



801 glenneyre street suite d  
laguna beach ca 92651

sbhorticulture@cox.net  
949.233.8076 cell  
888.552.1795 fax

June 6, 2014

**Steve Cassulo**

Chiquita Canyon Landfill  
Waste Connections Inc.  
29201 Henry Mayo Drive  
Castaic, CA 91384

RE: **Chiquita Canyon Landfill Master Plan Revision**

Dear Mr. Cassulo:

Pursuant to the request of Chiquita Canyon Landfill, an oak tree field study evaluation has been conducted by this office to ascertain base line data in regard to native oak tree resources located at 29201 Henry Mayo Drive, City of Castaic. This project study is mandated by the Los Angeles County Oak Tree Ordinance.

The field study was conducted by sb horticulture (sbh) in early April 2012 and early June 2014. Specifications and photographs are included in this report related to individual tree species, size and overall condition.

The four oak trees evaluated are proposed for removal at client request due to future grading considerations.

Respectfully submitted by,

**Sean Brown**

**sb horticulture**

## **Table of Contents**

<b><u>Survey Methodology</u></b>	<b><u>3</u></b>
<b><u>Rating Review</u></b>	<b><u>3</u></b>
<b><u>Overall Conditions</u></b>	<b><u>4</u></b>
<b><u>Survey Results</u></b>	<b><u>4</u></b>
<b><u>Oak Tree Data</u></b>	<b><u>4</u></b>
<b><u>Tree Notes/Recommendations</u></b>	<b><u>5</u></b>
<b><u>Oak Tree Canopy Dripline Measurements</u></b>	<b><u>5</u></b>
<b><u>Oak Tree Mitigation</u></b>	<b><u>6</u></b>
<b><u>Oak Tree Photographs</u></b>	<b><u>7-10</u></b>
<b><u>Appendix A</u></b>	<b><u>11-12</u></b>
<b><u>Oak Tree Mitigation Proposed Location</u></b>	
<b><u>Appendix B</u></b>	<b><u>13</u></b>
<b><u>Aerial Photo of Existing Oak Trees Locations</u></b>	
<b><u>Appendix C</u></b>	<b><u>14</u></b>
<b><u>Report Glossary</u></b>	
<b><u>Appendix D</u></b>	<b><u>15</u></b>
<b><u>Oak Tree Location Plan</u></b>	

**Survey Methodology:**

- Reference material used:
  - Oak tree location map supplied by Pinnacle Land Surveying, Inc.
- Tree diameters were field measured approximately 4.5 feet above grade with a LUFKIN diameter tape measure. This is referred to as DBH (Diameter at Breast Height). Where low branching or other factors interfered with measuring the tree diameter at 4.5 feet the measurement was moved and noted in the report.
- Tree height was field estimated.
- Driplines were measured in a minimum of four (4) compass directions.
- Trees were tagged with metal discs for identification and location purposes.
- The surveyed trees were photographed with a digital camera to facilitate reader ease in identification. These pictures are for reference only and should not be used to ascertain actual condition and size of the surveyed tree specimens.

It is important to note that the information included in this report was collected during an above ground visual observation consistent with professional standards. No extensive internal tree or subsurface investigation was made. Trees are living entities and subject to stress and disease that may not be apparent during cursory inspection. Therefore, no guarantee is given or implied that any of the trees will survive planned construction activity and/or relocation.

**Rating Review:**

Individual species have been field rated in regard to form and health based on an A, B, C, D, F scale. The letter E is not utilized as a rating classification. Trees were also given a vigor rating as a percentage separate from the overall grade of the tree.

- A** That tree is rated as an excellent specimen and needs no special attention at this time as long as construction and development impacts do not negatively effect its environment.
- B** That condition of tree is average to slightly above average with regard to health and structure. Tree may have indicated possible need for minor pruning (deadwood removal). Implementing reasonable preservation procedures and practices, tree has excellent potential to survive planned development if construction guidelines and post-construction maintenance are followed.
- C** That condition of tree indicates a possible need for moderate corrective maintenance. Tree may be in good physiological condition while displaying one or more structural defects. Tree may display symptoms/signs of stress or decline due to adverse abiotic and/or biotic conditions.
- D** That tree has serious problems in regard to health, disease, or structure that it may not be possible to be remedied through reasonable preservation procedures and practices.

**Overall Tree Conditions**

Four (4) Los Angeles County ordinance sized oak trees were documented within the proposed project area. Two (2) are native trees- and both are growing adjacent to an abandoned field previously used for agricultural purposes. The other two trees are non native landscape trees growing within landscaped areas of the existing landfill facility.

It should be noted that one (1) heritage sized dead oak tree was observed adjacent to tree # 1. Arborist Sean Brown met onsite with representatives Bill Romo and Joseph Brunet from the Los Angeles County Forestry Division's Environmental Review Unit to confirm this oak tree was dead in late 2011. Because the tree is no longer living, it is not included in this August 2012 report. It is, however, still onsite and still tagged with the #87.

### Survey Results:

- 4 Los Angeles County ordinance sized oak trees were documented within the proposed project area.
  - 3 Quercus agrifolia (Coast Live Oak)
  - 1 Quercus lobata (Valley Oak)

### Impact summary

	Tree tag #'s
Proposed Removal	<b>1,2,3,89</b>
Encroachment	
No proposed impact	
<b>Total trees in report</b>	<b>four</b>

### Oak Tree Data

Tag #	Species	Impact Status	DBH in inches	Grade	Vigor	Structure	Height
1	Valley Oak <i>Quercus lobata</i>	Remove	( 10,5 )	B	Good	Fair to Good	20'-30'
2	Coast Live Oak <i>Quercus agrifolia</i>	Remove	( 10,5 )	B-	Good	Fair	15'-20'
3	Coast Live Oak <i>Quercus agrifolia</i>	Remove	( 11.5,6.5 )	B-	Good	Fair	15'-20'
89	Coast Live Oak <i>Quercus agrifolia</i>	Remove	( 18.5,17,14 )	D+	Poor	Poor	25'-30'

### Tree Notes

Tag #	Tree comments
1	Tree is a native specimen to the site. Tree is a multi-trunk. Trunk base slightly buried by natural fill from adjacent slope. Growing adjacent to large dead oak tree to west.
2	<u>This tree is non native to the site</u> and was planted as part of the installed landscape. Low branching. Some included bark. Tree is multi trunked. Low branching with canopy in contact with ground. Excessive branch production at point of codominance on larger trunk- may be result of precious damage to trunk.
3	<u>This tree is non native to the site</u> and was planted as part of the installed landscape. Low branching with canopy in contact with ground. Trunk base slightly buried by fill. Multi-trunked. Tree is growing within a partially landscaped area directly adjacent to a paved parking/storage facility.
89	Tree is a native specimen to the site. Multi-trunked. Tree is growing in natural area. Trunk base is heavily buried by adjacent natural slope failure. One dead trunk on ground. Exfoliating bark. Middle trunk lying on west trunk. Multiple broken large limbs. Heavy trunk damage and decay. Poor condition of tree is most likely a result of heavy fire damage and excess soil fill on trunk.

## Canopy Measurements

### Canopy Dripline From Trunk in Feet

Tag Number	N	E	S	W
1	14	10	14	18
2	9	9	11	11
3	9	10	9	14
89	12	12	18	23

## Oak Tree Mitigation

- Required oak tree mitigation per Los Angeles County Oak Tree Ordinance:
  - 6 (two) 15 gallon Quercus agrifolia
  - 2 (two) 15 gallon Quercus lobata

8 total mitigation trees. (Replacement to removal ratio--- 2:1)
  
- Recommended oak tree mitigation:
  - 11 (eleven) 15 gallon Quercus agrifolia
  - 5 (five) 15 gallon Quercus lobata

16 total mitigation trees.

This is only a recommendation. The final mitigation requirements will be determined by the Los Angeles County Forestry Department.

Proposed mitigation tree planting site- These mitigation trees are proposed to be within the existing property in a natural area as detailed below (see Appendix B). Other alternative natural areas also exist within the project boundary. These are proposals only. The final mitigation requirements will be determined and approved by the Los Angeles County Forestry Division's Environmental Review Unit.

**Tree Photographs**

Tree #1



**Tree Photographs continued**

Tree #2



**Tree Photographs continued**

Tree #3



**Tree Photographs continued**

Tree #89



**Tree Photographs continued**

Tree #89



**Appendix A**

**Oak Tree Mitigation Proposed Location**



**Appendix A**

**Oak Tree Mitigation Proposed Location**



**Appendix B**

**Aerial Photo of Existing Oak Trees Locations**



## Appendix C

### Report Glossary

- **Arboriculture:** The science and art of caring for trees, shrubs and other woody plants.
- **Arborist:** A person possessing the technical competence through experience and related training to provide for or supervise the management of trees or other woody plants.
- **Cavity:** An open and exposed area of wood, where the bark is missing and internal wood has been decayed and dissolved.
- **Codominant:** Equal in size and relative importance, usually associated with either trunks/stems or limbs branches in the crown.
- **Crotch:** The point or angle at which two branches (or a branch and a leader) meet.
- **DBH –Diameter Breast Height:** The diameter of the trunk of a tree measured at 4.5 feet above natural grade.
- **Decay:** Progressive deterioration of organic tissues, usually caused by fungal or bacterial organisms, resulting in loss of cell structure, strength, and function. In wood, the loss of structural strength.
- **Defoliation:** Loss of leaves.
- **Dripline:** The width of the crown, as measured by the lateral extent of the foliage.
- **“Encroachment” as it pertains to the LA County Oak Tree Ordinance:** Proposed construction, excavation, grading and/or landfill within the Protective Zone.
- **Epicormic growth:** Growth that arises from latent buds that occur on stems, branches, and at the base of trees. This type of growth is more vigorous and weaker than normal growth
- **Foliage:** The live leaves or needles of the tree; the plant part primarily responsible for photosynthesis.
- **Heritage Oak Tree:** any oak tree measuring 36” or more in diameter, measured 4½ feet above natural grade.
- **Mulch:** Any material such as wood chips, straw, sawdust, leaves, and stone that is spread on the surface of the soil to protect the soil and plant roots from the effects of raindrops, soil crusting, freezing, and evaporation.
- **“Protective Zone” as it pertains to the LA County Oak Tree Ordinance:** “The Protected Zone shall mean that area within the dripline of an oak tree and extending there from to a point at least 5 feet outside the dripline or 15 feet from the trunk, whichever distance is greater.”
- **Pruning:** Selective removal of woody plant parts of any size, using saws, pruners, clippers, or other pruning tools.
- **Root ball:** Area containing the main root structure.
- **Root crown:** Area at the base of a tree where the roots and stem merge.
- **Root System:** The portion of the tree containing the root organs, including buttress roots, transport roots, and fine absorbing roots; all underground parts of the tree.
- **Root Zone:** The area and volume of soil around the tree in which roots are normally found. May extend to three or more times the branch spread of the tree, or several times the height of the tree.
- **Shaded out:** Slower or stunted growth due to lack of sufficient light.
- **Species:** The main category of taxonomic classification into which living organisms are subdivided, comprising a group of similar individuals having a number of correlated characteristics.
- **Stress:** Unfavorable deviation from normal. The action on a body of any system of balanced forces whereby strain or deformation results. In arboriculture, the adverse alteration of tree health by abiotic or biotic factors.
- **Sucker:** Vigorous upright epicormic (Adventitious) shoot rising from the base of the trunk or just below the soil surface.
- **Re-growth/trunk sprout:** Growth rising from the base of damaged or cut trees/shrubs. Epicormic type growth.
- **Vigor:** Overall health; the capacity to grow and resist physiological stress.
- **Visual Tree Assessment:** Method of evaluating structural defects and stability in trees.

**Appendix D** **Oak Tree Location Plan**

---

# EXISTING PRIMARY CANYON LANDFILL (CLOSED)

## SOUTHERN CALIFORNIA EDISON

### LEACHATE STORAGE/ TREATMENT/LOADOUT FACILITY

### NEW ENTRANCE FACILITIES AREA

### NEW SCALES & GATEHOUSE

### ADMINISTRATION BLDG.

### PUBLIC DROP-OFF

## HENRY MAYO DRIVE

GRAPHIC SCALE



**PINNACLE**

Land Surveying, Inc.  
28348 CONSTELLATION ROAD  
SUITE 800  
VALENCIA, CA 91355  
TEL (661) 254-1928



