposed to fund public facilities for Deerlake Ranch, contribute funds to construct the following safety-related improvements. These improvements are subject to City of Los Angeles 8-Permit(s), prior to obtaining any other construction permit for the project.

- Three-way stop signs shall be installed at the intersection of Canoga Avenue and Candice Place.
- A "No Left Turn" sign shall be installed from southbound Canoga Avenue to Candice Place, prohibiting such movement between 6:00A.M. and 9:00 A.M.
- Speed bumps shall be installed along Canoga Avenue between the SR-118 and Candice Place, and an additional speed bump shall be installed south of Candice Place.
- A "No Left Turn" sign shall be installed at the intersection of Canoga Avenue and Celtic Place.
- Self-actuated flashing lights shall be installed at the intersection of Canoga Avenue and Rinaldi Avenue for equestrian and pedestrian crossing, subject to approval by the City of Los Angeles.
- A crosswalk shall be striped on Chatsworth Street east of the intersection with Independence Avenue.
- Permanent signs shall be installed along Canoga Avenue displaying "Watch for Equestrians", or similar language.
- Signs shall be installed during the project construction period displaying "Jake Braking Strictly Prohibited," or similar language.

4.12-8 As agreed, the subdivider shall be responsible for repairing damage to the existing pavement on Canoga Avenue between Chatsworth Street and SR-118 that is caused by project contractors during the course of construction.

4.12-9 The subdivider shall install three-way stop signs at the proposed intersection of Mayan Drive and "B" Street, subject to the approval of the County of Los Angeles.

4.12-10 The applicant shall widen and restripe the EB Poema Place approach to provide a second right-turn lane. This would result in a right-turn lane and a shared through/right-turn lane in the eastbound Poema Place approach.

4.12-11 Caltrans has requested additional mitigation measures to mitigate impacts of the project within the State right-of-way. The applicant will prepare, as a voluntary measure, a Project Study Report (PSR) to address long-term regional traffic operations at the Topanga Canyon Boulevard/SR-118 interchange. In addition, the applicant shall consider possible payment of fair-share fees as determined by the County.

Therefore, with implementation of the recommended mitigation measures (4.12-1 through 4.12-11), the project would not result in significant impacts to area traffic.

**Analysis of the Refined Sewer Implementation Project.**

Since certification of the EIR, the First and Second Addenda were certified with a reduction in the number of residential units from 375 to 314. Therefore, there has been a significant reduction in the density of this project, and corresponding reduction in the construction and operational traffic generation data used in the Certified EIR.

The modified approved Deerlake Ranch Project, as amended in the previous Addenda to the Final EIR, includes a recreation center to be located on a site previously approved for four single family residential lots and a short cul-de-sac street serving these lots. The building pad of the recreation center site will coincide with the combined building pads and cul-de-sac, resulting in no change in construction traffic.

The Project actions by the Board would involve only the acquisition of property interests for the purpose of implementing the Deerlake Ranch Project Twin Lakes Sewer Condition. The Twin Lakes Sewer would be placed within an existing road easement over an estimated six to eight month construction period and would inconvenience temporarily some residents during the installation period. A Construction Staging and Traffic Management Plan will be implemented during construction and be subject to final approval by the LACDPW. The Twin Lakes Sewer installation would not change the traffic impacts, which would remain the same as for the approved project, as the construction of the Twin Lakes Sewer was approved by the Board in 2004. The operation and maintenance of the Twin Lakes Sewer would remain the same as consider at the time of project approval in 2004.

As a component of a Construction Staging and Traffic Management Plan, the Deerlake Ranch Project proponent will use a certified traffic engineer to develop a traffic control pattern for implementation during the estimated six to eight month Twin Lakes Sewer installation. The traffic control pattern will be in place prior to commencement of construction. All road closure and detour signage will be posted prior to construction in clearly visible locations proximate to the work location. Installation notices and updates for

the Twin Lakes community residents will be available through the project website at www.deerlakeinfo.com. Flagmen will be used to direct and control traffic during construction hours. Affected homeowners will be provided a 5-day advance notice for any restricted access to residences during installation. Where necessary, a pilot car will be provided to safely move traffic through active construction areas. The Deerlake Ranch Project proponent will require the Twin Lakes Sewer subcontractor to use equipment that is scaled to fit the narrow road and working conditions within the Twin Lakes community.

As such, the proposed Refined Sewer Implementation Project proposes no significant change in the already approved Deerlake Ranch Project, which includes the Twin Lakes Sewer improvements, and would therefore not result in a significant increase in traffic impacts from those analyzed in the Certified EIR as amended by the previous Addenda, with the same mitigation measures to be implemented as stated in the Certified EIR and required by the MMP. No additional mitigation measures are required.

## Certified EIR Section 4.13 – Utilities and Service Systems - Water Supply

### Summary of Analysis in Certified EIR

This analysis summarizes the findings and conclusions of *Water System Design Report for Tentative Tract No. 53138, Deerlake Ranch,* prepared by the LVMWD. In addition, water supply and demand information was obtained from the Urban Service Analysis prepared by Los Angeles County Department of Regional Planning, the LVMWD *Population Growth, Residential Development and Employment Activity Report* (March 31, 1996), the *Potable Water System Master Plan for Las Virgenes Municipal Water District* (December 1999) and the *Las Virgenes Municipal Water District Urban Water Management Plan* (adopted December 12, 2000).

In accordance with the California Water Code, Division 6, Part 2.6, "every urban water supplier shall prepare and adopt an Urban Water Management Plan (UWMP)" to pursue to efficient use of available supplies and to ensure the appropriate level of reliability in water service to meet customers' needs during normal, dry and multiple dry water years.

A key element of the UWMP is to determine future demands and the ability of the server to meet those demands. The projection data for future water demand in the LVMWD UWMP is based on the potential buildout or properties consistent with the land use elements of the Los Angeles County, and cities of Agoura Hills, Calabasas, Hidden Hills, and Westlake Villages General Plans; as well as the population, housing and employment forecasts of the Southern California Association of Governments (SCAG). Based on data generated from the above sources, which is presented in the LVMWD *Potable Water System Master Plan for Las Virgenes Municipal Water District* (December 1999), the LVMWD developed a management plan which provides for the continued service of potable water resources to its service area consistent with the California Water Code.

The Deerlake Ranch Project site is currently served by the Twin Lakes Subsystem which consists of existing water distribution pipelines; a pumping station; and two water tanks. This subsystem is currently connected to MWD's transmission main, identified as the "SC LV-3 Turn Out" which is located just below the Twin Lakes Pump Station. The SC LV-3 Turn Out is, in turn, connected to the MWD's West Valley Feeder pipeline.

The existing pipelines range in size from 6 to 18 inches and receive potable water from the Twin Lakes Tanks, which are located approximately one mile north of the Twin Lakes Pump Station. The pump station

maintains the gradient (water level) in the Twin Lakes Tanks of 1,584.75 feet with a combined capacity of 2.0 million gallons (mg). The Twin Lakes Subsystem has an existing pumping capacity of 2,050 gpm.

In assessing the significant impacts upon water resources for the project, the *State CEQA Guidelines* consider whether sufficient water supplies are available to serve the project from existing entitlements and resources, or if new or expanded entitlements are necessary. Adverse impacts on water availability could result when the project cannot be served by the existing water system facilities due to:

- Inadequate capacity in water lines, piping systems, water treatment and/or water storage facilities, and/or
- Inadequate water supplies to meet domestic and/or fire flow demands.

The Deerlake Ranch Project would receive its potable water from the District's existing 1,585-foot gradient Twin Lakes Subsystem via the existing Twin Lakes Pump Station and Twin Lakes Tanks. This would require the construction of a new 16-inch pipeline, connecting to the proposed water system directly to the Twin Lakes Tanks, with no connections in between. Such connection would require that the pipeline not exceed the bottom elevation of the smaller Twin Lakes Tank of 1,555 feet. Several additional pipelines ranging in size from six to 14 inches, would also be installed, underlying the project site at various locations.

The LVMWD recommends that a small pump station with a hydropneumatic tank be installed to provide an effective hydraulic gradient (pressure zone) of 1,656 feet to provide several proposed homes at the higher elevations with a minimum pressure of approximately 76 psi.

Although no significant impacts are anticipated with the Deerlake Ranch Project, the following mitigation measures are recommended to further reduce water consumption and ensure impacts would be less than significant:

4.13-1. Water system distribution facilities shall meet the LVMWD specifications and standards.

4.13-2. The project developer shall install low-flush toilets and low-flow showerheads, consistent with the LVMWD requirements.

4.13-3. The project shall comply with Water Conservation Ordinance Nos. 11-86-161 and 1-93-205.

4.13-4. Water conserving measures in landscape management shall include:

- Use of drought-tolerant plantings.
- Installation of efficient irrigation systems that minimize runoff and evaporation and maximize the water that will reach the plant roots. Setting of automatic irrigation systems to ensure irrigation during early morning or evening hours. Resetting of automatic irrigation system to water less often in cooler months and during the rainfall season so that water is not wasted by excessive landscape irrigation

The existing pump station and tanks have the capacity to accommodate the project potable water demand requirements. The Deerlake Ranch Project would not have a significant effect on LVMWD ability to meet demand for services prior to, or following, implementation of the recommended mitigation measures.

Therefore, implementation of the recommended mitigation measures would further reduce water consumption demands of the project and impacts would remain less than significant.

### Analysis of the Refined Sewer Implementation Project.

Since approval of the Certified EIR, the First and Second Addenda were certified in conjunction with a reduction in the number of residential units from 375 to 314. Therefore, there has been a significant reduction in the residential density of this project and corresponding reduction in water demand.

The Refined Sewer Implementation Project actions by the Board would involve only the acquisition of property interests for the purpose of implementing the Deerlake Ranch Project Twin Lakes Sewer Condition. Installation of the Twin Lakes Sewer would be placed within an existing road easement and would not change the water supply or service as the construction of the Twin Lakes sewers was approved by the Board in 2004.

As such, the proposed actions of the Project propose no significant change in project improvements that would increase impact on water supply from those analyzed in the Certified EIR as amended by the previous Addenda, with the same mitigation measures to be implemented as stated in the Certified EIR and MMP. No additional mitigation measures are required.

## Certified EIR Section 4.14 - Utilities and Service Systems - Wastewater

### Summary of Analysis in Certified EIR

There is currently no sewage generation on the project site, and no portion of the property connects to any off-site sewer. Although the Deerlake Ranch Project is located within the LVMWD service area, the Deerlake Ranch Project site is not included within LVMWD Sanitation Improvement District (SID) “B,” which presently covers only those areas west of Topanga Canyon Boulevard and south of SR-118. Annexation of the project site to SID “B” is currently underway. **(Note: The annexation to SID "B" was completed subsequent to certification of the EIR)**

There are no LVMWD-owned sewage treatment and disposal facilities available to serve SID "B". Therefore, LVMWD has a contractual agreement with the City of Los Angeles to accept SID “B” sewage, which will include the project site upon completion of the annexation proceedings. Sewage from SID “B” is treated at the Hyperion Facility in El Segundo or the Tillman Water Reclamation Plant in Van Nuys, which serves the San Fernando Valley and has a treatment capacity of 80 million gallons per day.

According to the *State CEQA Guidelines*, a proposed project is considered to have a significant environmental impact if:

- It does not meet wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- The project includes features or elements that contribute to the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

- The project includes features or elements that contribute to the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- As a result of the project water supplies are not available to serve the project from existing entitlements and resources, new or expanded entitlements are needed.
- Project development results in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

The Deerlake Ranch Project would generate approximately 131,250 gallons of wastewater per day with an average daily discharge of 0.29 cfs. The sewage to be generated by the project would be discharged at connections to the following existing sewer mains: (1) approximately 0.04 cfs to the County of Los Angeles sewer main at the northern terminus of Topanga Canyon Boulevard; and (2) approximately 0.25 cfs to the City of Los Angeles sewer main within Canoga Avenue, approximately 150 feet south of SR-118. The County sewer main connects to the City sewer south of SR-118.

Due to a 1998 expansion of the City's treatment and disposal facility, sewage generation associated with the project would not result in over capacity of existing or planned wastewater treatment facilities.

The following mitigation measures shall be implemented to further reduce potential impacts associated with wastewater:

4.14-1. Annexation to LVMWD Sewer Improvement District "B"

4.14-2. Reconstruct portions of the City of Los Angeles sewer system as shown in Figure 4.14.3 of the Certified EIR

4.14-3. Install low-flow toilets and showers to minimize sewage generation from the proposed homes

This Deerlake Ranch Project would have no adverse cumulative impacts on existing sewage treatment and disposal facilities because it meets the criteria on which the capacities of these facilities have been constructed and/or expanded. With implementation of proposed mitigation measures, the project would not have an adverse cumulative impact on the sewage collection system.

### Analysis of the Refined Sewer Implementation Project.

Since approval of the Certified EIR, the First and Second Addenda were certified in conjunction with a reduction in the number of residential units from 375 to 314. Therefore, there has been a significant reduction in the residential density of the Deerlake Ranch Project, and corresponding reduction in wastewater generation.

As mentioned above, the 375 lots analyzed in the Certified EIR would result in an estimated average daily wastewater generation of approximately 131,250 gallons per day ("gpd").[4] The First Addendum, which assessed a project reduced to 314 lots, showed an estimated average daily wastewater generation of approximately 109,900 gpd.[5] The analysis in the Second Addendum showed that 314 lots would result in an estimated average daily wastewater generation of approximately 97,400 gpd.[6] When including the wastewater generation of both the modified approved Deerlake Ranch Project and the Twin Lakes community, the estimated average daily wastewater generation would be approximately 154,210 gpd.[7] The wastewater generation of the 314 lot modified Deerlake Ranch Project is lower than the estimate in the Certified EIR.

According to the City of Los Angeles, the sewer system infrastructure could accommodate the total flow for the approved Deerlake Ranch Project and Twin Lakes Sewer with implementation of the required 8-inch sewer line along Canoga Avenue, any necessary gauging equipment and pumping infrastructure. The proposed sewer infrastructure improvements for Canoga Avenue are consistent with the sewer area study prepared for the Certified EIR. Each Twin Lakes residential property would be responsible for individual connection to the Twin Lakes Sewer. Further detailed gauging and evaluation will be needed as part of the permit process to identify a specific sewer connection point. Maintenance of the sewer infrastructure within the Deerlake Ranch Project and Twin Lakes will be undertaken by the County. Prior to connection to any existing or proposed sewer, the LVWMD will require the applicant to complete a district sewer application for service and to make financial arrangements as set forth in Title 5 of the LVMWD Code, Ordinance No. 11-86-161.[8]

The sewage flow of the approved Deerlake Ranch Projectand Twin Lakes will be conveyed to the Hyperion Treatment Plant, which has sufficient capacity for the Deerlake Ranch Project and Twin Lakes.[9] The Hyperion Treatment Plant currently has a daily flow of 362 million gallons per day ("mgd") with a 450 mgd capacity.[10] The approved Deerlake Ranch Project is expected to result in an estimated average daily wastewater generation of approximately 97,400 gpd or 154,210 gpd including Twin Lakes. This number represents an increase of less than one percent of the daily flow and daily capacity at the Hyperion Treatment Plant. Thus, the capacity of the Hyperion Treatment would be able to accommodate the wastewater generated from operation of the approved Deerlake Ranch Project and Twin Lakes.[11] Therefore, wastewater generated

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[4] *375 residential units X 350 gpd = 131,250 gpd. Based on an estimated daily sewage generation rate of 350 gpd per unit per the Findings of Fact Regarding the Final Environmental Impact Report for the Deerlake Ranch Vesting Tentative Tract Map Number 53138-(5), Conditional Use Permit Number 99-239-(5), and Oak Tree Permit Number 99-239(5).*[5] *314 residential units X 350 gpd = 109,900 gpd. Based on an estimated daily sewage generation rate of 350 gpd per unit per the Findings of Fact Regarding the Final Environmental Impact Report for the Deerlake Ranch Vesting Tentative Tract Map Number 53138-(5), Conditional Use Permit Number 99-239-(5), and Oak Tree Permit Number 99-239(5).*

[5] *314 residential units X 350 gpd = 109,900 gpd. Based on an estimated daily sewage generation rate of 350 gpd per unit per the Findings of Fact Regarding the Final Environmental Impact Report for the Deerlake Ranch Vesting Tentative Tract Map Number 53138-(5), Conditional Use Permit Number 99-239-(5), and Oak Tree Permit Number 99-239(5).*

[6] *Per Ali Poosti, Division Manager, Wastewater Engineering Services Division, LA Sanitation, City of Los Angeles, letter correspondence, dated June 18, 2015. Please note, while the Amended Project proposes a recreation center and the same residential units as the First Addendum, the Amended Project would result in less wastewater generation due to updated generation factors based on average daily flow per number of bedrooms within a single family home.*

[7] *Per Ali Poosti, Division Manager, Wastewater Engineering Services Division, LA Sanitation, City of Los Angeles, letter correspondence, dated June 18, 2015.*

[8] *Conditional Statement of Sewer Service, prepared by Phyllis Southard, Planning & New Development Technician, LVMWD, dated May 8, 2013.*

[9] *Ali Poosti, Division Manager, Wastewater Engineering Services Division, LA Sanitation, City of Los Angeles, letter correspondence, dated June 18, 2015.*

[10] *City of Los Angeles, LA Sanitation Environment, website: http://san.lacity.org/wastewater/factsfigures.htm, accessed May 2015.*

[11] *Ali Poosti, Division Manager, Wastewater Engineering Services Division, LA Sanitation, City of Los Angeles, letter correspondence, dated June 18, 2015*

during operation of the approved Deerlake Ranch Project combined with Twin Lakes would result in a less than significant impact on wastewater treatment facilities. As such, the proposed Refined Sewer Implementation Project would not contribute to the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects nor result in a determination by the wastewater treatment provider which serves Twin Lakes that it has inadequate capacity to serve the Twin Lakes Sewer's projected demand in addition to the provider's existing commitments. Therefore, the Refined Sewer Implementation Project would not significantly increase the impact on wastewater facilities from those analyzed in the Certified EIR as amended by the previous Addenda, with the same mitigation measures to be implemented as stated in the Certified EIR and required MMP. No additional mitigation measures are required.

## Certified EIR Section 4.15 - Utilities and Service Systems - Solid Waste

### Summary of Analysis in Certified EIR

Solid waste management service for the project area is provided by the County Sanitation Districts of Los Angeles County. The Sanitation Districts maintain three active sanitary landfills: (1) Calabasas Landfill, (2) Scholl Canyon Landfill, and (3) Puente Hills Landfill. The Calabasas Landfill is the closest operating landfill to the project site. However, as of February 1991, a municipal ordinance restricted the use of the landfill to solid waste originating within an identified waste shed. This ordinance pertained to certain incorporated and unincorporated areas of Los Angeles County, including the project area. Therefore, solid waste originating from development of the project would be sent to the Puente Hills Landfill.

The California Integrated Waste Management Act of 1989 (AB 939) requires every city and county in the State to prepare a Source Reduction and Recycling Element (SRRE) to its Solid Waste Management Plan that identifies how each jurisdiction will meet the mandatory State waste diversion goals of 50 percent by the year 2000.

The term "integrated waste management" refers to the use of a variety of waste management practices to safely and effectively handle the municipal solid waste stream with the least adverse impact on human health and the environment. The Act has established waste management prioritization as follows:

- Source reduction
- Recycling
- Composting
- Energy recover
- Landfilling
- Household hazardous waste management

*State CEQA Guidelines* do not identify any quantitative standards for determining the significance of a new development project's solid waste generation. However, it does identify that a project is considered to have a significant environmental impact if:

- The project area is unable to be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.
- Project Development does not comply with federal, state, and local statutes and regulations related to solid waste.

Additionally, adverse impacts could result to utilities/other services (other than water) when:

- The service to the project site is not presently available;
- The service facility requires considerable extension to the project site; or
- There exists an inadequate service supply

Disposal of grading and construction-related waste is anticipated to be limited and would not constitute a continuous generator of solid waste after construction activities are completed. Impacts stemming from the disposal of construction-related solid waste would be less than significant due to the limited disposal activity as well as the Sanitation Districts implementation and operation of a resource and recovery program.

Solid waste generated by the project was estimated using generation rates cited by the California Integrated Waste Management Board (CIWMB) in conjunction with the Districts. With implementation of the project, a total of 375 single-family residential units, it is estimated that the project would generate approximately 2.30 tons per day. This represents 0.017 percent of the authorized, maximum solid waste disposal rate for Puente Hills of 13,200 tons per day. However, Puente Hills Landfill is in the process of closing and will not be available for this project.

The Districts consider a new development that generates less than one percent of the authorized tons per day disposal rate as having a less than significant impact on landfill capacity. Based on this threshold criteria, the project would have a less than significant impact on solid waste generation and landfill capacity.

Although solid waste impacts are less than significant due to adequate landfill capacity serving the project, the following mitigation measures are recommended to assist in meeting the goals of the California Integrated Waste Management Act, AB 939:

4.15-1. The proposed project shall incorporate storage and collection of recyclables into each project design.

4.15-2. Refuse collection contracts shall include collection of recyclables.

4.15-3. All residents shall be encouraged to recycle, at a minimum, newspaper, glass, bottles, aluminum and bimetal cans and P.E.T. bottles.

4.15-4. Recycling shall be included in the design of the project by reserving space appropriate for the support of recycling, such as adequate storage areas and access for recycling vehicles.

4.15-5. All contractors shall be urged to recycle construction and demolition wastes to the extent feasible.

4.15-6. The project applicant shall provide homebuyers with the following information concerning:

- Participation in the County of Los Angeles Household Hazardous Waste Collection Program;
- City sponsored programs including curbside oil and filter recycling; and
- Information on the proper disposal of hazardous materials.

Given the past capacity of the Puente Hills Landfill that could have served the project site, the incremental increase in solid waste generation is considered less than significant with the knowledge that additional landfill capacity has been approved (e.g., Sunshine Canyon Landfill) since the certification of the EIR or is in the process of approval (e.g., Chiquita Canyon Landfill or Scholl Canyon Landfill) that may receive solid waste generated by this project. Further, implementation of the proposed mitigation measures would ensure that the amount of solid waste generated by residential households assist local efforts to reduce solid waste generation area-wide.

### Analysis of the Refined Sewer Implementation Project.

The Refined Sewer Implementation Project actions by the Board would involve only the acquisition of property interests for the purpose of implementing the Deerlake Ranch Project Twin Lakes Sewer Condition. Installation of the Twin Lakes Sewer would not change the impact on solid waste since it would not contribute to operational solid waste at landfills and construction debris would be minimal because contractors are required to reuse or recycle construction supplies where practicable to achieve a 50 percent reduction in solid construction waste.

As such, the proposed actions of the Refined Sewer Implementation Project proposes no significant change in project improvements that would increase impact on solid waste service from those analyzed in the Certified EIR as amended by the previous Addenda, with the same mitigation measures to be implemented as stated in the Certified EIR. No additional mitigation measures are required.

## Certified EIR Sections 4.16 and 4.17 - Utilities and Service Systems - Electricity and Natural Gas

### Summary of Analysis in Certified EIR

The Deerlake Ranch Project site receives electrical service from Southern California Edison (SCE). Several existing overhead electrical facilities are located throughout the property. SCE currently maintains an existing overhead 16 Kilovolt (KV) primary power line that feeds into the project site. This line feeds into an existing pole top substation that serves an existing residential subdivision to the south with a 4KV primary voltage. The 16KV line also feeds various areas throughout the proposed subdivision.

Southern California Gas Company (The Gas Company) is the principal distributor of natural gas in Southern California. The Gas Company supplies natural gas to the project vicinity through a system of subsurface gas mains and pipelines. Existing natural gas lines in the vicinity of the project site include a six-inch medium pressure main located in Topanga Canyon Boulevard. The project site is currently vacant and there is no consumption of natural gas. There are no natural gas facilities located on the project site at this time.

*State CEQA Guidelines* Appendix G identifies criteria for determining whether a project's energy impacts are considered to have a significant effect on the environment. The Certified EIR included the following questions as significance thresholds. Implementation of the project would result in a significant impact upon energy resources, if project development includes features or elements that:

- Encourage activities which result in the use of large amounts of fuel, water, or energy:
- Use fuel, water, or energy in a wasteful manner.

Based on criteria established by the County, Deerlake Ranch Project impacts regarding energy consumption would not be considered significant because implementation and operation of the project would not exceed the electricity and/or natural gas facilities and/or supply furnished by existing or planned SCE and/or the Gas Company facilities.

As determined by SCE, the existing overhead 16 Kilovolt (KV) primary power line that feeds into the site has adequate capacity to serve the capacity ever occur, the utility will apportion its available supply of electricity among its customers as set forth in Rule No. 14, *Shortage of Supply and Interruption of Delivery*. Further, the project would be required to comply with the energy conservation standards set forth in Title 24, Part 6, Article 2 of the California Administrative Code, which would reduce the project's demand upon electricity resources.

SCE has indicated that several of the existing overhead facilities on the property would be replaced with a new underground system. It is not anticipated that development of the Deerlake Ranch Project would significantly impact the supply of electricity or exceed the planned capacity of existing electricity distribution systems. Therefore, no significant impact would occur.

Although no natural gas facilities are located on the project site at this time, The Gas Company has indicated that sufficient natural gas facilities exist in the project vicinity and gas service to the project site could be provided in accordance with the California Public Utilities Commission (CPUC) without any significant impacts. Recoverable reserves and resources of natural gas total more than a 70-year supply. Further, the Deerlake Ranch Project would be required to comply with State Energy Conservation Standards as stipulated in Title 24 of the California Administrative Code, which would further reduce impacts upon natural gas distribution facilities and supplies.

The Gas Company has designed the distribution pipeline system to meet the demand of total buildout in the project area. Gas facilities would be extended into the project property at the time of development.

Although energy consumption impacts are less than significant, the following mitigation measures are recommended to: (1) further reduce energy consumption impacts that may occur as a result of project implementation; and (2) assist in meeting the goals of the energy conservation standards set forth in Title 24, Part 6, Article 2 of the California Administrative Code which would reduce the project's demand upon electricity and natural gas resources.

4.16-1. Project built-in appliances, refrigerators, and space-conditioning equipment shall exceed the minimum efficiency levels mandated in the California Code of Regulations.

4.16-2. To reduce electricity consumption, fluorescent and high-intensity-discharge (HID) lamps shall be installed wherever possible, which give the highest light output per watt of electricity consumed, including all street lights consistent with the Los Angeles County of Public Works standards.

4.17-1. Project buildings shall be designed and constructed to be well-sealed to prevent outside air from infiltrating and increasing interior space-conditioning loads.

4.17-2. Thermal insulation, which exceeds requirements established by the California Code of Regulations, shall be installed in walls and ceilings.

4.17-3. Window systems shall be designed to reduce thermal loss, thus reducing heating loads during cool weather.

4.17-4. Project energy engineers and architects shall consult with The Gas Company for an energy analysis of the proposed dwellings regarding efficiency/conservation measures and up-to-date technology, manufacturing equipment, etc.

Although the Deerlake Ranch Project is not expected to result in significant impacts upon available energy supplies or distribution facilities, implementation of the recommended mitigation measures would further reduce project demands upon such resources. Energy consumption associated with the Deerlake Ranch Project would be considered less than significant.

**Analysis of the Refined Sewer Implementation Project.**

The Project actions by the Board would involve only the acquisition of property interests for the purpose of implementing the Deerlake Ranch Project Twin Lakes Sewer Condition. Installation of the Twin Lakes Sewer would not change the electricity and natural gas impacts already analyzed in the Certified EIR as amended by the previous Addenda.

As such, the Refined Sewer Implementation Project would not significantly change the already approved physical improvements and would not result in a substantially increased impact on electricity and natural gas consumption from that analyzed in the Certified EIR as amended by the previous Addenda. No additional mitigation measures are required.

## V. CONCLUSION

Based on the information and analysis in this Third Addendum, the following findings can be made in accordance with *State CEQA Guidelines* Section 15164(a), which authorizes a Lead Agency to prepare an Addendum to a previously certified Environmental Impact Report if changes or additions to the document are necessary, but none of the conditions described in Section 15162(a) are present, as described below:

- No substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects
- No substantial changes have occurred with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new

potentially significant environmental effects or a substantial increase the severity of previously identified potentially significant effects

- No new information of substantial importance, which was not known, and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, shows any of the following:
- The project will not have one or more significant effects not discussed in the previous EIR
- Potentially significant effects previously examined will not be substantially more severe than shown in the previous EIR
- No new mitigation measures or alternatives previously found to be infeasible have been found to be feasible but declined by the project proponent to be adopted
- No new mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR, and that would substantially reduce one or more potentially significant effects on the environment, have been found and declined by the project proponent to be adopted

Mandatory Findings of Significance

As noted in Section 4.3 – Biological Resources, this Addendum concludes that the Refined Sewer Implementation Project would result in no significant change to already approved physical improvements and would not result in an increased impact on biological resources from those analyzed in the Certified EIR as amended by the previous Addenda. Similarly, Section 4.4 – Cultural Resources concludes that installation of the Refined Sewer Implementation Project would occur within previously disturbed roadways for which no previously recorded cultural site locations have been identified.

The Deerlake Ranch Project, including the Refined Sewer Implementation Project, does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. Additionally, the Project impacts are not cumulatively considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.[12] The Certified EIR concluded that there would be no cumulatively considerable impact resulting from the Deerlake Ranch Project. The project would not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

Based on the analysis presented herein, pursuant to *State CEQA Guidelines* Section 15164(b), it has been determined that the Refined Sewer Implementation Project would not result in any new significant impacts or a substantial increase in the severity of an impact disclosed in the Certified EIR or otherwise require

[12] *Eleven related projects were analyzed in the Certified EIR, which concluded that no significant cumulative impacts would result from the Deerlake Ranch Project. Only the Hidden Creek Estates project (SCH No. 2006031049), a land division for 188 single-family residences adjacent to Porter Ranch, has been proposed subsequent to the original Deerlake Ranch approval. The Hidden Creeks Estate DEIR concluded that project construction emissions and traffic level of service at the intersection of Rinaldi Street and Mason Avenue would have cumulative significant impacts. The Deerlake Ranch Project would not contribute to the construction emissions of the Hidden Creeks Estates Project and the Rinaldi Street and Mason Avenue intersection was not analyzed in the Deerlake Ranch Project Certified DEIR.*

preparation of a subsequent or supplemental EIR. Therefore, preparation of this Third Addendum to the Certified EIR under CEQA is the appropriate document in support of the County's consideration of the Project. The environmental analysis relies in part on the analyses completed in the previous Certified EIR as amended by the previous Addenda, and directly references the EIR, where appropriate. This Third Addendum has appropriately disclosed the potential impacts from the Project and will be included as part of the CEQA record for the Project.

County of Los Angeles
Department of Regional Planning
320 West Temple Street
Los Angeles, California 90012

| DEERLAKE RANCH OAK TREES "NO IMPACT" (55) | | | |
|---|---|---|---|
| **Tree No.** | **Common Name Botanical Name** | **DBH (in.)** | **Disposition** |
| 10 | Coast live oak *Quercus agrifolia* | 11.1, 5@1.3 | NO IMPACT |
| 15 | Coast live oak *Quercus agrifolia* | | NO IMPACT |
| 16 | Coast live oak *Quercus agrifolia* | 15.3 | NO IMPACT |
| 17 | Coast live oak *Quercus agrifolia* | 12.9, 7.0 | NO IMPACT |
| 18 | Coast live oak *Quercus agrifolia* | | NO IMPACT |
| 19 | Coast live oak *Quercus agrifolia* | | NO IMPACT |
| 20 | Coast live oak *Quercus agrifolia* | 16.5, 19.1 | NO IMPACT |
| 28 | Coast live oak *Quercus agrifolia* | 24.5, 28 | NO IMPACT |
| 29 | Coast live oak *Quercus agrifolia* | 20.4 | NO IMPACT |
| 30 | Coast live oak *Quercus agrifolia* | 24.5 | NO IMPACT |
| 32 | Coast live oak *Quercus agrifolia* | 18.5 | NO IMPACT |
| 33 | Coast live oak *Quercus agrifolia* | 12 | NO IMPACT |
| 34 | Coast live oak *Quercus agrifolia* | 29.5 | NO IMPACT |
| 35 | Coast live oak *Quercus agrifolia* | 19.5 | NO IMPACT |
| 36 | Coast live oak *Quercus agrifolia* | 15,19 | NO IMPACT |
| 37 | Coast live oak *Quercus agrifolia* | 12.5, 14, 13.5 | NO IMPACT |
| 38 | Coast live oak *Quercus agrifolia* | 18 | NO IMPACT |
| 39 | Coast live oak *Quercus agrifolia* | 12, 15, 16 | NO IMPACT |
| 40 | Coast live oak *Quercus agrifolia* | 15.5, 16.5 | NO IMPACT |
| 61 | Coast live oak *Quercus agrifolia* | 9.6, 10.1 | NO IMPACT |
| 62 | Coast live oak *Quercus agrifolia* | 13.8 | NO IMPACT |
| 63 | Coast live oak *Quercus agrifolia* | 8, 8, 5, 6 | NO IMPACT |
| 65 | Coast live oak *Quercus agrifolia* | 5.8, 5.6, 6.5, 6.0, 4.6 | NO IMPACT |
| 69 | Coast live oak *Quercus agrifolia* | 12, 14 | NO IMPACT |
| 70 | Coast live oak *Quercus agrifolia* | 9.7 | NO IMPACT |
| 71 | Coast live oak *Quercus agrifolia* | 8, 6 | NO IMPACT |
| 72 | Coast live oak *Quercus agrifolia* | 8.3 | NO IMPACT |
| 75 | Coast live oak *Quercus agrifolia* | 24.8 | NO IMPACT |
| 77 | Coast live oak *Quercus agrifolia* | 9.5, 11.5, 13, 8.5 | NO IMPACT |
| 78 | Coast live oak *Quercus agrifolia* | 9, 12, 15.5, 8, 14 | NO IMPACT |
| 79 | Coast live oak *Quercus agrifolia* | 6, 9, 9 crown sprout 1"-3" | NO IMPACT |
| 80 | Coast live oak *Quercus agrifolia* | 10, 11 | NO IMPACT |
| 81 | Coast live oak *Quercus agrifolia* | 6.8, 4.5 | NO IMPACT |
| 82 | Coast live oak *Quercus agrifolia* | 10 | NO IMPACT |
| 85 | Coast live oak *Quercus agrifolia* | | NO IMPACT |
| 88 | Coast live oak *Quercus agrifolia* | 14, 21.3 | NO IMPACT |
| 89 | Coast live oak *Quercus agrifolia* | 24.8, 16.7 | NO IMPACT |
| 90 | Coast live oak *Quercus agrifolia* | 8.9, 9.2, 11.5, 10.7 | NO IMPACT |
| 91 | Coast live oak *Quercus agrifolia* | 9.4, 10.8, 6.4, 7.5 | NO IMPACT |
| 92 | Coast live oak *Quercus agrifolia* | 16.5 | NO IMPACT |
| 93 | Coast live oak *Quercus agrifolia* | 12.1, 15, 14 | NO IMPACT |
| 94 | Coast live oak *Quercus agrifolia* | 20.7 | NO IMPACT |
| 104 | Coast live oak *Quercus agrifolia* | 17.3, 18.5 | NO IMPACT |
| 105 | Coast live oak *Quercus agrifolia* | 10.2, 14.3 | NO IMPACT |
| 106 | Coast live oak *Quercus agrifolia* | 19.7 | NO IMPACT |
| 107 | Coast live oak *Quercus agrifolia* | 9.5 | NO IMPACT |
| 108 | Coast live oak *Quercus agrifolia* | 10, 6.8 | NO IMPACT |
| 109 | Coast live oak *Quercus agrifolia* | 13.2, 11.3, 3.7, 7.3 | NO IMPACT |
| 116 | Coast live oak *Quercus agrifolia* | | NO IMPACT |
| 148 | Coast live oak *Quercus agrifolia* | 3, 5, 6, 7 | NO IMPACT |
| 149 | Coast live oak *Quercus agrifolia* | 6.5, 14 | NO IMPACT |
| 150 | Coast live oak *Quercus agrifolia* | 6, 13, 12.5 | NO IMPACT |
| 151 | Coast live oak *Quercus agrifolia* | 24 | NO IMPACT |
| 152 | Coast live oak *Quercus agrifolia* | 17, 21 | NO IMPACT |
| 153 | Coast live oak *Quercus agrifolia* | 10 | NO IMPACT |

| DEERLAKE RANCH OAK TREE ENCROACHMENTS (26) | | | |
|---|---|---|---|
| **Tree No.** | **Common Name Botanical Name** | **DBH (in.)** | **Disposition** |
| 8 | Coast live oak *Quercus agrifolia* | 12, 11, 8, 8.5 | ENCROACHMENT |
| 9 | Coast live oak *Quercus agrifolia* | 9.4, 4.9, 12.8, 7.8 | ENCROACHMENT |
| 21 | Coast live oak *Quercus agrifolia* | 8.5, 9.5, 10.5 | ENCROACHMENT |
| 22 | Coast live oak *Quercus agrifolia* | 25 | ENCROACHMENT |
| 23 | Coast live oak *Quercus agrifolia* | 9.7, 8.4 | ENCROACHMENT |
| 24 | Coast live oak *Quercus agrifolia* | 25.5 | ENCROACHMENT |
| 25 | Coast live oak *Quercus agrifolia* | 32.3 | ENCROACHMENT |
| 26 | Coast live oak *Quercus agrifolia* | 29.1 | ENCROACHMENT |
| 27 | Coast live oak *Quercus agrifolia* | 7, 7.5, 7.5 | ENCROACHMENT |
| 54 | Coast live oak *Quercus agrifolia* | 25@3' | ENCROACHMENT |
| 56 | Coast live oak *Quercus agrifolia* | 19, 21 | ENCROACHMENT |
| 57 | Coast live oak *Quercus agrifolia* | 12.4, 12.1, 10.9 | ENCROACHMENT |
| 58 | Coast live oak *Quercus agrifolia* | 8.0 @ 3' | ENCROACHMENT |
| 59 | Coast live oak *Quercus agrifolia* | 11.5 | ENCROACHMENT |
| 60 | Coast live oak *Quercus agrifolia* | 16.5, 15.6, 23 | ENCROACHMENT |
| 67 | Coast live oak *Quercus agrifolia* | 21.6 | ENCROACHMENT |
| 68 | Coast live oak *Quercus agrifolia* | 10.2 | ENCROACHMENT |
| 74 | Coast live oak *Quercus agrifolia* | 9.1, 9.0 | ENCROACHMENT |
| 84 | Coast live oak *Quercus agrifolia* | 7.5 | ENCROACHMENT |
| 141 | Coast live oak *Quercus agrifolia* | 9 | ENCROACHMENT |
| 142 | Coast live oak *Quercus agrifolia* | 15 | ENCROACHMENT |
| 143 | Coast live oak *Quercus agrifolia* | 11 | ENCROACHMENT |
| 144 | Coast live oak *Quercus agrifolia* | 24 | ENCROACHMENT |
| 145 | Coast live oak *Quercus agrifolia* | 9 | ENCROACHMENT |
| 146 | Coast live oak *Quercus agrifolia* | 9 | ENCROACHMENT |
| 154 | Coast live oak *Quercus agrifolia* | 7.4 | ENCROACHMENT |

| DEERLAKE RANCH OAK TREE REMOVALS (56) | | | |
|---|---|---|---|
| **Tree No.** | **Common Name Botanical Name** | **DBH (in.)** | **Disposition** |
| 1 | Coast live oak *Quercus agrifolia* | 8.3, 5.7, 4.8, | REMOVED PER 2012 OTP |
| 2 | Coast live oak *Quercus agrifolia* | 6.8, 5.9, 15.6, 12.7 | REMOVED PER 2012 OTP |
| 3 | Coast live oak *Quercus agrifolia* | 3.8, 12.4, 8.6, 9.9, 5.4 | REMOVED PER 2012 OTP |
| 4 | Coast live oak *Quercus agrifolia* | 8.9, 7.3, 4.1 | REMOVED PER 2012 OTP |
| 5 | Coast live oak *Quercus agrifolia* | 13, 13.2, 13 | REMOVED PER OTP |
| 6 | Coast live oak *Quercus agrifolia* | 7, 6, 6, 5 | REMOVED PER OTP |
| 7 | Coast live oak *Quercus agrifolia* | 6.4, 9.4, 13 | REMOVED PER 2012 OTP |
| 11 | Coast live oak *Quercus agrifolia* | 4.9, 6.5, 6.7, 6 | REMOVE |
| 12 | Coast live oak *Quercus agrifolia* | 12.7, 10.1, 8.5, 16.5 | REMOVE |
| 13 | Coast live oak *Quercus agrifolia* | 10, 9.1, | REMOVE |
| 14 | Coast live oak *Quercus agrifolia* | 18.4 | REMOVE |
| 31 | Coast live oak *Quercus agrifolia* | 8.4 | REMOVE |
| 41 | Coast live oak *Quercus agrifolia* | 12.2, 22, 9.4 | REMOVED PER 2012 OTP |
| 42 | Coast live oak *Quercus agrifolia* | 30.6, 23.2 | REMOVED PER 2012 OTP |
| 43 | Coast live oak *Quercus agrifolia* | 30.6 | REMOVED PER 2012 OTP |
| 44 | Coast live oak *Quercus agrifolia* | 9, 9, 7.4, 7.2 | REMOVED PER 2012 OTP |
| 45 | Coast live oak *Quercus agrifolia* | 12.2, 12.4, 12 | REMOVED PER 2012 OTP |
| 46 | Coast live oak *Quercus agrifolia* | 11.8, 5.1, 3, 8.6, 7.6 | REMOVED PER 2012 OTP |
| 47 | Coast live oak *Quercus agrifolia* | 12.3, 7.5, 9.7, 7.6, 3.5 | REMOVED PER 2012 OTP |
| 48 | Coast live oak *Quercus agrifolia* | 26.6 | REMOVED PER 2012 OTP |
| 49 | Coast live oak *Quercus agrifolia* | 17.3, 14.6, 4.8 | REMOVED PER 2012 OTP |
| 50 | Coast live oak *Quercus agrifolia* | 21.6 | REMOVED PER 2012 OTP |
| 51 | Coast live oak *Quercus agrifolia* | 6.8, 3.2, 6.5, 2.9 | REMOVED PER 2012 OTP |
| 52 | Coast live oak *Quercus agrifolia* | 9.2, 7.1, 6, 6, 4.8 | REMOVED PER 2012 OTP |
| 53 | Coast live oak *Quercus agrifolia* | 20.4, 2.4,2.4, 10.2 | REMOVED PER 2012 OTP |
| 55 | Coast live oak *Quercus agrifolia* | 5.6, 5.6 | REMOVE |
| 64 | Coast live oak *Quercus agrifolia* | 12, 12 | REMOVE |
| 66 | Coast live oak *Quercus agrifolia* | 8.1, 7 | REMOVE |
| 73 | Coast live oak *Quercus agrifolia* | 22, 13.6 | REMOVED PER OTP |
| 76 | Coast live oak *Quercus agrifolia* | 8.2, 7.1 | REMOVED PER OTP |
| 83 | Coast live oak *Quercus agrifolia* | 7.8, 4.9 | REMOVE |
| 86 | Coast live oak *Quercus agrifolia* | 11.1 | REMOVE |
| 87 | Coast live oak *Quercus agrifolia* | 5.2,6.9, 4.5, 3.6 | REMOVE |
| 95 | Coast live oak *Quercus agrifolia* | 7.6, 4.9, 6.4, 4 @1.6' | REMOVE |
| 96 | Coast live oak *Quercus agrifolia* | 9.7, 18.1, 1.6, 1.6 | REMOVE |
| 97 | Coast live oak *Quercus agrifolia* | 9.1, 5.7, 8.1, 7.6 | REMOVE |
| 98 | Coast live oak *Quercus agrifolia* | 10, 7.6, 8.6, 5.1 | REMOVE |
| 99 | Coast live oak *Quercus agrifolia* | 8.6, 8.8 | REMOVE |
| 100 | Coast live oak *Quercus agrifolia* | 9.7 | REMOVE |
| 101 | Coast live oak *Quercus agrifolia* | 9.7, 9.2, 11.8, 9.5, 8 | REMOVE |
| 102 | Coast live oak *Quercus agrifolia* | 10.2, 11.1, 8 @1.6" | REMOVE |
| 103 | Coast live oak *Quercus agrifolia* | 8.3, 5.1, 9.1, 5.4 | REMOVE |
| 110 | Coast live oak *Quercus agrifolia* | 10.5 | REMOVE |
| 111 | Coast live oak *Quercus agrifolia* | | REMOVE (DEAD) |
| 112 | Coast live oak *Quercus agrifolia* | 8.6, 8.3, 10.8 | REMOVE |
| 113 | Coast live oak *Quercus agrifolia* | | REMOVE (DEAD) |
| 114 | Coast live oak *Quercus agrifolia* | 11.3, 7.6 | REMOVE |
| 115 | Coast live oak *Quercus agrifolia* | | REMOVE (DEAD) |
| 117 | Coast live oak *Quercus agrifolia* | 16, 11, 21 | REMOVE |
| 118 | Coast live oak *Quercus agrifolia* | 3, 7, 16 | REMOVE |
| 119 | Coast live oak *Quercus agrifolia* | 7, 9, 12 | REMOVE |
| 120 | Coast live oak *Quercus agrifolia* | 9, 9.5, 7, 5 | REMOVE |
| 121 | Coast live oak *Quercus agrifolia* | 7, 8 | REMOVE |
| 122 | Coast live oak *Quercus agrifolia* | 5.5, 7.5 | REMOVE |
| 123 | Coast live oak *Quercus agrifolia* | 11.8 | REMOVE |
| 124 | Coast live oak *Quercus agrifolia* | 8.6, 8.6, 7, 7, 2.9 | REMOVE |

| TWIN LAKES COMMUNITY - SEWER LINE OAK TREE ENCROACHMENTS (15) | | | |
|---|---|---|---|
| **Tree No.** | **Common Name Botanical Name** | **DBH (in.)** | **Disposition** |
| 125 | Coast live oak *Quercus agrifolia* | 17.2 | ENCROACHMENT |
| 126 | Coast live oak *Quercus agrifolia* | 8, 9 | ENCROACHMENT |
| 128 | California scrub oak *Q. berberidifolia* | 6.6, 6.9 | ENCROACHMENT |
| 129 | Coast live oak *Quercus agrifolia* | 6.4, 6.0, 5.4, 5.4, 3.8 | ENCROACHMENT |
| 130 | California scrub oak *Q. berberidifolia* | 6, 6, 6.5 | ENCROACHMENT |
| 131 | Coast live oak *Quercus agrifolia* | MULTI | ENCROACHMENT |
| 132 | Coast live oak *Quercus agrifolia* | MULTI | ENCROACHMENT |
| 133 | Coast live oak *Quercus agrifolia* | 13.4 | ENCROACHMENT |
| 134 | Coast live oak *Quercus agrifolia* | 10.2 | ENCROACHMENT |
| 135 | Coast live oak *Quercus agrifolia* | 14.6, 12.4, 21 | ENCROACHMENT |
| 136 | Coast live oak *Quercus agrifolia* | 10.2 | ENCROACHMENT |
| 137 | Coast live oak *Quercus agrifolia* | 31 | ENCROACHMENT |
| 138 | Coast live oak *Quercus agrifolia* | 22.3, 21.5 | ENCROACHMENT |
| 139 | Coast live oak *Quercus agrifolia* | 8.9 | ENCROACHMENT |
| 147 | Coast live oak *Quercus agrifolia* | 14 | ENCROACHMENT |

| TWIN LAKES COMMUNITY – SEWER LINE OAK TREE "NO IMPACT" (2) | | | |
|---|---|---|---|
| **Tree No.** | **Common Name Botanical Name** | **Dbh (In.)** | **Disposition** |
| 127 | Coast live oak *Quercus agrifolia* | 9.5 | NO IMPACT |
| 140 | Coast live oak *Quercus agrifolia* | 8.0, 8.0, 5.1, 6.7 | NO IMPACT |

**TWIN LAKES COMMUNITY – SEWER LINE**
**OAK TREE REMOVALS (0)**

## TREE INVENTORY LEGEND

- OAK TREE #
- OAK TREE CANOPY WITH 5-FT. PROTECTED ZONE (OR MIN. 15-FT. FROM THE TRUNK) – LIMITS OF TREE PROTECTION FENCING
- OAK TREE REMOVED AS PERMITTED PER OTP #201200001
- OAK TREE TO REMAIN WITH NO IMPACTS
- OAK TREE TO REMAIN WITH ENCROACHMENTS
- OAK TREE TO BE REMOVED
- OAK TREE – DEAD

NOTE: TREE PROTECTION FENCING WILL BE PLACED AT THE LIMITS OF THE TREE PROTECTION ZONE

DATE PREPARED: 07/22/16
PREPARED BY: S. McALLASTER
ISA CERTIFIED ARBORIST
REVIEWED BY: CHRISTY CUBA, RCA #502

# REVISED EXHIBIT "A"

CASE No. 99-239

Carlberg ASSOCIATES
Horticulturists and Registered Consulting ARBORISTS

**OAK TREE IMPACT EXHIBIT & PROTECTION PLAN**
**DEERLAKE RANCH**
**VTTM 53138 & CUP 990239**
**PREPARED FOR: FORESTAR CHATSWORTH, LLC**
**4590 MACARTHUR BOULEVARD, SUITE 600, NEWPORT BEACH, CA 92660**

www.cycarlberg.com Date: 07.22.16 By: S. McAllaster

UNITED CIVIL, INC.
30141 AGOURA ROAD, SUITE 215
AGOURA HILLS, CA 91301
PH: (818) 707-8648
FAX: (818) 707-8649

MAJOR LAND DIVISION
AMENDED VESTING TENTATIVE TRACT NO. 53138
4TH AMENDMENT
LOCATED IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

OWNER/SUBDIVIDER:
FORESTAR CHATSWORTH, LLC
4590 MACARTHUR BLVD.
SUITE 600
NEWPORT BEACH, CA 92660
PH: (949) 748-6714

DATE: 7/21/2016
SCALE: 1"=150'
DEW HUAT NG R.C.E. 46026 EXP. 12-31-2016
7/21/2016 DATE
SHT. 1 OF 4 SHTS.

| DEERLAKE RANCH OAK TREES "NO IMPACT" (55) | | | |
|---|---|---|---|
| Tree No. | Common Name Botanical Name | DBH (in.) | Disposition |
| 10 | Coast live oak *Quercus agrifolia* | 11.1, 5@1.3 | NO IMPACT |
| 15 | Coast live oak *Quercus agrifolia* | | NO IMPACT |
| 16 | Coast live oak *Quercus agrifolia* | 15.3 | NO IMPACT |
| 17 | Coast live oak *Quercus agrifolia* | 12.9, 7.0 | NO IMPACT |
| 18 | Coast live oak *Quercus agrifolia* | | NO IMPACT |
| 19 | Coast live oak *Quercus agrifolia* | | NO IMPACT |
| 20 | Coast live oak *Quercus agrifolia* | 16.5, 19.1 | NO IMPACT |
| 28 | Coast live oak *Quercus agrifolia* | 24.5, 28 | NO IMPACT |
| 29 | Coast live oak *Quercus agrifolia* | 20.4 | NO IMPACT |
| 30 | Coast live oak *Quercus agrifolia* | 24.5 | NO IMPACT |
| 32 | Coast live oak *Quercus agrifolia* | 18.5 | NO IMPACT |
| 33 | Coast live oak *Quercus agrifolia* | 12 | NO IMPACT |
| 34 | Coast live oak *Quercus agrifolia* | 29.5 | NO IMPACT |
| 35 | Coast live oak *Quercus agrifolia* | 19.5 | NO IMPACT |
| 36 | Coast live oak *Quercus agrifolia* | 15,19 | NO IMPACT |
| 37 | Coast live oak *Quercus agrifolia* | 12.5, 14, 13.5 | NO IMPACT |
| 38 | Coast live oak *Quercus agrifolia* | 18 | NO IMPACT |
| 39 | Coast live oak *Quercus agrifolia* | 12, 15, 16 | NO IMPACT |
| 40 | Coast live oak *Quercus agrifolia* | 15.5, 16.5 | NO IMPACT |
| 61 | Coast live oak *Quercus agrifolia* | 9.6, 10.1 | NO IMPACT |
| 62 | Coast live oak *Quercus agrifolia* | 13.8 | NO IMPACT |
| 63 | Coast live oak *Quercus agrifolia* | 8, 8, 5, 6 | NO IMPACT |
| 65 | Coast live oak *Quercus agrifolia* | 5.8, 5.6, 6.5, 6.0, 4.6 | NO IMPACT |
| 69 | Coast live oak *Quercus agrifolia* | 12, 14 | NO IMPACT |
| 70 | Coast live oak *Quercus agrifolia* | 9.7 | NO IMPACT |
| 71 | Coast live oak *Quercus agrifolia* | 8, 6 | NO IMPACT |
| 72 | Coast live oak *Quercus agrifolia* | 8.3 | NO IMPACT |
| 75 | Coast live oak *Quercus agrifolia* | 24.8 | NO IMPACT |
| 77 | Coast live oak *Quercus agrifolia* | 9.5, 11.5, 13, 8.5 | NO IMPACT |
| 78 | Coast live oak *Quercus agrifolia* | 9, 12, 15.5, 8, 14 | NO IMPACT |
| 79 | Coast live oak *Quercus agrifolia* | 6, 9, 9 crown sprout 1"-3" | NO IMPACT |
| 80 | Coast live oak *Quercus agrifolia* | 10, 11 | NO IMPACT |
| 81 | Coast live oak *Quercus agrifolia* | 6.8, 4.5 | NO IMPACT |
| 82 | Coast live oak *Quercus agrifolia* | 10 | NO IMPACT |
| 85 | Coast live oak *Quercus agrifolia* | | NO IMPACT |
| 88 | Coast live oak *Quercus agrifolia* | 14, 21.3 | NO IMPACT |
| 89 | Coast live oak *Quercus agrifolia* | 24.8, 16.7 | NO IMPACT |
| 90 | Coast live oak *Quercus agrifolia* | 8.9, 9.2, 11.5, 10.7 | NO IMPACT |
| 91 | Coast live oak *Quercus agrifolia* | 9.4, 10.8, 6.4, 7.5 | NO IMPACT |
| 92 | Coast live oak *Quercus agrifolia* | 16.5 | NO IMPACT |
| 93 | Coast live oak *Quercus agrifolia* | 12.1, 15, 14 | NO IMPACT |
| 94 | Coast live oak *Quercus agrifolia* | 20.7 | NO IMPACT |
| 104 | Coast live oak *Quercus agrifolia* | 17.3, 18.5 | NO IMPACT |
| 105 | Coast live oak *Quercus agrifolia* | 10.2, 14.3 | NO IMPACT |
| 106 | Coast live oak *Quercus agrifolia* | 19.7 | NO IMPACT |
| 107 | Coast live oak *Quercus agrifolia* | 9.5 | NO IMPACT |
| 108 | Coast live oak *Quercus agrifolia* | 10, 6.8 | NO IMPACT |
| 109 | Coast live oak *Quercus agrifolia* | 13.2, 11.3, 3.7, 7.3 | NO IMPACT |
| 116 | Coast live oak *Quercus agrifolia* | | NO IMPACT |
| 148 | Coast live oak *Quercus agrifolia* | 3, 5, 6, 7 | NO IMPACT |
| 149 | Coast live oak *Quercus agrifolia* | 6.5, 14 | NO IMPACT |
| 150 | Coast live oak *Quercus agrifolia* | 6, 13, 12.5 | NO IMPACT |
| 151 | Coast live oak *Quercus agrifolia* | 24 | NO IMPACT |
| 152 | Coast live oak *Quercus agrifolia* | 17, 21 | NO IMPACT |
| 153 | Coast live oak *Quercus agrifolia* | 10 | NO IMPACT |

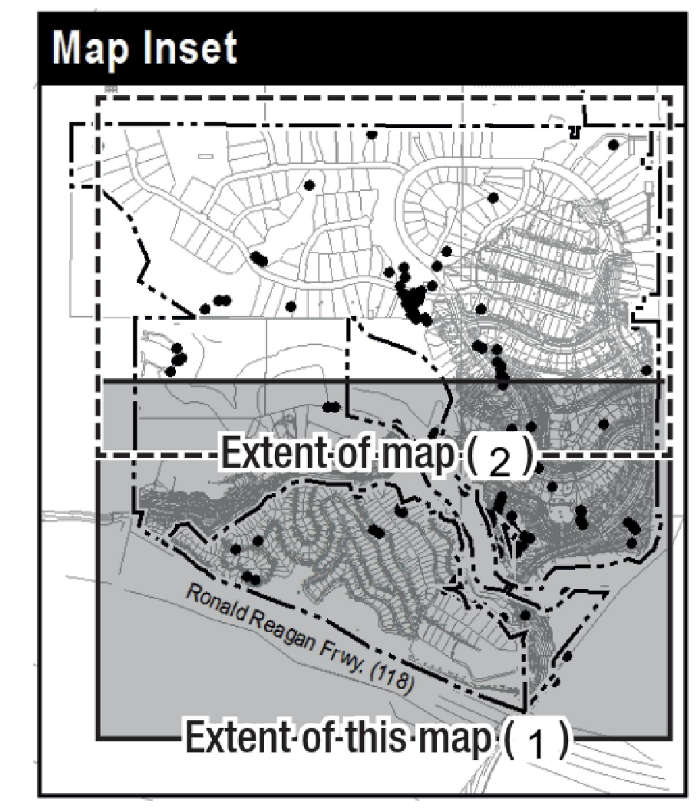
| DEERLAKE RANCH OAK TREE REMOVALS (56) | | | |
|---|---|---|---|
| Tree No. | Common Name Botanical Name | DBH (in.) | Disposition |
| 1 | Coast live oak *Quercus agrifolia* | 8.3, 5.7, 4.8, | REMOVED PER 2012 OTP |
| 2 | Coast live oak *Quercus agrifolia* | 6.8, 5.9, 15.6, 12.7 | REMOVED PER 2012 OTP |
| 3 | Coast live oak *Quercus agrifolia* | 3.8, 12.4, 8.6, 9.9, 5.4 | REMOVED PER 2012 OTP |
| 4 | Coast live oak *Quercus agrifolia* | 8.9, 7.3, 4.1 | REMOVED PER 2012 OTP |
| 5 | Coast live oak *Quercus agrifolia* | 13, 13.2, 13 | REMOVED PER OTP |
| 6 | Coast live oak *Quercus agrifolia* | 7, 6, 6, 5 | REMOVED PER OTP |
| 7 | Coast live oak *Quercus agrifolia* | 6.4, 9.4, 13 | REMOVED PER 2012 OTP |
| 11 | Coast live oak *Quercus agrifolia* | 4.9, 6.5, 6.7, 6 | REMOVE |
| 12 | Coast live oak *Quercus agrifolia* | 12.7, 10.1, 8.5, 16.5 | REMOVE |
| 13 | Coast live oak *Quercus agrifolia* | 10, 9.1, | REMOVE |
| 14 | Coast live oak *Quercus agrifolia* | 18.4 | REMOVE |
| 31 | Coast live oak *Quercus agrifolia* | 8.4 | REMOVE |
| 41 | Coast live oak *Quercus agrifolia* | 12.2, 22, 9.4 | REMOVED PER 2012 OTP |
| 42 | Coast live oak *Quercus agrifolia* | 30.6, 23.2 | REMOVED PER 2012 OTP |
| 43 | Coast live oak *Quercus agrifolia* | 30.6 | REMOVED PER 2012 OTP |
| 44 | Coast live oak *Quercus agrifolia* | 9, 9, 7.4, 7.2 | REMOVED PER 2012 OTP |
| 45 | Coast live oak *Quercus agrifolia* | 12.2, 12.4, 12 | REMOVED PER 2012 OTP |
| 46 | Coast live oak *Quercus agrifolia* | 11.8, 5.1, 3, 8.6, 7.6 | REMOVED PER 2012 OTP |
| 47 | Coast live oak *Quercus agrifolia* | 12.3, 7.5, 9.7, 7.6, 3.5 | REMOVED PER 2012 OTP |
| 48 | Coast live oak *Quercus agrifolia* | 26.6 | REMOVED PER 2012 OTP |
| 49 | Coast live oak *Quercus agrifolia* | 17.3, 14.6, 4.8 | REMOVED PER 2012 OTP |
| 50 | Coast live oak *Quercus agrifolia* | 21.6 | REMOVED PER 2012 OTP |
| 51 | Coast live oak *Quercus agrifolia* | 6.8, 3.2, 6.5, 2.9 | REMOVED PER 2012 OTP |
| 52 | Coast live oak *Quercus agrifolia* | 9.2, 7.1, 6, 6, 4.8 | REMOVED PER 2012 OTP |
| 53 | Coast live oak *Quercus agrifolia* | 20.4, 2.4,2.4, 10.2 | REMOVED PER 2012 OTP |
| 55 | Coast live oak *Quercus agrifolia* | 5.6, 5.6 | REMOVE |
| 64 | Coast live oak *Quercus agrifolia* | 12, 12 | REMOVE |
| 66 | Coast live oak *Quercus agrifolia* | 8.1, 7 | REMOVE |
| 73 | Coast live oak *Quercus agrifolia* | 22, 13.6 | REMOVED PER OTP |
| 76 | Coast live oak *Quercus agrifolia* | 8.2, 7.1 | REMOVED PER OTP |
| 83 | Coast live oak *Quercus agrifolia* | 7.8, 4.9 | REMOVE |
| 86 | Coast live oak *Quercus agrifolia* | 11.1 | REMOVE |
| 87 | Coast live oak *Quercus agrifolia* | 5.2,6.9, 4.5, 3.6 | REMOVE |
| 95 | Coast live oak *Quercus agrifolia* | 7.6, 4.9, 6.4, 4 @1.6' | REMOVE |
| 96 | Coast live oak *Quercus agrifolia* | 9.7, 18.1, 1.6, 1.6 | REMOVE |
| 97 | Coast live oak *Quercus agrifolia* | 9.1, 5.7, 8.1, 7.6 | REMOVE |
| 98 | Coast live oak *Quercus agrifolia* | 10, 7.6, 8.6, 5.1 | REMOVE |
| 99 | Coast live oak *Quercus agrifolia* | 8.6, 8.8 | REMOVE |
| 100 | Coast live oak *Quercus agrifolia* | 9.7 | REMOVE |
| 101 | Coast live oak *Quercus agrifolia* | 9.7, 9.2, 11.8, 9.5, 8 | REMOVE |
| 102 | Coast live oak *Quercus agrifolia* | 10.2, 11.1, 8 @1.6" | REMOVE |
| 103 | Coast live oak *Quercus agrifolia* | 8.3, 5.1, 9.1, 5.4 | REMOVE |
| 110 | Coast live oak *Quercus agrifolia* | 10.5 | REMOVE |
| 111 | Coast live oak *Quercus agrifolia* | | REMOVE (DEAD) |
| 112 | Coast live oak *Quercus agrifolia* | 8.6, 8.3, 10.8 | REMOVE |
| 113 | Coast live oak *Quercus agrifolia* | | REMOVE (DEAD) |
| 114 | Coast live oak *Quercus agrifolia* | 11.3, 7.6 | REMOVE |
| 115 | Coast live oak *Quercus agrifolia* | | REMOVE (DEAD) |
| 117 | Coast live oak *Quercus agrifolia* | 16, 11, 21 | REMOVE |
| 118 | Coast live oak *Quercus agrifolia* | 3, 7, 16 | REMOVE |
| 119 | Coast live oak *Quercus agrifolia* | 7, 9, 12 | REMOVE |
| 120 | Coast live oak *Quercus agrifolia* | 9, 9.5, 7, 5 | REMOVE |
| 121 | Coast live oak *Quercus agrifolia* | 7, 8 | REMOVE |
| 122 | Coast live oak *Quercus agrifolia* | 5.5, 7.5 | REMOVE |
| 123 | Coast live oak *Quercus agrifolia* | 11.8 | REMOVE |
| 124 | Coast live oak *Quercus agrifolia* | 8.6, 8.6, 7, 7, 2.9 | REMOVE |

| DEERLAKE RANCH OAK TREE ENCROACHMENTS (26) | | | |
|---|---|---|---|
| Tree No. | Common Name Botanical Name | DBH (in.) | Disposition |
| 8 | Coast live oak *Quercus agrifolia* | 12, 11, 8, 8.5 | ENCROACHMENT |
| 9 | Coast live oak *Quercus agrifolia* | 9.4, 4.9, 12.8, 7.8 | ENCROACHMENT |
| 21 | Coast live oak *Quercus agrifolia* | 8.5, 9.5, 10.5 | ENCROACHMENT |
| 22 | Coast live oak *Quercus agrifolia* | 25 | ENCROACHMENT |
| 23 | Coast live oak *Quercus agrifolia* | 9.7, 8.4 | ENCROACHMENT |
| 24 | Coast live oak *Quercus agrifolia* | 25.5 | ENCROACHMENT |
| 25 | Coast live oak *Quercus agrifolia* | 32.3 | ENCROACHMENT |
| 26 | Coast live oak *Quercus agrifolia* | 29.1 | ENCROACHMENT |
| 27 | Coast live oak *Quercus agrifolia* | 7, 7.5, 7.5 | ENCROACHMENT |
| 54 | Coast live oak *Quercus agrifolia* | 25@3' | ENCROACHMENT |
| 56 | Coast live oak *Quercus agrifolia* | 19, 21 | ENCROACHMENT |
| 57 | Coast live oak *Quercus agrifolia* | 12.4, 12.1, 10.9 | ENCROACHMENT |
| 58 | Coast live oak *Quercus agrifolia* | 8.0 @ 3' | ENCROACHMENT |
| 59 | Coast live oak *Quercus agrifolia* | 11.5 | ENCROACHMENT |
| 60 | Coast live oak *Quercus agrifolia* | 16.5, 15.6, 23 | ENCROACHMENT |
| 67 | Coast live oak *Quercus agrifolia* | 21.6 | ENCROACHMENT |
| 68 | Coast live oak *Quercus agrifolia* | 10.2 | ENCROACHMENT |
| 74 | Coast live oak *Quercus agrifolia* | 9.1, 9.0 | ENCROACHMENT |
| 84 | Coast live oak *Quercus agrifolia* | 7.5 | ENCROACHMENT |
| 141 | Coast live oak *Quercus agrifolia* | 9 | ENCROACHMENT |
| 142 | Coast live oak *Quercus agrifolia* | 15 | ENCROACHMENT |
| 143 | Coast live oak *Quercus agrifolia* | 11 | ENCROACHMENT |
| 144 | Coast live oak *Quercus agrifolia* | 24 | ENCROACHMENT |
| 145 | Coast live oak *Quercus agrifolia* | 9 | ENCROACHMENT |
| 146 | Coast live oak *Quercus agrifolia* | 9 | ENCROACHMENT |
| 154 | Coast live oak *Quercus agrifolia* | 7.4 | ENCROACHMENT |

| TWIN LAKES COMMUNITY - SEWER LINE OAK TREE ENCROACHMENTS (15) | | | |
|---|---|---|---|
| Tree No. | Common Name Botanical Name | DBH (in.) | Disposition |
| 125 | Coast live oak *Quercus agrifolia* | 17.2 | ENCROACHMENT |
| 126 | Coast live oak *Quercus agrifolia* | 8, 9 | ENCROACHMENT |
| 128 | California scrub oak *Q. berberidifolia* | 6.6, 6.9 | ENCROACHMENT |
| 129 | Coast live oak *Quercus agrifolia* | 6.4, 6.0, 5.4, 5.4, 3.8 | ENCROACHMENT |
| 130 | California scrub oak *Q. berberidifolia* | 6, 6, 6.5 | ENCROACHMENT |
| 131 | Coast live oak *Quercus agrifolia* | MULTI | ENCROACHMENT |
| 132 | Coast live oak *Quercus agrifolia* | MULTI | ENCROACHMENT |
| 133 | Coast live oak *Quercus agrifolia* | 13.4 | ENCROACHMENT |
| 134 | Coast live oak *Quercus agrifolia* | 10.2 | ENCROACHMENT |
| 135 | Coast live oak *Quercus agrifolia* | 14.6, 12.4, 21 | ENCROACHMENT |
| 136 | Coast live oak *Quercus agrifolia* | 10.2 | ENCROACHMENT |
| 137 | Coast live oak *Quercus agrifolia* | 31 | ENCROACHMENT |
| 138 | Coast live oak *Quercus agrifolia* | 22.3, 21.5 | ENCROACHMENT |
| 139 | Coast live oak *Quercus agrifolia* | 8.9 | ENCROACHMENT |
| 147 | Coast live oak *Quercus agrifolia* | 14 | ENCROACHMENT |

| TWIN LAKES COMMUNITY – SEWER LINE OAK TREE "NO IMPACT" (2) | | | |
|---|---|---|---|
| Tree No. | Common Name Botanical Name | Dbh (In.) | Disposition |
| 127 | Coast live oak *Quercus agrifolia* | 9.5 | NO IMPACT |
| 140 | Coast live oak *Quercus agrifolia* | 8.0, 8.0, 5.1, 6.7 | NO IMPACT |

**TWIN LAKES COMMUNITY – SEWER LINE**
**OAK TREE REMOVALS (0)**

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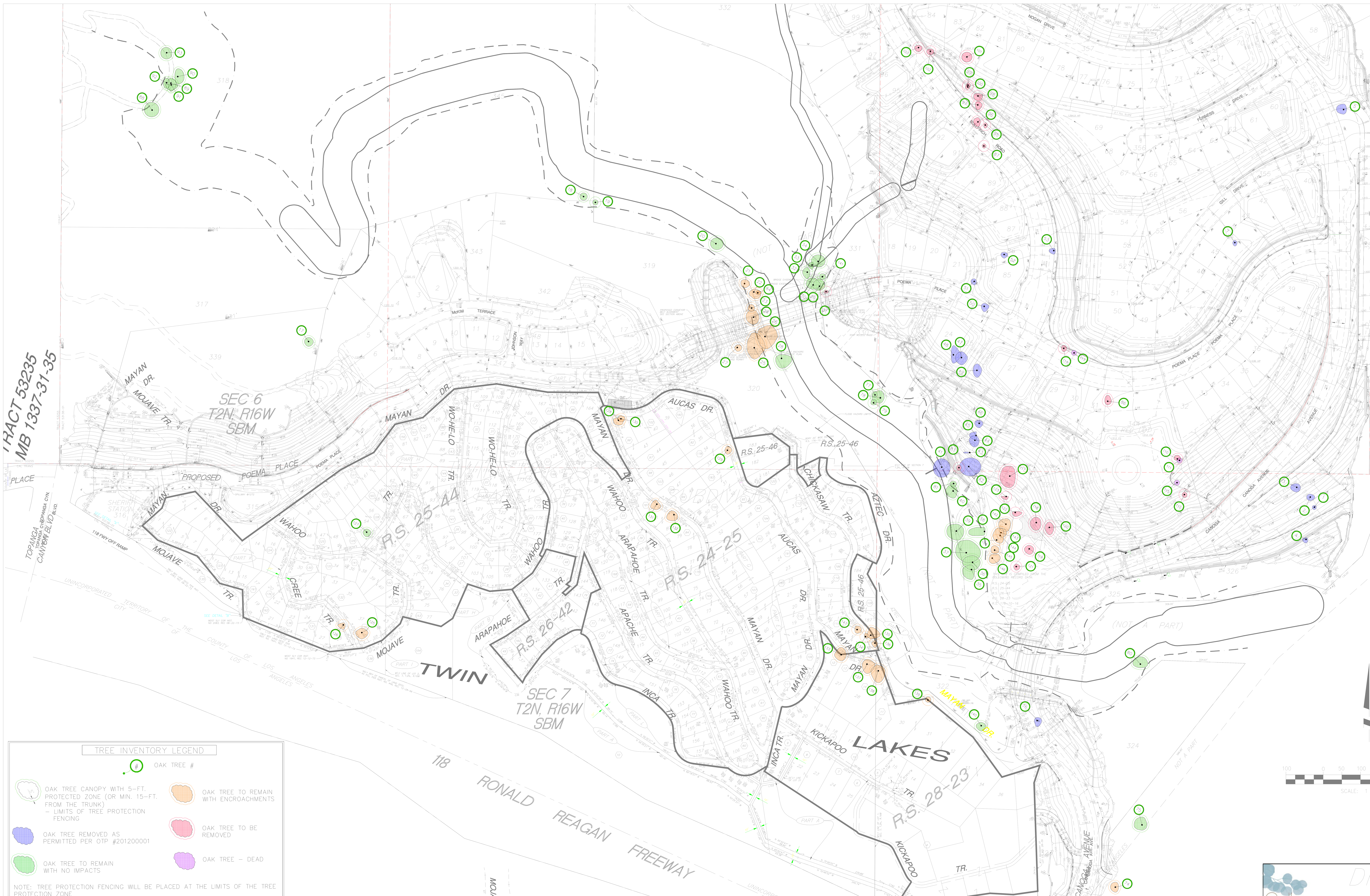



DATE PREPARED: 07/22/16
PREPARED BY: S. McALLASTER
ISA CERTIFIED ARBORIST
REVIEWED BY: CHRISTY CUBA, RCA #502

MAP SOURCE: UNITED CIVIL INC.

SHEET 1 OF 2

DRAFT

Carlberg ASSOCIATES
Horticulturists and Registered Consulting ARBORISTS

# OAK TREE IMPACT EXHIBIT & PROTECTION PLAN

**DEERLAKE RANCH**
**VTTM 53138 & CUP 990239**

PREPARED FOR: FORESTAR CHATSWORTH, LLC
4590 MACARTHUR BOULEVARD, SUITE 600, NEWPORT BEACH, CA 92660

www.cycarlberg.com

Date: 07.22.16 By: S. McAllaster

**DEERLAKE RANCH**
**OAK TREES "NO IMPACT" (53)**

| Tree No. | Common Name Botanical Name | DBH (in.) | Disposition |
|---|---|---|---|
| 10 | Coast live oak Quercus agrifolia | 11.1, 5,8\1.3 | NO IMPACT |
| 15 | Coast live oak Quercus agrifolia | 10, 11 | NO IMPACT |
| 16 | Coast live oak Quercus agrifolia | 15.3 | NO IMPACT |
| 17 | Coast live oak Quercus agrifolia | 12.9, 7.0 | NO IMPACT |
| 18 | Coast live oak Quercus agrifolia | | NO IMPACT |
| 19 | Coast live oak Quercus agrifolia | | NO IMPACT |
| 20 | Coast live oak Quercus agrifolia | 16.5, 19.1 | NO IMPACT |
| 28 | Coast live oak Quercus agrifolia | 24.5, 28 | NO IMPACT |
| 29 | Coast live oak Quercus agrifolia | 20.4 | NO IMPACT |
| 30 | Coast live oak Quercus agrifolia | 24.5 | NO IMPACT |
| 32 | Coast live oak Quercus agrifolia | 18.5 | NO IMPACT |
| 33 | Coast live oak Quercus agrifolia | 12 | NO IMPACT |
| 34 | Coast live oak Quercus agrifolia | 29.5 | NO IMPACT |
| 35 | Coast live oak Quercus agrifolia | 19.5 | NO IMPACT |
| 36 | Coast live oak Quercus agrifolia | 15,19 | NO IMPACT |
| 37 | Coast live oak Quercus agrifolia | 12.5, 14, 13.5 | NO IMPACT |
| 38 | Coast live oak Quercus agrifolia | 18 | NO IMPACT |
| 39 | Coast live oak Quercus agrifolia | 12, 15, 16 | NO IMPACT |
| 40 | Coast live oak Quercus agrifolia | 15.5, 16.5 | NO IMPACT |
| 61 | Coast live oak Quercus agrifolia | 9.6, 10.1 | NO IMPACT |
| 62 | Coast live oak Quercus agrifolia | 13.8 | NO IMPACT |
| 63 | Coast live oak Quercus agrifolia | 8, 8, 5, 6 | NO IMPACT |
| 65 | Coast live oak Quercus agrifolia | 5.8, 5.6, 6.5, 6.0, 4.6 | NO IMPACT |
| 69 | Coast live oak Quercus agrifolia | 12, 14 | NO IMPACT |
| 70 | Coast live oak Quercus agrifolia | 9.7 | NO IMPACT |
| 71 | Coast live oak Quercus agrifolia | 8, 6 | NO IMPACT |
| 72 | Coast live oak Quercus agrifolia | 8.3 | NO IMPACT |
| 75 | Coast live oak Quercus agrifolia | 24.8 | NO IMPACT |
| 77 | Coast live oak Quercus agrifolia | 9.5, 11.5, 13, 8.5 | NO IMPACT |
| 78 | Coast live oak Quercus agrifolia | 9, 12, 15.5, 8, 14 | NO IMPACT |
| 79 | Coast live oak Quercus agrifolia | 6, 9, 9 crown spread 1"-3" | NO IMPACT |
| 80 | Coast live oak Quercus agrifolia | 10, 11 | NO IMPACT |
| 81 | Coast live oak Quercus agrifolia | 6.8, 4.5 | NO IMPACT |
| 82 | Coast live oak Quercus agrifolia | 10 | NO IMPACT |
| 85 | Coast live oak Quercus agrifolia | | NO IMPACT |
| 88 | Coast live oak Quercus agrifolia | 14, 21.3 | NO IMPACT |
| 89 | Coast live oak Quercus agrifolia | 24.8, 16.7 | NO IMPACT |
| 90 | Coast live oak Quercus agrifolia | 8.9, 9.2, 10.5, 10.7 | NO IMPACT |
| 91 | Coast live oak Quercus agrifolia | 9.4, 10.8, 6.4, 7.5 | NO IMPACT |
| 92 | Coast live oak Quercus agrifolia | 16.5 | NO IMPACT |
| 93 | Coast live oak Quercus agrifolia | 12.1, 15, 14 | NO IMPACT |
| 94 | Coast live oak Quercus agrifolia | 20.7 | NO IMPACT |
| 104 | Coast live oak Quercus agrifolia | 17.3, 18.5 | NO IMPACT |
| 105 | Coast live oak Quercus agrifolia | 14, 14.3 | NO IMPACT |
| 106 | Coast live oak Quercus agrifolia | 19.7 | NO IMPACT |
| 107 | Coast live oak Quercus agrifolia | 9.5 | NO IMPACT |
| 108 | Coast live oak Quercus agrifolia | 10, 6.8 | NO IMPACT |
| 109 | Coast live oak Quercus agrifolia | 13.2, 11.5, 7.7, 7.3 | NO IMPACT |
| 116 | Coast live oak Quercus agrifolia | | NO IMPACT |
| 148 | Coast live oak Quercus agrifolia | 3, 5, 6, 7 | NO IMPACT |
| 149 | Coast live oak Quercus agrifolia | 6.5, 14 | NO IMPACT |
| 150 | Coast live oak Quercus agrifolia | 6, 13, 12.5 | NO IMPACT |
| 151 | Coast live oak Quercus agrifolia | 24 | NO IMPACT |
| 152 | Coast live oak Quercus agrifolia | 17, 21 | NO IMPACT |
| 153 | Coast live oak Quercus agrifolia | 10 | NO IMPACT |

**DEERLAKE RANCH**
**OAK TREE REMOVALS (56)**

| Tree No. | Common Name Botanical Name | DBH (in.) | Disposition |
|---|---|---|---|
| 1 | Coast live oak Quercus agrifolia | 8.3, 5.7, 4.8, | REMOVED PER 2012 OTP |
| 2 | Coast live oak Quercus agrifolia | 6.8, 9.9, 15.6, 12.7 | REMOVED PER 2012 OTP |
| 3 | Coast live oak Quercus agrifolia | 3.8, 12.4, 8.6, 9.9, 5.4 | REMOVED PER 2012 OTP |
| 4 | Coast live oak Quercus agrifolia | 8.9, 7.3, 4.1 | REMOVED PER 2012 OTP |
| 5 | Coast live oak Quercus agrifolia | 13, 13.2, 13 | REMOVED PER OTP |
| 6 | Coast live oak Quercus agrifolia | 7, 6, 6, 5 | REMOVED PER OTP |
| 7 | Coast live oak Quercus agrifolia | 6.4, 9.4, 13 | REMOVED PER 2012 OTP |
| 11 | Coast live oak Quercus agrifolia | 4.9, 4.5, 6.7, 6 | REMOVE |
| 12 | Coast live oak Quercus agrifolia | 12.7, 10.3, 8.5, 10.3 | REMOVE |
| 13 | Coast live oak Quercus agrifolia | 10, 9.1, | REMOVE |
| 14 | Coast live oak Quercus agrifolia | 18.4 | REMOVE |
| 31 | Coast live oak Quercus agrifolia | 8.4 | REMOVE |
| 41 | Coast live oak Quercus agrifolia | 12.2, 10, 9.4 | REMOVED PER 2012 OTP |
| 42 | Coast live oak Quercus agrifolia | 30.4, 23.2 | REMOVED PER 2012 OTP |
| 43 | Coast live oak Quercus agrifolia | 30.6 | REMOVED PER 2012 OTP |
| 44 | Coast live oak Quercus agrifolia | 9, 9, 7.4, 7.2 | REMOVED PER 2012 OTP |
| 45 | Coast live oak Quercus agrifolia | 12.2, 12.4, 12 | REMOVED PER 2012 OTP |
| 46 | Coast live oak Quercus agrifolia | 11.8, 5.1, 3, 8.6, 7.6 | REMOVED PER 2012 OTP |
| 47 | Coast live oak Quercus agrifolia | 12.3, 7.5, 9.7, 7.6, 5.5 | REMOVED PER 2012 OTP |
| 48 | Coast live oak Quercus agrifolia | 26.6 | REMOVED PER 2012 OTP |
| 49 | Coast live oak Quercus agrifolia | 17.3, 14.6, 4.8 | REMOVED PER 2012 OTP |
| 50 | Coast live oak Quercus agrifolia | 21.6 | REMOVED PER 2012 OTP |
| 51 | Coast live oak Quercus agrifolia | 6.9, 5.2, 6.5, 2.9 | REMOVED PER 2012 OTP |
| 52 | Coast live oak Quercus agrifolia | 9.2, 7.1, 6.1, 6, 4.8 | REMOVED PER 2012 OTP |
| 53 | Coast live oak Quercus agrifolia | 20.4, 2.4,2.4, 10.2 | REMOVED PER 2012 OTP |
| 55 | Coast live oak Quercus agrifolia | 5.6, 5.6 | REMOVE |
| 64 | Coast live oak Quercus agrifolia | 12, 12 | REMOVE |
| 66 | Coast live oak Quercus agrifolia | 8.1, 7 | REMOVE |
| 73 | Coast live oak Quercus agrifolia | 22, 13.6 | REMOVED PER OTP |
| 76 | Coast live oak Quercus agrifolia | 8.2, 7.1 | REMOVED PER OTP |
| 83 | Coast live oak Quercus agrifolia | 7.8, 4.9 | REMOVE |
| 86 | Coast live oak Quercus agrifolia | 11.1 | REMOVE |
| 87 | Coast live oak Quercus agrifolia | 5.2,6.9, 4.5, 3.6 | REMOVE |
| 95 | Coast live oak Quercus agrifolia | 7.6, 4.9, 4.4, 4 | REMOVE |
| 96 | Coast live oak Quercus agrifolia | 9.7,18.1, 13, 1.8 | REMOVE |
| 97 | Coast live oak Quercus agrifolia | 9.1, 5.7, 8.1, 7.6 | REMOVE |
| 98 | Coast live oak Quercus agrifolia | 10, 7.6, 8.6, 5.1 | REMOVE |
| 99 | Coast live oak Quercus agrifolia | 8.6, 8.8 | REMOVE |
| 100 | Coast live oak Quercus agrifolia | 9.7 | REMOVE |
| 101 | Coast live oak Quercus agrifolia | 9.7, 9.3, 11.6, 9.5, 8 | REMOVE |
| 102 | Coast live oak Quercus agrifolia | 10.2, 11.1, 8 @1.6" | REMOVE |
| 103 | Coast live oak Quercus agrifolia | 8.3, 5.5, 9.1, 5.4 | REMOVE |
| 110 | Coast live oak Quercus agrifolia | 10.5 | REMOVE |
| 111 | Coast live oak Quercus agrifolia | | REMOVE (DEAD) |
| 112 | Coast live oak Quercus agrifolia | 8.6, 8.3, 10.8 | REMOVE |
| 113 | Coast live oak Quercus agrifolia | | REMOVE (DEAD) |
| 114 | Coast live oak Quercus agrifolia | 11.3, 7.6 | REMOVE |
| 115 | Coast live oak Quercus agrifolia | | REMOVE (DEAD) |
| 117 | Coast live oak Quercus agrifolia | 16, 11, 21 | REMOVE |
| 118 | Coast live oak Quercus agrifolia | 3, 7, 16 | REMOVE |
| 119 | Coast live oak Quercus agrifolia | 7, 9, 12 | REMOVE |
| 120 | Coast live oak Quercus agrifolia | 9, 9.5, 7, 5 | REMOVE |
| 121 | Coast live oak Quercus agrifolia | 7, 8 | REMOVE |
| 122 | Coast live oak Quercus agrifolia | 5.5, 7.5 | REMOVE |
| 123 | Coast live oak Quercus agrifolia | 11.8 | REMOVE |
| 124 | Coast live oak Quercus agrifolia | 8.6, 8.6, 7, 7, 2.9 | REMOVE |

**DEERLAKE RANCH**
**OAK TREE ENCROACHMENTS (26)**

| Tree No. | Common Name Botanical Name | DBH (in.) | Disposition |
|---|---|---|---|
| 8 | Coast live oak Quercus agrifolia | 12, 11, 8, 8.5 | ENCROACHMENT |
| 9 | Coast live oak Quercus agrifolia | 9.4, 4.9, 12.8, 7.8 | ENCROACHMENT |
| 21 | Coast live oak Quercus agrifolia | 8.5, 9.5, 10.5 | ENCROACHMENT |
| 22 | Coast live oak Quercus agrifolia | 25 | ENCROACHMENT |
| 23 | Coast live oak Quercus agrifolia | 9.7, 8.4 | ENCROACHMENT |
| 24 | Coast live oak Quercus agrifolia | 25.5 | ENCROACHMENT |
| 25 | Coast live oak Quercus agrifolia | 32.3 | ENCROACHMENT |
| 26 | Coast live oak Quercus agrifolia | 29.1 | ENCROACHMENT |
| 27 | Coast live oak Quercus agrifolia | 7, 7.5, 7.5 | ENCROACHMENT |
| 54 | Coast live oak Quercus agrifolia | 25@7 | ENCROACHMENT |
| 56 | Coast live oak Quercus agrifolia | 19, 21 | ENCROACHMENT |
| 57 | Coast live oak Quercus agrifolia | 12.4, 12.1, 10.9 | ENCROACHMENT |
| 58 | Coast live oak Quercus agrifolia | 8.0 @ 3' | ENCROACHMENT |
| 59 | Coast live oak Quercus agrifolia | 11.5 | ENCROACHMENT |
| 60 | Coast live oak Quercus agrifolia | 16.5, 15.4, 23 | ENCROACHMENT |
| 67 | Coast live oak Quercus agrifolia | 21.6 | ENCROACHMENT |
| 68 | Coast live oak Quercus agrifolia | 10.2 | ENCROACHMENT |
| 74 | Coast live oak Quercus agrifolia | 9.1, 9.0 | ENCROACHMENT |
| 84 | Coast live oak Quercus agrifolia | 7.5 | ENCROACHMENT |
| 141 | Coast live oak Quercus agrifolia | 9 | ENCROACHMENT |
| 142 | Coast live oak Quercus agrifolia | 15 | ENCROACHMENT |
| 143 | Coast live oak Quercus agrifolia | 11 | ENCROACHMENT |
| 144 | Coast live oak Quercus agrifolia | 24 | ENCROACHMENT |
| 145 | Coast live oak Quercus agrifolia | 9 | ENCROACHMENT |
| 146 | Coast live oak Quercus agrifolia | 9 | ENCROACHMENT |
| 154 | Coast live oak Quercus agrifolia | 7.4 | ENCROACHMENT |

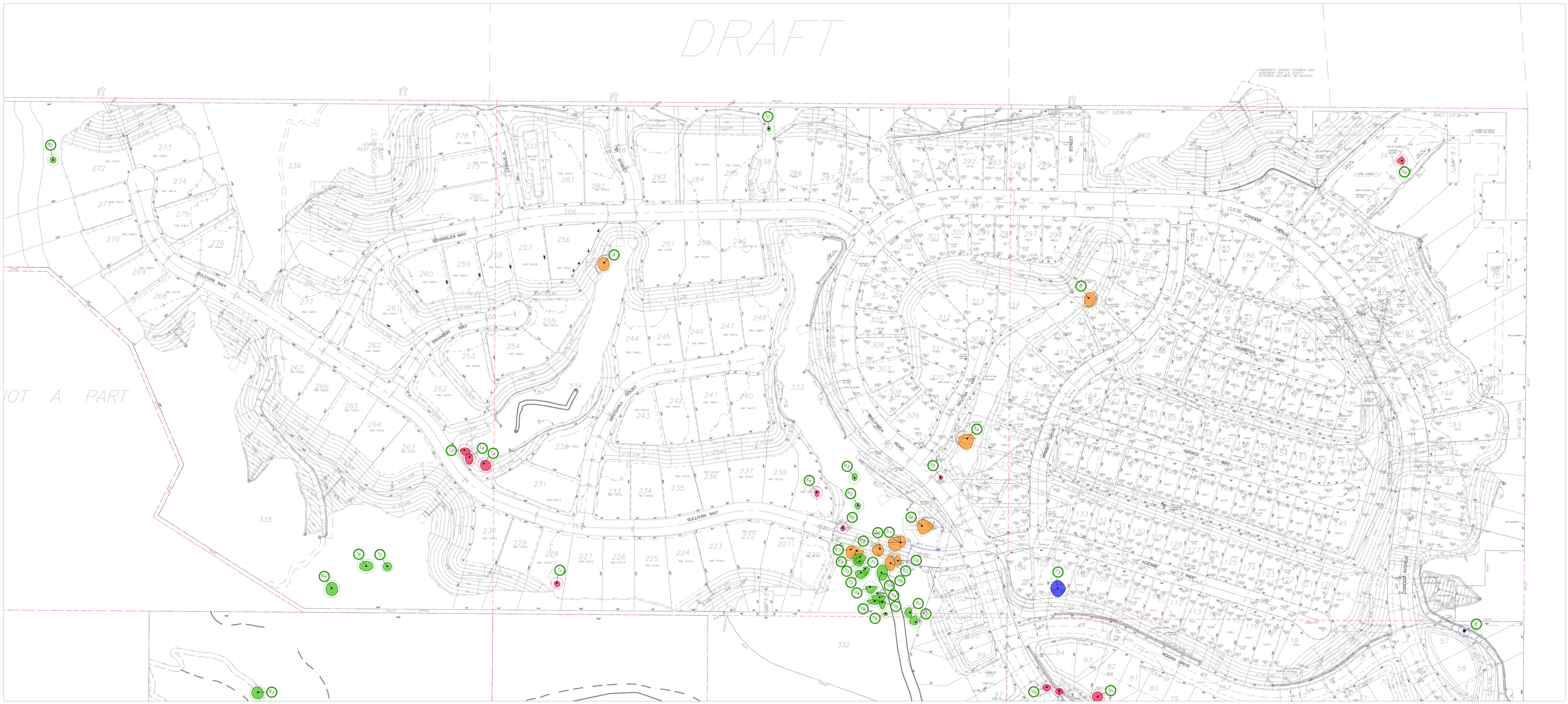
**TWIN LAKES COMMUNITY – SEWER LINE**
**OAK TREE ENCROACHMENTS (15)**

| Tree No. | Common Name Botanical Name | DBH (in.) | Disposition |
|---|---|---|---|
| 125 | Coast live oak Quercus agrifolia | 17.2 | ENCROACHMENT |
| 126 | Coast live oak Quercus agrifolia | 8, 9 | ENCROACHMENT |
| 128 | California scrub oak Q. berberidifolia | 6.6, 6.9 | ENCROACHMENT |
| 129 | Coast live oak Quercus agrifolia | 6.4, 6.0, 5.4, 5.4, 3.8 | ENCROACHMENT |
| 130 | California scrub oak Q. berberidifolia | 6, 6, 6.5 | ENCROACHMENT |
| 131 | Coast live oak Quercus agrifolia | MULTI | ENCROACHMENT |
| 132 | Coast live oak Quercus agrifolia | MULTI | ENCROACHMENT |
| 133 | Coast live oak Quercus agrifolia | 13.4 | ENCROACHMENT |
| 134 | Coast live oak Quercus agrifolia | 10.2 | ENCROACHMENT |
| 135 | Coast live oak Quercus agrifolia | 14.6, 12.4, 21 | ENCROACHMENT |
| 136 | Coast live oak Quercus agrifolia | 10.2 | ENCROACHMENT |
| 137 | Coast live oak Quercus agrifolia | 31 | ENCROACHMENT |
| 138 | Coast live oak Quercus agrifolia | 22.3, 21.5 | ENCROACHMENT |
| 139 | Coast live oak Quercus agrifolia | 8.9 | ENCROACHMENT |
| 147 | Coast live oak Quercus agrifolia | 14 | ENCROACHMENT |

**TWIN LAKES COMMUNITY – SEWER LINE**
**OAK TREE "NO IMPACT" (2)**

| Tree No. | Common Name Botanical Name | DBH (in.) | Disposition |
|---|---|---|---|
| 127 | Coast live oak Quercus agrifolia | 9.5 | NO IMPACT |
| 140 | Coast live oak Quercus agrifolia | 8.6, 6.5, 5.1, 6.7 | NO IMPACT |

**TWIN LAKES COMMUNITY – SEWER LINE**
**OAK TREE REMOVALS (0)**

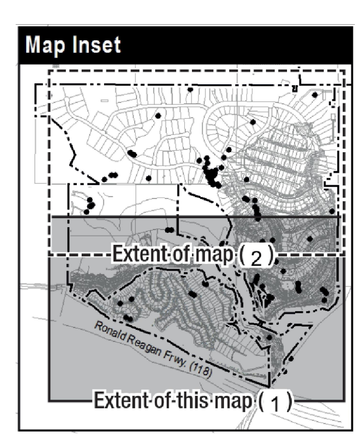



**TREE INVENTORY LEGEND**

- OAK TREE #
- OAK TREE CANOPY WITH 5-FT. PROTECTED ZONE (OR MIN. 15-FT. FROM THE TRUNK) – LIMITS OF TREE PROTECTION FENCING
- OAK TREE REMOVED AS PERMITTED PER OTP #201200001
- OAK TREE TO REMAIN WITH NO IMPACTS
- OAK TREE TO REMAIN WITH ENCROACHMENTS
- OAK TREE TO BE REMOVED
- OAK TREE – DEAD

NOTE: TREE PROTECTION FENCING WILL BE PLACED AT THE LIMITS OF THE TREE PROTECTION ZONE

DATE PREPARED: 07/22/16
PREPARED BY: S. McALLASTER
ISA CERTIFIED ARBORIST
REVIEWED BY: CHRISTY CUBA, RCA #502




SCALE: 1" = 100'

100 0 50 100 200 400

SCALE: 1 INCH = 100 FT.

MAP SOURCE: UNITED CIVIL INC.

SHEET 2 OF 2

DRAFT

Carlberg Associates
Horticulturists and Registered Consulting Arborists

# OAK TREE IMPACT EXHIBIT & PROTECTION PLAN

DEERLAKE RANCH
VTTM 53138 & CUP 990239
PREPARED FOR: FORESTAR CHATSWORTH, LLC
4590 MACARTHUR BOULEVARD, SUITE 600, NEWPORT BEACH, CA 92660

www.cycarlberg.com Date: 07.22.16 By: S. McAllaster

Carlberg ASSOCIATES

Horticulturists and
Registered Consulting
ARBORISTS

# SUPPLEMENTAL OAK TREE REPORT
# DEERLAKE RANCH
# LOS ANGELES COUNTY
# VTTM 313 CUP 99-239 and OTP 2 12 1

SUBMITTED TO:

**KELTIE COLE**
**FORESTAR CHATSWORTH LLC**
**4 9 MACARTHUR BOULEVARD SUITE 6**
**NEWPORT BEACH CALIFORNIA 9266**

PREPARED BY: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AUGUST 2 2 16

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OAK TREE IMPACT EXHIBIT AND PROTECTION PLAN – INDEX SHEET (30" X 42", 150-SCALE, COLOR)

Carlberg ASSOCIATES
Horticulturists and Registered Consulting ARBORISTS

August 2, 2016

Keltie Cole
Forestar Chatsworth, LLC
4590 MacArthur Boulevard, Suite 600
Newport Beach, California 92660

**RE: SUPPLEMENTAL OAK TREE REPORT – DEERLAKE RANCH PROJECT**
**UNINCORPORATED CHATSWORTH LOS ANGELES COUNTY CALIFORNIA**
**VTTM 313 CUP 99-239 AND OTP 2 12 1**

Dear Ms. Cole,

We are pleased to provide Forestar Chatsworth, LLC (Forestar) the following updated oak tree inventory and impact analysis for the Deerlake Ranch project in the unincorporated Chatsworth area of Los Angeles County.

## INTRODUCTION AND EXECUTIVE SUMMARY

In August 2004, the Los Angeles County Board of Supervisors approved VTTM 53138, CUP 99-239, and Oak Tree Permit OTP 99-239 for the Deerlake Ranch project. The Final EIR and OTP 99-239 included approval for removal of 61 oak trees and encroachment into the protected zone of 11 trees. In 2005, the Los Angeles County Department of Regional Planning issued approval for Oak Tree Permit Case No. T200500037 for the Deerlake Ranch project, which permitted removal of 47 oak trees, the removal of three (3) dead oak trees, and encroachment into the drip line of 10 oak trees. In 2012, the Los Angeles County Department of Regional Planning issued approval for Oak Tree Permit No. 201200001 to allow the removal of 42 oak trees and encroachment into the protected zone of 13 trees. The 2012 Oak Tree Permit (OTP) represents the most current authorization of oak tree impacts.

The 2004, 2005, and 2012 oak tree permits were based upon Oak Tree Reports prepared by L. Newman Design Group (LNDG) in 2000, 2003, 2005, 2010, and 2012. Additionally, an update to the 2012 LNDG Oak Tree Report was prepared in 2015. The 2000 report included a survey of 353 trees on-site, and off-site within 200 feet of the development footprint. The 2004, 2005, and 2010 reports included 311 trees. In January 2012, the oak tree report by LNDG revised the number of trees to include only 85 trees within and adjacent to the development footprint. That January 3, 2012 oak tree report is referenced in the current OTP #201200001. In 2015, LNDG provided Forestar with an internal update of the oak tree report that included the same 85 trees as the 2012 report.

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Forestar (the Applicant) acquired the entitled Deerlake Ranch property in 2014. They immediately began final engineering efforts and implementation of the project conditions of approval necessary to secure a grading permit. In 2016, the Applicant became aware of the need to update the oak tree inventory and impact analysis for the following reasons:

- The Applicant recently purchased additional Not a Part (NAP) parcels interior and adjacent to the Deerlake Ranch development footprint. There are 24 oak trees associated with these parcels.
- The Applicant is conditioned to construct a sewer line extension within the adjacent Twin Lakes residential neighborhood. There are 17 ordinance size oak trees within close proximity of the planned sewer extension easement.
- Ten (10) oak trees within or adjacent to the development footprint have been recently located due to better site accessibility and vegetation removal.
- Eighteen (18) oak trees within or adjacent to the development footprint have recovered from severe fire damage or have grown since 2012 and now meet or are close to the County's diameter at breast height criteria for protection.

In July 2016, Carlberg Associates (Carlberg) was retained as the new arborist of record for the project. Based on LNDG's 2012 and 2015 reports, plus additional information provided by the project biologist (Envicom Corporation), Carlberg arborists conducted an updated inventory of 154 oaks. The majority of the oaks are located within the area of potential impact (API), which comprises the development footprint and areas immediately adjacent. Several trees or clusters of trees that are well outside the development envelope are also included since they were part of the LNDG 2015 update or the biologist's assessments. Eighty-five of the 154 oak trees inventoried for this report were previously included in the 2012 and 2015 LNDG reports, and 69 'new' trees were assessed as a result of the reasons provided above. Of the 69 new trees, 17 are associated with the Twin Lakes community and 52 are associated with the Deerlake Ranch update.

The results of the 2016 Carlberg inventory of protected oak trees are presented in this report along with an updated impact analysis that reflects:

- Revisions to the Deerlake Ranch grading and bridge design plans to avoid and reduce impacts to oak trees and oak woodlands;
- Improvements on the previously NAP parcels; and
- Construction of the Twin Lakes sewer extension.

This report also reflects that in preparation for Phase 1 grading, the Applicant has removed 22 of the 42 oak trees that are permitted for removal under Oak Tree Permit No 201200001 and mitigated for their removals. While mitigation for the removal of 42 oak trees includes replacement at a 2:1 ratio (84 mitigation trees), Forestar provided the 122 mitigation oak trees required pursuant to Final EIR Mitigation Measure MM 4.3-12 to the Mountains Recreation and Conservation Authority (MRCA) for planting.

Under the current OTP#201200001, there are 20 additional oaks approved for removal. As a result of value engineering changes to the grading and bridge plans, plus a newly proposed bridge on Sullivan Drive, the number of previously permitted removals is reduced to seven (7) oak trees. There are thirteen (13) remaining trees permitted for removal that will be retained on-site with either no impact or encroachments in their protected zones. Based on the current site conditions, new land acquisitions, and the re-engineered Deerlake Ranch grading and

bridge plans, there are 27 “new” oak trees requested for removal. When added to the 22 oaks already removed (as permitted) and the seven (7) oaks permitted for removal but still standing, the total number of removals will equal 56 trees.

The updated oak tree permit will also need to be revised to allow for a total of 23 oak encroachments, including; eight (8) “new” encroachments within the Deerlake Ranch project and 15 “new” encroachments associated with the Twin Lakes Sewer extension.

**Ta le 1** below summarizes those impacts associated with the Deerlake Ranch project. **Ta le 2** summarizes those impacts associated with the Twin Lakes Sewer extension.

**TABLE 1 – SUMMARY OF IMPACTS ASSOCIATED WITH DEERLAKE RANCH**

| Disposition | of oa trees | Oa Tree s |
|---|---|---|
| Oaks already removed per OTP#201200001 | *22* | 1, 2, 3, 4, 5, 6, 7, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 73, 76 |
| Oaks permitted for removal per OTP#201200001, but are still standing | | 11, 12, 13, 14, 55, 64, 66 |
| “New” oak trees proposed for removal | *2* | 31, 83, 86, 87, 95, 96, 97, 98, 99, 100, 101, 102, 103, 110, 111, 112, 113, 114, 115, 117, 118, 119, 120, 121, 122, 123, 124 |
| No impacts | | 10, 15, 16, 17, 18, 19, 20, 28, 29, 30, 32, 33, 34, 35, 36, 37, 38, 39, 40, 61, 62, 63, 65, 69, 70, 71, 72, 75, 77, 78, 79, 80, 81, 82, 85, 88, 89, 90, 91, 92, 93, 94, 104, 105, 106, 107, 108, 109, 116, 141, 148, 149, 150, 151, 152, 153 |
| Oaks to have encroachments within their canopies, root zones, and overall Protected Zones | *2* | 8, 9, 21, 22, 23, 24, 25, 26, 27, 54, 56, 57, 58, 59, 60, 67, 68, 74, 84, 142, 143, 144, 145, 146, 154 |

**TABLE 2 – SUMMARY OF IMPACTS ASSOCIATED WITH TWIN LAKES COMMUNITY SEWER LINE**

| Disposition | of oa trees | Oa Tree s |
|---|---|---|
| No impacts by the installation of the sewer line | 2 | 127, 140 |
| Oaks to have encroachments within their canopies, root zones, and overall Protected Zones by the installation of the sewer line | 15 | 125, 126, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 147 |
| Oaks proposed for removal for the installation of the sewer line | 0 | N/A |

A variety of exhibits, tables, captioned photographs, and full-sized oak tree impact exhibits are included to illustrate the updated site and oak tree conditions, as well as the proposed impacts. Discussions pertaining to oak woodlands impacts, consistency with the project’s original Draft and Final Environmental Impact Report (DEIR and FEIR), mitigation requirements, completed mitigation, and recommendations for protection of trees during construction are also included.

## BACKGROUND INFORMATION

The Deerlake Ranch project is located within the northwestern San Fernando Valley area of Los Angeles County, specifically in the south-facing foothills of the Santa Susana Mountains. The project site is bordered by the Twin Lakes residential community and Highway 118 immediately to the south, Devil Canyon Mountain Way to the west, Browns Canyon Road to the east, and private parcels and the Browns Canyon Open Space property directly to the north.

### *Project Description*

The Deerlake Ranch project consists of the construction of 314 single-family residential lots, one (1) debris basin lot, one helispot lot, one sheriff's storefront facility lot, one (1) sewer pump station lot, 25 open space lots, one (1) remainder parcel, and project associated infrastructure. Additionally, the project has been conditioned to provide off-site improvements to extend a sewer line to provide service to the Twin Lakes residential community.

The Applicant has recently purchased seven (7) additional Not a Part (NAP) parcels interior and adjacent to the Deerlake Ranch development footprint and will be demolishing existing structures and constructing future improvements on these parcels. Pursuant to the Los Angeles County Oak Tree Ordinance, this report provides inventory results for protected trees located within the areas of the proposed activities and impact analyses based on the grading and off-site improvement plans prepared by the project engineer, United Civil, Inc. This report has been prepared in accordance with the content requirements for the Oak Tree Report County of Los Angeles (Los Angeles Municipal Code 22.56.2090, Section F).

## METHODOLOGY AND DEFINITIONS

The County of Los Angeles defines protected trees as all oak trees ( spp.) greater than 8-inches in diameter, or a combination of any two (2) trunks measuring a total of 12-inches or more in diameter at breast height (DBH, measured 4.5 feet above mean natural grade). In addition, any protected oaks measuring 36-inches or more in diameter are considered 'Heritage' oaks and are afforded extra protection.

Carlberg's Registered Consulting Arborist[1], Christy Cuba, and Certified Arborists[1] Scott McAllaster and James Sanchez, conducted two site assessments in July 2016 to inventory and evaluate protected trees within and adjacent to the Deerlake Ranch property and the Twin Lakes community that may be impacted by the project activities. Unless otherwise noted in the field data, a blue or silver aluminum tree tag marked with an identifying number was affixed to the north side of each inventoried tree, approximately 4.5 feet above normal grade. Off-site and some private property trees were not tagged, but were assigned a number that corresponds to their location on the Oak Tree Impact Exhibit and Protection Plan. Eighty-five (85) of the protected trees inventoried in this report had been tagged with an identifying number that corresponds to numbers assigned during the 2012 and 2015 protected tree inventories. An additional 69 protected trees of ordinance size were located during the July 2016 field work. This inventory and report retained the tags and numbering from the 2012 and 2015 LNDG reports, which included tree numbers 1 through 85. The additional 69 trees were tagged (when feasible) and assigned sequential numbers 86 through 154. Visual inspections occurred from the ground and following factors and measurements were recorded:

[1] American Society of Consulting Arborists (ASCA) Registered Consulting Arborist (RCA) and International Society of Arboriculture (ISA) Certified Arborist.

- Trunk diameter at 4.5 feet above grade (calipers or diameter tape);
- Canopy extent (estimated in four compass directions and some confirmed by a licensed land surveyor); and
- Tree health, structure, and aesthetic values. These values were evaluated by visually inspecting the tree for signs of disease and pests, evidence of new growth and continued survival, and overall structure and value to the surrounding landscape.

The field data table, along with field observation, health grade, and structure grade definitions are provided in **Appendi 1.**

Numerous oak trees are present in Devil Canyon, which bisects the property. Those trees were included in the early LNDG oak tree reports, but were removed from the later reports and permits due to completed and proposed land title transfers to the MRCA. With the exception of a few oaks in the far western portion of Devil Canyon and those trees that are located in the immediate vicinity of the project foot-print, oaks in Devils Canyon are excluded from this report.

## OBSERVATIONS

The Deerlake Ranch site comprises approximately 235 acres of mostly undeveloped land. This site is located on a mesa, the Deerlake Highlands, and has an average elevation of approximately 1,325 feet above mean sea level. This plateau is generally flat with rolling hills and is bordered on the north by steep and rugged hills that trend westward. Devil Canyon bisects the project site and borders the plateau to the south and west. Browns Canyon Wash borders the plateau to the east. Several drainages bisect the property and convey seasonal flows from the northern portion of the property into a large unnamed tributary bordering the southern and western portions of the project site. Soils on the site consist of sandy soils weathered from sandstone bedrock, along with alluvial soils in drainages. Portions of the property were previously developed and/or graded for homes, roads, and equestrian trails. The site was severely burned during the 2008 'Sesnon Fire' and the plant communities, including the oaks, are in various stages of recovery.

The Twin Lakes residential community is an existing neighborhood with relatively narrow, rural, paved streets. Oak trees in the Twin Lakes community that would be affected by the proposed sewer extension occur along the side of the streets or are within the front, side, and rear yards of residences. **E i it 1** provides an aerial view of Twin Lakes and Deerlake Ranch.

### *Deerlake Ranch Oak Tree Update*

We inventoried a total of 137 oak trees within, or in the vicinity of the Deerlake Ranch development footprint. Those included 85 LNDG trees, plus 52 "new" trees. Several trees that just under ordinance size were included in our inventory and this report to account for potential future growth during the construction process. All 137 trees are coast live oak trees ( ). Details of the assessments are documented on the field data table provided in **Appendi 1**. Photographs provided in **Appendi 2** document the visual condition of each tree at the time of the inventory update. **Ta le 3** summaries the findings of the Deerlake inventory.

## TABLE 3 – SUMMARY OF DEERLAKE RANCH OAK TREE INVENTORY UPDATE

| DEERLAKE RANCH | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tree No. | Common Name *Botanical Name* | Height (~Ft.) | DBH (in.) | N | E | S | W | Health grade | Aesthetic/structure | New Tree due to: New Land Acquisition (NLA),In-Growth(IG), TL Sewer (TL S), Fire Recovery or Access | Current Disposition | 2012 OTP |
| **1** | Coast live oak *Quercus agrifolia* | 21 | 8.3, 5.7, 4.8 | 5 | 5 | 7 | 6 | D | D | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL |
| **2** | Coast live oak *Quercus agrifolia* | 25 | 6.8, 5.9, 15.6, 12.7 | 8 | 12 | 10 | 10 | C | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL |
| **3** | Coast live oak *Quercus agrifolia* | 28 | 3.8, 12.4, 8.6, 9.9, 5.4 | 10 | 10 | 13 | 17 | D | D | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL |
| **4** | Coast live oak *Quercus agrifolia* | 23 | 8.9, 7.3, 4.1 | 5 | 5 | 10 | 10 | C | D | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL |
| **5** | Coast live oak *Quercus agrifolia* | 20 | 13, 13.2, 13 | 15 | 9 | 13 | 19 | B | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL |
| **6** | Coast live oak *Quercus agrifolia* | 10 | 7, 6, 6, 5 | 4 | 4 | 4 | 4 | C | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL |
| **7** | Coast live oak *Quercus agrifolia* | 20 | 6.4, 9.4, 13 | 6 | 6 | 9 | 6 | C | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL |
| **8** | Coast live oak *Quercus agrifolia* | 28 | 12, 11, 8, 8.5 | 14.5 | 19.5 | 23 | 9 | B | C | 2012 OTP tree | ENCROACHMENT | APPROVED FOR REMOVAL |
| **9** | Coast live oak *Quercus agrifolia* | 25 | 9.4, 4.9, 12.8, 7.8 | 14.5 | 13.5 | 21 | 16.5 | B | C | 2012 OTP tree | ENCROACHMENT | APPROVED FOR REMOVAL |
| **10** | Coast live oak *Quercus agrifolia* | 20 | 11.1, 5@1.3 | 6 | 5 | 7 | 5 | C | C | 2012 OTP tree | NO IMPACT | APPROVED FOR REMOVAL |
| **11** | Coast live oak *Quercus agrifolia* | 16.8 | 4.9, 6.5, 6.7, 6 | 5 | 9 | 11 | 7 | B | C | 2012 OTP tree | TO BE REMOVED | APPROVED FOR REMOVAL |
| **12** | Coast live oak *Quercus agrifolia* | 36.5 | 12.7, 10.1, 8.5, 16.5 | 8 | 17 | 18 | 8 | C | C | 2012 OTP tree | TO BE REMOVED | APPROVED FOR REMOVAL |
| **13** | Coast live oak *Quercus agrifolia* | 25 | 10, 9.1, | 6 | 15 | 13 | 10 | B | B | 2012 OTP tree | TO BE REMOVED | APPROVED FOR REMOVAL |
| **14** | Coast live oak *Quercus agrifolia* | 20 | 18.4 | 10 | 9 | 19 | 11 | B | C | 2012 OTP tree | TO BE REMOVED | APPROVED FOR REMOVAL |
| **15** | Coast live oak *Quercus agrifolia* | | No access | | | | | | | 2012 OTP tree | NO IMPACT | NO IMPACT |

| DEERLAKE RANCH | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tree No. | Common Name *Botanical Name* | Height (~Ft.) | DBH (in.) | N | E | S | W | Health grade | Aesthetic/structure | New Tree due to: New Land Acquisition (NLA),In-Growth(IG), TL Sewer (TL S), Fire Recovery or Access | Current Disposition | 2012 OTP |
| **16** | Coast live oak *Quercus agrifolia* | 20 | 15.3 | 13 | 15 | 13 | 20 | C | C | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **17** | Coast live oak *Quercus agrifolia* | 23 | 12.9, 7.0 | 11 | 13 | 13 | 11 | C | C | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **18** | Coast live oak *Quercus agrifolia* | | No access | | | | | | | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **19** | Coast live oak *Quercus agrifolia* | | No access | | | | | | | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **20** | Coast live oak *Quercus agrifolia* | 35 | 16.5, 19.1 | 16 | 20 | 16 | 15 | B | C | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **21** | Coast live oak *Quercus agrifolia* | 25 | 8.5, 9.5, 10.5 | 11 | 14 | 11 | 10 | B | B | 2012 OTP tree | ENCROACHMENT | ENCH APPROVED |
| **22** | Coast live oak *Quercus agrifolia* | 30 | 25 | 8.5 | 18.5 | 18 | 11.5 | B | C | 2012 OTP tree | ENCROACHMENT | NOT PERMITTED |
| **23** | Coast live oak *Quercus agrifolia* | 20 | 9.7, 8.4 | 10 | 8 | 9 | 10 | B | C | 2012 OTP tree | ENCROACHMENT | ENCH APPROVED |
| **24** | Coast live oak *Quercus agrifolia* | 31 | 25.5 | 20 | 15 | 20 | 20 | B | B | 2012 OTP tree | ENCROACHMENT | ENCH APPROVED |
| **25** | Coast live oak *Quercus agrifolia* | 40 | 32.3 | 41 | 30 | 31 | 20 | B | C | 2012 OTP tree | ENCROACHMENT | ENCH APPROVED |
| **26** | Coast live oak *Quercus agrifolia* | 40 | 29.1 | 28 | 34.5 | 33.5 | 20 | B | C | 2012 OTP tree | ENCROACHMENT | ENCH APPROVED |
| **27** | Coast live oak *Quercus agrifolia* | 18 | 7, 7.5, 7.5 | 7.5 | 12 | 10.5 | 7 | C | C | 2012 OTP tree | ENCROACHMENT | NOT PERMITTED |
| **28** | Coast live oak *Quercus agrifolia* | 35 | 24.5, 28 | 10 | 28 | 26 | 16 | C | C | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **29** | Coast live oak *Quercus agrifolia* | 35 | 20.4 | 20 | 15 | 12 | 18 | C | C | 2012 OTP tree | NO IMPACT | ENCH APPROVED |
| **30** | Coast live oak *Quercus agrifolia* | 40 | 24.5 | 19 | 20 | 12 | 19 | B | C | 2012 OTP tree | NO IMPACT | ENCH APPROVED |
| **31** | Coast live oak *Quercus agrifolia* | 18 | 8.4 | 4 | 6 | 5 | 5 | C | C | 2012 OTP tree | TO BE REMOVED | ENCH APPROVED |

| DEERLAKE RANCH | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tree No. | Common Name *Botanical Name* | Height (~Ft.) | DBH (in.) | N | E | S | W | Health grade | Aesthetic/structure | New Tree due to: New Land Acquisition (NLA),In-Growth(IG), TL Sewer (TL S), Fire Recovery or Access | Current Disposition | 2012 OTP |
| **32** | Coast live oak *Quercus agrifolia* | 38 | 18.5 | 12 | 7 | 18 | 13 | B | B | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **33** | Coast live oak *Quercus agrifolia* | 30 | 12 | 8 | 4 | 12 | 10 | B | C | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **34** | Coast live oak *Quercus agrifolia* | 35 | 29.5 | 18 | 19 | 15 | 18 | B | C | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **35** | Coast live oak *Quercus agrifolia* | 30 | 19.5 | 12 | 9 | 17 | 24 | C | C | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **36** | Coast live oak *Quercus agrifolia* | 40 | 15,19 | 18 | 21 | 21 | 27 | B- | B | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **37** | Coast live oak *Quercus agrifolia* | 52 | 12.5, 14, 13.5 | 34 | 38 | 26 | 29 | B | B | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **38** | Coast live oak *Quercus agrifolia* | 25 | 18 | | | | | B+ | B | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **39** | Coast live oak *Quercus agrifolia* | 30 | 12, 15, 16 | 19 | 20 | 25 | 26 | B | C | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **40** | Coast live oak *Quercus agrifolia* | 35 | 15.5, 16.5 | 17 | 11 | 19 | 21 | B | B | 2012 OTP tree | NO IMPACT | ENCH APPROVED |
| **41** | Coast live oak *Quercus agrifolia* | 42 | 12.2, 22, 9.4 | 23 | 23 | 28 | 23 | C | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL |
| **42** | Coast live oak *Quercus agrifolia* | 34 | 30.6, 23.2 | 23 | 34 | 26 | 25 | B | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL |
| **43** | Coast live oak *Quercus agrifolia* | 45 | 30.6 | 0 | 0 | 0 | 17 | F | F | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL |
| **44** | Coast live oak *Quercus agrifolia* | 35 | 9, 9, 7.4, 7.2 | 13 | 12 | 19 | 16 | B | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL |
| **45** | Coast live oak *Quercus agrifolia* | 34 | 12.2, 12.4, 12 | 10 | 0 | 13 | 18 | B | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL |
| **46** | Coast live oak *Quercus agrifolia* | 20 | 11.8, 5.1, 3, 8.6, 7.6 | 9 | 10 | 12 | 12 | B | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL |
| **47** | Coast live oak *Quercus agrifolia* | 20 | 12.3, 7.5, 9.7, 7.6, 3.5 | 16 | 16 | 20 | 17 | C | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL |

**DEERLAKE RANCH**

| Tree No. | Common Name *Botanical Name* | Height (~Ft.) | DBH (in.) | N | E | S | W | Health grade | Aesthetic/structure | New Tree due to: New Land Acquisition (NLA),In-Growth(IG), TL Sewer (TL S), Fire Recovery or Access | Current Disposition | 2012 OTP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **48** | Coast live oak *Quercus agrifolia* | 35 | 26.6 | 25 | 21 | 23 | 6 | C | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL |
| **49** | Coast live oak *Quercus agrifolia* | 30 | 17.3, 14.6, 4.8 | 18 | 13 | 19 | 11 | B | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL |
| **50** | Coast live oak *Quercus agrifolia* | 25 | 21.6 | 8 | 13 | 15 | 8 | C | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL |
| **51** | Coast live oak *Quercus agrifolia* | 18 | 6.8, 3.2, 6.5, 2.9 | 7 | 6 | 10 | 9 | C | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL |
| **52** | Coast live oak *Quercus agrifolia* | 20 | 9.2, 7.1, 6, 6, 4.8 | 6 | 10 | 10 | 9 | C | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL |
| **53** | Coast live oak *Quercus agrifolia* | 20 | 20.4, 2.4,2.4, 10.2 | 7 | 5 | 10 | 13 | C | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL |
| **54** | Coast live oak *Quercus agrifolia* | 38 | 25@3' | 11 | 17.5 | 28.5 | 22 | C | B | 2012 OTP tree | ENCROACHMENT | NO IMPACT |
| **55** | Coast live oak *Quercus agrifolia* | 16 | 5.6, 5.6 | 6 | 7 | 7 | 4 | C | C | 2012 OTP tree | TO BE REMOVED | APPROVED FOR REMOVAL |
| **56** | Coast live oak *Quercus agrifolia* | 35 | 19, 21 | 17 | 30 | 21 | 12 | C- | C- | 2012 OTP tree | ENCROACHMENT | NO IMPACT |
| **57** | Coast live oak *Quercus agrifolia* | 25 | 12.4, 12.1, 10.9 | 17 | 13.5 | 14 | 31 | D | D | 2012 OTP tree | ENCROACHMENT | APPROVED FOR REMOVAL |
| **58** | Coast live oak *Quercus agrifolia* | 23 | 8.0 @ 3' | 11.5 | 9 | 20 | 20 | C | C | 2012 OTP tree | ENCROACHMENT | APPROVED FOR REMOVAL |
| **59** | Coast live oak *Quercus agrifolia* | 30 | 11.5 | 14 | 8 | 12.5 | 9 | C- | C | 2012 OTP tree | ENCROACHMENT | APPROVED FOR REMOVAL |
| **60** | Coast live oak *Quercus agrifolia* | 30 | 16.5, 15.6, 23 | 19 | 11.5 | 20 | 14 | D | D | 2012 OTP tree | ENCROACHMENT | APPROVED FOR REMOVAL |
| **61** | Coast live oak *Quercus agrifolia* | 25 | 9.6, 10.1 | 14 | 5 | 14 | 14 | B | C | 2012 OTP tree | NO IMPACT | ENCH APPROVED |
| **62** | Coast live oak *Quercus agrifolia* | 22 | 13.8 | 17 | 6 | 7 | 16 | C- | C | 2012 OTP tree | NO IMPACT | ENCH APPROVED |
| **63** | Coast live oak *Quercus agrifolia* | 23 | 8, 8, 5, 6 | 13 | 7 | 7 | 7 | C+ | C | 2012 OTP tree | NO IMPACT | ENCH APPROVED |

**DEERLAKE RANCH**

| Tree No. | Common Name *Botanical Name* | Height (~Ft.) | DBH (in.) | N | E | S | W | Health grade | Aesthetic/structure | New Tree due to: New Land Acquisition (NLA),In-Growth(IG), TL Sewer (TL S), Fire Recovery or Access | Current Disposition | 2012 OTP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **64** | Coast live oak *Quercus agrifolia* | 20 | 12, 12 | 5 | 7 | 12 | 5 | C | D | 2012 OTP tree | TO BE REMOVED | APPROVED FOR REMOVAL |
| **65** | Coast live oak *Quercus agrifolia* | 20 | 5.8, 5.6, 6.5, 6.0, 4.6 | 7 | 6 | 11 | 9 | B | C | 2012 OTP tree | NO IMPACT | ENCH APPROVED |
| **66** | Coast live oak *Quercus agrifolia* | 15 | 8.1, 7 | 6 | 6 | 9 | 5 | B | C | 2012 OTP tree | TO BE REMOVED | APPROVED FOR REMOVAL |
| **67** | Coast live oak *Quercus agrifolia* | 35 | 21.6 | 9.5 | 16 | 22.5 | 12 | C | D | 2012 OTP tree | ENCROACHMENT | APPROVED FOR REMOVAL |
| **68** | Coast live oak *Quercus agrifolia* | 30 | 10.2 | 3 | 18 | 18 | 4 | D | D | 2012 OTP tree | ENCROACHMENT | APPROVED FOR REMOVAL |
| **69** | Coast live oak *Quercus agrifolia* | 35 | 12, 14 | 8 | 15 | 19 | 20 | C+ | C | 2012 OTP tree | NO IMPACT | APPROVED FOR REMOVAL |
| **70** | Coast live oak *Quercus agrifolia* | 25 | 9.7 | 7 | 10 | 12 | 18 | C | C | 2012 OTP tree | NO IMPACT | APPROVED FOR REMOVAL |
| **71** | Coast live oak *Quercus agrifolia* | 22 | 8, 6 | 6 | 12 | 18 | 5 | C | C | 2012 OTP tree | NO IMPACT | APPROVED FOR REMOVAL |
| **72** | Coast live oak *Quercus agrifolia* | 24 | 8.3 | 6 | 16 | 17 | 15 | C | C | 2012 OTP tree | NO IMPACT | APPROVED FOR REMOVAL |
| **73** | Coast live oak *Quercus agrifolia* | 33 | 22, 13.6 | 22 | 20 | 23 | 18 | B | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL |
| **74** | Coast live oak *Quercus agrifolia* | 18 | 9.1, 9.0 | 14 | 9 | 14 | 14 | C | C | 2012 OTP tree | ENCROACHMENT | NO IMPACT |
| **75** | Coast live oak *Quercus agrifolia* | 35 | 24.8 | 22 | 19 | 15 | 22 | B | B | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **76** | Coast live oak *Quercus agrifolia* | 23 | 8.2, 7.1 | 9 | 12 | 16 | 8 | B | B | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL |
| **77** | Coast live oak *Quercus agrifolia* | 30 | 9.5, 11.5, 13, 8.5 | 9.5 | 6 | 6 | 8.5 | B | B | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **78** | Coast live oak *Quercus agrifolia* | 30 | 9, 12, 15.5, 8, 14 | 19 | 10.5 | 14 | 22 | B | B | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **79** | Coast live oak *Quercus agrifolia* | 18 | 6, 9, 9 crown sprouts 1"-3" | 9.5 | 8.5 | 5.5 | 7.5 | B | B | 2012 OTP tree | NO IMPACT | NO IMPACT |

| DEERLAKE RANCH | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tree No. | Common Name *Botanical Name* | Height (~Ft.) | DBH (in.) | N | E | S | W | Health grade | Aesthetic/structure | New Tree due to: New Land Acquisition (NLA),In-Growth(IG), TL Sewer (TL S), Fire Recovery or Access | Current Disposition | 2012 OTP |
| **80** | Coast live oak *Quercus agrifolia* | 30 | 10, 11 | 15 | 15 | 18 | 20 | B | B | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **81** | Coast live oak *Quercus agrifolia* | 25 | 6.8, 4.5 | 7 | 8 | 9 | 10 | B | C | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **82** | Coast live oak *Quercus agrifolia* | 20 | 10 | 8 | 8 | 8 | 8 | B | B | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **83** | Coast live oak *Quercus agrifolia* | 20 | 7.8, 4.9 | 8 | 6 | 8 | 6 | B | B | 2012 OTP tree | TO BE REMOVED | NOT PERMITTED |
| **84** | Coast live oak *Quercus agrifolia* | 15 | 7.5 | 6 | 10 | 5 | 6 | C | C | 2012 OTP tree | ENCROACHMENT | NO IMPACT |
| **85** | Coast live oak *Quercus agrifolia* | | No access | | | | | | | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **86** | Coast live oak *Quercus agrifolia* | 30 | 11.1 | 16 | 10 | 10 | 8 | B | C | NLA | TO BE REMOVED | NOT PERMITTED |
| **87** | Coast live oak *Quercus agrifolia* | 15 | 5.2,6.9, 4.5, 3.6 | 6 | 6 | 6 | 4 | C | C | IG | TO BE REMOVED | NOT PERMITTED |
| **88** | Coast live oak *Quercus agrifolia* | 30 | 14, 21.3 | 21 | 18 | 18 | 21 | B | B | Access | NO IMPACT | NO IMPACT |
| **89** | Coast live oak *Quercus agrifolia* | 30 | 24.8, 16.7 | 14 | 15 | 22 | 8 | B | C | Access | NO IMPACT | NO IMPACT |
| **90** | Coast live oak *Quercus agrifolia* | 28 | 8.9, 9.2, 11.5, 10.7 | 21 | 18 | 20 | 8 | B | B | Access | NO IMPACT | NO IMPACT |
| **91** | Coast live oak *Quercus agrifolia* | 15 | 9.4, 10.8, 6.4, 7.5 | 0 | 17 | 15 | 15 | B | C | Access | NO IMPACT | NO IMPACT |
| **92** | Coast live oak *Quercus agrifolia* | 20 | 16.5 | 12 | 9 | 15 | 9 | C | B | Access | NO IMPACT | NO IMPACT |
| **93** | Coast live oak *Quercus agrifolia* | 30 | 12.1, 15, 14 | 14 | 14 | 17 | 16 | B | B | Access | NO IMPACT | NO IMPACT |
| **94** | Coast live oak *Quercus agrifolia* | 25 | 20.7 | 15 | 16 | 20 | 15 | C | C | Access | NO IMPACT | NO IMPACT |
| **95** | Coast live oak *Quercus agrifolia* | 18 | 7.6, 4.9, 6.4, 4 @1.6' | 6 | 6 | 9 | 4 | C | D | Fire recovery | TO BE REMOVED | NOT PERMITTED |
| **96** | Coast live oak *Quercus agrifolia* | 20 | 9.7, 18.1, 1.6, 1.6 | 12 | 7 | 13 | 12 | C | D | Fire recovery | TO BE REMOVED | NOT PERMITTED |
| **97** | Coast live oak *Quercus agrifolia* | 15 | 9.1, 5.7, 8.1, 7.6 | 10 | 12 | 14 | 7 | C | D | Fire recovery | TO BE REMOVED | NOT PERMITTED |

| DEERLAKE RANCH | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tree No. | Common Name *Botanical Name* | Height (~Ft.) | DBH (in.) | N | E | S | W | Health grade | Aesthetic/structure | New Tree due to: New Land Acquisition (NLA),In-Growth(IG), TL Sewer (TL S), Fire Recovery or Access | Current Disposition | 2012 OTP |
| **98** | Coast live oak *Quercus agrifolia* | 15 | 10, 7.6, 8.6, 5.1 | 7 | 13 | 13 | 12 | C | D | Fire recovery | TO BE REMOVED | NOT PERMITTED |
| **99** | Coast live oak *Quercus agrifolia* | 18 | 8.6, 8.8 | 7 | 7 | 7 | 4 | C | C | Fire recovery | TO BE REMOVED | NOT PERMITTED |
| **100** | Coast live oak *Quercus agrifolia* | 18 | 9.7 | 7 | 5 | 7 | 6 | C | C | Fire recovery | TO BE REMOVED | NOT PERMITTED |
| **101** | Coast live oak *Quercus agrifolia* | 20 | 9.7, 9.2, 11.8, 9.5, 8 | 13 | 14 | 14 | 14 | C | C | Fire recovery | TO BE REMOVED | NOT PERMITTED |
| **102** | Coast live oak *Quercus agrifolia* | 6 | 10.2, 11.1, 8 @1.6" | 6 | 10 | 10 | 10 | D | D | Fire recovery | TO BE REMOVED | NOT PERMITTED |
| **103** | Coast live oak *Quercus agrifolia* | 18 | 8.3, 5.1, 9.1, 5.4 | 6 | 10 | 11 | 11 | D | D | Fire recovery | TO BE REMOVED | NOT PERMITTED |
| **104** | Coast live oak *Quercus agrifolia* | 27 | 17.3, 18.5 | 6 | 15 | 12 | 20 | C | C | Fire recovery | NO IMPACT | NO IM |
| **105** | Coast live oak *Quercus agrifolia* | 32 | 10.2, 14.3 | 5 | 9 | 18 | 8 | C | C | Fire recovery | NO IMPACT | NO IM |
| **106** | Coast live oak *Quercus agrifolia* | 33 | 19.7 | 4 | 20 | 9 | 20 | C | C | Fire recovery | NO IMPACT | NO IM |
| **107** | Coast live oak *Quercus agrifolia* | 16 | 9.5 | 2 | 20 | 2 | 3 | D | D | Fire recovery | NO IMPACT | NO IM |
| **108** | Coast live oak *Quercus agrifolia* | 23 | 10, 6.8 | 2 | 17 | 17 | 1 | D | D | Fire recovery | NO IMPACT | NO IM |
| **109** | Coast live oak *Quercus agrifolia* | 25 | 13.2, 11.3, 3.7, 7.3 | 20 | 16 | 20 | 12 | C | C | Fire recovery | NO IMPACT | NO IM |
| **110** | Coast live oak *Quercus agrifolia* | 15 | 10.5 | 10 | 9 | 4 | 9 | D | D | NLA | TO BE REMOVED | NOT PERMITTED |
| **111** | Coast live oak *Quercus agrifolia* | DE AD | | | | | | F | F | NLA | TO BE REMOVED (DEAD) | NOT PERMITTED - DEAD |
| **112** | Coast live oak *Quercus agrifolia* | 12 | 8.6, 8.3, 10.8 | 7 | 7 | 8 | 6 | D- | D | NLA | TO BE REMOVED | NOT PERMITTED |
| **113** | Coast live oak *Quercus agrifolia* | DE AD | | | | | | F | F | Access | TO BE REMOVED (DEAD) | NOT PERMITTED - DEAD |
| **114** | Coast live oak *Quercus agrifolia* | 18 | 11.3, 7.6 | 8 | 8 | 9 | 6 | C- | C | Access | TO BE REMOVED | NOT PERMITTED |

| DEERLAKE RANCH | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Tree No.** | **Common Name *Botanical Name*** | **Height (~Ft.)** | **DBH (in.)** | **N** | **E** | **S** | **W** | **Health grade** | **Aesthetic/structure** | **New Tree due to: New Land Acquisition (NLA),In-Growth(IG), TL Sewer (TL S), Fire Recovery or Access** | **Current Disposition** | **2012 OTP** |
| **115** | Coast live oak *Quercus agrifolia* | | DEAD | | | | | F | F | NLA | TO BE REMOVED (DEAD) | NOT PERMITTED - DEAD |
| **116** | Coast live oak *Quercus agrifolia* | | No access | 3 | 5 | 6 | 6 | | | Access | NO IMPACT | NO IM |
| **117** | Coast live oak *Quercus agrifolia* | 40 | 16, 11, 21 | 27 | 16 | 31 | 26 | B | B | NLA | TO BE REMOVED | NOT PERMITTED |
| **118** | Coast live oak *Quercus agrifolia* | 30 | 3, 7, 16 | 15 | 13 | 21 | 17 | C | B | NLA | TO BE REMOVED | NOT PERMITTED |
| **119** | Coast live oak *Quercus agrifolia* | 20 | 7, 9, 12 | 10 | 12 | 15 | 12 | B | A | NLA | TO BE REMOVED | NOT PERMITTED |
| **120** | Coast live oak *Quercus agrifolia* | 20 | 9, 9.5, 7, 5 | 15 | 12 | 20 | 12 | B | A | NLA | TO BE REMOVED | NOT PERMITTED |
| **121** | Coast live oak *Quercus agrifolia* | 10 | 7, 8 | 7 | 10 | 10 | 7 | B- | B | NLA | TO BE REMOVED | NOT PERMITTED |
| **122** | Coast live oak *Quercus agrifolia* | 18 | 5.5, 7.5 | 3 | 18 | 11 | 9 | B | C | NLA | TO BE REMOVED | NOT PERMITTED |
| **123** | Coast live oak *Quercus agrifolia* | 25 | 11.8 | 0 | 6 | 9 | 14 | C | C | NLA | TO BE REMOVED | NOT PERMITTED |
| **124** | Coast live oak *Quercus agrifolia* | 20 | 8.6, 8.6, 7, 7, 2.9 | 10 | 8 | 10 | 13 | B | C | Fire recovery | TO BE REMOVED | NOT PERMITTED |
| **141** | Coast live oak *Quercus agrifolia* | 20 | 9 | 8 | 9 | 8 | 8 | B | B | IG | NO IMPACT | NOT PERMITTED |
| **142** | Coast live oak *Quercus agrifolia* | 35 | 15 | 15 ne 15 | 13 | 20 | 20 | A | B | NLA | ENCROACHMENT | NOT PERMITTED |
| **143** | Coast live oak *Quercus agrifolia* | 25 | 11 | 12 | 15 | 12 | 5 | A | B- | NLA | ENCROACHMENT | NOT PERMITTED |
| **144** | Coast live oak *Quercus agrifolia* | 40 | 24 | 20 | 10 | 21 | 20 | A | B | NLA | ENCROACHMENT | NOT PERMITTED |
| **145** | Coast live oak *Quercus agrifolia* | 25 | 9 | 12 | 12 | 10 | 10 | B- | B | NLA | ENCROACHMENT | NOT PERMITTED |
| **146** | Coast live oak *Quercus agrifolia* | 25 | 9 | 10 | 22 | 14.5 | 9 | C | B | NLA | ENCROACHMENT | NOT PERMITTED |
| **148** | Coast live oak *Quercus agrifolia* | 15 | 3, 5, 6, 7 | 10 | 8 | 10 | 9 | A | A | NLA | NO IMPACT | OFF-SITE |

| DEERLAKE RANCH | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tree No. | Common Name *Botanical Name* | Height (~Ft.) | DBH (in.) | N | E | S | W | Health grade | Aesthetic/structure | New Tree due to: New Land Acquisition (NLA),In-Growth(IG), TL Sewer (TL S), Fire Recovery or Access | Current Disposition | 2012 OTP |
| **149** | Coast live oak *Quercus agrifolia* | 20 | 6.5, 14 | 12 | 19 | 21 | 19 | A- | A | NLA | NO IMPACT | OFF-SITE |
| **150** | Coast live oak *Quercus agrifolia* | 25 | 6, 13, 12.5 | 10 | 10 | 12 | 15 | C | B | NLA | NO IMPACT | OFF-SITE |
| **151** | Coast live oak *Quercus agrifolia* | 28 | 24 | 15 | 20 | 25 | 27 | C | C | NLA | NO IMPACT | OFF-SITE |
| **152** | Coast live oak *Quercus agrifolia* | 28 | 17, 21 | 12 | 20 | 20 | 15 | B | C | NLA | NO IMPACT | OFF-SITE |
| **153** | Coast live oak *Quercus agrifolia* | 15 | 10 | 15 | 10 | 6 | 6 | B | C | NLA | NO IMPACT | OFF-SITE |
| **154** | Coast live oak *Quercus agrifolia* | ~15 | 7.4 | ~6 | ~8 | ~8 | ~8 | B+ | B | NLA | ENCROACHMENT | OFF-SITE - NOT PERMITTED |

Trees noted as inaccessible may be well beyond development impacts and were not re-evaluated or may have been inaccessible due to field constraints, grading activity, etc. In those instances, we use data provided by the LNDG reports or the biologist's evaluations of early 2016.

### *Twin Lakes Community Oak Tree Evaluation*

We inventoried a total of 17 oak trees within the Twin Lakes community that overhang the roadway and may be impacted by the installation of the new sewer line. These are all considered to be "new" trees in the oak tree report and permit application. Where feasible, these oaks were tagged with the tree number that corresponds to their location on the Oak Tree Impact Exhibit and Protection Plan. Oaks that appeared to be well outside of the sewer easement were not included in the inventory. **E i it 9** illustrates the locations of the Twin Lakes oak trees.

Fifteen of the seventeen trees are coast live oaks ( ) and two are California scrub oaks ( ). Details of the assessments are documented on the field data table provided in **Appendi 1**. Photographs provided in **Appendi 2** document the visual condition of each tree at the time of the inventory. **Ta le 4** summaries the findings of the Twin Lakes community inventory.

## TABLE 4 – SUMMARY OF TWIN LAKES COMMUNITY OAK TREE INVENTORY

| TWIN LAKES COMMUNITY OAK TREES | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Tree No.** | **Common Name** ***Botanical Name*** | **Height (~Ft.)** | **DBH (in.)** | **N** | **E** | **S** | **W** | **Health grade** | **Aesthetic/structure** | **New Tree due to: New Land Acquisition (NLA),In-Growth(IG), TL Sewer (TL S), Fire Recovery or Access** | **Current Disposition (July 2016)** | **2012 OTP** |
| **125** | Coast live oak *Quercus agrifolia* | 25 | 17.2 | 12 | 17 | 17 | 17 | B | B | TL S | ENCROACHMENT | NOT PERMITTED |
| **126** | Coast live oak *Quercus agrifolia* | 20 | 8, 9 | 6 | 5 | 12 | 15 | A | B | TL S | ENCROACHMENT | NOT PERMITTED |
| **127** | Coast live oak *Quercus agrifolia* | 25 | 9.5 | 8 | 12 | 13 | 10 | A | A | TL S | NO IMPACT | NO IMPACT |
| **128** | California scrub oak *Q. berberidifolia* | 12 | 6.6, 6.9 | 11 | 14 | 17 | 17 | C | B | TL S | ENCROACHMENT | NOT PERMITTED |
| **129** | Coast live oak *Quercus agrifolia* | 18 | 6.4, 6.0, 5.4, 5.4, 3.8 | 11 | 12 | 11 | 7 | A | A | TL S | ENCROACHMENT | NOT PERMITTED |
| **130** | California scrub oak *Q. berberidifolia* | 12 | 6, 6, 6.5 | 9 | 8 | 11 | 10 | C | B | TL S | ENCROACHMENT | NOT PERMITTED |
| **131** | Coast live oak *Quercus agrifolia* | ~15 | MULTI | 18 | 13 | 8.5 | 15 | A | A | TL S | ENCROACHMENT | NOT PERMITTED |
| **132** | Coast live oak *Quercus agrifolia* | ~15 | MULTI | 17 | 17 | 10 | 13 | B | B | TL S | ENCROACHMENT | NOT PERMITTED |
| **133** | Coast live oak *Quercus agrifolia* | 23 | 13.4 | 20 | 14 | 17 | 18 | A | A | TL S | ENCROACHMENT | NOT PERMITTED |
| **134** | Coast live oak *Quercus agrifolia* | 30 | 10.2 | 10 | 11 | 4 | 3 | C | C | TL S | ENCROACHMENT | NOT PERMITTED |
| **135** | Coast live oak *Quercus agrifolia* | 32 | 14.6, 12.4, 21 | 22 | 25 | 10 | 10 | D | D | TL S | ENCROACHMENT | NOT PERMITTED |
| **136** | Coast live oak *Quercus agrifolia* | 25 | 10.2 | 6 | 7 | 12 | 9 | A | B | TL S | ENCROACHMENT | NOT PERMITTED |
| **137** | Coast live oak *Quercus agrifolia* | 28 | 31 | 13 | 21 | 25 | 13 | A | A | TL S | ENCROACHMENT | NOT PERMITTED |
| **138** | Coast live oak *Quercus agrifolia* | 25 | 22.3, 21.5 | 16 | 19 | 32 | 20 | A | A | TL S | ENCROACHMENT | NOT PERMITTED |
| **139** | Coast live oak *Quercus agrifolia* | 10 | 8.9 | 9 | 8 | 6 | 6 | A | A | TL S | ENCROACHMENT | NOT PERMITTED |
| **140** | Coast live oak *Quercus agrifolia* | 15 | 8.0, 8.0, 5.1, 6.7 | 10 | 13 | 14 | 13 | B | B | TL S | NO IMPACT | NO IMPACT |
| **147** | Coast live oak *Quercus agrifolia* | 30 | 14 | 10 | 12 | 10 | 6 | B- | C | TL S | ENCROACHMENT | NOT PERMITTED |

## DISCUSSION

There are several potential consequences related to residential construction that may affect trees during and after a typical construction process. They are as follows:

- Excavation - Root Severance
- Soil Compaction (During and Post-construction)
- Alteration of the Water Table/Site Drainage
- Changes in grade
- Substantial Trimming of Canopy or Roots
- Protection against mechanical damage - fencing
- Irrigation

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C. C _____
C

12 .

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[2] Nelda Matheny and James R. Clark, Trees and Development: A Technical Guide to Preservation of Trees During Land Development, (Champaign, Illinois: International Society of Arboriculture, 1998), pp. 88-89.

*C*

. *C*

*ly, root systems extend outward past the dripline, two to four times the diameter of the average tree's*

*Feeder roots, while averaging only 1/16 inch in diameter, constitute the major portion of the root system's surface*

*2*

*1* *2*

*3*

- [3]

[3] See Matheny and Clark, p. 125.

Our impact analysis included review of the following documents:

- VTTM, Grading, and bridge abutment plans provided by United Civil, Inc.
- Bridge details provided by LA Group, Landscape Architects

Mass cut and fill grading and demolition of existing structures is proposed and has begun in the Phase 1 areas of the property. The impacts described are based on the undersigned arborist's experience with hillside grading, construction of manufactured slopes and retaining walls, caissons, and piers, and construction in general.

Reduced copies of the Oak Tree Impact Exhibit and Protection Plans are included on pages 43 and 44 as **E i its 3** and **4**. Full-size, color copies of those plans are included in the back pocket(s) of this report at 100-scale (2 sheets) and 150-scale (1 sheet).

## PROJECT IMPACTS

The Protected Zone (PZ) is defined as the area within the dripline and extending a minimum of five (5) feet outside the dripline or 15 feet from the trunk of a tree; whichever is greater (Los Angeles County Oak Tree Ordinance Section 22.56.2060, subsection C). Impacts to protected trees as a result of the proposed activities are qualitatively described and quantitatively measured based on the type and amount of encroachment that would occur within the PZ. Three (3) of the inventoried trees, Tree #s 111, 113, and 115, were dead at the time of the field survey, but are included in the project impact analysis to allow for the unlikely event of future recovery.

### *Deerlake Ranch Updated Oak Tree Impacts*

The following impacts are based on the current site conditions, new land acquisitions, and the re-engineered Deerlake Ranch grading and bridge plans.

Under the updated conditions for Deerlake Ranch, 56 of the 137 updated oak trees will not be impacted by the development of the project.

Under the updated conditions for Deerlake Ranch, 25 of 137 updated oak trees may sustain encroachments of various degrees to their canopies, root zones, and overall Protected Zones.

Under the updated conditions for Deerlake Ranch, 56 of 137 updated oak trees are proposed for removal. Of the 56, 27 are "new" oak trees, 22 have already been removed (as permitted) and seven (7) oaks are permitted for removal but are still standing.

**Ta le** summarizes the trees to remain with no impacts. **Ta les 6 and 7** summarize the existing (2012 permitted) and proposed encroachments and removals, respectively.

## TABLE – SUMMARY OF DEERLAKE RANCH OAK TREES TO REMAIN WITH NO IMPACT

| DEERLAKE RANCH – NO IMPACT | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Tree No.** | **Common Name** ***Botanical Name*** | **Height (~Ft.)** | **DBH (in.)** | **N** | **E** | **S** | **W** | **Health grade** | **Aesthetic/structure** | **New Tree due to: New Land Acquisition (NLA),In-Growth(IG), TL Sewer (TL S), Fire Recovery or Access** | **Current Disposition** | **2012 OTP** |
| **10** | Coast live oak *Quercus agrifolia* | 20 | 11.1, 5@1.3 | 6 | 5 | 7 | 5 | C | C | 2012 OTP tree | NO IMPACT | APPROVED FOR REMOVAL |
| **15** | Coast live oak *Quercus agrifolia* | | No access | | | | | | | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **16** | Coast live oak *Quercus agrifolia* | 20 | 15.3 | 13 | 15 | 13 | 20 | C | C | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **17** | Coast live oak *Quercus agrifolia* | 23 | 12.9, 7.0 | 11 | 13 | 13 | 11 | C | C | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **18** | Coast live oak *Quercus agrifolia* | | No access | | | | | | | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **19** | Coast live oak *Quercus agrifolia* | | No access | | | | | | | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **20** | Coast live oak *Quercus agrifolia* | 35 | 16.5, 19.1 | 16 | 20 | 16 | 15 | B | C | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **28** | Coast live oak *Quercus agrifolia* | 35 | 24.5, 28 | 10 | 28 | 26 | 16 | C | C | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **29** | Coast live oak *Quercus agrifolia* | 35 | 20.4 | 20 | 15 | 12 | 18 | C | C | 2012 OTP tree | NO IMPACT | ENCH APPROVED |
| **30** | Coast live oak *Quercus agrifolia* | 40 | 24.5 | 19 | 20 | 12 | 19 | B | C | 2012 OTP tree | NO IMPACT | ENCH APPROVED |
| **32** | Coast live oak *Quercus agrifolia* | 38 | 18.5 | 12 | 7 | 18 | 13 | B | B | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **33** | Coast live oak *Quercus agrifolia* | 30 | 12 | 8 | 4 | 12 | 10 | B | C | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **34** | Coast live oak *Quercus agrifolia* | 35 | 29.5 | 18 | 19 | 15 | 18 | B | C | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **35** | Coast live oak *Quercus agrifolia* | 30 | 19.5 | 12 | 9 | 17 | 24 | C | C | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **36** | Coast live oak *Quercus agrifolia* | 40 | 15,19 | 18 | 21 | 21 | 27 | B- | B | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **37** | Coast live oak *Quercus agrifolia* | 52 | 12.5, 14, 13.5 | 34 | 38 | 26 | 29 | B | B | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **38** | Coast live oak *Quercus agrifolia* | 25 | 18 | | | | | B+ | B | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **39** | Coast live oak *Quercus agrifolia* | 30 | 12, 15, 16 | 19 | 20 | 25 | 26 | B | C | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **40** | Coast live oak *Quercus agrifolia* | 35 | 15.5, 16.5 | 17 | 11 | 19 | 21 | B | B | 2012 OTP tree | NO IMPACT | ENCH APPROVED |
| **61** | Coast live oak *Quercus agrifolia* | 25 | 9.6, 10.1 | 14 | 5 | 14 | 14 | B | C | 2012 OTP tree | NO IMPACT | ENCH APPROVED |
| **62** | Coast live oak *Quercus agrifolia* | 22 | 13.8 | 17 | 6 | 7 | 16 | C- | C | 2012 OTP tree | NO IMPACT | ENCH APPROVED |
| **63** | Coast live oak *Quercus agrifolia* | 23 | 8, 8, 5, 6 | 13 | 7 | 7 | 7 | C+ | C | 2012 OTP tree | NO IMPACT | ENCH APPROVED |

**DEERLAKE RANCH – NO IMPACT**

| Tree No. | Common Name *Botanical Name* | Height (~Ft.) | DBH (in.) | N | E | S | W | Health grade | Aesthetic/structure | New Tree due to: New Land Acquisition (NLA), In-Growth(IG), TL Sewer (TL S), Fire Recovery or Access | Current Disposition | 2012 OTP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **65** | Coast live oak *Quercus agrifolia* | 20 | 5.8, 5.6, 6.5, 6.0, 4.6 | 7 | 6 | 11 | 9 | B | C | 2012 OTP tree | NO IMPACT | ENCH APPROVED |
| **69** | Coast live oak *Quercus agrifolia* | 35 | 12, 14 | 8 | 15 | 19 | 20 | C+ | C | 2012 OTP tree | NO IMPACT | APPROVED FOR REMOVAL |
| **70** | Coast live oak *Quercus agrifolia* | 25 | 9.7 | 7 | 10 | 12 | 18 | C | C | 2012 OTP tree | NO IMPACT | APPROVED FOR REMOVAL |
| **71** | Coast live oak *Quercus agrifolia* | 22 | 8, 6 | 6 | 12 | 18 | 5 | C | C | 2012 OTP tree | NO IMPACT | APPROVED FOR REMOVAL |
| **72** | Coast live oak *Quercus agrifolia* | 24 | 8.3 | 6 | 16 | 17 | 15 | C | C | 2012 OTP tree | NO IMPACT | APPROVED FOR REMOVAL |
| **75** | Coast live oak *Quercus agrifolia* | 35 | 24.8 | 22 | 19 | 15 | 22 | B | B | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **77** | Coast live oak *Quercus agrifolia* | 30 | 9.5, 11.5, 13, 8.5 | 9.5 | 6 | 6 | 8.5 | B | B | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **78** | Coast live oak *Quercus agrifolia* | 30 | 9, 12, 15.5, 8, 14 | 19 | 10.5 | 14 | 22 | B | B | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **79** | Coast live oak *Quercus agrifolia* | 18 | 6, 9, 9 crown sprouts 1"-3" | 9.5 | 8.5 | 5.5 | 7.5 | B | B | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **80** | Coast live oak *Quercus agrifolia* | 30 | 10, 11 | 15 | 15 | 18 | 20 | B | B | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **81** | Coast live oak *Quercus agrifolia* | 25 | 6.8, 4.5 | 7 | 8 | 9 | 10 | B | C | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **82** | Coast live oak *Quercus agrifolia* | 20 | 10 | 8 | 8 | 8 | 8 | B | B | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **85** | Coast live oak *Quercus agrifolia* | | No access | | | | | | | 2012 OTP tree | NO IMPACT | NO IMPACT |
| **88** | Coast live oak *Quercus agrifolia* | 30 | 14, 21.3 | 21 | 18 | 18 | 21 | B | B | Access | NO IMPACT | NO IMPACT |
| **89** | Coast live oak *Quercus agrifolia* | 30 | 24.8, 16.7 | 14 | 15 | 22 | 8 | B | C | Access | NO IMPACT | NO IMPACT |
| **90** | Coast live oak *Quercus agrifolia* | 28 | 8.9, 9.2, 11.5, 10.7 | 21 | 18 | 20 | 8 | B | B | Access | NO IMPACT | NO IMPACT |
| **91** | Coast live oak *Quercus agrifolia* | 15 | 9.4, 10.8, 6.4, 7.5 | 0 | 17 | 15 | 15 | B | C | Access | NO IMPACT | NO IMPACT |
| **92** | Coast live oak *Quercus agrifolia* | 20 | 16.5 | 12 | 9 | 15 | 9 | C | B | Access | NO IMPACT | NO IMPACT |
| **93** | Coast live oak *Quercus agrifolia* | 30 | 12.1, 15, 14 | 14 | 14 | 17 | 16 | B | B | Access | NO IMPACT | NO IMPACT |
| **94** | Coast live oak *Quercus agrifolia* | 25 | 20.7 | 15 | 16 | 20 | 15 | C | C | Access | NO IMPACT | NO IMPACT |
| **104** | Coast live oak *Quercus agrifolia* | 27 | 17.3, 18.5 | 6 | 15 | 12 | 20 | C | C | Fire recovery | NO IMPACT | NO IMPACT |
| **105** | Coast live oak *Quercus agrifolia* | 32 | 10.2, 14.3 | 5 | 9 | 18 | 8 | C | C | Fire recovery | NO IMPACT | NO IMPACT |
| **106** | Coast live oak *Quercus agrifolia* | 33 | 19.7 | 4 | 20 | 9 | 20 | C | C | Fire recovery | NO IMPACT | NO IMPACT |
| **107** | Coast live oak *Quercus agrifolia* | 16 | 9.5 | 2 | 20 | 2 | 3 | D | D | Fire recovery | NO IMPACT | NO IMPACT |

| DEERLAKE RANCH – NO IMPACT | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Tree No.** | **Common Name** ***Botanical Name*** | **Height (~Ft.)** | **DBH (in.)** | **N** | **E** | **S** | **W** | **Health grade** | **Aesthetic/structure** | **New Tree due to: New Land Acquisition (NLA), In-Growth(IG), TL Sewer (TL S), Fire Recovery or Access** | **Current Disposition** | **2012 OTP** |
| **108** | Coast live oak *Quercus agrifolia* | 23 | 10, 6.8 | 2 | 17 | 17 | 1 | D | D | Fire recovery | NO IMPACT | NO IMPACT |
| **109** | Coast live oak *Quercus agrifolia* | 25 | 13.2, 11.3, 3.7, 7.3 | 20 | 16 | 20 | 12 | C | C | Fire recovery | NO IMPACT | NO IMPACT |
| **116** | Coast live oak *Quercus agrifolia* | | No access | 3 | 5 | 6 | 6 | | | Access | NO IMPACT | NO IMPACT |
| **141** | Coast live oak *Quercus agrifolia* | 20 | 9 | 8 | 9 | 8 | 8 | B | B | IG | NO IMPACT | NOT PERMITTED |
| **148** | Coast live oak *Quercus agrifolia* | 15 | 3, 5, 6, 7 | 10 | 8 | 10 | 9 | A | A | NLA | NO IMPACT | OFF-SITE |
| **149** | Coast live oak *Quercus agrifolia* | 20 | 6.5, 14 | 12 | 19 | 21 | 19 | A- | A | NLA | NO IMPACT | OFF-SITE |
| **150** | Coast live oak *Quercus agrifolia* | 25 | 6, 13, 12.5 | 10 | 10 | 12 | 15 | C | B | NLA | NO IMPACT | OFF-SITE |
| **151** | Coast live oak *Quercus agrifolia* | 28 | 24 | 15 | 20 | 25 | 27 | C | C | NLA | NO IMPACT | OFF-SITE |
| **152** | Coast live oak *Quercus agrifolia* | 28 | 17, 21 | 12 | 20 | 20 | 15 | B | C | NLA | NO IMPACT | OFF-SITE |
| **153** | Coast live oak *Quercus agrifolia* | 15 | 10 | 15 | 10 | 6 | 6 | B | C | NLA | NO IMPACT | OFF-SITE |

Twelve of the trees proposed for no impact are currently approved for removal (5) or encroachment (7). One significant area where oaks will be preserved is at the intersection of Sullivan Way and Bullfinch. A newly proposed free-spanning bridge will preserve the oak woodlands habitat that has already been mitigated for removal through off-site acreage purchase and donation as open space to the MRCA. Although the individual oak tree removals have not occurred in the Sullivan Way / Bullfinch area, mitigation trees have been purchase and delivered to the MRCA for planting in the off-site oak mitigation area adjacent to the northeast corner of the Deerlake project boundary. **E i its 9 and 1** illustrate the Sullivan bridge plan vs. a standard fill slope plan and the details of the proposed bridge and a photograph of the oak woodland, respectively.

## TABLE 6 – SUMMARY OF DEERLAKE RANCH OAK TREES ENCROACHMENTS

| DEERLAKE RANCH OAK ENCROACHMENTS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Tree No.** | **Common Name** ***Botanical Name*** | **Height (~Ft.)** | **DBH (in.)** | **N** | **E** | **S** | **W** | **Health grade** | **Aesthetic/structure** | **New Tree due to: New Land Acquisition (NLA),In-Growth(IG), TL Sewer (TL S), Fire Recovery or Access** | **Current Disposition** | **2012 OTP** | **Reason for Removal/Encroach** |
| **8** | Coast live oak *Quercus agrifolia* | 28 | 12, 11, 8, 8.5 | 14.5 | 19.5 | 23 | 9 | B | C | 2012 OTP tree | ENCROACHMENT | APPROVED FOR REMOVAL | |
| **9** | Coast live oak *Quercus agrifolia* | 25 | 9.4, 4.9, 12.8, 7.8 | 14.5 | 13.5 | 21 | 16.5 | B | C | 2012 OTP tree | ENCROACHMENT | APPROVED FOR REMOVAL | |
| **21** | Coast live oak *Quercus agrifolia* | 25 | 8.5, 9.5, 10.5 | 11 | 14 | 11 | 10 | B | B | 2012 OTP tree | ENCROACHMENT | ENCH APPROVED | Access slope for Poema Bridge (west side) |
| **22** | Coast live oak *Quercus agrifolia* | 30 | 25 | 8.5 | 18.5 | 18 | 11.5 | B | C | 2012 OTP tree | ENCROACHMENT | NOT PERMITTED | Access slope for Poema Bridge (west side) |
| **23** | Coast live oak *Quercus agrifolia* | 20 | 9.7, 8.4 | 10 | 8 | 9 | 10 | B | C | 2012 OTP tree | ENCROACHMENT | ENCH APPROVED | To be removed to allow for construction activities associated with the placement of the proposed Poema Place bridge. |
| **24** | Coast live oak *Quercus agrifolia* | 31 | 25.5 | 20 | 15 | 20 | 20 | B | B | 2012 OTP tree | ENCROACHMENT | ENCH APPROVED | To be removed to allow for construction activities associated with the placement of the proposed Poema Place bridge. |
| **25** | Coast live oak *Quercus agrifolia* | 40 | 32.3 | 41 | 30 | 31 | 20 | B | C | 2012 OTP tree | ENCROACHMENT | ENCH APPROVED | Poema Bridge construction |
| **26** | Coast live oak *Quercus agrifolia* | 40 | 29.1 | 28 | 34.5 | 33.5 | 20 | B | C | 2012 OTP tree | ENCROACHMENT | ENCH APPROVED | Poema Bridge construction |
| **27** | Coast live oak *Quercus agrifolia* | 18 | 7, 7.5, 7.5 | 7.5 | 12 | 10.5 | 7 | C | C | 2012 OTP tree | ENCROACHMENT | NOT PERMITTED | Poema Bridge construction |
| **54** | Coast live oak *Quercus agrifolia* | 38 | 25@3' | 11 | 17.5 | 28.5 | 22 | C | B | 2012 OTP tree | ENCROACHMENT | NO IMPACT | |
| **56** | Coast live oak *Quercus agrifolia* | 35 | 19, 21 | 17 | 30 | 21 | 12 | C- | C- | 2012 OTP tree | ENCROACHMENT | NO IMPACT | |

**DEERLAKE RANCH OAK ENCROACHMENTS**

| Tree No. | Common Name *Botanical Name* | Height (~Ft.) | DBH (in.) | N | E | S | W | Health grade | Aesthetic/structure | New Tree due to: New Land Acquisition (NLA),In-Growth(IG), TL Sewer (TL S), Fire Recovery or Access | Current Disposition | 2012 OTP | Reason for Removal/Encroach |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **57** | Coast live oak *Quercus agrifolia* | 25 | 12.4, 12.1, 10.9 | 17 | 13.5 | 14 | 31 | D | D | 2012 OTP tree | ENCROACHMENT | APPROVED FOR REMOVAL | Permitted for removal to allow for fill; but Sullivan Way bridge proposed that could save tree with encroachment above |
| **58** | Coast live oak *Quercus agrifolia* | 23 | 8.0 @ 3' | 11.5 | 9 | 20 | 20 | C | C | 2012 OTP tree | ENCROACHMENT | APPROVED FOR REMOVAL | Permitted for removal to allow for fill; but Sullivan Way bridge proposed that could save tree with encroachment above |
| **59** | Coast live oak *Quercus agrifolia* | 30 | 11.5 | 14 | 8 | 12.5 | 9 | C- | C | 2012 OTP tree | ENCROACHMENT | APPROVED FOR REMOVAL | Permitted for removal to allow for fill; but Sullivan Way bridge proposed that could save tree with encroachment above |
| **60** | Coast live oak *Quercus agrifolia* | 30 | 16.5, 15.6, 23 | 19 | 11.5 | 20 | 14 | D | D | 2012 OTP tree | ENCROACHMENT | APPROVED FOR REMOVAL | Permitted for removal to allow for fill; but Sullivan Way bridge proposed that could save tree with encroachment above |
| **67** | Coast live oak *Quercus agrifolia* | 35 | 21.6 | 9.5 | 16 | 22.5 | 12 | C | D | 2012 OTP tree | ENCROACHMENT | APPROVED FOR REMOVAL | Permitted for removal to allow for fill; but Sullivan Way bridge proposed that could save tree with encroachment above |
| **68** | Coast live oak *Quercus agrifolia* | 30 | 10.2 | 3 | 18 | 18 | 4 | D | D | 2012 OTP tree | ENCROACHMENT | APPROVED FOR REMOVAL | Permitted for removal to allow for fill; but Sullivan Way bridge proposed that could save tree with encroachment above |
| **74** | Coast live oak *Quercus agrifolia* | 18 | 9.1, 9.0 | 14 | 9 | 14 | 14 | C | C | 2012 OTP tree | ENCROACHMENT | NO IMPACT | |
| **84** | Coast live oak *Quercus agrifolia* | 15 | 7.5 | 6 | 10 | 5 | 6 | C | C | 2012 OTP tree | ENCROACHMENT | NO IMPACT | |
| **142** | Coast live oak *Quercus agrifolia* | 35 | 15 | 15 ne15 | 13 | 20 | 20 | A | B | NLA | ENCROACHMENT | NOT PERMITTED | Road improvements/toe of slope east of Roble residence (NAP 5) |
| **143** | Coast live oak *Quercus agrifolia* | 25 | 11 | 12 | 15 | 12 | 5 | A | B- | NLA | ENCROACHMENT | NOT PERMITTED | Road improvements/toe of slope east of Roble residence (NAP 5) |

**DEERLAKE RANCH OAK ENCROACHMENTS**

| Tree No. | Common Name *Botanical Name* | Height (~Ft.) | DBH (in.) | N | E | S | W | Health grade | Aesthetic/structure | New Tree due to: New Land Acquisition (NLA),In-Growth(IG), TL Sewer (TL S), Fire Recovery or Access | Current Disposition | 2012 OTP | Reason for Removal/Encroach |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **144** | Coast live oak *Quercus agrifolia* | 40 | 24 | 20 | 10 | 21 | 20 | A | B | NLA | ENCROACHMENT | NOT PERMITTED | Road improvements/toe of slope east of Robles residence (NAP 5) |
| **145** | Coast live oak *Quercus agrifolia* | 25 | 9 | 12 | 12 | 10 | 10 | B- | B | NLA | ENCROACHMENT | NOT PERMITTED | Road improvements/toe of slope east of Robles residence (NAP 5) |
| **146** | Coast live oak *Quercus agrifolia* | 25 | 9 | 10 | 22 | 14.5 | 9 | C | B | NLA | ENCROACHMENT | NOT PERMITTED | Road improvements/toe of slope east of Robles residence (NAP 5) |
| **154** | Coast live oak *Quercus agrifolia* | ~15 | 7.4 | ~6 | ~8 | ~8 | ~8 | B+ | B | NLA | ENCROACHMENT | OFF-SITE - NOT PERMITTED | drive/road improvements for upgraded access to the Robles house |

## TABLE 7 – SUMMARY OF DEERLAKE RANCH OAK TREE REMOVALS

| DEERLAKE RANCH OAK TREE REMOVALS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Tree No.** | **Common Name *Botanical Name*** | **Height (~Ft.)** | **DBH (in.)** | **N** | **E** | **S** | **W** | **Health grade** | **Aesthetic/structure** | **New Tree due to: New Land Acquisition (NLA),In-Growth(IG), TL Sewer (TL S), Fire Recovery or Access** | **Current Disposition** | **2012 OTP** | **Reason for Removal/Encroach** |
| **1** | Coast live oak *Quercus agrifolia* | 21 | 8.3, 5.7, 4.8, | 5 | 5 | 7 | 6 | D | D | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL | Removed as permitted to allow for excavation and grading activities associated with the proposed construction of the fill slope supporting the Canoga Avenue extension. |
| **2** | Coast live oak *Quercus agrifolia* | 25 | 6.8, 5.9, 15.6, 12.7 | 8 | 12 | 10 | 10 | C | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL | Removed as permitted to allow for excavation and grading activities associated with the proposed construction of the fill slope supporting the Canoga Avenue extension. |
| **3** | Coast live oak *Quercus agrifolia* | 28 | 3.8, 12.4, 8.6, 9.9, 5.4 | 10 | 10 | 13 | 17 | D | D | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL | Removed as permitted to allow for excavation and grading activities associated with the proposed construction of the fill slope supporting the Canoga Avenue extension. |
| **4** | Coast live oak *Quercus agrifolia* | 23 | 8.9, 7.3, 4.1 | 5 | 5 | 10 | 10 | C | D | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL | Removed as permitted to allow for excavation and grading activities associated with the proposed construction of the fill slope supporting the Canoga Avenue extension. |
| **5** | Coast live oak *Quercus agrifolia* | 20 | 13, 13.2, 13 | 15 | 9 | 13 | 19 | B | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL | Removed as permitted to allow for excavation and grading activities associated with the proposed construction of the fill slope supporting the Canoga Avenue extension. |

**DEERLAKE RANCH OAK TREE REMOVALS**

| Tree No. | Common Name *Botanical Name* | Height (~Ft.) | DBH (in.) | N | E | S | W | Health grade | Aesthetic/structure | New Tree due to: New Land Acquisition (NLA),In-Growth(IG), TL Sewer (TL S), Fire Recovery or Access | Current Disposition | 2012 OTP | Reason for Removal/Encroach |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **6** | Coast live oak *Quercus agrifolia* | 10 | 7, 6, 6, 5 | 4 | 4 | 4 | 4 | C | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL | Removed as permitted to allow for excavation and grading activities associated with the proposed construction of the fill slope supporting Lot 57. |
| **7** | Coast live oak *Quercus agrifolia* | 20 | 6.4, 9.4, 13 | 6 | 6 | 9 | 6 | C | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL | Removed as permitted to allow for grading activities associated with the proposed construction of Lot 44. |
| **11** | Coast live oak *Quercus agrifolia* | 16.8 | 4.9, 6.5, 6.7, 6 | 5 | 9 | 11 | 7 | B | C | 2012 OTP tree | TO BE REMOVED | APPROVED FOR REMOVAL | lot 228 - pad area |
| **12** | Coast live oak *Quercus agrifolia* | 36.5 | 12.7, 10.1, 8.5, 16.5 | 8 | 17 | 18 | 8 | C | C | 2012 OTP tree | TO BE REMOVED | APPROVED FOR REMOVAL | fill slope north of Sullivan Way, west of Lot 231 |
| **13** | Coast live oak *Quercus agrifolia* | 25 | 10, 9.1, | 6 | 15 | 13 | 10 | B | B | 2012 OTP tree | TO BE REMOVED | APPROVED FOR REMOVAL | fill slope north of Sullivan Way, west of Lot 231 |
| **14** | Coast live oak *Quercus agrifolia* | 20 | 18.4 | 10 | 9 | 19 | 11 | B | C | 2012 OTP tree | TO BE REMOVED | APPROVED FOR REMOVAL | fill slope north of Sullivan Way, west of Lot 231 |
| **31** | Coast live oak *Quercus agrifolia* | 18 | 8.4 | 4 | 6 | 5 | 5 | C | C | 2012 OTP tree | TO BE REMOVED | ENCH APPROVED | To be removed to allow for construction activities associated with the placement of the proposed Poema Place bridge. |
| **41** | Coast live oak *Quercus agrifolia* | 42 | 12.2, 22, 9.4 | 23 | 23 | 28 | 23 | C | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL | Removed as permitted to allow for excavation and grading during the construction of the proposed fill slope to support Bullfinch Road. |
| **42** | Coast live oak *Quercus agrifolia* | 34 | 30.6, 23.2 | 23 | 34 | 26 | 25 | B | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL | Removed as permitted to allow for excavation and grading activities associated with the proposed construction of the fill slope to support Lots 22 - 30. |

**DEERLAKE RANCH OAK TREE REMOVALS**

| Tree No. | Common Name *Botanical Name* | Height (~Ft.) | DBH (in.) | N | E | S | W | Health grade | Aesthetic/structure | New Tree due to: New Land Acquisition (NLA),In-Growth(IG), TL Sewer (TL S), Fire Recovery or Access | Current Disposition | 2012 OTP | Reason for Removal/Encroach |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **43** | Coast live oak *Quercus agrifolia* | 45 | 30.6 | 0 | 0 | 0 | 17 | F | F | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL | Removed as permitted to allow for excavation and grading activities associated with the proposed construction of the fill slope to support Lots 22 - 30. |
| **44** | Coast live oak *Quercus agrifolia* | 35 | 9, 9, 7.4, 7.2 | 13 | 12 | 19 | 16 | B | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL | Removed as permitted to allow for excavation and grading activities associated with the proposed construction of the fill slope to support Lots 22 - 30. |
| **45** | Coast live oak *Quercus agrifolia* | 34 | 12.2, 12.4, 12 | 10 | 0 | 13 | 18 | B | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL | Removed as permitted to allow for excavation and grading activities associated with the proposed construction of the fill slope to support Lots 22 - 30. |
| **46** | Coast live oak *Quercus agrifolia* | 20 | 11.8, 5.1, 3, 8.6, 7.6 | 9 | 10 | 12 | 12 | B | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL | Removed as permitted to allow for excavation and grading activities associated with the proposed construction of the fill slope to support Lots 22 - 30. |
| **47** | Coast live oak *Quercus agrifolia* | 20 | 12.3, 7.5, 9.7, 7.6, 3.5 | 16 | 16 | 20 | 17 | C | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL | Removed as permitted to allow for grading activities associated with the proposed construction of Lot 25. |
| **48** | Coast live oak *Quercus agrifolia* | 35 | 26.6 | 25 | 21 | 23 | 6 | C | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL | Removed as permitted to allow for grading activities associated with the proposed construction of Lot 25. |
| **49** | Coast live oak *Quercus agrifolia* | 30 | 17.3, 14.6, 4.8 | 18 | 13 | 19 | 11 | B | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL | Removed as permitted to allow for grading activities associated with the proposed construction of Lot 26. |

**DEERLAKE RANCH OAK TREE REMOVALS**

| Tree No. | Common Name *Botanical Name* | Height (~Ft.) | DBH (in.) | N | E | S | W | Health grade | Aesthetic/structure | New Tree due to: New Land Acquisition (NLA),In-Growth(IG), TL Sewer (TL S), Fire Recovery or Access | Current Disposition | 2012 OTP | Reason for Removal/Encroach |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **50** | Coast live oak *Quercus agrifolia* | 25 | 21.6 | 8 | 13 | 15 | 8 | C | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL | Removed as permitted to allow for grading activities associated with the proposed construction of the Poema Place roadway. |
| **51** | Coast live oak *Quercus agrifolia* | 18 | 6.8, 3.2, 6.5, 2.9 | 7 | 6 | 10 | 9 | C | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL | Removed as permitted to allow for excavation and grading activities associated with the proposed construction of the fill slope to support Lots 85 - 95. |
| **52** | Coast live oak *Quercus agrifolia* | 20 | 9.2, 7.1, 6, 6, 4.8 | 6 | 10 | 10 | 9 | C | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL | Removed as permitted to allow for grading activities associated with the proposed construction of Lot 86. |
| **53** | Coast live oak *Quercus agrifolia* | 20 | 20.4, 2.4,2.4, 10.2 | 7 | 5 | 10 | 13 | C | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL | Removed as permitted to allow for grading activities associated with the proposed construction of the Bull Finch Road roadway. |
| **55** | Coast live oak *Quercus agrifolia* | 16 | 5.6, 5.6 | 6 | 7 | 7 | 4 | C | C | 2012 OTP tree | TO BE REMOVED | APPROVED FOR REMOVAL | Permitted for removal to allow for grading activities associated with the proposed construction of the Bull Finch Road roadway |
| **64** | Coast live oak *Quercus agrifolia* | 20 | 12, 12 | 5 | 7 | 12 | 5 | C | D | 2012 OTP tree | TO BE REMOVED | APPROVED FOR REMOVAL | Permitted for removal to allow for excavation and grading activities associated with the proposed construction of Lot 239. |
| **66** | Coast live oak *Quercus agrifolia* | 15 | 8.1, 7 | 6 | 6 | 9 | 5 | B | C | 2012 OTP tree | TO BE REMOVED | APPROVED FOR REMOVAL | Permitted for removal to allow for grading activities associated with the proposed construction of the Sullivan Way bridge abutment. |
| **73** | Coast live oak *Quercus agrifolia* | 33 | 22, 13.6 | 22 | 20 | 23 | 18 | B | C | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL | Removed as permitted to allow for grading activities associated |

| DEERLAKE RANCH OAK TREE REMOVALS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Tree No.** | **Common Name** ***Botanical Name*** | **Height (~Ft.)** | **DBH (in.)** | **N** | **E** | **S** | **W** | **Health grade** | **Aesthetic/structure** | **New Tree due to: New Land Acquisition (NLA),In-Growth(IG), TL Sewer (TL S), Fire Recovery or Access** | **Current Disposition** | **2012 OTP** | **Reason for Removal/Encroach** |
| | | | | | | | | | | | | | with the proposed construction of Lot 106. |
| **76** | Coast live oak *Quercus agrifolia* | 23 | 8.2, 7.1 | 9 | 12 | 16 | 8 | B | B | 2012 OTP tree | REMOVED PER OTP | APPROVED FOR REMOVAL | Removed as permitted to allow for grading activities associated with the proposed expansion of Canoga Avenue. |
| **83** | Coast live oak *Quercus agrifolia* | 20 | 7.8, 4.9 | 8 | 6 | 8 | 6 | B | B | 2012 OTP tree | TO BE REMOVED | NOT PERMITTED | excavation and grading activities associated with the proposed construction of the fill slope to support Lots 22 - 30. |
| **86** | Coast live oak *Quercus agrifolia* | 30 | 11.1 | 16 | 10 | 10 | 8 | B | C | NLA | TO BE REMOVED | NOT PERMITTED | To be removed to allow for grading activities associated with the proposed construction of Lot 31. |
| **87** | Coast live oak *Quercus agrifolia* | 15 | 5.2,6.9, 4.5, 3.6 | 6 | 6 | 6 | 4 | C | C | IG | TO BE REMOVED | NOT PERMITTED | To be removed to allow for grading activities associated with the proposed construction of the Bull Finch Road roadway. |
| **95** | Coast live oak *Quercus agrifolia* | 18 | 7.6, 4.9, 6.4, 4 @1.6' | 6 | 6 | 9 | 4 | C | D | Fire recovery | TO BE REMOVED | NOT PERMITTED | To be removed to allow for grading activities associated with the proposed construction of the Bull Finch Road roadway. |
| **96** | Coast live oak *Quercus agrifolia* | 20 | 9.7, 18.1, 1.6, 1.6 | 12 | 7 | 13 | 12 | C | D | Fire recovery | TO BE REMOVED | NOT PERMITTED | To be removed to allow for grading activities associated with the proposed construction of the Bull Finch Road roadway. |
| **97** | Coast live oak *Quercus agrifolia* | 15 | 9.1, 5.7, 8.1, 7.6 | 10 | 12 | 14 | 7 | C | D | Fire recovery | TO BE REMOVED | NOT PERMITTED | To be removed to allow for excavation and grading activities associated with the proposed construction of the fill slope to support Lots 78 - 84. |

**DEERLAKE RANCH OAK TREE REMOVALS**

| Tree No. | Common Name *Botanical Name* | Height (~Ft.) | DBH (in.) | N | E | S | W | Health grade | Aesthetic/structure | New Tree due to: New Land Acquisition (NLA),In-Growth(IG), TL Sewer (TL S), Fire Recovery or Access | Current Disposition | 2012 OTP | Reason for Removal/Encroach |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **98** | Coast live oak *Quercus agrifolia* | 15 | 10, 7.6, 8.6, 5.1 | 7 | 13 | 13 | 12 | C | D | Fire recovery | TO BE REMOVED | NOT PERMITTED | To be removed to allow for excavation and grading activities associated with the proposed construction of the fill slope to support Lots 78 - 84. |
| **99** | Coast live oak *Quercus agrifolia* | 18 | 8.6, 8.8 | 7 | 7 | 7 | 4 | C | C | Fire recovery | TO BE REMOVED | NOT PERMITTED | To be removed to allow for excavation and grading activities associated with the proposed construction of the fill slope to support Lots 78 - 84. |
| **100** | Coast live oak *Quercus agrifolia* | 18 | 9.7 | 7 | 5 | 7 | 6 | C | C | Fire recovery | TO BE REMOVED | NOT PERMITTED | To be removed to allow for excavation and grading activities associated with the proposed construction of the fill slope to support Lots 78 - 84. |
| **101** | Coast live oak *Quercus agrifolia* | 20 | 9.7, 9.2, 11.8, 9.5, 8 | 13 | 14 | 14 | 14 | C | C | Fire recovery | TO BE REMOVED | NOT PERMITTED | To be removed to allow for excavation and grading activities associated with the proposed construction of the fill slope to support Lots 78 - 84. |
| **102** | Coast live oak *Quercus agrifolia* | 6 | 10.2, 11.1, 8 @1.6" | 6 | 10 | 10 | 10 | D | D | Fire recovery | TO BE REMOVED | NOT PERMITTED | To be removed to allow for excavation and grading activities associated with the proposed construction of the fill slope to support Lots 78 - 84. |
| **103** | Coast live oak *Quercus agrifolia* | 18 | 8.3, 5.1, 9.1, 5.4 | 6 | 10 | 11 | 11 | D | D | Fire recovery | TO BE REMOVED | NOT PERMITTED | To be removed to allow for grading activities associated with the proposed construction of the Bull Finch Road roadway. |
| **110** | Coast live oak *Quercus agrifolia* | 15 | 10.5 | 10 | 9 | 4 | 9 | D | D | NLA | TO BE REMOVED | NOT PERMITTED | To be removed to allow for excavation and grading activities associated with the proposed construction of the fill slope to support Lots 32 - 39. |

**DEERLAKE RANCH OAK TREE REMOVALS**

| Tree No. | Common Name *Botanical Name* | Height (~Ft.) | DBH (in.) | N | E | S | W | Health grade | Aesthetic/structure | New Tree due to: New Land Acquisition (NLA),In-Growth(IG), TL Sewer (TL S), Fire Recovery or Access | Current Disposition | 2012 OTP | Reason for Removal/Encroach |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **111** | Coast live oak *Quercus agrifolia* | DEAD | | | | | | F | F | NLA | TO BE REMOVED (DEAD) | NOT PERMITTED - DEAD | To be removed to allow for construction of Lot 344 and the supporting slope |
| **112** | Coast live oak *Quercus agrifolia* | 12 | 8.6, 8.3, 10.8 | 7 | 7 | 8 | 6 | D- | D | NLA | TO BE REMOVED | NOT PERMITTED | To be removed to allow for construction of Lot 344 and the supporting slope |
| **113** | Coast live oak *Quercus agrifolia* | DEAD | | | | | | F | F | Access | TO BE REMOVED (DEAD) | NOT PERMITTED - DEAD | To be removed to allow for construction of Poema Place near lots 29 and 50 |
| **114** | Coast live oak *Quercus agrifolia* | 18 | 11.3, 7.6 | 8 | 8 | 9 | 6 | C- | C | Access | TO BE REMOVED | NOT PERMITTED | To be removed to allow for construction of Poema Place near lots 29 and 50 |
| **115** | Coast live oak *Quercus agrifolia* | DEAD | | | | | | F | F | NLA | TO BE REMOVED (DEAD) | NOT PERMITTED - DEAD | To be removed to allow for construction of Lot 344 and the supporting slope |
| **117** | Coast live oak *Quercus agrifolia* | 40 | 16, 11, 21 | 27 | 16 | 31 | 26 | B | B | NLA | TO BE REMOVED | NOT PERMITTED | To be removed to allow for construction of the slope north of Canoga Avenue and east of the Roble residence on Cherokee Trail |
| **118** | Coast live oak *Quercus agrifolia* | 30 | 3, 7, 16 | 15 | 13 | 21 | 17 | C | B | NLA | TO BE REMOVED | NOT PERMITTED | To be removed to allow for construction of the slope north of Canoga Avenue and east of the Roble residence on Cherokee Trail |
| **119** | Coast live oak *Quercus agrifolia* | 20 | 7, 9, 12 | 10 | 12 | 15 | 12 | B | A | NLA | TO BE REMOVED | NOT PERMITTED | To be removed to allow for construction of the slope north of Canoga Avenue and east of the Roble residence on Cherokee Trail |
| **120** | Coast live oak *Quercus agrifolia* | 20 | 9, 9.5, 7, 5 | 15 | 12 | 20 | 12 | B | A | NLA | TO BE REMOVED | NOT PERMITTED | To be removed to allow for construction of the slope north of Canoga Avenue and east of the Roble residence on Cherokee Trail |

| DEERLAKE RANCH OAK TREE REMOVALS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Tree No.** | **Common Name** ***Botanical Name*** | **Height (~Ft.)** | **DBH (in.)** | **N** | **E** | **S** | **W** | **Health grade** | **Aesthetic/structure** | **New Tree due to: New Land Acquisition (NLA),In-Growth(IG), TL Sewer (TL S), Fire Recovery or Access** | **Current Disposition** | **2012 OTP** | **Reason for Removal/Encroach** |
| **121** | Coast live oak *Quercus agrifolia* | 10 | 7, 8 | 7 | 10 | 10 | 7 | B- | B | NLA | TO BE REMOVED | NOT PERMITTED | To be removed to allow for construction of the slope north of Canoga Avenue and east of the Roble residence on Cherokee Trail |
| **122** | Coast live oak *Quercus agrifolia* | 18 | 5.5, 7.5 | 3 | 18 | 11 | 9 | B | C | NLA | TO BE REMOVED | NOT PERMITTED | To be removed to allow for construction of the slope north of Canoga Avenue and east of the Roble residence on Cherokee Trail |
| **123** | Coast live oak *Quercus agrifolia* | 25 | 11.8 | 0 | 6 | 9 | 14 | C | C | NLA | TO BE REMOVED | NOT PERMITTED | To be removed to allow for construction of the slope north of Canoga Avenue and east of the Roble residence on Cherokee Trail |
| **124** | Coast live oak *Quercus agrifolia* | 20 | 8.6, 8.6, 7, 7, 2.9 | 10 | 8 | 10 | 13 | B | C | Fire recovery | TO BE REMOVED | NOT PERMITTED | Grading of Lot 341 - the Helispot |

***Twin Lakes Community Sewer Line Improvement***

The following impacts are based on the approved project condition that requires the Deerlake Ranch project to install a new sanitary sewer main system in the Twin Lakes community. Assessment of the neighborhood streets revealed 17 oak trees of protected size located adjacent to the potential area of impact for the installation of the main sewer line. Plans for the lateral connections to the residences were not available and those impacts, if any, were not included in this analysis.

Based on the current sewer main design, two (2) of the 17 inventoried oak trees will not be impacted by the development of the sewer line.

Based on the current sewer main design, 15 of the 17 inventoried oak trees may sustain encroachments of various degrees to their canopies, root zones, and overall Protected Zones. Encroachments are not anticipated to be significant.

Based on the current sewer design, no oak trees will require removals for the installation of the main sewer line in the street.

**Ta le** summarizes the trees to remain with no impacts and the proposed encroachments.

**TABLE – SUMMARY OF TWIN LAKES COMMUNITY SEWER LINE ENCROACHMENTS AND NO IMPACT OAK TREES**

| TWIN LAKES COMMUNITY SEWER LINE ENCROACHMENTS AND NO IMPACT OAK TREES | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Tree No.** | **Common Name *Botanical Name*** | **Height (~Ft.)** | **DBH (in.)** | **N** | **E** | **S** | **W** | **Health grade** | **Aesthetic/structure** | **New Tree due to: New Land Acquisition (NLA),In-Growth(IG), TL Sewer (TL S), Fire** | **Current Disposition** | **2012 OTP** | **Reason for Removal/Encroach** |
| **125** | Coast live oak *Quercus agrifolia* | 25 | 17.2 | 12 | 17 | 17 | 17 | B | B | TL S | ENCROACHMENT | NOT PERMITTED | Excavation and installation of the Twin Lakes Sewer line system - COA |
| **126** | Coast live oak *Quercus agrifolia* | 20 | 8, 9 | 6 | 5 | 12 | 15 | A | B | TL S | ENCROACHMENT | NOT PERMITTED | Excavation and installation of the Twin Lakes Sewer line system - COA |
| **127** | Coast live oak *Quercus agrifolia* | 25 | 9.5 | 8 | 12 | 13 | 10 | A | A | TL S | **NO IMPACT** | **NO IMPACT** | |
| **128** | California scrub oak *Q. berberidifolia* | 12 | 6.6, 6.9 | 11 | 14 | 17 | 17 | C | B | TL S | ENCROACHMENT | NOT PERMITTED | Excavation and installation of the Twin Lakes Sewer line system - COA |

**TWIN LAKES COMMUNITY SEWER LINE ENCROACHMENTS AND NO IMPACT OAK TREES**

| Tree No. | Common Name *Botanical Name* | Height (~Ft.) | DBH (in.) | N | E | S | W | Health grade | Aesthetic/structure | New Tree due to: New Land Acquisition (NLA),In-Growth(IG), TL Sewer (TL S), Fire | Current Disposition | 2012 OTP | Reason for Removal/Encroach |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **129** | Coast live oak *Quercus agrifolia* | 18 | 6.4, 6.0, 5.4, 5.4, 3.8 | 11 | 12 | 11 | 7 | A | A | TL S | ENCROACHMENT | NOT PERMITTED | Excavation and installation of the Twin Lakes Sewer line system - COA |
| **130** | California scrub oak *Q. berberidifolia* | 12 | 6, 6, 6.5 | 9 | 8 | 11 | 10 | C | B | TL S | ENCROACHMENT | NOT PERMITTED | Excavation and installation of the Twin Lakes Sewer line system - COA |
| **131** | Coast live oak *Quercus agrifolia* | ~15 | MULTI | 18 | 13 | 8.5 | 15 | A | A | TL S | ENCROACHMENT | NOT PERMITTED | Excavation and installation of the Twin Lakes Sewer line system - COA |
| **132** | Coast live oak *Quercus agrifolia* | ~15 | MULTI | 17 | 17 | 10 | 13 | B | B | TL S | ENCROACHMENT | NOT PERMITTED | Excavation and installation of the Twin Lakes Sewer line system - COA |
| **133** | Coast live oak *Quercus agrifolia* | 23 | 13.4 | 20 | 14 | 17 | 18 | A | A | TL S | ENCROACHMENT | NOT PERMITTED | Excavation and installation of the Twin Lakes Sewer line system - COA |
| **134** | Coast live oak *Quercus agrifolia* | 30 | 10.2 | 10 | 11 | 4 | 3 | C | C | TL S | ENCROACHMENT | NOT PERMITTED | Excavation and installation of the Twin Lakes Sewer line system - COA |
| **135** | Coast live oak *Quercus agrifolia* | 32 | 14.6, 12.4, 21 | 22 | 25 | 10 | 10 | D | D | TL S | ENCROACHMENT | NOT PERMITTED | Excavation and installation of the Twin Lakes Sewer line system - COA |
| **136** | Coast live oak *Quercus agrifolia* | 25 | 10.2 | 6 | 7 | 12 | 9 | A | B | TL S | ENCROACHMENT | NOT PERMITTED | Excavation and installation of the Twin Lakes Sewer line system - COA |
| **137** | Coast live oak *Quercus agrifolia* | 28 | 31 | 13 | 21 | 25 | 13 | A | A | TL S | ENCROACHMENT | NOT PERMITTED | Excavation and installation of the Twin Lakes Sewer line system - COA |
| **138** | Coast live oak *Quercus agrifolia* | 25 | 22.3, 21.5 | 16 | 19 | 32 | 20 | A | A | TL S | ENCROACHMENT | NOT PERMITTED | Excavation and installation of the Twin Lakes Sewer line system - COA |
| **139** | Coast live oak *Quercus agrifolia* | 10 | 8.9 | 9 | 8 | 6 | 6 | A | A | TL S | ENCROACHMENT | NOT PERMITTED | Excavation and installation of the Twin Lakes Sewer line system - COA |
| **140** | Coast live oak *Quercus agrifolia* | 15 | 8.0, 8.0, 5.1, 6.7 | 10 | 13 | 14 | 13 | B | B | TL S | **NO IMPACT** | **NO IMPACT** | |
| **147** | Coast live oak *Quercus agrifolia* | 30 | 14 | 10 | 12 | 10 | 6 | B- | C | TL S | ENCROACHMENT | NOT PERMITTED | Excavation and installation of the Twin Lakes Sewer line system - COA |

## CONSISTENCY WITH THE CERTIFIED DEERLAKE RANCH EIR

Section 15162 of the California Environmental Quality Act (CEQA) Guidelines states that a Subsequent EIR would be required if (1) substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; (2) substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or (3) new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified, becomes available.

On August 10, 2004, the Board of Supervisors ("Board") of the County of Los Angeles ("County") certified the Deerlake Ranch Project Final Environmental Impact Report, State Clearinghouse Number 2000061049. Since certification, two (2) addendums to the Certified EIR have been prepared. The First Addendum to the Certified EIR was adopted by the Commission on July 18, 2012 at which time the Commission approved amendments to the Board-approved vesting tentative tract map, including the reduction in single-family lots from 375 to 314 and reduction in project grading from 2.2 million cubic yards to 1.8 million cubic yards. The Second Addendum to the Certified EIR was adopted by the Los Angeles County Hearing Officer on November 17, 2015, at which time the hearing officer approved minor amendments to the vesting tentative tract map, including the addition of a recreational facility serving the Deerlake Ranch community, relocation of two (2) entry gates, reconfiguration of some lots, and increase in the multi-use trail length.

The Project's Certified EIR stated that there were a total of 353 coast live oak trees on the project site. Per the certified EIR and CUP 99-239, 61 oak trees would be removed and 11 oak trees would be encroached in order to construct the project. The project's Certified EIR concluded that impacts to oak trees would be less than significant with implementation of mitigation. As currently proposed, including the Twin Lakes trees, the project would require the removal of 56 oak trees and encroachments into the protected zone of 40 oak trees. The removal of 56 oak trees is less than the original 61 oak trees approved for removal in the Final EIR. Although the number of trees encroached by the Deerlake Ranch Project is more than discussed in the Certified EIR, the identified oak tree encroachments are not considered to be significant impacts because the encroached trees would not be exposed to significant alterations to the canopy or existing grades within the tree protection zone. In addition, because development of the NAP parcels and the Refined Twin Lakes Sewer Implementation Project were included in the environmental analysis of the Draft EIR as a cumulative impact, the potential effects of development on oak trees was previously considered. The changes proposed are neither substantial nor would they require a major revision of the previous EIR because the impacts are less than those previously described, and the Certified EIR contains mitigation measures to ensure impacts to trees encroached by project construction activities are less than significant.

Since preparation of the Certified EIR, Addendums, and previous oak tree reports, wildfires and approved brush removal operations have cleared impenetrable vegetation and allowed access to previously identified but not assessed trees, as well as assessment of previously unidentified trees. Eighty-five of the protected trees inventoried in this report had been tagged with an identifying number that corresponds to numbers assigned during 2012 and 2015 protected tree surveys. An additional 69 trees were tagged and assigned sequential numbers 86 through 154. Of the 69 additional trees, 17 are located within the Twin Lakes community. The remaining 52 additional trees were located within or adjacent the Deerlake Ranch property but were in areas that were previously inaccessible due to dense vegetation or steep topography, were undersized, or were severely burned and may not have seemed viable. Several of the trees appear to coincide with those described

in the Certified EIR while others are newly identified or were not of ordinance size during the previous assessments.

Overall, no substantial changes in circumstances have occurred since approval of the Certified EIR, including the Mitigation Monitoring Program (MMP) adopted at the time of certification, that would result in new significant impacts or substantial increases in the severity of previously identified significant impacts. There have been no substantial changes in plans, policies, and regulations that would present new conflicts resulting in significant or substantially more severe physical impacts on the environment.

Based on the analysis presented herein and with the implementation of applicable mitigation measures contained in the MMP adopted at the time of Deerlake Ranch Project approval, the project is consistent with the findings of the prior EIR and would not result in any new significant impacts or a substantial increase in the severity of an impact disclosed in the Certified EIR. In addition, no new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified, has become available. All applicable MMP mitigation measures from the Final EIR are restated in the Mitigation section below. Therefore, the oak tree impacts described herein are considered to be consistent with the Certified Deerlake Ranch EIR[4].

## OAK WOODLANDS ANALYSIS AND MITIGATION

California Public Resources Code Section 21083.4 requires that each county in California implement an oak woodland management plan to determine whether the development of a Project within their jurisdiction "may result in a conversion of oak woodlands that will have a significant effect on the environment."

Oak woodlands within the Project are categorized into two (2) associations: coast live oak woodlands (5.73 acres) and oak/willow woodland (0.58 acres). Coast live oak woodland on the site was most often observed adjacent to drainages, or on shaded, north facing slopes. The oak/willow association is characterized by small stands dominated by coast live oak and willows (  sp.) found on terraces above Devil Canyon Creek, primarily upstream from the Devil Canyon debris dam.

The Project would impact approximately 1.30 acres of coast live oak woodland and 0.02 acres of oak/willow woodland. Impacts associated with the seven (7) NAP parcels and the Refined Twin Lakes Sewer Implementation Project may affect individual oak trees but would not affect oak woodlands.

The Deerlake Ranch Biological Resources Mitigation Plan (Envicom Corporation 2004) described applicant-proposed mitigation measures including an assessment of a 160-acre site ("Browns Canyon Resource Property") that was proposed to serve as an offsite mitigation bank for sensitive species and habitat. The Plan was submitted to and approved by the County and California Department of Fish and Wildlife (CDFW).

As described in the Plan, 2.60 acres (representing a 2:1 ratio) of coast live oak woodland and 0.12-acre (representing a 4:1 ratio) of oak/willow woodland compensatory mitigation habitat would be acquired through offsite mitigation associated with the Browns Canyon Resource property. The Browns Canyon Resource property was approved to function as offsite mitigation to compensate for impacts to biological resources from the project because the property contains the same type of habitats proposed for removal on the Deerlake Ranch parcels, which was an essential feature for an offsite mitigation property[4].

[4] The project specific information presented in these sections of the report was provided by the project biologist, Envicom Corporation and vetted by Carlberg Associates.

The Browns Canyon Resource property was dedicated to the Mountains Recreation and Conservation Authority to serve as offsite mitigation for habitat preservation. As such, the Deerlake Ranch project's impacts to 61 individual oak trees and 1.32 acres of oak woodlands would not result in a conversion of oak woodlands that will have a significant effect on the environment (i.e., impacts were reduced to a less than significant level) and no additional mitigation is required as part of this reporting process. **E i its and 9** illustrate the mitigation areas and tree plantings.

**CONCLUSION AND MITIGATION MEASURES**

The Applicant acquired the entitled Deerlake Ranch property in 2014. In 2016, they became aware of the need to update the oak tree inventory and impact analysis for the following reasons:

- The Applicant recently purchased additional Not a Part (NAP) parcels interior and adjacent to the Deerlake Ranch development footprint. There are 24 oak trees associated with these parcels.
- The Applicant is conditioned to construct a sewer line extension within the adjacent Twin Lakes residential neighborhood. There are 17 ordinance size oak trees within close proximity of the planned sewer extension easement.
- Ten (10) oak trees within or adjacent to the development footprint have been recently located due to better site accessibility and vegetation removal.
- Eighteen (18) oak trees within or adjacent to the development footprint have recovered from severe fire damage or have grown since 2012 and now meet or are close to the County's diameter at breast height criteria for protection.

Therefore, Carlberg arborists conducted an updated site inventory that included 154 oaks. Eighty-five of the 154 oak trees inventoried for this report were previously included in the 2012 and 2015 LNDG reports, and 69 'new' trees were assessed as a result of the reasons provided above. Of the 69 new trees, 17 are associated with the Twin Lakes community and 52 are associated with the Deerlake Ranch update.

In preparation for Phase 1 grading, the Applicant has removed 22 of the 42 oak trees that are permitted for removal under Oak Tree Permit No 201200001 and mitigated for their removals. While mitigation for the removal of 42 oak trees includes replacement at a 2:1 ratio (84 mitigation trees), Forestar purchased and delivered 122 mitigation oak trees, as required pursuant to Final EIR Mitigation Measure MM 4.3-12, to the MRCA for planting in the off-site mitigation area.

An updated oak tree permit is requested for the following:

- Deerlake Ranch - Removal of 56 oak trees: 22 that have already been removed and seven (7) more that will be removed under OTP #201200001, plus 27 'new' trees. The new oak removals include trees: 31, 83, 86, 87, 95, 96, 97, 98, 99, 100, 101, 102, 103, 110, 111, 112, 113, 114, 115, 117, 118, 119, 120, 121, 122, 123, and 124.
- Deerlake Ranch – Encroachment of 25 oak trees: 5 oaks that are currently approved for encroachment and 8 oaks that are approved for removal under OTP #201200001, plus 12 'new' trees. The new oak encroachments include trees: 22, 27, 54, 56, 74, 84, 142, 143,144, 145, 146, and 154.
- Deerlake Ranch – 31 of the 137 updated oak trees on Deerlake will remain with no impact
- Twin Lakes – installation of sewer line improvements will necessitate encroachments on 15 'new' oaks that overhang the streets, including trees: 125, 126, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, and 147.

- Twin Lakes – two (2) of the 17 inventoried oak trees in Twin Lakes will remain with no impact

The oak tree removals will be mitigated in accordance with Section 22.56.2180 (A.6) of the County of Los Angeles Zoning Code, which states that in no case shall less than two (2) native oaks be provided for any oak tree removed or relocated. Each replacement tree shall be at least a 15-gallon size specimen and measure at least one-inch in diameter one foot above the base. As required by the County, the permittee shall ensure that the replacement trees live and maintain a healthy condition for a period of two (2) years and replaced by the applicant or permittee if mortality occurs within that period. The exact species, planting sizes, and planting locations shall be subject to review and approval by the Hearing Officer, Director, or Regional Planning Commission.

In addition to the requirements of the Zoning Code, the Deerlake Ranch Final EIR contained the following mitigation measures to offset the impacts to protected oak trees:

- **MM 4.3-12** All impacted oak trees, totaling 61, shall be mitigated (2:1 replacement with 15 gallon trees for removed trees). No heritage oaks will be impacted by the Project. A minimum of 122, 15-gallon oak trees shall be planted in appropriate habitat areas on the project site and/or within the mitigation parcel, as approved by the County Forester and Fire Warden. All oak tree mitigation shall be monitored by a qualified arborist, in accordance with the established preservation program included in the Oak Tree Report (see Appendix H of Draft EIR).

- **MM 4.3-13 Copies** of the final Oak Tree Report shall be reviewed and approved by the Los Angeles County Forester and Fire Warden and the Los Angeles County approved Oak Tree Permit will be maintained on-site during construction. Implementation of work approved by the Oak Tree Permit shall not begin prior to issuance of a grading permit.

**Ta le 9** lists the mitigation requirements for removal of oak trees pursuant to the zoning code, as well as the Final EIR mitigation measures. The Applicant has prepared an Oak Tree Mitigation and Monitoring Plan dated December 23, 2015 (Envicom), and has obtained approval of the Plan from the County Forester and Fire Warden. The Oak Tree Mitigation and Monitoring Plan includes the planting of 122 15-gallon oak trees on the MRCA's property in Gopher Canyon to the north and east of the Deerlake Ranch property. At this time, the Applicant has delivered to the MRCA all 122 of the 15-gallon oak trees. Eighty-five of the oak trees have been planted by the MRCA (see **E i its 7 and** ).

## TABLE 9 – OAK TREE MITIGATION REQUIREMENTS

| Oa Tree Mitigation So rce | Trees to Be Removed | Oa Species | Re ired Mitigation |
|---|---|---|---|
| Final EIR MM 4.3-12 | 61 (FEIR Total) | | 122 15-gallon trees |
| LA County Ordinance | 56 (actual removals – Deerlake, none in Twin Lakes) | | 112 15-gallon trees |
| | | | |

Since the Applicant has already mitigated for oak tree removals to the full extent required under the FEIR, the number of mitigation trees required for the updated impacts have already been delivered to the MRCA. Additionally, a 60-acre parcel has been purchased and donated to the MRCA to mitigate for the removal of oak woodlands located at Sullivan Way. With implementation of the Sullivan bridge, the oak woodlands will not be removed. Therefore, the Applicant will have mitigated for an impact that is no longer an impact and no new oak woodland mitigation is appropriate or necessary.

***Avoidance and Protection Measures***

In addition to the measures described above, the following avoidance and protective measures shall be implemented during and following project development to preserve the long-term health of the remaining protected oak trees:

1) The installation of chain link fencing not less than four feet in height around the protected zone of trees shown on the site plan. Fencing shall be in place and inspected by the forester and fire warden prior to commencement of any activity on the subject property. Fencing shall remain in place throughout the entire period of development and shall not be removed without written authorization from the director or the forester and fire warden.
2) Where grading or any other similar activity is specifically approved within the protected zone, the applicant shall retain the Arborist of Record (AOR) to monitor all demolition, excavation, grading, etc., proposed within the protected zones. The AOR will supervise, monitor and certify to the county forester and fire warden the implementation of all conditions imposed in connection with the applicant's oak tree permit.
3) Unless specifically allowed, excavation or grading allowed within the protected zone or within 15-feet of the trunk of a tree, whichever distance is greater, be limited to hand tools or small hand-power equipment.
4) To the extent feasible utility trenching shall avoid encroaching into the protected zone on its path to and from any structure.
5) At the start of grading operations and throughout the entire period of development, no person shall perform any work for which an oak tree permit is required unless a copy of the oak tree report, location map, fencing plans, and approved oak tree permit and conditions are in the possession of a responsible person and also available at the site.
6) Prune deadwood, broken branches and recommended structural pruning in accordance with International Society of Arboriculture, Pruning Standards and ANSI A-300 Pruning Guidelines and under the guidance of the AOR.
7) No concrete, trash, or other debris shall be located within the oak Protection Zone. The oak Protection Zones shall be kept free of the construction materials at all times.
8) Minor roots under 1” in diameter exposed during project grading shall be kept moist as directed by the AOR before the improvements are installed. Root pruning cuts shall be clean cut at a 45-degree angle with the cut surface facing downward.
9) Roots over 2” in diameter exposed during project grading may only be cut with the AOR’s approval
10) The leaf-litter build-up under the canopy of the oak is ideal for healthy tree growth and root development. Do not alter or remove if possible. A 3-inch layer of mulch may be advisable in settings where leaf-litter has been lost.
11) Do not remove the tags numbering each oak on this site.
12) No construction materials are to be stored or discarded within the Protection Zone of any oak. Rinse

water, concrete residue, liquid contaminates (paint, thinners, gasoline, oils, etc.) of any type shall not be deposited in any form within the protected zone of an oak tree.

13) No vehicles shall be parked within the Protection Zone of an oak.
14) The AOR shall oversee the care of mitigation oaks and existing oaks that remain on-site through the completion of the construction phase of the project and for the monitoring period as required by the oak tree permit.
15) Undersized oaks that grow to ordinance size during the construction process shall be treated as 'in-growth' trees. If an in-growth tree must be removed, the Applicant and the AOR shall contact the Forester to set up a site inspection of the tree(s) and to document its impending removal. In-growth trees shall be mitigated at a minimum ratio of 2:1. Mitigation documentation shall be provided to the Forester within a reasonable timeframe to be agreed upon by the Forester, the AOR, and the Applicant at the time of the joint site inspection.
16) Oaks to remain in the landscape and natural areas where people will be exposed to them (trails, open space near lots, roads, or sidewalks) should be inspected by the AOR for possible structural pruning. With the fire-damage sustained by most of the oaks on this project, structural and reconstructive pruning will be necessary to promote healthy and structurally sound new growth.
17) Oak tree pruning is recommended in the late summer months when native oaks are most dormant and insects/fungal pests and diseases are less prevalent.

**OAK TREE MANAGEMENT PRESERVATION GUIDELINES**

An important component of oak tree management and preservation relates to the management of the preserved and newly-planted mitigation trees during construction and after the development is in place. Oak trees are sensitive to changes in their environment and improper irrigation, soil compaction and/or disturbances to the roots can result in the decline in health and eventual loss of the tree. The following guidelines are recommended to successfully maintain preserved and mitigation trees during and after project implementation.

- Irrigation - Established oaks are adapted to xeric (dry) conditions and do not need summer water at all. However, turf areas associated with landscaping do require frequent irrigation. Excessive dry season irrigation within the drip line of existing trees will promote the growth of Oak Root Fungus ( ). This fungus occurs naturally and grows more rapidly under wet conditions, such as during the winter months. Under normal conditions, the subsequent dry season keeps the fungus under control. Moisture around the base of the tree in the warm summer season not only allows the fungus to survive, but the combination of warmth and extra moisture fosters fungus growth. Prolonged fungus attack promotes oak tree decline and eventual death. Supplemental irrigation should only be considered during periods of prolonged drought. Therefore, turf areas and associated irrigation systems should be planned so as not to encroach within the dripline of an existing oak tree. Water should never be allowed to spray onto, or pond around, the trunk of an oak tree. Oak leaf litter should be allowed to accumulate in the area directly under a protected tree.

- Establishment irrigation - Young oak trees often need initial irrigation to establish successfully after planting. Irrigation for replacement trees shall follow the schedule described in the approved Mitigation Oak Tree Planting Plan.

- Fencing - As previously indicated, the area surrounding the dripline of established trees shall be fenced for the duration of construction. Fencing shall be no closer than 5 feet to the outer drip line boundary or

15 feet to the trunk of any protected tree.

- Drainage - Natural drainage courses and natural grades around existing oak trees should not be altered. Surface runoff from adjacent areas shall be directed away from preservation areas and shall not increase runoff to those areas. Water shall not be allowed to pond or accumulate within the drip line of any oak tree.

- Pruning - Existing oak trees shall not be pruned, except as necessary for public health and safety. Pruning of live tissue over two inches (2") in diameter requires an Oak Tree Permit. Removal of dead wood is exempt from the requirement to obtain a permit.

- Fuel Modification - All fuel modification requirements such as selective clearing, pruning, and wet zones shall be limited within the drip line of any individual oak tree.

- Weed Control - Use of soil sterilizers shall be prohibited under and around existing oak trees. Sterilizers may leach into the root system and kill the tree. Use of pre-emergent weed killers shall be prohibited within 100 feet of any individual oak tree or within a natural drainage that seasonally irrigates oak trees.

- Revegetation Near Existing Oaks - All cut and fill slopes adjacent to the existing oak trees shall be vegetated with native species that require little water to become established and little or no irrigation once established.

- Other Considerations - Dust that accumulates on the foliage of the preserved oak tree due to nearby construction should be periodically hosed-off as recommended by the project's AOR.

Please feel welcome to contact me at 626.428.5072 if you have any immediate questions or concerns.

Respectfully submitted,

Christine Cuba

Christy Cuba, Registered Consulting Arborist
Senior Arborist, Carlberg Associates
christy@cycarlberg.com

This report comprises a total of 100 pages and three full-size maps. Unauthorized separation or removal of any portion of this report deems it invalid as a whole.

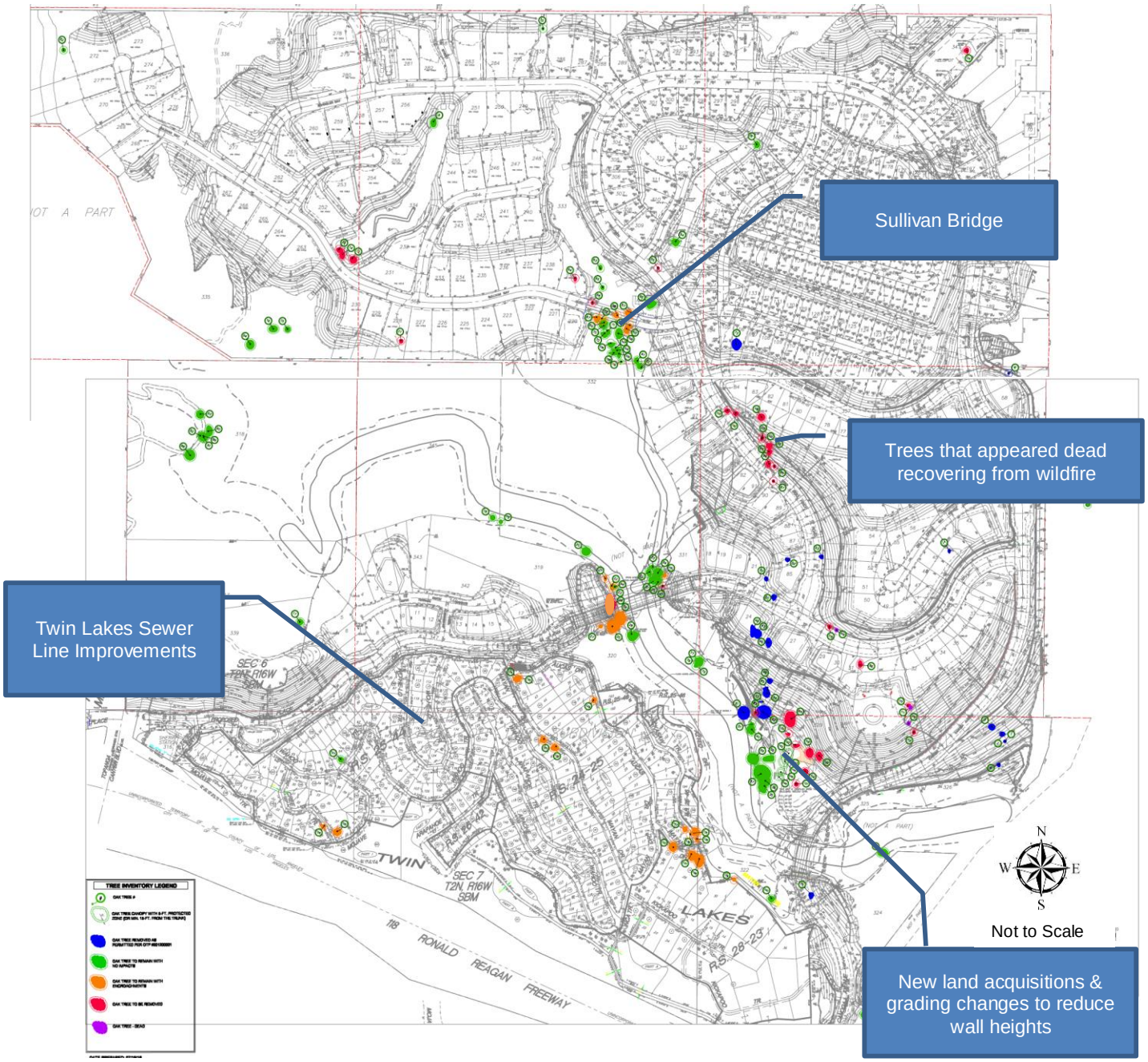
Conditions represented in this report are limited to the inventory date and time. Formal risk assessments were not performed for the purposes of this report. Ratings for health, aesthetics, and structure do not constitute a health or structural guarantee beyond that date.

**EXHIBIT 1 – AERIAL EXHIBIT OF DEERLAKE RANCH AND TWIN LAKES COMMUNITY**

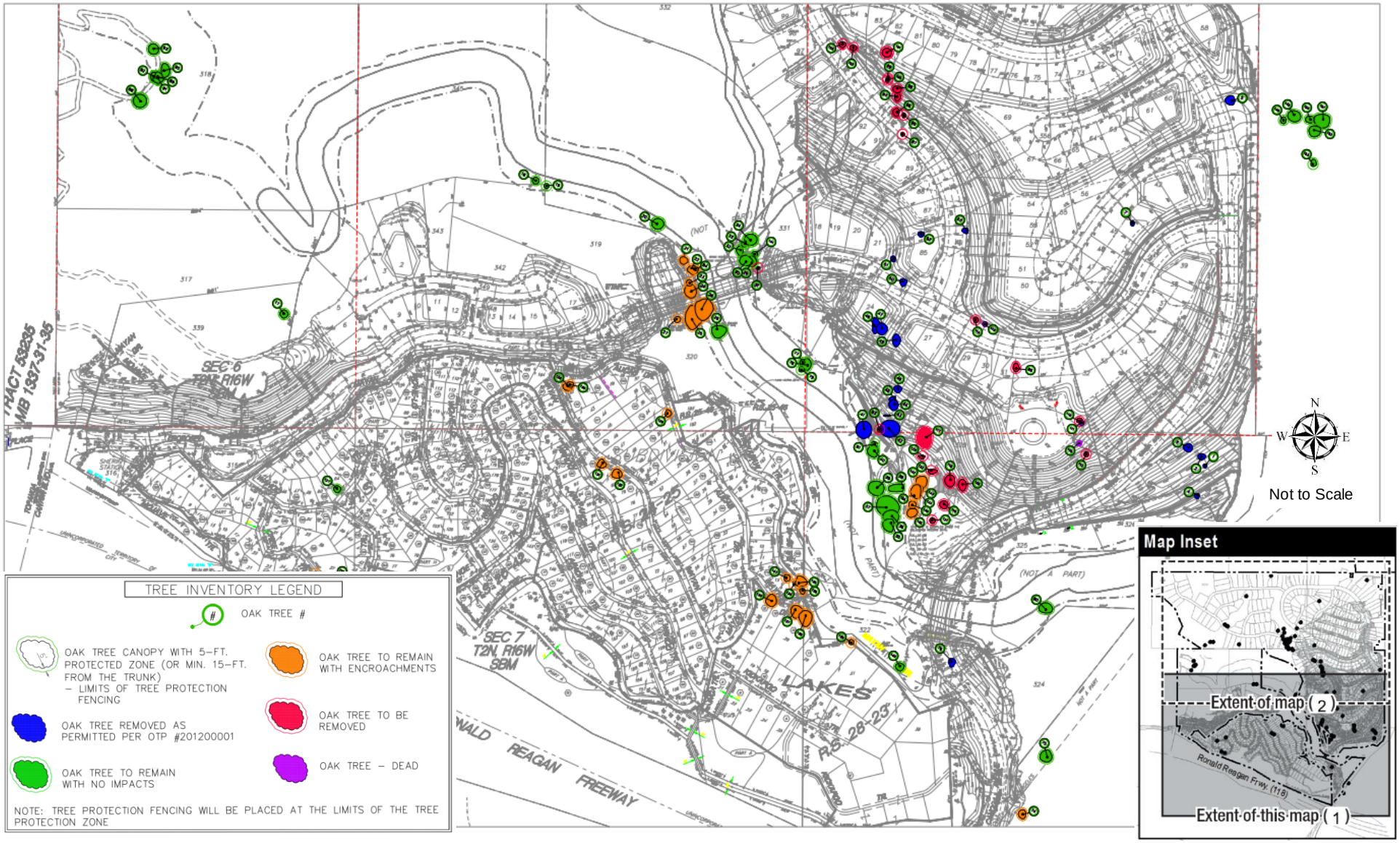
Source: Google Earth Pro, May 1, 2015 (Envicom Corp. Oak Mitigation Plan)

Not to Scale

**EXHIBIT 2 – ILLUSTRATION OF SELECT CHANGES TO THE OAK TREE PERMIT**



## EXHIBIT 3 – REDUCED COPY OF THE OAK TREE IMPACT EXHIBIT AND PROTECTION PLAN – SHEET 1/2



# EXHIBIT 4 – REDUCED COPY OF THE OAK TREE IMPACT EXHIBIT AND PROTECTION PLAN – SHEET 2/2

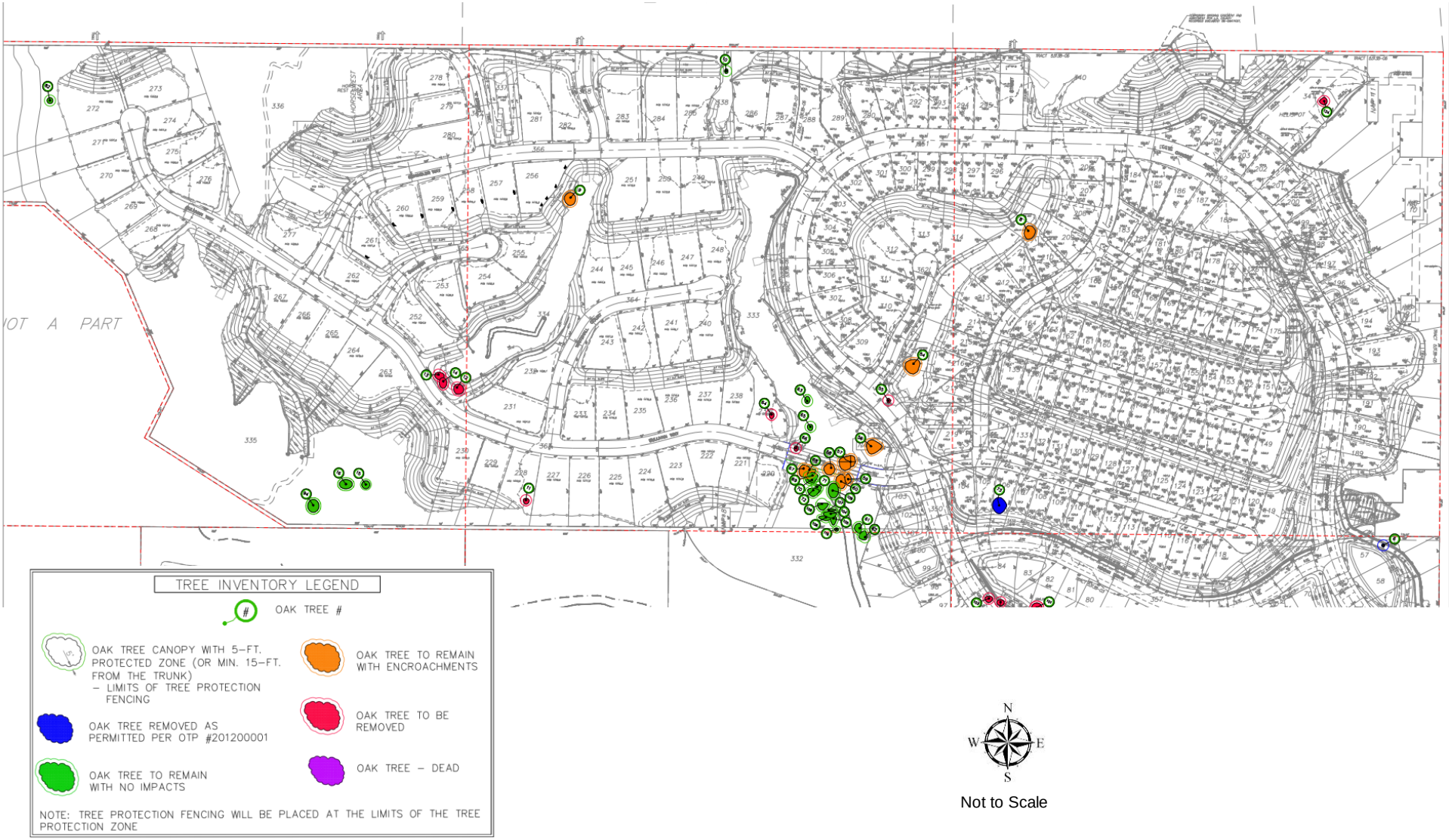
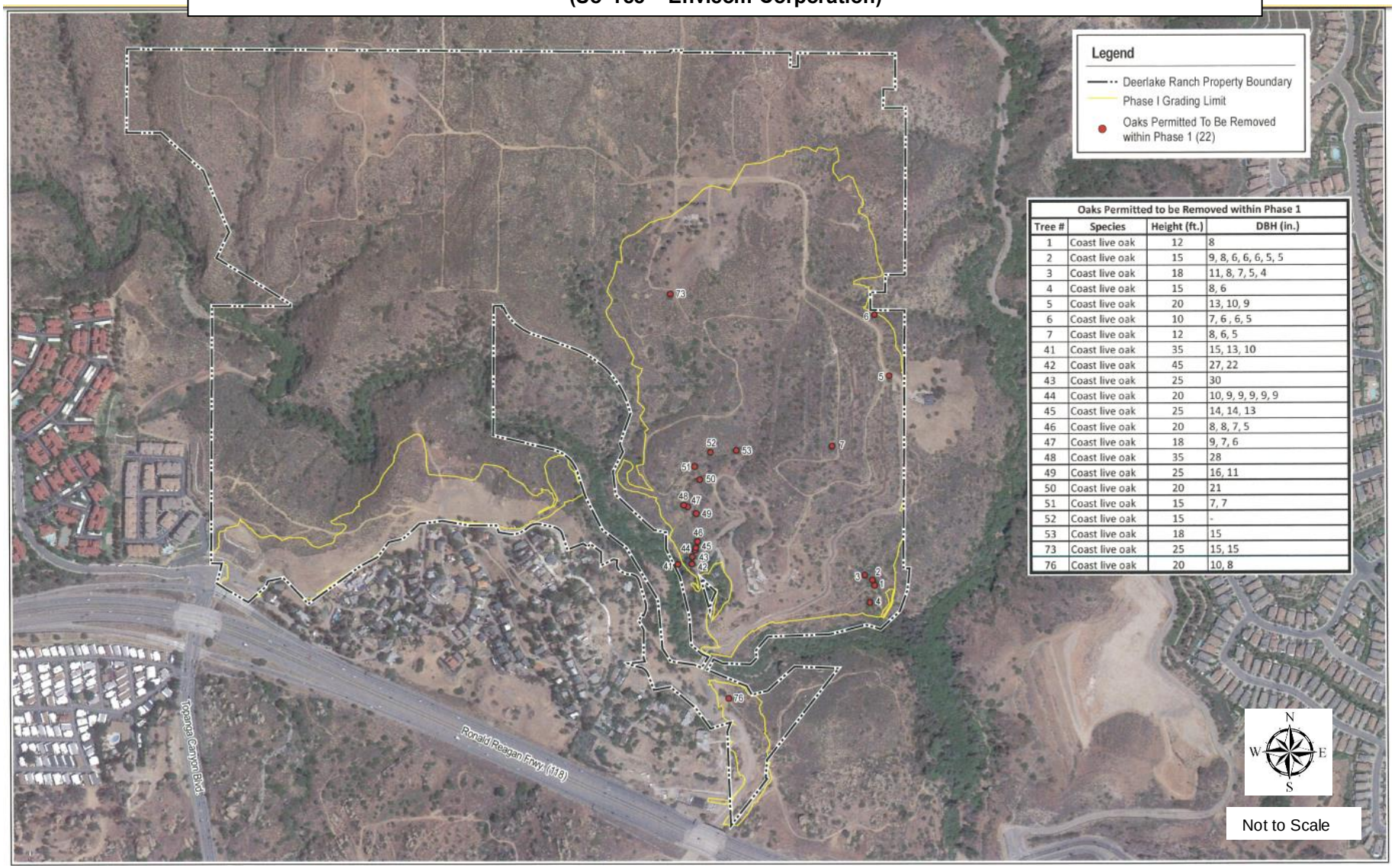
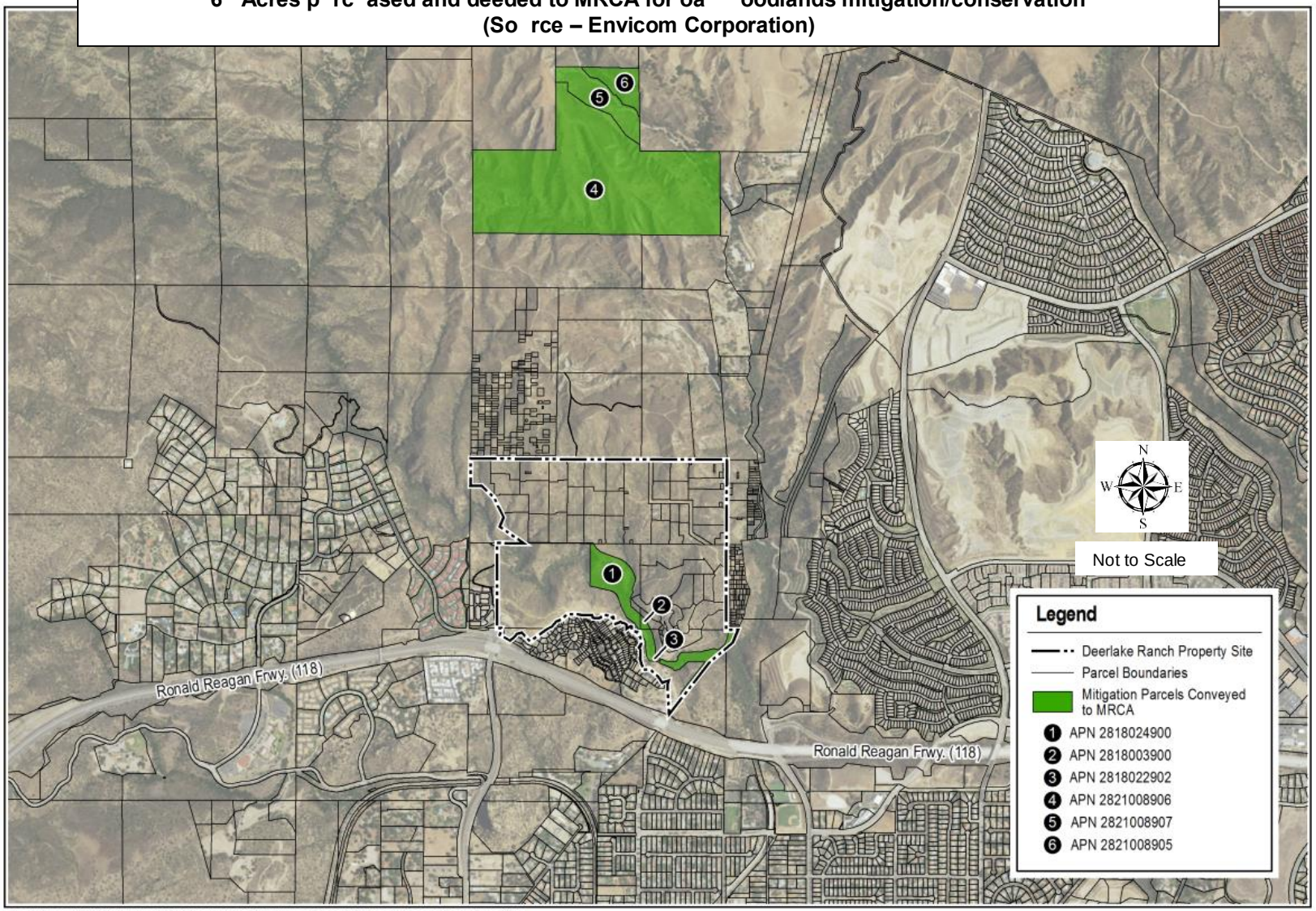


**EXHIBIT – PERMITTED OAK TREE REMOVALS FOR PHASE 1 GRADING**
**(So rce – Envicom Corporation)**



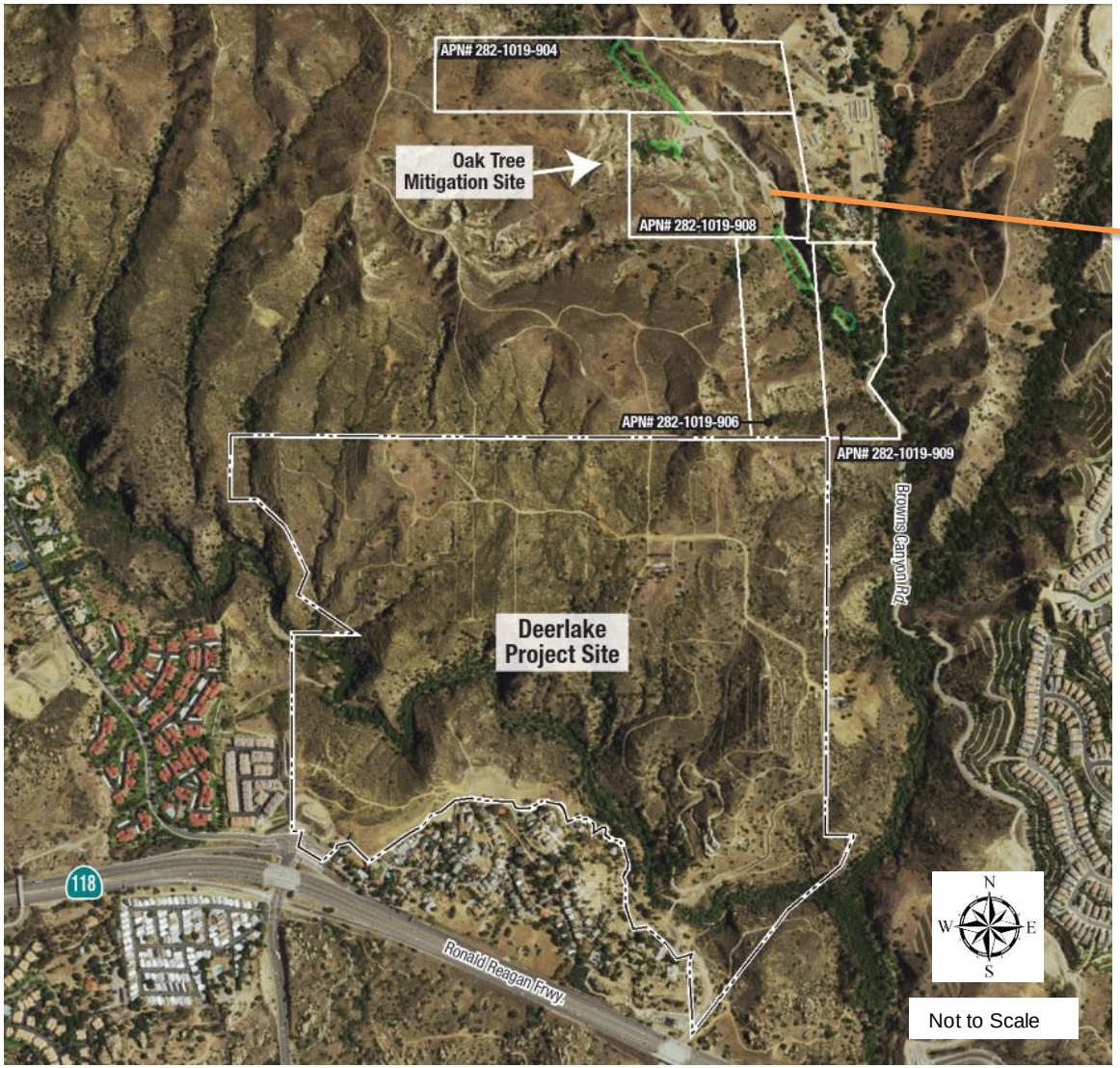

| Oaks Permitted to be Removed within Phase 1 | | | |
|---|---|---|---|
| Tree # | Species | Height (ft.) | DBH (in.) |
| 1 | Coast live oak | 12 | 8 |
| 2 | Coast live oak | 15 | 9, 8, 6, 6, 6, 5, 5 |
| 3 | Coast live oak | 18 | 11, 8, 7, 5, 4 |
| 4 | Coast live oak | 15 | 8, 6 |
| 5 | Coast live oak | 20 | 13, 10, 9 |
| 6 | Coast live oak | 10 | 7, 6 , 6, 5 |
| 7 | Coast live oak | 12 | 8, 6, 5 |
| 41 | Coast live oak | 35 | 15, 13, 10 |
| 42 | Coast live oak | 45 | 27, 22 |
| 43 | Coast live oak | 25 | 30 |
| 44 | Coast live oak | 20 | 10, 9, 9, 9, 9, 9 |
| 45 | Coast live oak | 25 | 14, 14, 13 |
| 46 | Coast live oak | 20 | 8, 8, 7, 5 |
| 47 | Coast live oak | 18 | 9, 7, 6 |
| 48 | Coast live oak | 35 | 28 |
| 49 | Coast live oak | 25 | 16, 11 |
| 50 | Coast live oak | 20 | 21 |
| 51 | Coast live oak | 15 | 7, 7 |
| 52 | Coast live oak | 15 | - |
| 53 | Coast live oak | 18 | 15 |
| 73 | Coast live oak | 25 | 15, 15 |
| 76 | Coast live oak | 20 | 10, 8 |

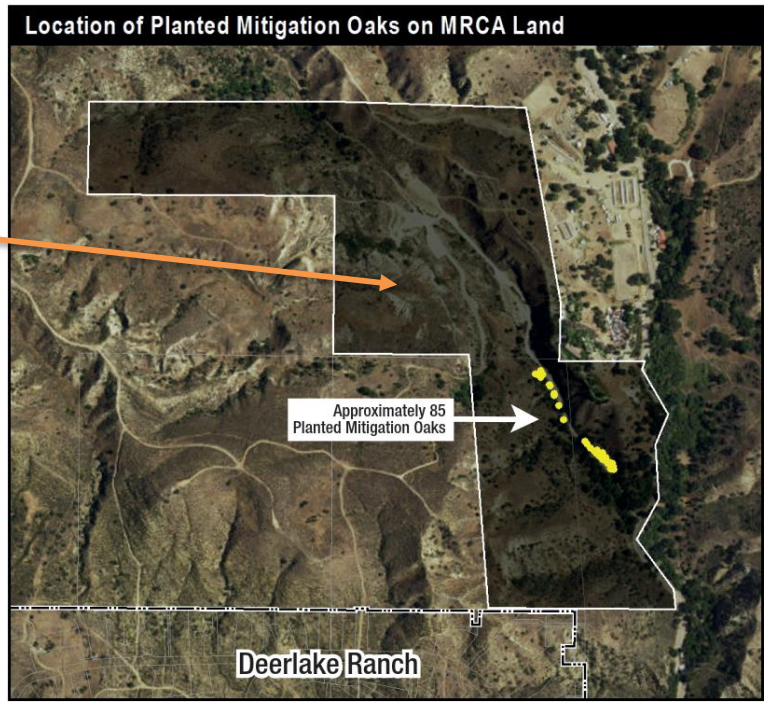
**EXHIBIT 6 – MITIGATION PARCELS CONVEYED TO MRCA**
**6 Acres p rc ased and deeded to MRCA for oa oodlands mitigation/conservation**
**(So rce – Envicom Corporation)**




Aerial Source: ESRI Background Aerial Photography, 2015. Parcel Source: L.A. County Assessor Parcel Data, 2011.

**EXHIBIT 7 – MITIGATION OAK TREE PLANTINGS ON MRCA LAND ADJACENT TO DEERLAKE RANCH**
**(So rce – Envicom Corporation)**

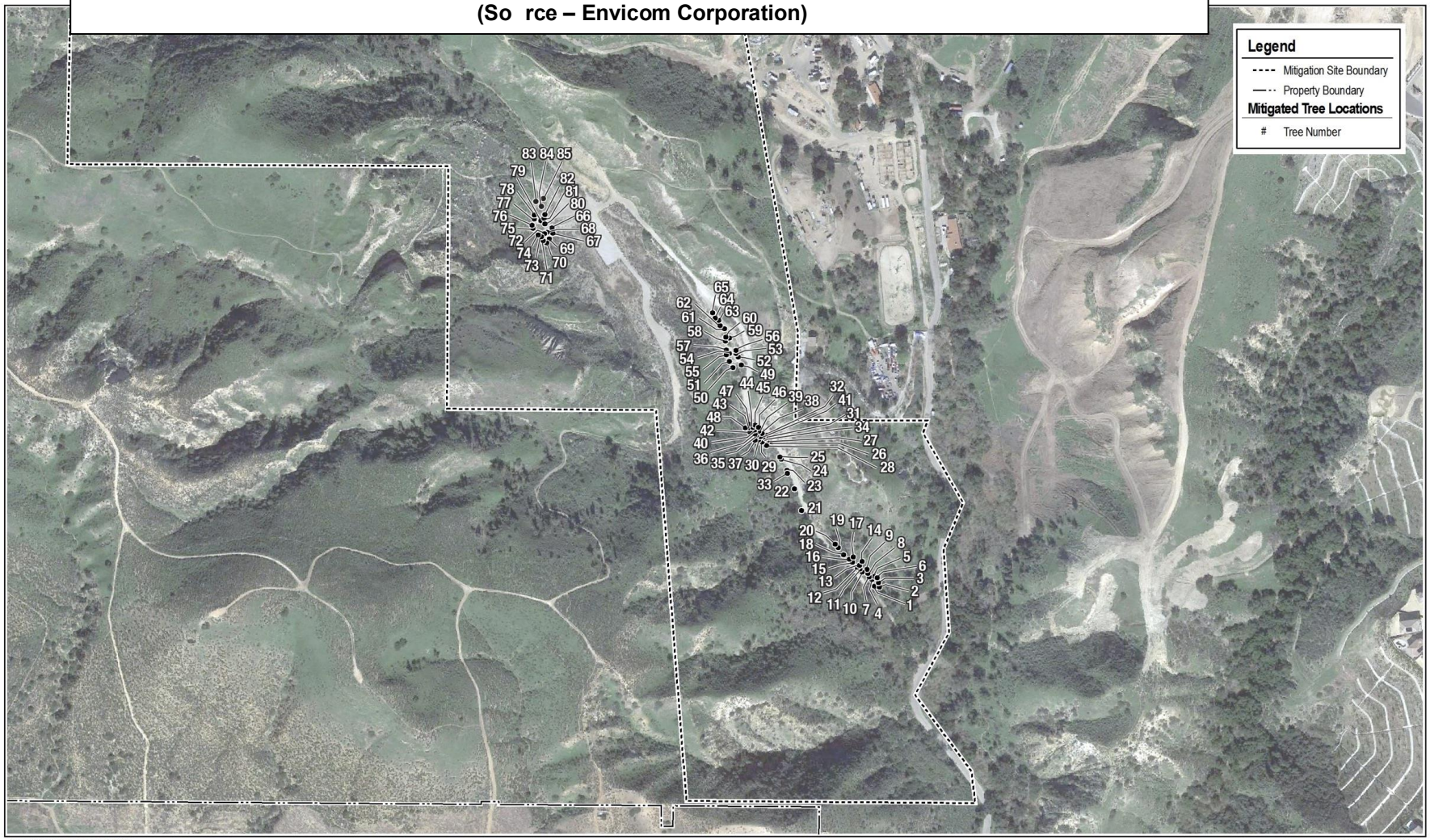



61 removals mitigated with the purchase and installation of 122 oaks planted on MRCA property adjacent to Deerlake Ranch – 61 removals were anticipated in the Certified EIR

To date, 122 oak trees have been delivered to the MRCA and 85 have been planted.

**EXHIBIT – LOCATIONS OF MITIGATION OAK TREE PLANTINGS ON MRCA LAND**
**(So rce – Envicom Corporation)**




Source: GoogleEarth Pro, Feb. 8, 2016.

Map Revision: July 22, 2016.

DEERLAKE RANCH

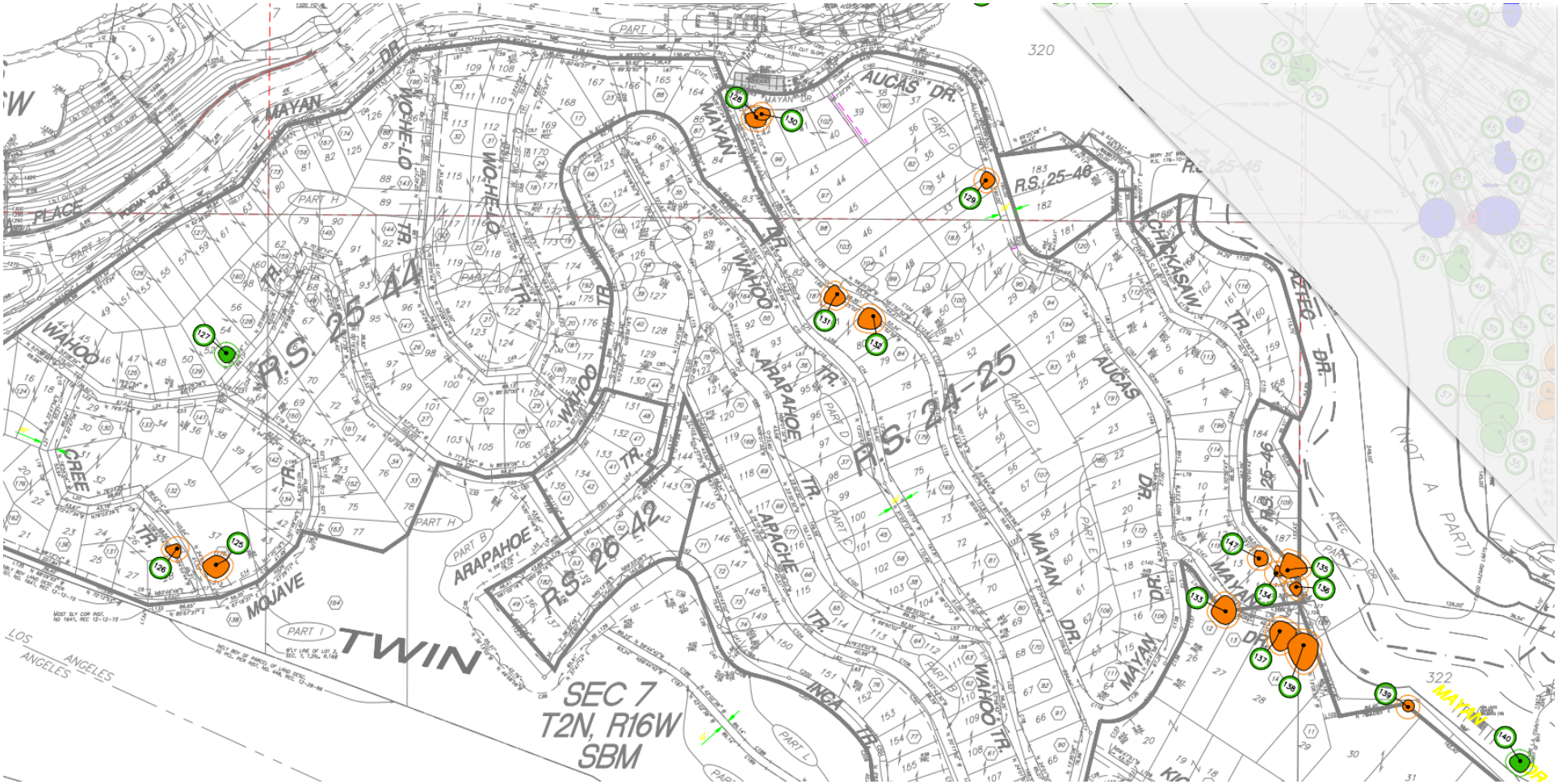
envicom

Mitigation Oak Trees

0 150 300 Feet

FIGURE 1

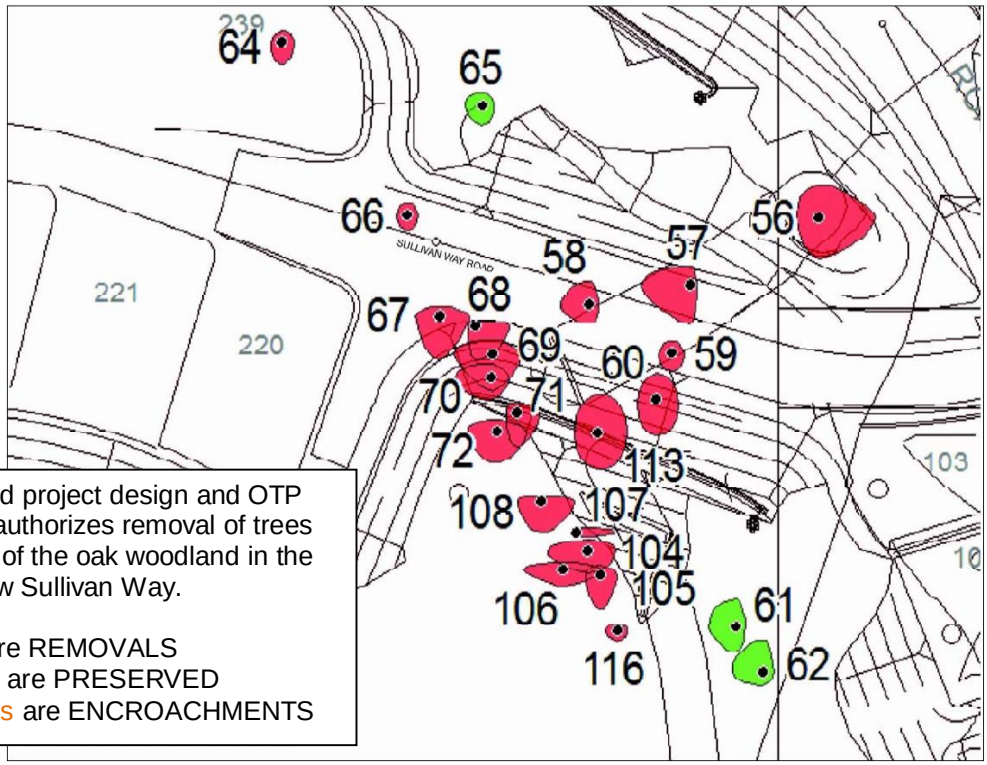
## EXHIBIT 9 – TWIN LAKES SEWER LINE OAK TREES




**17 Ordinance si e oa trees occ r along t e road a s: 1 encroac ments (orange) 2 no impact (green)**

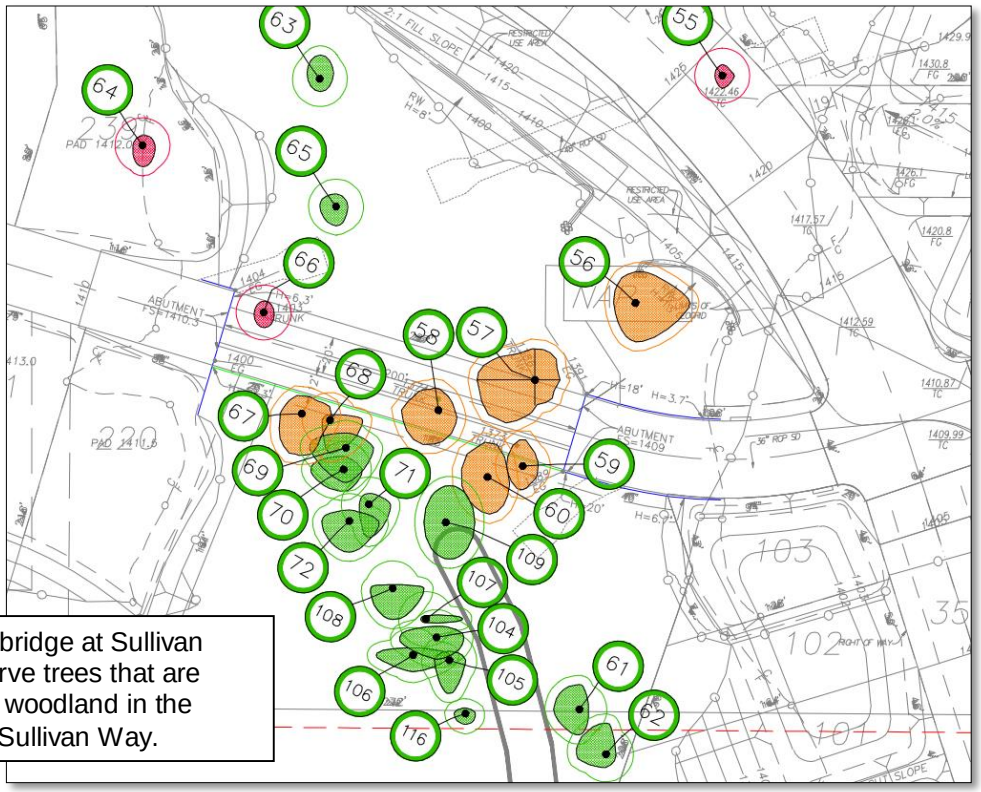
Not to Scale

## EXHIBIT 1 - SULLIVAN WAY BRIDGE VS. STANDARD FILL SLOPE IN CANYON




The approved project design and OTP 201200001 authorizes removal of trees that are part of the oak woodland in the canyon below Sullivan Way.

Red Trees are REMOVALS
Green Trees are PRESERVED
Orange Trees are ENCROACHMENTS

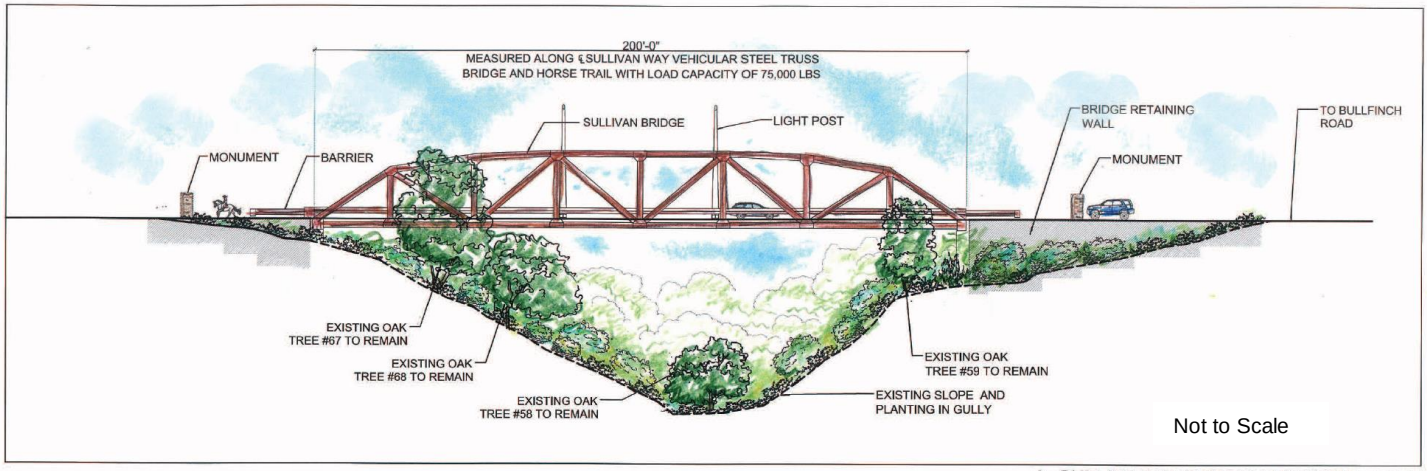



The proposed bridge at Sullivan Way will preserve trees that are part of the oak woodland in the canyon below Sullivan Way.

N
W E
S

Not to Scale

## EXHIBIT 11 - SULLIVAN WAY BRIDGE PLAN AND PHOTOGRAPH OF OAK WOODLANDS




A- SULLIVAN BRIDGE ELEVATION Scale 1"=30'

Facing south at the Sullivan Way oak woodlands

**CERTIFICATION OF PERFORMANCE**

*C C*

- That I have personally inspected the tree(s) and/or the property referred to in this report, and have stated my findings accurately. The extent of the evaluation and appraisal is stated in the attached report and the Terms of Assignment;
- That I have no current or prospective interest in the vegetation or the property that is the subject of this report and have no personal interest or bias with respect to the parties involved;
- That the analysis, opinions, and conclusions stated herein are my own;
- That my analysis, opinions, and conclusions were developed and this report has been prepared according to commonly accepted arboricultural practices;
- That no one provided significant professional assistance to the consultant, except as indicated within the report;
- That my compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party.

I further certify that I am a Registered Consulting Arborist and member of the American Society of Consulting Arborists, and that I acknowledge, accept, and adhere to the ASCA Standards of Professional Practice. I am an International Society of Arboriculture Certified Arborist and Qualified Tree Risk Assessor, and have been involved in the practice of arboriculture and the study of trees for over twenty-five years.

Christine Cuba

August 2, 2016

Christy Cuba
*C 02*
*C 1 2*

## ARBORIST DISCLOSURE STATEMENT

Arborists are tree specialists who use their education, knowledge, training and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed.

Treatment, pruning and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.

Trees contribute greatly to our enjoyment and appreciation of life. Nonetheless, they are subject to the laws of gravity and physiological decline. Therefore, neither arborists nor tree owners can be reasonably expected to warrant unfailing predictability or elimination of risk.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.

**CHRISTINE CUBA**
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Education
B.A., Environmental Analysis & Design, Cum Laude, University of California, Irvine, 1993
Graduate, International Society of Arboriculture Certification Study Program, April 1998
Graduate, Consulting Academy, American Society of Consulting Arborists, February 2008

Experience
Senior Arborist/Associate, Carlberg Associates, 2011 - Present
Director of Environmental Services & Senior Arborist, Land Design Consultants, Pasadena, 1994 – 2011
Park Specialist/Naturalist, City of Monrovia, 1988-1996

Certificates
Certified Arborist, WE-1982A, International Society of Arboriculture, 1998
Registered Consulting Arborist, #502, American Society of Consulting Arborists, 2011
Qualified Tree Risk Assessor, International Society of Arboriculture, 2013

**AREAS OF EXPERTISE**

Ms. Cuba is experienced in the following areas of tree management and preservation:

- Tree health & risk assessments
- Inventories & reports for native and non-native trees
- Master planning
- Evaluation of trees for preservation, encroachment, relocation, restoration, and hazards
- Value assessments (appraisals) for native and non-native trees
- Post-fire inventories, assessments, and valuations for native and non-native trees
- Guidelines for tree preservation, planting, pruning and maintenance specifications
- Pest and disease identification
- Tree and landscape resource mapping – GPS and AutoCAD
- Planning Commission, City Council, and community meetings representation
- Review of landscape plans for mitigation compliance & fire fuel modification planning
- Preparation of native habitat and woodland management plans
- Performance of long-term mitigation compliance monitoring & reporting
- Expert testimony

**PREVIOUS CONSULTING EXPERIENCE**

Ms. Cuba has performed hundreds of tree inventories, health evaluations, impact analyses, hazard, and value assessments for counties, cities, sanitation districts, and water districts, as well as private developers, architects, engineers, and homeowners. She has over 23 of experience in arboriculture and is trained in environmental planning, state and federal regulatory permitting, preparation of CEQA analyses, and habitat mitigation planning and implementation. Representative clients include:

City of Pasadena
City of Monrovia
City of Santa Clarita
City of South Gate
City of Sierra Madre
California Institute of Technology
Mia Lehrer + Associates
Pulte/Centex Homes
Newhall Land and Farming
KOVAC Design Studio
EPT Design
Pamela Burton & Company
San Diego Gas & Electric
Quinn, Emanuel, Urquhart and Sullivan (attorneys at law)
The New Home Company
Chandler School
Mesivta of Greater Los Angeles
Belzberg Architects
Occidental College
Rose Bowl Stadium
Las Encinas Hospital/Aurora Health Services
The Claremont Colleges (Pomona College, CUC, Claremont, Graduate University)
Rancho Los Amigos Hospital
Gensler Architects

**AFFILIATIONS**

Ms. Cuba serves with the following national and regional professional organizations:

- Member, American Society of Consulting Arborists
- Member, International Society of Arboriculture, Western Chapter
- Member, Los Angeles Oak Woodland Habitat Conservation Strategic Alliance
- Past President (2015), Street Tree Seminar, Inc.

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Education — B.A., Environmental Studies, University of California, Santa Barbara, 2000

Experience — Project Planner & Senior Arborist, Land Design Consultants, Inc.
Pasadena, 1999 – 2014

Certificates — Certified Arborist, WE-7011A, International Society of Arboriculture, 2004
Qualified Tree Risk Assessor, International Society of Arboriculture, 2015

**AREAS OF EXPERTISE**

Mr. McAllaster is experienced in the following areas of tree management and preservation:

- Tree health & risk assessments
- Inventories & reports for native and non-native trees
- Master planning
- Evaluation of trees for preservation, encroachment, relocation, restoration, and hazards
- Construction monitoring and reporting
- Value assessments (appraisals) for native and non-native trees
- Post-fire inventories, assessments, and valuations for native and non-native trees
- Guidelines for tree preservation, planting, pruning and maintenance specifications
- Tree and landscape resource mapping – GPS and AutoCAD
- Planning Commission, City Council, and community meetings representation
- Review of landscape plans for mitigation compliance & fire fuel modification planning
- Performance of long-term mitigation compliance monitoring & reporting

**PREVIOUS CONSULTING EXPERIENCE**

Mr. McAllaster has performed hundreds of tree inventories, health evaluations, impact analyses, hazard, and value assessments for counties, cities, sanitation districts, and water districts, as well as private developers, architects, engineers, and homeowners. He has over 11 years of experience in arboriculture and is trained in environmental planning, state and federal regulatory permitting, preparation of CEQA analyses, and habitat mitigation planning and implementation. Representative clients include:

City of Pasadena
City of Santa Clarita
City of Glendora
Los Angeles County Fire Department
Los Angeles County Sanitation Districts
Newhall County Water District
Pulte/Centex Homes
Newhall Land and Farming
E & S Ring, Inc.
Hollywood Forever Cemetery
Archdiocese of Los Angeles
St. John's Hospital, Santa Monica
Kovac Architects
Tim Barber, Ltd., Architects
Ojai Valley Community Hospital
The Kibo Group
El Monte Garden Senior Center
IMT Capital, LLC
San Diego Gas & Electric
Corky McMillin Companies
City of South Gate
City of Arcadia
D2 Development
Burrtec, Inc.
The Claremont Colleges
The New Home Company
William Carey University
Claremont Golf Course
Universal Hilton
Gensler Architects
Marmol Radziner, Architects
NAC Architecture
Aurora/Signature Health Services
Monte Vista Grove Homes
Highpointe Communities
Claremont University Center

**AFFILIATIONS**

Mr. McAllaster serves with the following national and regional professional organizations:

- Member, International Society of Arboriculture, Western Chapter
- Member, Street Tree Seminar, Inc.

# APPENDIX 1

## Deerla e Ranc
## Oa Tree Inventor Data
## and
## Definitions

**(Field dates J l 7 and 13 2 16)**

# DEERLAKE RANCH OAK TREE INVENTORY FIELD DATA

| Tree No. | Common Name Botanical Name | Height (~Ft.) | DBH (in.) | N | E | S | W | Heritage | Trunk cavity | Trunk exudation | Trunk damage | Buried root collar | Exposed roots | Weak crotch | Fungal disease | Insect damage | Fire damage | Branch cavities | Main stem dieback | Twig/branch dieback | Epicormic growth | Thin foliage | Drought stress | Unbalanced crown | Ex. Horizontal branch | Vigor (G, M, P) | Terrain (S/F) | Remove deadwood | Treat Pest/Disease | Safety Prune | Health grade | Aesthetic/structure | Notes | TWIN LAKES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Coast live oak *Quercus agrifolia* | 21 | 8.3, 5.7, 4.8, | 5 | 5 | 7 | 6 | | | | | | | | | X | X | | | X | | X | | | | M | S | | | | D | D | | |
| 2 | Coast live oak *Quercus agrifolia* | 25 | 6.8, 5.9, 15.6, 12.7 | 8 | 12 | 10 | 10 | | | | | | | | | X | X | | | X | | X | | | | G | F | | | | C | C | | |
| 3 | Coast live oak *Quercus agrifolia* | 28 | 3.8, 12.4, 8.6, 9.9, 5.4 | 10 | 10 | 13 | 17 | | X | | | | | | | X | X | | X | | | X | | | | M | S | | | | D | D | | |
| 4 | Coast live oak *Quercus agrifolia* | 23 | 8.9, 7.3, 4.1 | 5 | 5 | 10 | 10 | | | | | | | | X | X | | | | X | | X | | | | M | S | | | | C | D | | |
| 5 | Coast live oak *Quercus agrifolia* | 20 | 13, 13.2, 13 | 15 | 9 | 13 | 19 | | | | | | | | | | | | | | | | | | | M | F | | | | B | C | | |
| 6 | Coast live oak *Quercus agrifolia* | 10 | 7, 6, 6, 5 | 4 | 4 | 4 | 4 | | | | | | | | | | X | | | X | X | X | | | | G | S | | | | C | C | | |
| 7 | Coast live oak *Quercus agrifolia* | 20 | 6.4, 9.4, 13 | 6 | 6 | 9 | 6 | | | | | | | | | X | X | | | X | | X | | | | M | F | | | | C | C | | |
| 8 | Coast live oak *Quercus agrifolia* | 28 | 12, 11, 8, 8.5 | 14.5 | 19.5 | 23 | 9 | | X | | X | | | X | | X | X | X | | X | X | | | | | G | F | | | | B | C | Basal damage ~40-50%; good callus; tagged on SW | |
| 9 | Coast live oak *Quercus agrifolia* | 25 | 9.4, 4.9, 12.8, 7.8 | 14.5 | 13.5 | 21 | 16.5 | | | | | | | | | X | X | X | | X | X | | | | | G | S | | | | B | C | structural prune recommended | |
| 10 | Coast live oak *Quercus agrifolia* | 20 | 11.1, 5@1.3 | 6 | 5 | 7 | 5 | | X | | | | | | | X | X | | | X | X | X | | | | M | F | | | | C | C | In same location on map as LNDG tree # 10 | |
| 11 | Coast live oak *Quercus agrifolia* | 16.8 | 4.9, 6.5, 6.7, 6 | 5 | 9 | 11 | 7 | | X | | | | | | | X | X | X | | X | | | | | | G | S | | | | B | C | | |
| 12 | Coast live oak *Quercus agrifolia* | 36.5 | 12.7, 10.1, 8.5, 16.5 | 8 | 17 | 18 | 8 | | | | | | | | | | X | X | | X | | | | | | M | F | | | | C | C | | |
| 13 | Coast live oak *Quercus agrifolia* | 25 | 10, 9.1, | 6 | 15 | 13 | 10 | | | | | | | | | X | X | | | X | | X | | | | M | S | | | | B | B | | |
| 14 | Coast live oak *Quercus agrifolia* | 20 | 18.4 | 10 | 9 | 19 | 11 | | | | | | | | | X | X | | | X | | X | | | | M | S | | | | B | C | | |
| 15 | Coast live oak *Quercus agrifolia* | N/A | | | | | | | | | | | | | | | | | | | | | | | | | S | | | | | | Inaccessible during inventory update; well outside development envelope | |

| Tree No. | Common Name Botanical Name | Height (~Ft.) | DBH (in.) | N | E | S | W | Heritage | Trunk cavity | Trunk exudation | Trunk damage | Buried root collar | Exposed roots | Weak crotch | Fungal disease | Insect damage | Fire damage | Branch cavities | Main stem dieback | Twig/branch dieback | Epicormic growth | Thin foliage | Drought stress | Unbalanced crown | Ex. Horizontal branch | Vigor (G, M, P) | Terrain (S/F) | Remove deadwood | Treat Pest/Disease | Safety Prune | Health grade | Aesthetic/structure | Notes | TWIN LAKES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16 | Coast live oak *Quercus agrifolia* | 20 | 15.3 | 13 | 15 | 13 | 20 | | X | | | | | | | X | X | X | | X | | X | | | | M | S | | | | C | C | well outside development envelope | |
| 17 | Coast live oak *Quercus agrifolia* | 23 | 12.9, 7.0 | 11 | 13 | 13 | 11 | | | | X | | | | | X | X | | X | X | X | X | X | | | M | S | | | | C | C | southern 1/4 canopy is dead - fair fire recovery | |
| 18 | Coast live oak *Quercus agrifolia* | N/A | | | | | | | | | | | | | | | | | | | | | | | | | S | | | | | | Inaccessible during inventory update; well outside development envelope | |
| 19 | Coast live oak *Quercus agrifolia* | N/A | | | | | | | | | | | | | | | | | | | | | | | | | S | | | | | | Inaccessible during inventory update; well outside development envelope | |
| 20 | Coast live oak *Quercus agrifolia* | 35 | 16.5, 19.1 | 16 | 20 | 16 | 15 | | X | | | | | | | X | X | X | | | | | | | X | M | S | | | | B | C | | |
| 21 | Coast live oak *Quercus agrifolia* | 25 | 8.5, 9.5, 10.5 | 11 | 14 | 11 | 10 | | | | X | | | X | | X | X | | | X | X | | | X | | G | S | | | | B | B | excellent vigor and good fire recovery | |
| 22 | Coast live oak *Quercus agrifolia* | 30 | 25 | 8.5 | 18.5 | 18 | 11.5 | | X | | X | | X | | | X | X | | | X | X | | X | X | | M | S | | | | B | C | excellent vigor and good fire recovery; carpenter ants noted at base/in cavity | |
| 23 | Coast live oak *Quercus agrifolia* | 20 | 9.7, 8.4 | 10 | 8 | 9 | 10 | | | | X | | X | X | | X | X | | | X | X | X | X | | | G | S | | | | B | C | good callus and moderate fire recovery | |
| 24 | Coast live oak *Quercus agrifolia* | 31 | 25.5 | 20 | 15 | 20 | 20 | | | | X | | | X | | X | X | | | X | X | | | | X | G | S | | | | B | B | In same location as LNDG Tree #24; good fire recovery (old white tag 36); caisson planned for NE of trunk | |
| 25 | Coast live oak *Quercus agrifolia* | 40 | 32.3 | 41 | 30 | 31 | 20 | | | | | | | | | X | X | | | | X | | | | | G | S | | | | B | C | vigorous fire recovery/callus | |
| 26 | Coast live oak *Quercus agrifolia* | 40 | 29.1 | 28 | 34.5 | 33.5 | 20 | | | | | | X | | | X | X | | | | X | | | | | M | S | | | | B | C | heavy fire damage but good recovery | |
| 27 | Coast live oak *Quercus agrifolia* | 18 | 7, 7.5, 7.5 | 7.5 | 12 | 10.5 | 7 | | | | | | | | | X | X | | | X | X | X | | | | M | S | | | | C | C | all epicormic; fair fire recovery | |
| 28 | Coast live oak *Quercus agrifolia* | 35 | 24.5, 28 | 10 | 28 | 26 | 16 | | X | | X | | | | | X | X | | | X | X | X | | X | | M | S | | | | C | C | measured low for lateral branch fork on E side | |
| 29 | Coast live oak *Quercus agrifolia* | 35 | 20.4 | 20 | 15 | 12 | 18 | | | | | | | | | X | X | | | X | | X | | | X | G | S | | | | C | C | | |

| Tree No. | Common Name Botanical Name | Height (~Ft.) | DBH (in.) | N | E | S | W | Heritage | Trunk cavity | Trunk exudation | Trunk damage | Buried root collar | Exposed roots | Weak crotch | Fungal disease | Insect damage | Fire damage | Branch cavities | Main stem dieback | Twig/branch dieback | Epicormic growth | Thin foliage | Drought stress | Unbalanced crown | Ex. Horizontal branch | Vigor (G, M, P) | Terrain (S/F) | Remove deadwood | Treat Pest/Disease | Safety Prune | Health grade | Aesthetic/structure | Notes | TWIN LAKES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | Coast live oak *Quercus agrifolia* | 40 | 24.5 | 19 | 20 | 12 | 19 | | X | | X | | | X | | X | X | X | | X | | | | | | G | S | | | | B | C | | |
| 31 | Coast live oak *Quercus agrifolia* | 18 | 8.4 | 4 | 6 | 5 | 5 | | | | X | | | X | | X | X | | | X | X | X | | | X | G | S | | | | C | C | significant fire damage; moderate recovery | |
| 32 | Coast live oak *Quercus agrifolia* | 38 | 18.5 | 12 | 7 | 18 | 13 | | X | X | X | | | X | | X | X | X | | | X | | | | X | G | S | | | | B | B | good fire recovery | |
| 33 | Coast live oak *Quercus agrifolia* | 30 | 12 | 8 | 4 | 12 | 10 | | | | X | | | X | | X | X | | | | | | | X | | G | S | | | | B | C | good fire recovery; leans SW | |
| 34 | Coast live oak *Quercus agrifolia* | 35 | 29.5 | 18 | 19 | 15 | 18 | | | | | | | X | | X | X | X | | | X | | X | | X | G | S | | | | B | C | | |
| 35 | Coast live oak *Quercus agrifolia* | 30 | 19.5 | 12 | 9 | 17 | 24 | | | | | X | | | | X | X | | | X | X | X | X | X | | M | F | | | | C | C | | |
| 36 | Coast live oak *Quercus agrifolia* | 40 | 15,19 | 18 | 21 | 21 | 27 | | X | | | X | | X | | X | X | | | | X | X | X | X | | G | F | | | | B- | B | | |
| 37 | Coast live oak *Quercus agrifolia* | 52 | 12.5, 14, 13.5 | 34 | 38 | 26 | 29 | | | | | X | | | | X | X | | | X | X | | | | | G | F | | | | B | B | | |
| 38 | Coast live oak *Quercus agrifolia* | 25 | 18 | | | | | | | | | | | | | | X | | | | X | | | X | | G | S | | | | B + | B | not tagged (private?) minor/moderate fire damage; girdling root; significant bow to SW | |
| 39 | Coast live oak *Quercus agrifolia* | 30 | 12, 15, 16 | 19 | 20 | 25 | 26 | | | | | | | | | X | X | | | X | X | | | | | G | F | | | | B | C | moderate fire damage - mostly canopy | |
| 40 | Coast live oak *Quercus agrifolia* | 35 | 15.5, 16.5 | 17 | 11 | 19 | 21 | | | | | | X | X | | X | | | | X | | | | | | G | S | | | | B | B | excellent vigor; no apparent fire damage; only minor twig dieback | |
| 41 | Coast live oak *Quercus agrifolia* | 42 | 12.2, 22, 9.4 | 23 | 23 | 28 | 23 | | | | | | | | | X | X | X | | X | | | | | | M | F | | | | C | C | stumped at time of update; kept biologist's data for reference | |
| 42 | Coast live oak *Quercus agrifolia* | 34 | 30.6, 23.2 | 23 | 34 | 26 | 25 | | X | | | | | | X | X | X | | | X | | | | | | G | S | | | | B | C | removed; used biologist's data for reference | |
| 43 | Coast live oak *Quercus agrifolia* | 45 | 30.6 | 0 | 0 | 0 | 17 | | X | | | | | | X | X | X | | X | X | X | | | | | P | F | | | | F | F | removed; used biologist's data for reference | |
| 44 | Coast live oak *Quercus agrifolia* | 35 | 9, 9, 7.4, 7.2 | 13 | 12 | 19 | 16 | | | | | | | | | X | X | | | | | | | | X | G | F | | | | B | C | removed; used biologist's data for reference | |

| Tree No. | Common Name Botanical Name | Height (~Ft.) | DBH (in.) | N | E | S | W | Heritage | Trunk cavity | Trunk exudation | Trunk damage | Buried root collar | Exposed roots | Weak crotch | Fungal disease | Insect damage | Fire damage | Branch cavities | Main stem dieback | Twig/branch dieback | Epicormic growth | Thin foliage | Drought stress | Unbalanced crown | Ex. Horizontal branch | Vigor (G, M, P) | Terrain (S/F) | Remove deadwood | Treat Pest/Disease | Safety Prune | Health grade | Aesthetic/structure | Notes | TWIN LAKES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 45 | Coast live oak *Quercus agrifolia* | 34 | 12.2, 12.4, 12 | 10 | 0 | 13 | 18 | | | | | | | | | X | X | | | X | | | | | | G | S | | | | B | C | removed; had 2 add. Trunks - 8.3, 26.2; used biologist's data for reference | |
| 46 | Coast live oak *Quercus agrifolia* | 20 | 11.8, 5.1, 3, 8.6, 7.6 | 9 | 10 | 12 | 12 | | | | | | | | | X | X | | | X | | X | | | X | G | F | | | | B | C | removed; used biologist's data for reference | |
| 47 | Coast live oak *Quercus agrifolia* | 20 | 12.3, 7.5, 9.7, 7.6, 3.5 | 16 | 16 | 20 | 17 | | | | | | | | | X | | | | X | | X | | | X | M | S | | | | C | C | removed; used biologist's data for reference | |
| 48 | Coast live oak *Quercus agrifolia* | 35 | 26.6 | 25 | 21 | 23 | 6 | | | | | | | | | X | X | X | X | X | | X | | | | M | S | | | | C | C | removed; used biologist's data for reference | |
| 49 | Coast live oak *Quercus agrifolia* | 30 | 17.3, 14.6, 4.8 | 18 | 13 | 19 | 11 | | | | | | | | | X | X | | | X | X | | | | X | M | S | | | | B | C | removed; used biologist's data for reference | |
| 50 | Coast live oak *Quercus agrifolia* | 25 | 21.6 | 8 | 13 | 15 | 8 | | | | | | | | | X | X | X | | X | | X | | | | M | S | | | | C | C | removed; used biologist's data for reference | |
| 51 | Coast live oak *Quercus agrifolia* | 18 | 6.8, 3.2, 6.5, 2.9 | 7 | 6 | 10 | 9 | | | | | | | | | X | X | | | | | X | | | X | M | S | | | | C | C | removed; used biologist's data for reference | |
| 52 | Coast live oak *Quercus agrifolia* | 20 | 9.2, 7.1, 6, 6, 4.8 | 6 | 10 | 10 | 9 | | | | | | | | | X | X | | | | | X | | | X | M | S | | | | C | C | removed; used biologist's data for reference | |
| 53 | Coast live oak *Quercus agrifolia* | 20 | 20.4, 2.4,2.4, 10.2 | 7 | 5 | 10 | 13 | | X | | | | | | | | X | X | | X | | X | | | X | M | S | | | | C | C | removed; used biologist's data for reference | |
| 54 | Coast live oak *Quercus agrifolia* | 38 | 25@3' | 11 | 17.5 | 28.5 | 22 | | | | | | | | | X | X | X | | X | X | | X | | | M | F | | | | C | B | codominant stems | |
| 55 | Coast live oak *Quercus agrifolia* | 16 | 5.6, 5.6 | 6 | 7 | 7 | 4 | | X | | | | | X | | | X | | X | X | X | | X | X | | M | F | | | | C | C | edge of drainage | |
| 56 | Coast live oak *Quercus agrifolia* | 35 | 19, 21 | 17 | 30 | 21 | 12 | | X | | X | | | X | | X | X | X | | X | X | X | X | X | X | P | F | | | | C- | C- | significant fire damage; poor recovery so far | |
| 57 | Coast live oak *Quercus agrifolia* | 25 | 12.4, 12.1, 10.9 | 17 | 13.5 | 14 | 31 | | X | | | | | | | X | X | X | | X | | X | | | X | M | F | | | | D | D | parent trunk failed toward ravine; one trunk supports live branches | |
| 58 | Coast live oak *Quercus agrifolia* | 23 | 8.0 @ 3' | 11.5 | 9 | 20 | 20 | | | | | | | | | X | X | | | | X | | X | X | | M | S | | | | C | C | | |

| Tree No. | Common Name Botanical Name | Height (~Ft.) | DBH (in.) | N | E | S | W | Heritage | Trunk cavity | Trunk exudation | Trunk damage | Buried root collar | Exposed roots | Weak crotch | Fungal disease | Insect damage | Fire damage | Branch cavities | Main stem dieback | Twig/branch dieback | Epicormic growth | Thin foliage | Drought stress | Unbalanced crown | Ex. Horizontal branch | Vigor (G, M, P) | Terrain (S/F) | Remove deadwood | Treat Pest/Disease | Safety Prune | Health grade | Aesthetic/structure | Notes | TWIN LAKES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 59 | Coast live oak *Quercus agrifolia* | 30 | 11.5 | 14 | 8 | 12.5 | 9 | | X | | X | | X | | | X | X | | | X | X | X | | | X | P | S | | | | C- | C | extensive fire damage; all epicormic foliage | |
| 60 | Coast live oak *Quercus agrifolia* | 30 | 16.5, 15.6, 23 | 19 | 11.5 | 20 | 14 | | X | | | | X | | | X | X | X | | X | X | X | | | X | P | S | | | | D | D | large cavity at base on W; unstable | |
| 61 | Coast live oak *Quercus agrifolia* | 25 | 9.6, 10.1 | 14 | 5 | 14 | 14 | | | | | | | | | X | X | | | X | | | | | X | G | S | | | | B | C | agree with biologist's data | |
| 62 | Coast live oak *Quercus agrifolia* | 22 | 13.8 | 17 | 6 | 7 | 16 | | | | | | | | | X | X | | | X | X | X | | | X | M | S | | | | C- | C | agree with biologist's data | |
| 63 | Coast live oak *Quercus agrifolia* | 23 | 8, 8, 5, 6 | 13 | 7 | 7 | 7 | | X | | | | | | | X | X | | | | X | | X | | | M | S | | | | C + | C | cavity at trunk base; new growth is chlorotic | |
| 64 | Coast live oak *Quercus agrifolia* | 20 | 12, 12 | 5 | 7 | 12 | 5 | | X | | | | | X | | X | X | | | X | X | | | | | M | F | | | | C | D | fire damage significant at base; greater than 50% impacted; only moderate recovery; not a good structural specimen for retention in a res. lot | |
| 65 | Coast live oak *Quercus agrifolia* | 20 | 5.8, 5.6, 6.5, 6.0, 4.6 | 7 | 6 | 11 | 9 | | | | | | | | | X | X | | | | | | | | | M | F | | | | B | C | Old tag 35 also present | |
| 66 | Coast live oak *Quercus agrifolia* | 15 | 8.1, 7 | 6 | 6 | 9 | 5 | | | | | | | | | X | X | | | | | | | | X | G | S | | | | B | C | | |
| 67 | Coast live oak *Quercus agrifolia* | 35 | 21.6 | 9.5 | 16 | 22.5 | 12 | | X | | | | X | | | X | X | X | X | X | X | X | X | X | | P | S | | | | C | D | | |
| 68 | Coast live oak *Quercus agrifolia* | 30 | 10.2 | 3 | 18 | 18 | 4 | | X | | | | | | | X | X | | X | X | X | X | X | X | | P | S | | | | D | D | | |
| 69 | Coast live oak *Quercus agrifolia* | 35 | 12, 14 | 8 | 15 | 19 | 20 | | | | | | | | | X | X | X | | X | X | | X | X | | M | S | | | | C + | C | | |
| 70 | Coast live oak *Quercus agrifolia* | 25 | 9.7 | 7 | 10 | 12 | 18 | | | | | | | | | X | X | X | | X | | X | | | | M | S | | | | C | C | agreed with biologist's data | |
| 71 | Coast live oak *Quercus agrifolia* | 22 | 8, 6 | 6 | 12 | 18 | 5 | | | | | | | | | | X | | | X | X | X | | | | M | S | | | | C | C | agreed with biologist's data | |
| 72 | Coast live oak *Quercus agrifolia* | 24 | 8.3 | 6 | 16 | 17 | 15 | | | | | | | | | X | X | X | | X | | X | | | | M | S | | | | C | C | agreed with biologist's data | |
| 73 | Coast live oak *Quercus agrifolia* | 33 | 22, 13.6 | 22 | 20 | 23 | 18 | | | | | | | | | X | X | X | | X | X | X | | | X | M | F | | | | B | C | removed; retained biologist's data for reference | |

| Tree No. | Common Name Botanical Name | Height (~Ft.) | DBH (in.) | N | E | S | W | Heritage | Trunk cavity | Trunk exudation | Trunk damage | Buried root collar | Exposed roots | Weak crotch | Fungal disease | Insect damage | Fire damage | Branch cavities | Main stem dieback | Twig/branch dieback | Epicormic growth | Thin foliage | Drought stress | Unbalanced crown | Ex. Horizontal branch | Vigor (G, M, P) | Terrain (S/F) | Remove deadwood | Treat Pest/Disease | Safety Prune | Health grade | Aesthetic/structure | Notes | TWIN LAKES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 74 | Coast live oak *Quercus agrifolia* | 18 | 9.1, 9.0 | 14 | 9 | 14 | 14 | | | | | | | | | X | X | | | X | | | | | | M | S | | | | C | C | used biologist's data | |
| 75 | Coast live oak *Quercus agrifolia* | 35 | 24.8 | 22 | 19 | 15 | 22 | | | | | | | | | X | X | | | X | | | | | | G | S | | | | B | B | used biologist's data | |
| 76 | Coast live oak *Quercus agrifolia* | 23 | 8.2, 7.1 | 9 | 12 | 16 | 8 | | | | | | | | | | X | | | X | X | | | | | G | S | | | | B | B | removed; retained biologist's data for reference | |
| 77 | Coast live oak *Quercus agrifolia* | 30 | 9.5, 11.5, 13, 8.5 | 10 | 6 | 6 | 8.5 | | | | X | | X | | | X | X | | | | X | | | | | G | S | | | | B | B | tagged on S; some diameters taken low due to low branching; exc. fire recovery | |
| 78 | Coast live oak *Quercus agrifolia* | 30 | 9, 12, 15.5, 8, 14 | 19 | 11 | 14 | 22 | | | | X | | X | | | | X | | | | X | | | X | | G | S | | | | B | B | very vigorous recovery; shed some dead branches from fire; tag on W | |
| 79 | Coast live oak *Quercus agrifolia* | 18 | 6, 9, 9 crown sprouts 1"-3" | 10 | 9 | 6 | 7.5 | | | | | | | | | | X | | | | X | | | X | | G | S | | | | B | B | no tag, but correct location W of tree #78 | |
| 80 | Coast live oak *Quercus agrifolia* | 30 | 10, 11 | 15 | 15 | 18 | 20 | | | | | | | | | | X | | | | | | | | | G | S | | | | B | B | confirmed and used biologist's data | |
| 81 | Coast live oak *Quercus agrifolia* | 25 | 6.8, 4.5 | 7 | 8 | 9 | 10 | | | | | | | | | X | X | | | X | X | | | | | M | S | | | | B | C | | |
| 82 | Coast live oak *Quercus agrifolia* | 20 | 10 | 8 | 8 | 8 | 8 | | | | | | | | | | | | | | | | | | | G | S | | | | B | B | the small trunk (4.5") is dead | |
| 83 | Coast live oak *Quercus agrifolia* | 20 | 7.8, 4.9 | 8 | 6 | 8 | 6 | | | | | | | | | X | X | | | X | X | | X | | | M | S | | | | B | B | | |
| 84 | Coast live oak *Quercus agrifolia* | 15 | 7.5 | 6 | 10 | 5 | 6 | | | | X | | | | | X | X | | | X | X | X | | X | | M | S | | | | C | C | bark checking; good recovery over all | |
| 85 | Coast live oak *Quercus agrifolia* | | No access | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | according to biologist, this tree is located 1400 feet NE of the development envelope; we did not access it or include in our maps | |
| 86 | Coast live oak *Quercus agrifolia* | 30 | 11.1 | 16 | 10 | 10 | 8 | | | | | | | | | X | X | X | | | | | | | | G | S | | | | B | C | visual with binoculars only - equipment working at time of field update | |

| Tree No. | Common Name Botanical Name | Height (~Ft.) | DBH (in.) | N | E | S | W | Heritage | Trunk cavity | Trunk exudation | Trunk damage | Buried root collar | Exposed roots | Weak crotch | Fungal disease | Insect damage | Fire damage | Branch cavities | Main stem dieback | Twig/branch dieback | Epicormic growth | Thin foliage | Drought stress | Unbalanced crown | Ex. Horizontal branch | Vigor (G, M, P) | Terrain (S/F) | Remove deadwood | Treat Pest/Disease | Safety Prune | Health grade | Aesthetic/structure | Notes | TWIN LAKES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 87 | Coast live oak *Quercus agrifolia* | 15 | 5.2,6.9, 4.5, 3.6 | 6 | 6 | 6 | 4 | | | | | | | | | X | X | | X | | | | | | X | G | S | | | | C | C | five additional trunks measuring 3.2, 2.5, 2.5, 3.5, 2.3 | |
| 88 | Coast live oak *Quercus agrifolia* | 30 | 14, 21.3 | 21 | 18 | 18 | 21 | | | | | | | | | X | | X | | X | | | | | | G | S | | | | B | B | diameters taken on slope above the tree for safety; trunk ~9.5 was estimated; used biologist's data | |
| 89 | Coast live oak *Quercus agrifolia* | 30 | 24.8, 16.7 | 14 | 15 | 22 | 8 | | X | | | | | | | X | | X | | X | | | | | | M | F | | | | B | C | Used biologist's data - very far from development | |
| 90 | Coast live oak *Quercus agrifolia* | 28 | 8.9, 9.2, 11.5, 10.7 | 21 | 18 | 20 | 8 | | | | | | | | | X | | | | | | | | | | G | S | | | | B | B | Used biologist's data - very far from development | |
| 91 | Coast live oak *Quercus agrifolia* | 15 | 9.4, 10.8, 6.4, 7.5 | 0 | 17 | 15 | 15 | | | | | | | | | X | | | | X | X | | | | | G | S | | | | B | C | Used biologist's data - very far from development | |
| 92 | Coast live oak *Quercus agrifolia* | 20 | 16.5 | 12 | 9 | 15 | 9 | | | | | | | | | X | | | | X | | X | | | | M | S | | | | C | B | Used biologist's data - very far from development | |
| 93 | Coast live oak *Quercus agrifolia* | 30 | 12.1, 15, 14 | 14 | 14 | 17 | 16 | | X | | | | | | | X | | X | | | | | | | | G | S | | | | B | B | Used biologist's data - very far from development | |
| 94 | Coast live oak *Quercus agrifolia* | 25 | 20.7 | 15 | 16 | 20 | 15 | | X | | | | | | | X | X | | | X | | X | | | | G | S | | | | C | C | Used biologist's data - very far from development | |
| 95 | Coast live oak *Quercus agrifolia* | 18 | 7.6, 4.9, 6.4, 4 @1.6' | 6 | 6 | 9 | 4 | | | | | | | | | X | X | | | | | X | | | X | G | S | | | | C | D | Significant fire damage; all epicormic; visual assess from top of slope; used biologist's data | |
| 96 | Coast live oak *Quercus agrifolia* | 20 | 9.7, 18.1, 1.6, 1.6 | 12 | 7 | 13 | 12 | | X | | | | | | | X | X | | | | | X | | | X | G | S | | | | C | D | Significant fire damage; all epicormic; visual assess from top of slope; used biologist's data | |
| 97 | Coast live oak *Quercus agrifolia* | 15 | 9.1, 5.7, 8.1, 7.6 | 10 | 12 | 14 | 7 | | X | | | | | | | X | X | | | | | X | | | X | G | S | | | | C | D | Significant fire damage; all epicormic; visual assess from top of slope; used biologist's data | |
| 98 | Coast live oak *Quercus agrifolia* | 15 | 10, 7.6, 8.6, 5.1 | 7 | 13 | 13 | 12 | | | | | | | | | X | X | | | | | X | | | X | G | S | | | | C | D | Significant fire damage; all epicormic; visual assess from top of slope; used biologist's data | |

| Tree No. | Common Name Botanical Name | Height (~Ft.) | DBH (in.) | N | E | S | W | Heritage | Trunk cavity | Trunk exudation | Trunk damage | Buried root collar | Exposed roots | Weak crotch | Fungal disease | Insect damage | Fire damage | Branch cavities | Main stem dieback | Twig/branch dieback | Epicormic growth | Thin foliage | Drought stress | Unbalanced crown | Ex. Horizontal branch | Vigor (G, M, P) | Terrain (S/F) | Remove deadwood | Treat Pest/Disease | Safety Prune | Health grade | Aesthetic/structure | Notes | TWIN LAKES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 99 | Coast live oak *Quercus agrifolia* | 18 | 8.6, 8.8 | 7 | 7 | 7 | 4 | | | | | | | | | X | X | | | | | | | | X | G | S | | | | C | C | | |
| 100 | Coast live oak *Quercus agrifolia* | 18 | 9.7 | 7 | 5 | 7 | 6 | | | | | | | | | | X | X | | | | | | | X | G | S | | | | C | C | | |
| 101 | Coast live oak *Quercus agrifolia* | 20 | 9.7, 9.2, 11.8, 9.5, 8 | 13 | 14 | 14 | 14 | | X | | | | | | | | X | X | | | X | | X | | X | M | S | | | | C | C | | |
| 102 | Coast live oak *Quercus agrifolia* | 6 | 10.2, 11.1, 8 @1.6" | 6 | 10 | 10 | 10 | | X | | | | X | | | | X | X | | X | X | X | X | | X | P | S | | | | D | D | one dead trunk not recorded | |
| 103 | Coast live oak *Quercus agrifolia* | 18 | 8.3, 5.1, 9.1, 5.4 | 6 | 10 | 11 | 11 | | X | | | | X | | | X | X | | | X | X | X | X | | X | P | S | | | | D | D | | |
| 104 | Coast live oak *Quercus agrifolia* | 27 | 17.3, 18.5 | 6 | 15 | 12 | 20 | | | | | | | | | X | | | | X | X | X | | | X | M | S | | | | C | C | in ravine; vetted from top of slope | |
| 105 | Coast live oak *Quercus agrifolia* | 32 | 10.2, 14.3 | 5 | 9 | 18 | 8 | | | | | | | | | X | | X | | X | | X | | | X | M | S | | | | C | C | in ravine; vetted from top of slope | |
| 106 | Coast live oak *Quercus agrifolia* | 33 | 19.7 | 4 | 20 | 9 | 20 | | X | | | | | | | X | | X | | X | | X | | | X | M | S | | | | C | C | in ravine; vetted from top of slope | |
| 107 | Coast live oak *Quercus agrifolia* | 16 | 9.5 | 2 | 20 | 2 | 3 | | X | | | | | | | X | X | | X | X | X | X | | | X | M | S | | | | D | D | in ravine; vetted from top of slope | |
| 108 | Coast live oak *Quercus agrifolia* | 23 | 10, 6.8 | 2 | 17 | 17 | 1 | | X | | | | | | | X | X | | X | X | X | X | | | | M | S | | | | D | D | in ravine; vetted from top of slope | |
| 109 | Coast live oak *Quercus agrifolia* | 25 | 13.2, 11.3, 3.7, 7.3 | 20 | 16 | 20 | 12 | | | | | | | | | | | X | | X | X | X | | | | M | S | | | | C | C | in ravine; vetted from top of slope | |
| 110 | Coast live oak *Quercus agrifolia* | 15 | 10.5 | 10 | 9 | 4 | 9 | | | | | | | | | X | | | | X | | X | | | X | P | S | | | | D | D | agreed with biologist's data | |
| 111 | Coast live oak *Quercus agrifolia* | | DEAD | | | | | | | | | | | | | | | | | | | | | | | | | | | | F | F | agreed with biologist's data | |
| 112 | Coast live oak *Quercus agrifolia* | 12 | 8.6, 8.3, 10.8 | 7 | 7 | 8 | 6 | | | | | | | | | | | | X | X | | X | | | X | P | S | | | | D- | D | agreed with biologist's data | |
| 113 | Coast live oak *Quercus agrifolia* | | DEAD | | | | | | | | | | | | | | | | | | | | | | | | | | | | F | F | grading nearby during our update; agreed with biologist data from downslope view | |
| 114 | Coast live oak *Quercus agrifolia* | 18 | 11.3, 7.6 | 8 | 8 | 9 | 6 | | | | | | | | | X | X | | X | X | X | X | | | X | M | S | | | | C- | C | grading nearby during our update; agreed with | |

| Tree No. | Common Name Botanical Name | Height (~Ft.) | DBH (in.) | N | E | S | W | Heritage | Trunk cavity | Trunk exudation | Trunk damage | Buried root collar | Exposed roots | Weak crotch | Fungal disease | Insect damage | Fire damage | Branch cavities | Main stem dieback | Twig/branch dieback | Epicormic growth | Thin foliage | Drought stress | Unbalanced crown | Ex. Horizontal branch | Vigor (G, M, P) | Terrain (S/F) | Remove deadwood | Treat Pest/Disease | Safety Prune | Health grade | Aesthetic/structure | Notes | TWIN LAKES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | biologist data from downslope view | |
| 115 | Coast live oak *Quercus agrifolia* | | DEAD | | | | | | | | | | | | | | | | | | | | | | | | | | | | F | F | grading nearby during our update; agreed with biologist data from downslope view | |
| 116 | Coast live oak *Quercus agrifolia* | N/A | | 3 | 5 | 6 | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | in very steep part of the ravine; not accessed; south of Sullivan bridge | |
| 117 | Coast live oak *Quercus agrifolia* | 40 | 16, 11, 21 | 27 | 16 | 31 | 26 | | X | | | X | | | | | X | | | | X | | | X | | G | S | | | | B | B | excess soil at base from demo work prior to our update; water pocket in trunk | |
| 118 | Coast live oak *Quercus agrifolia* | 30 | 3, 7, 16 | 15 | 13 | 21 | 17 | | | | | | | | | | | | | X | | X | X | | | P | F | | | | C | B | DBH estimated due to wasps all around trunk - exudations - could not get close enough to determine if insect or woodpecker | |
| 119 | Coast live oak *Quercus agrifolia* | 20 | 7, 9, 12 | 10 | 12 | 15 | 12 | | | X | | | X | | | X | | | | | X | | | | | G | F | | | | B | A | hardscape removed from base on S side during demo, prior to our update | |
| 120 | Coast live oak *Quercus agrifolia* | 20 | 9, 9.5, 7, 5 | 15 | 12 | 20 | 12 | | | X | | | | | | X | X | | | | X | | X | | | G | S | | | | B | A | fire damage on east; demo of hardscape prior to our update | |
| 121 | Coast live oak *Quercus agrifolia* | 10 | 7, 8 | 7 | 10 | 10 | 7 | | | | | | | | | | | | | | | X | X | | | M | S | | | | B- | B | | |
| 122 | Coast live oak *Quercus agrifolia* | 18 | 5.5, 7.5 | 3 | 18 | 11 | 9 | | X | | | | | X | | X | X | | | | X | | X | X | | G | S | | | | B | C | | |
| 123 | Coast live oak *Quercus agrifolia* | 25 | 11.8 | 0 | 6 | 9 | 14 | | | | | | | | | X | X | | | X | X | X | | X | | M | S | | | | C | C | | |
| 124 | Coast live oak *Quercus agrifolia* | 20 | 8.6, 8.6, 7, 7, 2.9 | 10 | 8 | 10 | 13 | | | | | | | | | X | X | | | | X | | | X | | G | S | | | | B | C | in far NE corner; used biologist's data | |
| 125 | Coast live oak *Quercus agrifolia* | 25 | 17.2 | 12 | 17 | 17 | 17 | | | | | | | | | | | | | | X | X | X | | | M | S | | | | B | B | | X |
| 126 | Coast live oak *Quercus agrifolia* | 20 | 8, 9 | 6 | 5 | 12 | 15 | | | | | | | | | | | | | | X | | X | X | | G | F | | | | A | B | in yard; recently pruned | X |

| Tree No. | Common Name Botanical Name | Height (~Ft.) | DBH (in.) | N | E | S | W | Heritage | Trunk cavity | Trunk exudation | Trunk damage | Buried root collar | Exposed roots | Weak crotch | Fungal disease | Insect damage | Fire damage | Branch cavities | Main stem dieback | Twig/branch dieback | Epicormic growth | Thin foliage | Drought stress | Unbalanced crown | Ex. Horizontal branch | Vigor (G, M, P) | Terrain (S/F) | Remove deadwood | Treat Pest/Disease | Safety Prune | Health grade | Aesthetic/structure | Notes | TWIN LAKES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 127 | Coast live oak *Quercus agrifolia* | 25 | 9.5 | 8 | 12 | 13 | 10 | | | | | | | | | | | | | | | | | | | G | F | | | | A | A | in yard | X |
| 128 | Coast live oak *Quercus agrifolia* | 12 | 6.6, 6.9 | 11 | 14 | 17 | 17 | | | | | | | | | | X | | X | X | X | | | X | | M | F | | | | C | B | in yard near intersection of Mayan & Aucus; no tag | X |
| 129 | Coast live oak *Quercus agrifolia* | 18 | 6.4, 6.0, 5.4, 5.4, 3.8 | 11 | 12 | 11 | 7 | | | | | | | | | | | | | | | | | | | G | S | | | | A | A | | X |
| 130 | Coast live oak *Quercus agrifolia* | 12 | 6, 6, 6.5 | 9 | 8 | 11 | 10 | | | | | | | | | | X | | X | X | X | | | X | | M | F | | | | C | B | in yard near intersection of Mayan & Aucus; no tag | X |
| 131 | Coast live oak *Quercus agrifolia* | ~15 | MULTI | 18 | 13 | 9 | 15 | | | | | | | | | | | | | | | | | | | G | F | | | | A | A | canopy overhangs a 6-ft fence estimated data; not tagged; canopy extends 5 ft. over road | X |
| 132 | California scrub oak *Q. berberidifolia* | ~15 | MULTI | 17 | 17 | 10 | 13 | | | | | | | | | | | | | | | | | | | G | F | | | | B | B | canopy overhangs a 6-ft fence estimated data; not tagged; canopy extends 5 ft. over road | X |
| 133 | Coast live oak *Quercus agrifolia* | 23 | 13.4 | 20 | 14 | 17 | 18 | | | | | | | | | | | | | | | | | | | G | F | | | | A | A | | X |
| 134 | California scrub oak *Q. berberidifolia* | 30 | 10.2 | 10 | 11 | 4 | 3 | | | | | | | | | | X | | | | X | X | | X | | M | F | | | | C | C | | X |
| 135 | Coast live oak *Quercus agrifolia* | 32 | 14.6, 12.4, 21 | 22 | 25 | 10 | 10 | | X | | | | | | | X | X | | X | X | | X | | X | | P | F | | | | D | D | | X |
| 136 | Coast live oak *Quercus agrifolia* | 25 | 10.2 | 6 | 7 | 12 | 9 | | | | | | | | | | | | | | | | | X | | G | S | | | | A | B | | X |
| 137 | Coast live oak *Quercus agrifolia* | 28 | 31 | 13 | 21 | 25 | 13 | | | | | | | | | | | | | | | | | | | G | F | | | | A | A | | X |
| 138 | Coast live oak *Quercus agrifolia* | 25 | 22.3, 21.5 | 16 | 19 | 32 | 20 | | | | | | | | | | | | | | | | | | | G | F | | | | A | A | | X |
| 139 | Coast live oak *Quercus agrifolia* | 10 | 8.9 | 9 | 8 | 6 | 6 | | | | | | | | | | | | | | | | | | | G | S | | | | A | A | forks in to 2 trunks @ 2.6 feet above grade; measured low | X |
| 140 | Coast live oak *Quercus agrifolia* | 15 | 8.0, 8.0, 5.1, 6.7 | 10 | 13 | 14 | 13 | | | | | | | | | | | | | | | | | | | G | S | | | | B | B | | X |

| Tree No. | Common Name Botanical Name | Height (~Ft.) | DBH (in.) | N | E | S | W | Heritage | Trunk cavity | Trunk exudation | Trunk damage | Buried root collar | Exposed roots | Weak crotch | Fungal disease | Insect damage | Fire damage | Branch cavities | Main stem dieback | Twig/branch dieback | Epicormic growth | Thin foliage | Drought stress | Unbalanced crown | Ex. Horizontal branch | Vigor (G, M, P) | Terrain (S/F) | Remove deadwood | Treat Pest/Disease | Safety Prune | Health grade | Aesthetic/structure | Notes | TWIN LAKES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 141 | Coast live oak *Quercus agrifolia* | 20 | 9 | 8 | 9 | 8 | 8 | | | | X | | | | X | X | X | | | | X | | | | | G | S | | | | B | B | | |
| 142 | Coast live oak *Quercus agrifolia* | 35 | 15 | 15 ne15 | 13 | 20 | 20 | | | | | | | | | | | | | | | | | X | | G | F | | | | A | B | leans W; codominant stems at 10' | |
| 143 | Coast live oak *Quercus agrifolia* | 25 | 11 | 12 | 15 | 12 | 5 | | | | | | | | | | | | | | X | | | X | | G | F | | | | A | B- | bows E; growing within rock and concrete | |
| 144 | Coast live oak *Quercus agrifolia* | 40 | 24 | 20 | 10 | 21 | 20 | | | | | | | | | | X | | | X | X | | | X | | G | F | | | | A | B | Multiple pruning events; hist. of breakage; powerline; fire damage on E | |
| 145 | Coast live oak *Quercus agrifolia* | 25 | 9 | 12 | 12 | 10 | 10 | | | | | | | | | | X | | | | X | X | X | | | M | S | | | | B- | B | small leaves; codominant stems @ 8' | |
| 146 | Coast live oak *Quercus agrifolia* | 25 | 9 | 10 | 22 | 14.5 | 9 | | | | | | | | | X | X | | | X | X | X | X | X | X | M | S | | | | C | B | | |
| 147 | Coast live oak *Quercus agrifolia* | 30 | 14 | 10 | 12 | 10 | 6 | | | | | | X | | | | X | | | | X | | | X | | M | S | | | | B- | C | | X |
| 148 | Coast live oak *Quercus agrifolia* | 15 | 3, 5, 6, 7 | 10 | 8 | 10 | 9 | | | | | | | | | | | | | | X | | | | | G | S | | | | A | A | | |
| 149 | Coast live oak *Quercus agrifolia* | 20 | 6.5, 14 | 12 | 19 | 21 | 19 | | | | | | | | | | X | | | | X | | | X | | G | S | | | | A- | A | | |
| 150 | Coast live oak *Quercus agrifolia* | 25 | 6, 13, 12.5 | 10 | 10 | 12 | 15 | | | | | | | | | | X | | X | | X | X | X | | | M | S | | | | C | B | | |
| 151 | Coast live oak *Quercus agrifolia* | 28 | 24 | 15 | 20 | 25 | 27 | | X | | | | | X | | X | X | X | X | X | X | X | X | X | | M | S | | | | C | C | | |
| 152 | Coast live oak *Quercus agrifolia* | 28 | 17, 21 | 12 | 20 | 20 | 15 | | | | | | | | | | X | | | X | X | X | | X | | M | S | | | | B | C | | |
| 153 | Coast live oak *Quercus agrifolia* | 15 | 10 | 15 | 10 | 6 | 6 | | X | | | | | | | | X | | | X | X | X | X | X | | M | S | | | | B | C | | |

## FIELD DATA DEFINITIONS:

The following terms, criteria, and ratings are reflected on the inventory data sheets.

- Tree number - each inventoried tree is assigned a unique number. This number corresponds to a tree location on the location and impact map.
- Species - equals the identity of the tree being evaluated
- Tree height - the approximate height of the tree, generally provided in five-ten foot increments
- Trunk diameter – diameter of the trunk as measured from 4.5 feet above natural grade (diameter breast height or DBH)
- Trunk cavity - hollow area in a trunk
- Trunk exudation - substance secreting or oozing from the trunk or branches
- Trunk damage - damaged area on a trunk
- Buried root collar - root collar of the tree is covered with soil or other material
- Exposed roots - roots exposed unnaturally above the soil line due to erosion, root plate lift, or other forces
- Weak crotch - poorly formed trunk or branch attachments
- Fungal disease – as evidenced by the presence of fruiting bodies or mushrooms, or insects that carry such diseases
- Insect damage - as evidenced by the presence of insect frass, boring holes, chewed/rolled leaves, etc.
- Fire damage – evidence of fire damage on bark, limbs, twigs or foliage; response wood/callus or lack thereof
- Branch cavities - hollow spaces along the branches usually caused by decay
- Main stem die-back - death of the main stem as evidenced as die-back from the top of the tree or outer most twigs toward the center of the tree
- Twig and branch dieback – evidence of dead of twigs or branches in the tree
- Epicormic growth – usually a response to stress – shoots growing from the trunk, stem, or branch; usually in response to over-pruning, canopy damage, or fire
- Thin foliage - canopy defoliation or twig/leaf dieback; usually in response to stress, disease, or insects
- Drought-stressed - trees with drought stress usually exhibit thin and/or small foliage, wilted or yellow leaves, necrosis, and early/abnormal leaf drop
- Unbalanced crown - asymmetrical canopy; can be caused by phototropism, damage, pruning, etc.
- Excessive horizontal branching - increased level of horizontal branches not characteristic of the species
- Vigor - the capacity to grow and resist stress
- Terrain – description of the topographical surface where the tree is growing (slope or flat)

Vigor describes a tree's capacity for growth and continued survival. Observable growth characteristics used to assign the vigor ratings described below:

- Good - evidence of new growth (twig elongation, callus tissue, 'growth cracks', etc.), healthy leaf color and size, bark that is relatively free of uncharacteristic cracks and decay, very little to no dieback
- Moderate - little evidence of new growth or stunted growth, unseasonal browning and thinning of foliage, moderate amounts of dieback, moderate callus tissue, could exhibit bark cracks and/or areas of decay
- Poor - no evidence of new growth, unhealthy leaf and/or bark color, large amounts of deadwood and severely, unseasonal, canopy thinning, small leaves

Aesthetics and conformity / structure - the aesthetics and conformity of a tree reflect the appearance based on the archetype of the subject species and value it adds to the surrounding landscape. Structure refers to the structural integrity of the trunk, branches, and roots of a tree. The criteria are as follows:

- A = excellent - visually symmetrical and balanced; this tree exhibits the ideal appearance and form for the species with only very minor or no structural defects
- B = average – may or may not be symmetrical, but it is visually appealing and exhibits very little canopy dieback, deadwood. It may have minor structural defects
- C = below average - non symmetrical and/or is visually unappealing; exhibiting substantial canopy dieback, deadwood, poor form, history of breakage, etc.
- D = Poor - displays few characteristics that are visually appealing and exhibits significant structural defects

## HEALTH AND STRUCTURE GRADE DEFINITIONS

Health and structure ratings of the trees are based on the archetype tree of the same species through a subjective evaluation of its physiological health, aesthetic quality, and structural integrity.

Overall physiological condition (health) and structural condition were rated A-F:

**Healt**

A) Outstanding – Exceptional trees of good growth form and vigor for their age class; exhibiting very good to excellent health as evidenced by normal to exceptional shoot growth during current season, good bud development and leaf color, lack of leaf, twig or branch dieback throughout the crown, and the absence of decay, bleeding, or cankers. Common leaf and/or twig pests may be noted at very minor levels.

B) Above average – Good to very good trees that exhibit minor necrotic or physiological symptoms of stress and/or disease; shoot growth is less than reasonably expected, leaf color is less than optimal in some areas, the crown may be thinning, minor levels of leaf, twig, and branch dieback may be present, and minor areas of decay, bleeding, or cankers may be manifesting. Minor amounts of epicormic growth may be present. Minor amounts of fire damage or mechanical damage may be present. Still healthy, but with moderately diminished vigor and vitality. No significant decline noted.

C) Average – Average, moderately good trees whose growth habit and physiological or fire-induced symptoms indicate an equal chance to either decline or continue with good health into the near future. Most of these trees exhibit moderate to significant small deadwood in outer crown areas, decreased shoot growth and diminished leaf color and mass. Some stem and branch dieback is usually present and epicormic growth may be moderate to extensive. Cavities, pockets of decay, relatively significant fire damage, bark exfoliation, or cracks may be present. Moderate to significant amounts of insect or disease symptoms may be present; the tree may be shaded or crowded in such a way that it is expected to negatively impact the lifespan of the tree. Tree may be in early decline.

D) Below Average/Poor - trees whose growth habit and physiological or fire-induced symptoms indicate significant, irreversible decline. Most of these trees exhibit significant dieback of wood in the crown, possibly accompanied by significant epicormic sprouting. Shoot growth and leaf color and mass is either significantly diminished or nonexistent throughout the crown. Cavities, pockets of decay, significant fire damage, bark exfoliation, and/or cracks may be present. Significant amounts of insect or disease symptoms may be present; the tree may be shaded or crowded in such a way that it has negatively impacted the lifespan of the tree. Tree appears to be in irreversible decline.

F) Dead or in spiral of decline – this tree exhibits very little to no signs of life.

**Str ct re**

A) Outstanding – Trees with outstanding structure for their species exhibit trunk and branch arrangement and orientation that result in a sturdy form or architecture that resists failure under normal circumstances. The spacing, orientation, and size of the branches relative to the trunk are quintessential for the species and free from defects. No outward sign of decay or pathological disease is present. Some trees exhibit naturally inherent branching defects, like multiple, narrow points of attachment from one point on the trunk, which would preclude them from achieving an “A” grade.

B) Above average - Trees with good to very good structure for their species. They exhibit trunk and branch arrangement and orientation that result in a relatively sturdy form or architecture that resists failure under normal circumstances, but may have some mechanical damage, over-pruning, or other minor structural defects. The spacing, orientation, and size of the branches relative to the trunk are still in the normal range for the species, but they exhibit a minor degree of defects. Minor, sub-critical levels of decay or pathological disease may be present, but the degree of damage is not yet structurally significant. Trees that exhibit naturally inherent branching defects, like multiple, narrow points of attachment from one point on the trunk, would generally fall in to this category. A small percentage of the canopy may be shaded or crowded, but not in such a way that it is expected to negatively impact the structural integrity or lifespan of the tree.

C) Average - Trees with moderately good structure for their species, but with obvious defects. They exhibit trunk and branch arrangement and orientation that result in a less than sturdy form or architecture, which reduces their resistance to failure under normal circumstances. Moderate levels of mechanical damage, over-pruning, or other structural defects may be present. The spacing, orientation, and size of some of the branches relative to the trunk are not in the normal range for the species. Moderate to significant levels of decay or pathological disease may be present that increase the likelihood of structural instability. Influences such as an excessive trunk lean, slope erosion, root pruning, or other growth-inhibiting factors may be present. A moderate to significant percentage of the canopy may be shaded or crowded in such a way that it is expected to negatively impact the structural integrity or lifespan of the tree. Risk of full or partial failure in the near future appears to be moderately elevated.

D) Well Below Average/Poor - Trees poor structure for their species and with obvious defects. They exhibit trunk and branch arrangement and orientation that result in a significantly less than sturdy form or architecture, significantly reducing their resistance to failure under normal circumstances. Significant levels of mechanical damage, over-pruning, or other structural defects may be present. The spacing, orientation, and size of many of the branches relative to the trunk are not in the normal range for the species. Significant levels of decay or pathological disease may be present that increase the likelihood of structural instability. Influences such as an excessive trunk lean, slope erosion, root pruning, or other growth-inhibiting factors may be present. A significant percentage of the canopy may be shaded or crowded in such a way that it is expected to negatively impact the structural integrity or lifespan of the tree. Risk of full or partial failure in the near future appears to be advanced.

F) Severely Compromised – trees with very poor structure and numerous or severe defects due to growing conditions, historical or recent pruning, mechanical damage, history of limb or trunk failures, advanced and irreparable decay, disease, or severe fire damage. Trees with this rating are in severe, irreparable decline, or are barely alive. Risk of full or partial failures in the near future may be severe.

# APPENDIX 2

## P otograp s of Inventoried Oa Trees

**(2 pages)**

Tree 1

Tree 2

Tree 3

Tree 4

Tree 5

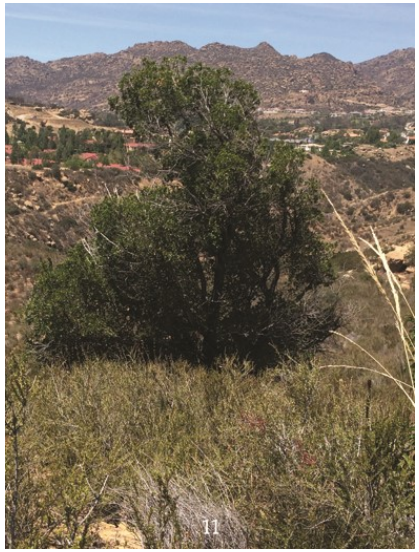
Tree 6

Tree 7

Tree 8

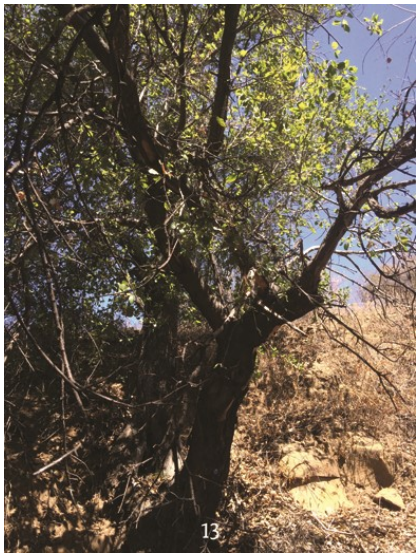
Tree 9

Tree 10




Tree 11

Tree 12

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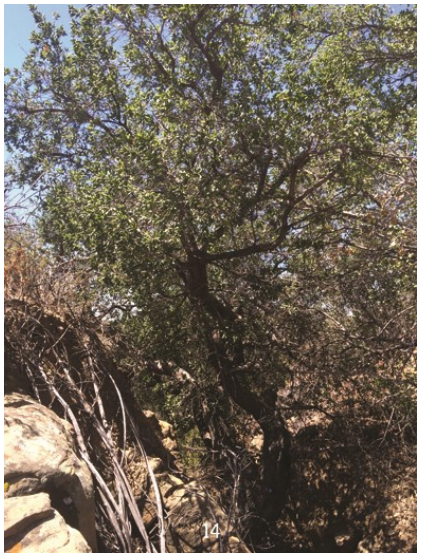



Tree 14

NO PHOTO

TREE
NOT ACCESSIBLE

Tree 15

Tree 16

Tree 17

NO PHOTO

TREE
NOT ACCESSIBLE

Tree 18

NO PHOTO

TREE
NOT ACCESSIBLE

Tree 19

Tree 20

Tree 21

Tree 22

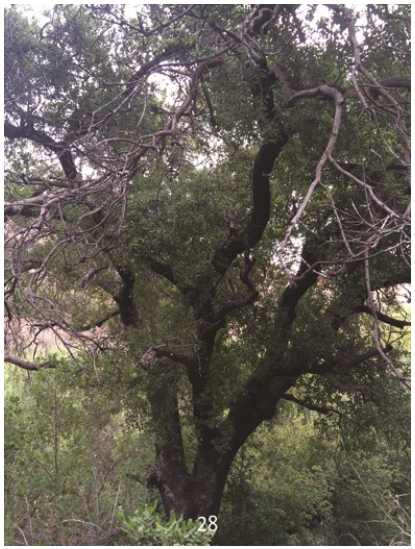
Tree 23

Tree 24

Tree 25

Tree 26

Tree 27




Tree 28

Tree 29

Tree 30

Tree 31

Tree 32

Tree 33

Tree 34

Tree 35

Tree 36

Tree 37

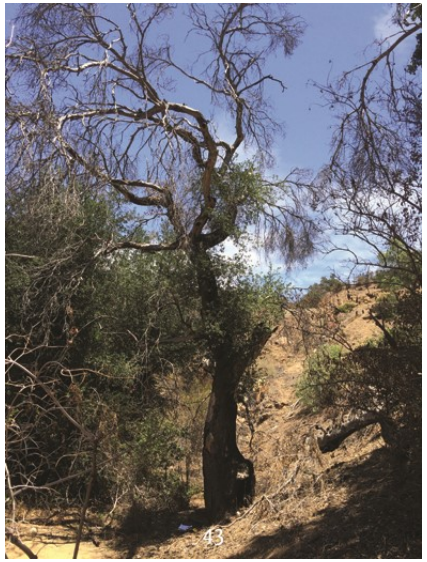
Tree 38

Tree 39

Tree 40

Tree 41

Tree 42




Tree 43

Tree 44

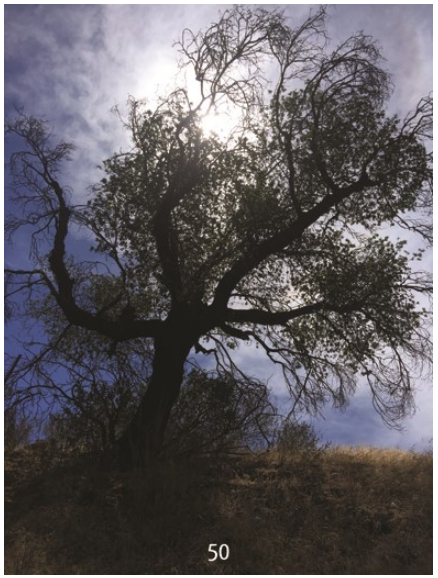
Tree 45

Tree 46

Tree 47

Tree 48

Tree 49




Tree 50

Tree 51

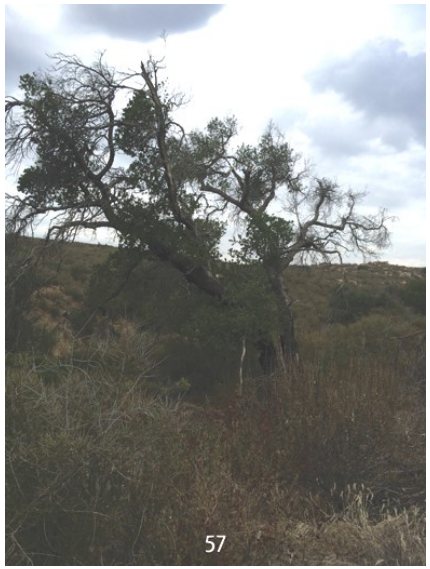
Tree 52

Tree 53

Tree 54

Tree 55

Tree 56




Tree 57

Tree 58

Tree 59 Tree 60

Tree 61

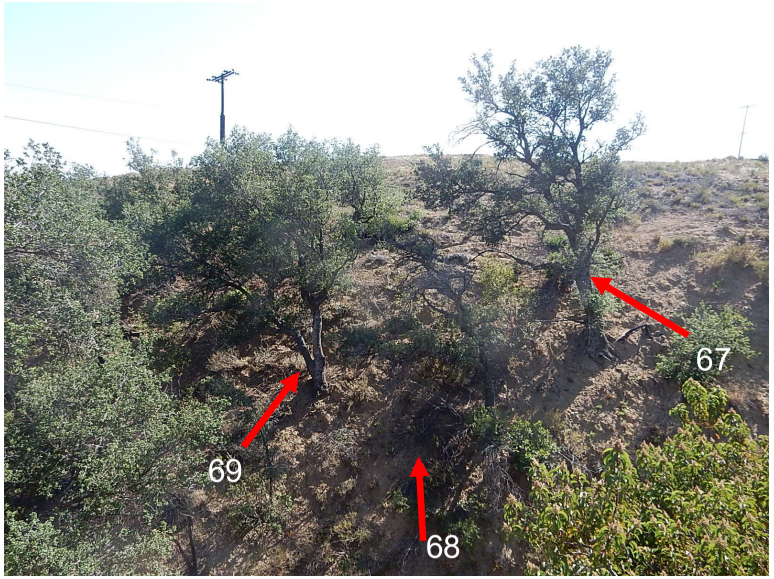
Tree 62

Tree 63

Tree 64

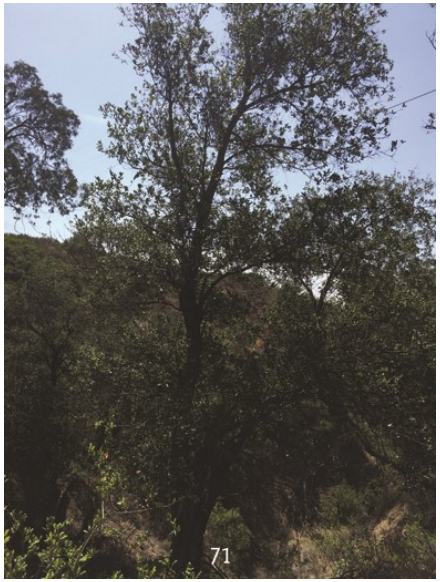
Tree 65

Tree 66




Tree 67 Tree 68 Tree 69

Tree 70

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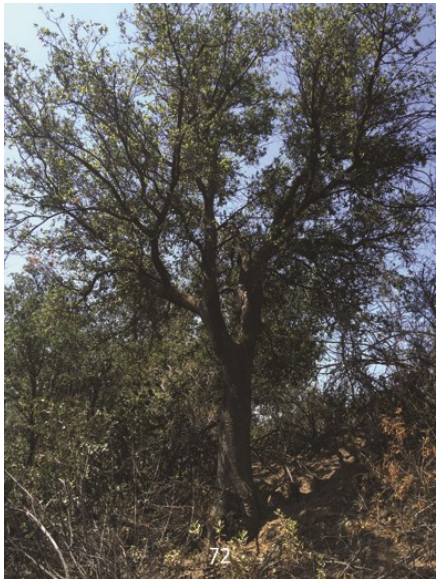


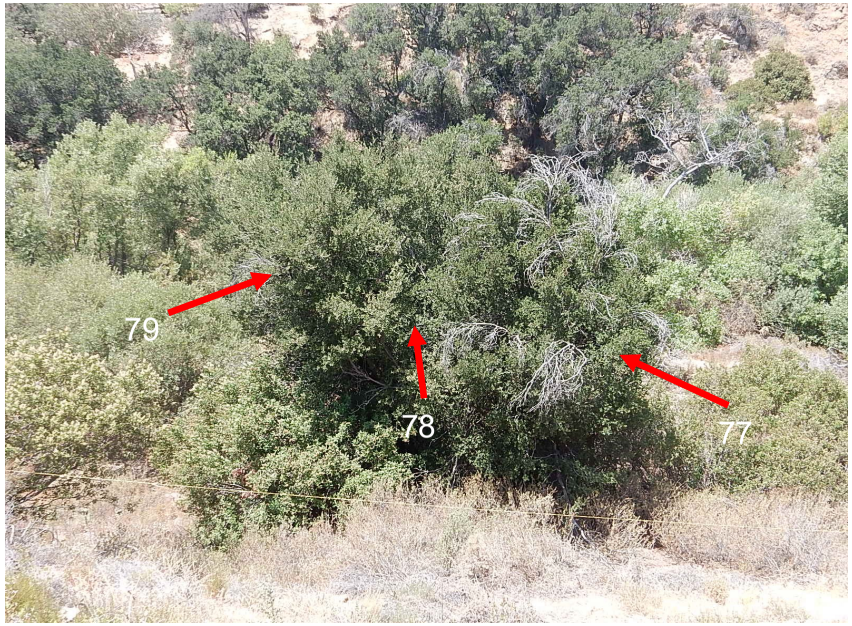

Tree 72

Tree 73

Tree 74

Tree 75

Tree 76




Tree 77 Tree 78 Tree 79

Tree 80

Tree 81

Tree 82

Tree 83

Tree 84

NO PHOTO

TREE
BEYOND
DEVELOPMENT
FOOTPRINT

Tree 85

Tree 86

Tree 87

Tree 88

Tree 89 & 90

Tree 91

Tree 92

Tree 93

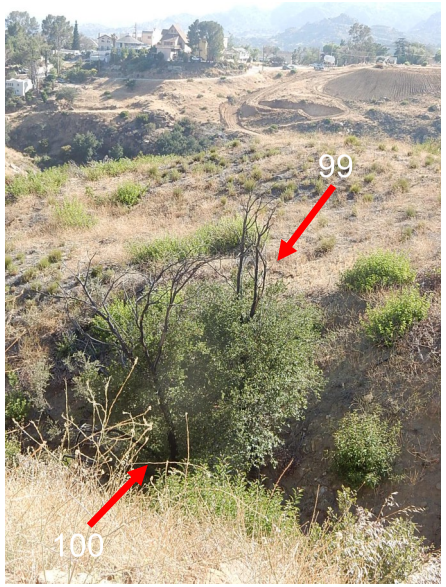
Tree 94

Tree 95

Tree 96

Tree 97

Tree 98




Tree 99 & 100

Tree 101

Tree 102

Tree 103

Tree 104 & 105

Tree 106

Tree 107

Tree 108

Tree 109

Tree 110

Tree 111

Tree 112

Tree 113

Tree 114

Tree 115

Tree 116

Tree 117

Tree 118

Tree 119

Tree 120

Tree 121

Tree 122

Tree 123

Tree 124

Tree 125

Tree 126

Tree 127

Tree 128 & 130

Tree 129

Tree 131

Tree 132

Tree 133

Tree 134

Tree 135

Tree 136

Tree 137

Tree 138

Tree 139

Tree 140

Tree 141

Tree 142

Tree 143 & 144

Tree 145 & 146

Tree 147

Tree 148

Tree 149

Tree 150

Tree 151

Tree 152

Tree 153

Tree 154

# APPENDIX 3

## Project Oa  Tree Impact Maps

**2 S  eets – 1”:100’ scale**
**36” x 42” - color**

**1 Inde  S  eet – 1”:1  ’ scale**
**3  ”  42” - color**