

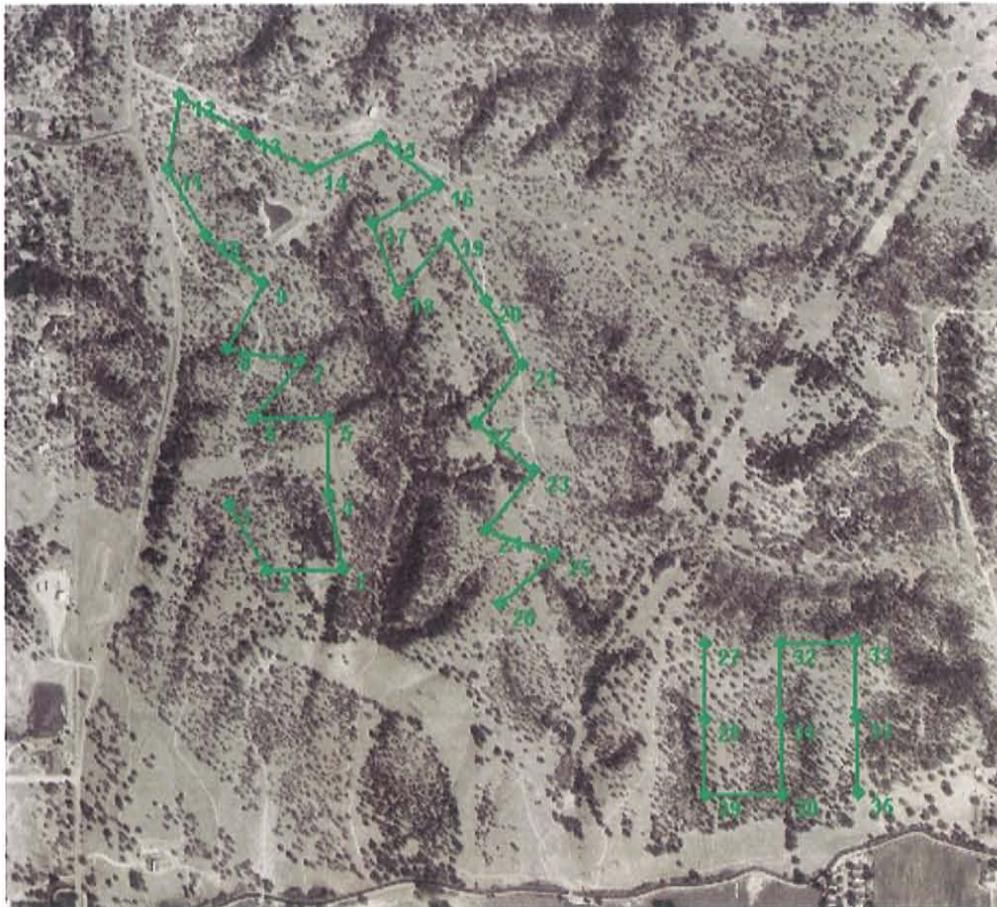
## Oak Woodland Conservation Plan for the Panorama Planned Development: TR 1960

Pursuant to Section 21080.1, of the Public Resource Code, a county shall determine whether a project within its jurisdiction may result in a conversion of oak woodlands that will have a significant effect on the environment. At the request of the Project Engineer, Sharrah Dunlap Sawyer, Inc., who represents the developer/landowner, Romar et al, I reviewed the proposed subdivision. The subdivision consists of 307.4 acres and will contain 446 lots ranging in size from 2,800 square feet to 3 acres. **See Exhibit A.** An estimated 143.9 acres of vegetation must be cleared to develop this project as planned. The oak woodland portion of the project includes 121.6 acres.

My review consists of two components. The first is an inventory of oaks 5 inches DBH and greater within the oak woodland type. The second is an assessment of the impact of removing oaks to develop the lots and associated subdivision infrastructure.

### Inventory

The inventory consisted of a series of thirty-five (35) 0.2 acre circular plots, all located in the areas of expected disturbance. The aerial photograph below depicts the location of the inventory plots.



RECEIVED  
COUNTY OF SHASTA  
BUILDING DIVISION

OCT 24 2007

RECEIVED

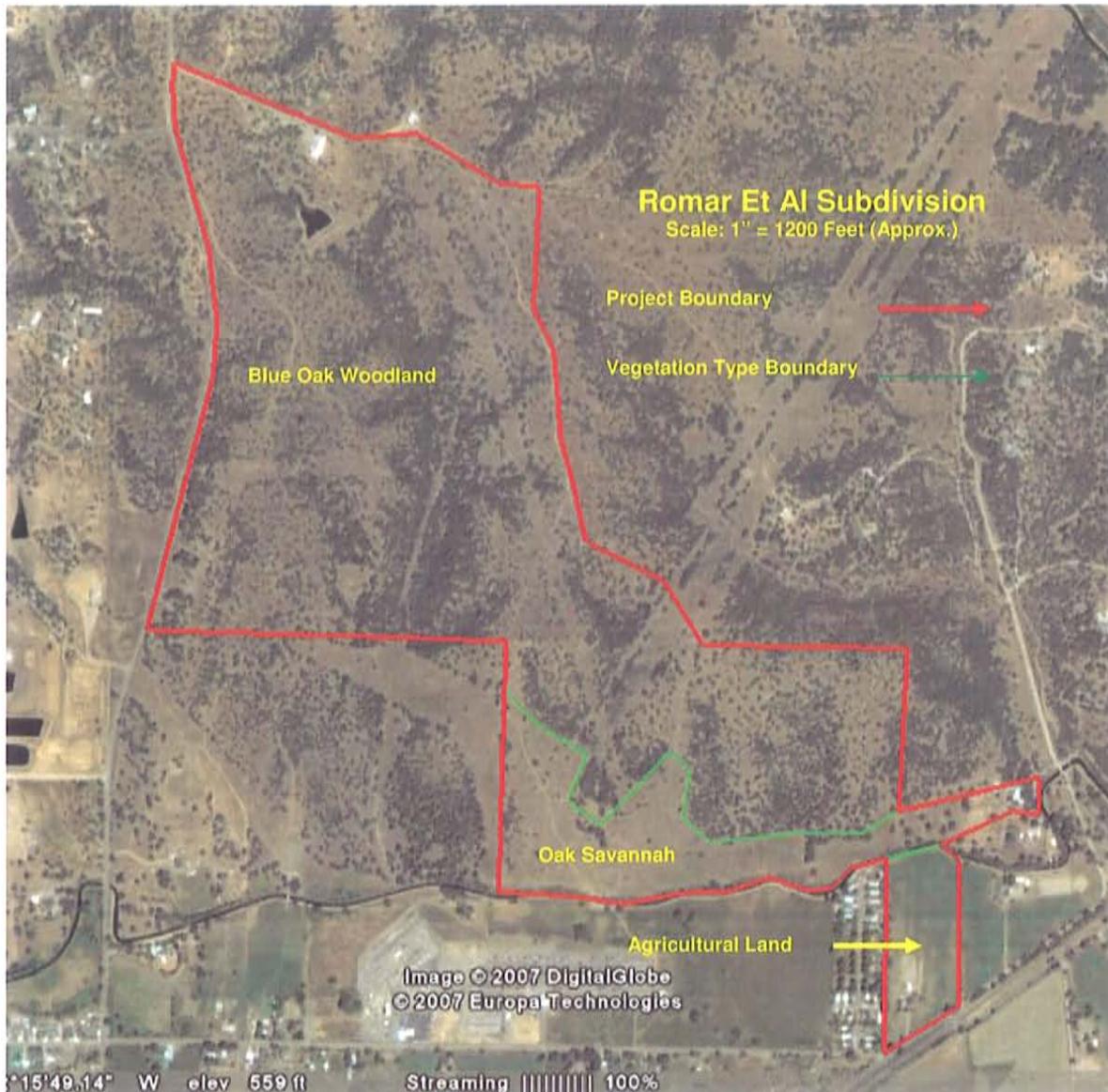
Preliminary maps delineating lot boundaries and associated infrastructure were used to locate cruise plots. All plots were taken within typical blue oak woodland. Data taken on each inventory plot included species, estimated diameter at breast height (DBH) by 2" diameter classes for all trees 5.0 inches DBH and greater. Only one species, blue oak, *Quercus douglasii*, was encountered during the inventory. The table below depicts total oaks cruised, estimated oaks per acre, and estimated oaks requiring removal within the oak woodland type.

Romar Et Al: Cruise Data			
DBH (Inches)	Blue Oak Trees by Category		
	Cruised	Per Acre	Removal
6	76	10.9	1320
8	73	10.4	1268
10	54	7.7	938
12	38	5.4	660
14	32	4.6	556
16	11	1.6	191
18	4	0.6	69
20	6	0.9	104
22	7	1.0	122
24		0.0	0
26	1	0.1	17
28	1	0.1	17
<b>Total</b>	<b>303</b>	<b>43</b>	<b>5264</b>

### Setting (Vegetation Types and Land Use)

The proposed subdivision area includes blue oak woodland, 259.2 acres, oak savannah, 36.4 acres, and developed agricultural land, 11.8 acres. Oak woodland is defined in California Fish and Game Code 1361 (h): **"Oak woodlands" means an oak stand with a greater than 10 percent canopy cover or that may have historically supported greater than 10 percent canopy cover.** The blue oak woodland consists of blue oaks over a variable understory. The understory is a mosaic of annual grass with scattered concentrations of chaparral species. The primary chaparral species is manzanita. The chaparral is more concentrated within the watercourse drainage ways. The difference between oak woodland and oak savannah is the amount of crown closure. Oak woodland is over ten percent and oak savannah is less than ten percent. The agricultural land is self-explanatory. **The Google Earth™ aerial photo on the next page depicts the three vegetation types.**

The primary land use within the project area has been cattle grazing. There is some evidence of commercial wood cutting in the past. The agricultural land is irrigated. Several high voltage electrical lines bisect the project area.



## Impact Assessment

The purpose of PRC § 21083.4 B is to conserve and protect oak woodlands by requiring lead agencies to make a CEQA determination of “whether a project ... may result in a conversion of oak woodlands [to some other land use] that will have a significant effect on the environment” and to mitigate for the conversion of oak woodlands.

The number and small nature of most of the proposed lots, along with the associated infrastructure will necessitate conversion of 121.6 acres of oak woodland to residential use. This acreage includes portions of the larger lots in Phase IV, see Exhibit A, that will probably have some oak woodland remaining along the interface of the lots and designated “open space”. However, the proposed subdivision will have a significant effect on the environment” and will require mitigation measures to meet PRC § 21083.4 B.

The remaining 131.5 acres of oak woodland is currently designated as "open space". Some additional, but not significant, impacts will occur within the open space. Specifically, these minor impacts will include installation of utility lines and unpaved service roads along the lines. Also, a trail system and associated recreational facilities around the existing ponds will be developed. Development of these facilities should be accomplished in a manner that minimizes the need to remove oak trees and therefore no loss in oak woodland acreage.

### **Mitigation Options**

Mitigation measures for significant impacts may include the following four options as noted under PRC § 21083.4 B

1. Conserve oak woodlands, through the use of conservation easements.
2. (A) Plant an appropriate number of trees, including maintaining plantings and replacing dead or diseased trees. (B) The requirement to maintain trees pursuant to this paragraph terminates seven years after the trees are planted. (C) Mitigation pursuant to this paragraph shall not fulfill more than one-half of the mitigation requirement for the project. (D) The requirements imposed pursuant to this paragraph also may be used to restore former oak woodlands.
3. Contribute funds to the Oak Woodlands Conservation Fund, as established under subdivision (a) of Section 1363 of the Fish and Game Code, for the purpose of purchasing oak woodlands conservation easements, as specified under paragraph (1) of subdivision (d) of that section and the guidelines and criteria of the Wildlife Conservation Board. A project applicant that contributes funds under this paragraph shall not receive a grant from the Oak Woodlands Conservation Fund as part of the mitigation for the project.
4. Other mitigation measures developed by the county.

### **Recommended Mitigation**

Establish a conservation easement covering all portions of the project area designated as "open space/common area" on the Panorama Planned Development TR-1960 Title Sheet dated January 19, 2007. The Title Sheet indicates 131.5 acres so designated. The conservation easement should include at least 121.6 acres of oak woodland.



**Frank S. Borden**  
**Registered Professional Forester #130**  
**February 22, 2007**

Exhibit A

