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## RANCHO SAN CARLOS FOREST MANAGEMENT PLAN

Prepared for:

Rancho San Carlos Partnership Carmel, California

Prepared by:

Ralph Osterling Consultants, Inc. San Mateo, CA

February 18, 1994



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### EXECUTIVE SUMMARY

The Forest Management Plan for Rancho San Carlos addresses the impacts of the proposed project and recommends mitigation and preservation measures. The sensitive and thorough design process for the project has minimized the impacts on the forest resources primarily through avoidance and sound siting practices. Special attention was directed to preservation of Landmark Trees as defined in the Monterey County Tree Preservation Ordinance (Chapter 16.60, Monterey County Code). A total of 1480 trees are projected to be removed for the entire project. Of the trees scheduled for removal, coast live oak is the predominate species and accounts for 71 percent of the total. Approximately 90 percent of the trees are less than 24 inches in diameter. The remaining 10 percent are over 24 inches in diameter and are classified as landmark trees. Of an estimated 550,000 trees on the ranch, only 0.27 percent will be removed or impacted. Overall the forest is healthy with only minor incidents of pests or disease.

Like most California oak woodlands, Rancho San Carlos woodlands contain very few reproduction or seedling size trees. A comprehensive mitigation plan including a replacement program with a five year guarantee is proposed. Replacement will be at a ratio of 3:1 (replacement:removal) for non landmark (trees less than 24" in diameter) plus a replacement ratio of 5:1 for all landmark trees. Replacement sites were selected based on soil type, aspect, slope and existing cover types. The mitigation program, when implemented, will assure the reestablishment of lost woodland habitat values. Monitoring and maintenance will assure survival and growth. Siting of the reforestation areas in sufficiently large blocks will provide meaningful habitat values.

Tree protection measures address grading and construction impacts on the tree resources. Safeguards for the existing root systems are included within the "Tree Protection Guidelines." Specific measures address grade control, equipment exclusion, aeration, drainage, thinning and pruning.

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### SITE DESCRIPTION

## Introduction

Rancho San Carlos (RSC) is an historic 20,000 acre ranch located in the Northern reach of the Santa Lucia mountain range in Monterey County. The ranch is located immediately south of the Monterey Peninsula, approximately two miles east of Highway 1 and one-half mile south of Carmel Valley Road. Rancho San Carlos Road is the primary access into the project. It provides the primary access to the historic ranch facility that is located in the center of the ranch. The existing land use consists of grazing within the grasslands and oak savanna woodland areas. Wildlife habitat and watershed values dominate in the upland areas. Overall existing land use is generally passive except for the developed area including the horse complex and the ranch house center.

### Topography

Topography is generally rolling to steep and dissected. The primary drainages formed within the ranch include Potrero and Robinson Canyons on the northeast side and San Jose Creek. Drainage from San Jose Creek flows northwesterly and generally forms the southwesterly and the westerly side of the ranch. Las Garzas Creek, San Clemente Creek and Hitchcock Creeks form the major drainage basins in the easterly portion of the property. The ranch consists of primarily narrow drainage basins formed by perennial and ephemeral streams which lead uphill onto forested and brush covered slopes of sixty (60) percent or more gradient. The central area of the ranch consists of an open flat grassland area where the existing ranch complex is located.

### **Existing Access**

Access into the ranch is via Rancho San Carlos Road, a private road located approximately two miles west of Highway 1 and via Robinson Canyon Road, a County road located approximately eight miles east of Highway 1 off Carmel Valley Road. These roads provide a circuitous route through the dissected topography of the property. Dirt access roads were historically developed for ranching operations and are found throughout most of the ranch and provide existing management and emergency access beyond the improved Rancho San Carlos and Robinson Canyon Roads. Some of these dirt roads will be upgraded to all weather roads for internal circulation.

#### Soils

Soils found on RSC vary widely depending upon parent material, weathering, and slope position. Parent materials are generally of sedimentary or granitic origin. Soils developed over the sediments are generally finer textured and higher in clay. Soils developed over granitic materials are generally coarser textured and well drained. Mixtures of soils may be found in the colluvial and alluvial areas. Plant communities

FOREST MANAGEMENT PLAN RANCHO SAN CARLOS Prepared by Ralph Osterling Consultants, Inc. February 18, 1994 often follow soil types (e.g., clay, sands). At RSC, the Soil Conservation Service (SCS) has mapped and classified the soil complex. The oak woodland and forest vegetation types are found on the Chular, Elder, Elkhorn, Gorgonia, Junipero, Lockwood, Los Osos, Pfeiffer, San Andreas, Santa Inez and Sheridan types (Soil Conservation Service, 1978).

### Vegetation

Vegetation has been inventoried and classified by BioSystems, Inc. Methodology used follows that of Munz (1959), Cheatham and Haller (1975), and Holland (1986) procedures. Primary forest cover within the development area consists of a broad mix of oak communities.

BioSystems biologists identified forty-one vegetation types on RSC. The general cover types consist of open grasslands, grassland-oak savannas, and woodlands dominated by a variety of oak species including coast live oak (*Quercus agrifolia*), valley oak (*Quercus lobata*) and black oak (*Quercus kelloggii*). Besides the oak forest complexes, open brushfields are dominated by chamise (*Adenostoma fasciculatum*) and/or manzanita. Grasslands consist of a mixture of introduced species and California native grasses. The understory and the oak savannahs consist of a variety of grasses, forbes, and in many areas, poison oak (*Toxicodendron diversilobum*). A list of the major woody plant species is included in Appendix A.

The oak types are described generally by the dominant oak species listed above. Coast live oak mixes include coast live oak--California bay, coast live oak--black oak woodland, coast live oak--valley oak woodland, coast live oak--brush, and coast live oak savannas. The valley oak types include valley oak savanna, valley oak--mixed oak savanna, and valley oak--mixed oak woodlands. Black oak types are generally found on the upper slopes where types include black oak woodland, black oak savanna, and black oak--manzanita. Mixtures and intergrades occur with many of the above types. Isolated inclusions, located primarily in the canyon bottom areas, consist of coast redwood (*Sequoia sempervirens*). Narrow corridors of riparian communities dominated by the oak complex, sycamore, and willow species are found in the canyon bottoms with higher moisture levels.

The overall condition of the forest on the ranch can be summarized as generally healthy and vigorous. Most areas have been subject to past wildfires as evidenced by char and typical stump sprouting regrowth. The brush is generally old, often very dense and decadent. The oak woodlands are generally mature with few or no oak seedlings or saplings. This absence of reproduction is not unique to RSC. It is a statewide problem. Wild fires and a variety of factors acting independently or jointly including grazing (cattle and pig), wildlife browse, avian and rodent predation, and annual

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grasses depleting soil moisture have been identified as the major causes (Pavlik, Muick, Johnson and Popper, 1991). No serious outbreaks of diseases or pests were noted during the survey of RSC.

Overall, the forest plant communities on RSC are healthy and relatively pest free. Isolated pockets of a variety of pests were noted; all were in an endemic state and are not of concern from a management perspective. A deep duff layer typically blankets the forest floor and provides a deep mulch layer to control erosion and provide for nutrient and moisture conservation. The presence of a variety of gall forming insects is evidenced by the remaining leaf and stem galls found within the forest. In addition, isolated cases of root rot were noted. Observed decay fungi include crown rots (*Phytopthora* and *Pythium spp.*) and oak root fungus, (*Armillaria melea*). Although heart rot is common, it does not impair the vigor of the tree. Instead, it weakens the structure that may cause branches to break, or occasionally, entire trees to topple. Lace lichen ("Spanish moss") is common at RSC. It is non parasitic, however, heavy infestations may create excessive shading or excessive weight that might impair the trees.

### PROJECT DESCRIPTION

Rancho San Carlos is an historic 20,000 acre ranch located on the southerly side of the Carmel Valley and extends from two to twelve miles inland from Highway 1. The property was purchased in 1990 by the Rancho San Carlos Partnership. This partnership proposes to develop the land as a unique residential community within a preserve involving a progressive alliance of commercial and nonprofit conservation interests.

In March 1993, the Monterey County Board of Supervisors amended the Greater Monterey Peninsula Area Plan (GMPAP) and applied a forty (40) acre per unit density and Resource Conservation land use designation over the entire ranch. The Board further resolved that a "planned use overlay" for the entire property be prepared based on a comprehensive analysis of the natural resource systems of the ranch (Monterey County Board of Supervisors' Resolution No. 93-115, 1993).

Based on that direction, the RSC Partnership has prepared a comprehensive development plan for the ranch covering the 16,541 acres within the GMPAP, 2,544 acres within the Carmel Valley Master Plan Area (CVMPA), and the 733 acres located within the Carmel Area Coastal Zone (CACZ). This Forest Management Plan is an integral part of that comprehensive development plan.

FOREST MANAGEMENT PLAN RANCHO SAN CARLOS Prepared by Ralph Osterling Consultants, Inc. February 18, 1994 The RSC comprehensive development plan provides that 18,000 acres +/- of the ranch be set aside as preserve lands that will be protected by a combination of fee title and conservation easements conveyed to and managed in perpetuity by an independent conservancy. Preserve management goals are focused to integrate a program of scientific resource management, conservation, education, and outdoor recreation activities.

Further, 2,000 +/- acres will be developed as Settled lands where residential units are carefully distributed throughout the ranch. The units will be clustered in locations where, through intensive analysis of the ranch landscape and its ecological resources, the RSC Partnership and its advisors have determined the specific suitability of the lands for development. On these Settled lands development will be restricted to a maximum of three hundred (300) market rate homesites, fifty (50) units of inclusionary/employee housing, one hundred and fifty (150) visitor accommodation rooms, neighborhood commercial, office, scientific, recreation, and community/commercial facilities. In addition, the existing ranch management facilities will be used and expanded as required for prudent operations. In sum, 90 percent of Rancho San Carlos will be preserved and managed as wildland open space, and 10 percent of the land will be developed by carefully integrating residential and lodging units in clusters appropriately located in the surrounding wildlands.

The structures will consist of some three hundred (300) single-family structures with appurtenant development structures. Inclusionary employee housing, the visitor accommodation area and other infrastructure will be centrally located to minimize environmental impact and maximize convenience for residents and employees.

### IMPACTS

This Forest Management Plan for Rancho San Carlos has been prepared to provide a basic evaluation of the existing forest conditions found on the ranch. Based on the evaluation of these conditions, this management plan will provide for future. management activities to enhance and preserve the forest resources. A complete evaluation of all proposed road locations was completed to assess the impacts of the development within the forest.

A site-by-site review of all proposed construction areas was conducted. All trees proposed for removal were measured and identified throughout the project area. Appendix B of this report includes a summary of all tree removals. Tree locations referenced in Appendix D are keyed to the road and driveway stationing found on the

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RALPH OSTERLING # CONSULTANTS INC Vesting Tentative Map. The site-by-site inspection provided an opportunity to inspect all trees for health, general tree conditions and overall site conditions. Within this inspection, an opportunity was afforded to review the proposed alignment of roads and driveways, and from a forest management perspective, to provide guidance for realignment where necessary. In many cases, road and driveway alignments were adjusted to avoid or minimize impacts on trees.

The existing road system has been carefully evaluated from an environmental/ ecological perspective and from traffic and safety standpoints to provide access to the proposed development areas. The existing road system will be used throughout the property wherever possible. Improvement of these existing roads will be limited to the minimum required. Where necessary, additional roads will be constructed and necessary driveways to individual residential units will be also constructed. Roads have been carefully located and, in some cases, realigned to best conform to the topography and to minimize tree removal. Roads are aligned to best follow topography and existing roads thus causing a minimum of grading.

A thorough evaluation of the existing road alignments and tree conditions was completed. The general goal of using existing roads to the extent possible was fully evaluated before realignment and new road construction planning. Therefore, road construction and realignment are minimized due to proper planning. Only where necessary, due to California Department of Forestry and Fire Protection (CDF), General Plan (GP) or GMPAP ordinance requirements, are roads proposed for realignment or reconstruction. A team approach was used to minimize the impact on the forest community created by road development activities. Such an example is the relocation of Garzas Trail. This road was relocated to avoid the large old-growth stand of coast live oak found in the lower reach of Las Garzas Canyon.

Driveway alignments and grades have been selectively chosen. Generally, driveway alignments have been guided by the philosophy of fitting the road to the land and not the land to the road. In so doing, a minimum number of trees have been affected with the proposed driveway construction. In addition, several trees will be pruned instead of removed to allow for proper clearance for vehicle access to the development areas. Driveway grading will consist of a minimum width driveway and minimum cut and fill activities, especially through the forested areas. Construction of 110,350 feet of driveways will cause the removal of two hundred and twenty-three (223) trees. This averages less than one tree per unit and approximately two trees per thousand feet of driveway.

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All building envelopes include a flat-to-gently sloping open area where minimal grading will be required for individual residential unit development. An estimated total of four hundred and fifty-one (451) trees will be removed for building site development. Based on a total of 283 residential units, tree loss for residential development will be approximately 1.5 trees per unit. Tree removal estimates were based on a clearing of designated residential sites. Integral to the site development will be a design plan that has minimal impact on the trees. In most cases, very few trees will be removed, and in some cases, no trees will be removed because of site development. In some situations healthy trees may be relocated and used for landscape trees. Generally, to qualify for relocation the tree must have a full, well-balanced crown and a diameter of twelve (12) inches or less.

Septic systems will be located in and around the open areas. In most cases, tree removal due to septic field installation can be avoided. The following lots have been identified as having potential impacts on trees due to septic field installation:

PT-2, T-4, T-9, T-11, T-12, T-13, T-25, T-33, SC-7, SC-4, SC-5, SC-71, SC-74, SC-79, SC-91, SC-92

When specific development plans for these lots are prepared, tree removal will be reevaluated and site specific mitigation measures proposed as necessary. Where leach line development is required within the forest area, special precautions will be included in the trenching and the grading operation. All roots over three inches in diameter will be preserved intact and not cut. Hand digging to provide trenching beneath the roots for septic leach lines in those limited areas will further preserve the oak resources. Septic drainage will be minimal and will not adversely affect the oak resources. During droughty summer periods when seasonal water is at a minimum, this added moisture will be beneficial.

Tree removal is related to lot development, driveways, and roads. Road and driveway development will cause the removal of one thousand and twenty-nine (1029) trees. Table 1 presents a species distribution of the trees proposed for removal by road and driveway construction.

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Coast live oak is the most common species found on the ranch. It accounts for seventy-six (76) percent of the trees in Table 1.

RANCHO SAN CARLOS ROAD AND DRIVEWAY TREE REMOVAL BY SPECIES							
Species Number % of Total							
bay	14	1.36%					
big leaf maple	4	0.39%					
black oak	45	4.37%					
blue oak	4	0.39%					
coast live oak	782	. 76.00%					
madrone	22	2.14%					
redwood	2	0.19%~					
sycamore	2	0.19%					
toyon	1	0.10%					
valley oak	153	14.87%					
TOTAL	1029	100.00%					

TABLE 1

Table 2 displays the general condition of the road and driveway removal trees and Table 3 displays the condition of landmark trees proposed for removal due to driveway and road construction.

RANCHO SAN CARLOS ROAD AND DRIVEWAY HEALTH OF ALL TREES TO BE REMOVED					
Health Cond.	Number	% of Total			
good	594	57.73%			
fair	300	29.15%			
poor	135	13.12%			
Total	1029	100.00%			

TABLE 2

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TABLE 3	
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RANCHO SAN CARLOS ROAD AND DRIVEWAY HEALTH OF LANDMARK TREES TO BE REMOVED				
Health Cond.	Number	% of Total		
good	55	76.39%		
fair	. 8	11.11%		
poor	. 9	12.50%		
Total	72	100.00%		

The majority of the trees at the ranch are generally healthy both in the non landmark and landmark categories. Trees marked for removal are in similar condition. A landmark tree is a tree with a diameter of twenty-four (24) inches or greater when measured two (2) feet above the ground.

Most of the trees (92.99%) measure less than twenty-four (24) in ches when measured at two (2) feet above the ground. Table 4 depicts the diameter of all trees proposed for removal during road and driveway construction.

### TABLE 4

RANCHO SAN CARLOS ROAD AND DRIVEWAY TREE REMOVAL BY DIAMETER CLASS						
Diameter Class	6"-11"	12"-17"	18"-23"	24"-29"	30"-35"	36"+
% of Total	45.38%	36.05%	11.56%	5.25%	1.07%	0.68%
Count	467	371	119	54	11	7

Within the Monterey County Tree Preservation Ordinance, special concerns and conditions apply to landmark trees. Of the total road and driveway trees scheduled for removal, seven (7) percent are classified as landmark trees. Table 5 provides a diameter class breakout of the landmark trees.

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TABLE 5	
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		RANCHO SA ROAD AND NDMARK TR BY DIAMETI Diametei	DRIVEWAY EE REMOVA ER CLASS	L		
24"-29" 30"-35" 36"-41" 42"-47" 48"-53" Total						
54	- 11	4	1	2	72	

Trees estimated for removal from the lots were tallied based on an average residential plan. Since site specific plans are not available, this conservative estimate was prepared to provide a basis for the premitigation program proposed to begin early in the project development process. A total of four hundred and fifty-one (451) trees (average of 1.50 trees per site) are estimated to be removed for all lot development. Table 6 is a summary of the building sites tree removal by tree species. As with the road development, most of the trees are coast live oak.

RANCHO SAN CARLOS BUILDING SITES TREE REMOVAL BY SPECIES							
Species Number % of Total							
bay	1	0.22%					
big leaf maple	. 4	0.89%					
black oak	40	8.87%					
biue oak	4	0.89%					
coast live oak	269	59.65%					
madrone	2	0.44%					
Monterey pine	1	0.22%					
valley oak	130	28.82%					
Total	451	: 100.00%					

TABLE 6

Table 7 is a summary by diameter class of the trees proposed for removal due to building site development.

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RANCHO SAN CARLOS BUILDING SITES TREE REMOVAL BY DIAMETER CLASS						
Diameter Class 6"-11" 12"-17" 18"-23" 24"-29" 30"-35" 36"+						
% of Total	25.50%	37.69%	19.29%	9.76%	4.00%	3.76%
Count	115	170	87	44	18	17

Table 8 is a summary by diameter class distribution and tree species of all trees proposed for removal. Approximately ninety-eight (98) percent are less than thirty-six (36) inches in diameter.

Total tree removal for the RSC project as proposed is one thousand four hundred and eighty (1480) trees. A total of one hundred and fifty-one (151) landmark trees are included in the one thousand four hundred and eighty (1480) count. Of the one thousand four hundred and eighty (1480) trees, one thousand and fifty-two (1052) or seventy-one (71) percent are coast live oak. RSC has an estimated 550,000 trees of all species greater than six (6) inches in diameter. The proposed project will result in the loss of approximately 0.27 percent of the total tree population at RSC. Table 8 is a summary of all trees to be removed by species and diameter size classes.

	B	TREE REM	NCHO SAN ( NOVAL FO S AND DIA	R ALL AR	EAS LASS	• .	· ·
Species	6"-11"	12"-17"	18"-23"	24"-29"	30"-35"	36"+	TOTAL
bay	7	3	5		н н тр. -		15
big leaf maple	4		4				
black oak	25	. 39	8	i <u>10</u>		3	85
blue oak	2	3	2	1			
coast live oak	426	388	147	64	15	11	1052
madrone	14	8	1	1			24
Monterey Pine			1				. 1
redwood	1					1_	2
sycamore	1		1				2
toyon	1						1
valley oak	101	100	37	22	14	· 9	283
TOTALS	582	541	206	98	29	24	1480

TABLE 8

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FOREST MANAGEMENT PLAN RANCHO SAN CARLOS Prepared by Raiph Osterling Consultants, Inc. February 18, 1994 All tree removal will be the result of construction and no trees are proposed for removal outside the development area.

## **REFORESTATION PLAN**

The RSC project provides a unique setting and opportunity to provide tree planting and forest regeneration. Although the existing forest at RSC is healthy, the number of seedling and sapling size trees is minimal; in some areas, no oak reproduction is present. Tree replacement and replanting will be based on a 3:1 replacement for all trees less than landmark size and 5:1 (replacement:removal) for landmark trees.

To assure genetic integrity, seeds will be gathered from onsite sources. The balance of the species mix will be similar to the species ratio of the trees proposed for removal. The RSC Partnership proposes to construct an onsite nursery for plant propagation, education, and conservation foundation purposes. All seedlings will be grown at that facility.

### Timing

As part of the Reforestation Plan, all tree losses will be premitigated. Tree removal will occur primarily because of infrastructure improvements (i.e., roads, driveways and utilities) and residential lot development. Infrastructure improvements will require tree removal early in the project development process. However, tree removal for individual lot development will occur over several years as the lots are individually sold and developed. A goal of the Reforestation Plan is to mitigate for all tree removal at the beginning of project construction before many trees are removed. Pre-mitigating the loss of trees and habitat will allow the reforestation effort to be well under way before many trees are ever removed. The benefits of this approach are multifold:

Beginning the reestablishment process early will reduce the impact and disruption to the woodland habitat values.

Monitoring of the reforestation program will verify the success and completion of the mitigation before the project is completed. In addition, a 5-year guarantee will be provided during the plant establishment period.

Pre-mitigating will achieve a more cohesive reforestation program than would likely be achieved by a piece meal approach spread over many years.

Another primary goal of the reforestation program is to re-create or enhance functioning habitat units. The habitat unit approach to reforestation will enhance and/or re-create oak woodland habitats with understory plant species. Existing degraded habitat units may be enhanced and linked to other habitat types by the reforestation program.

FOREST MANAGEMENT PLAN RANCHO SAN CARLOS Prepared by Ralph Osterling Consultants, Inc. February 18, 1994 The GIS (Geographic Information System) database used at RSC, has been used to help in the selection of candidate mitigation sites. The GIS evaluated the ranch for specific site characteristics including soils, vegetative cover, slope, aspect, elevation, development areas, and grazing units. Using this information, potential mitigation sites were mapped and evaluated.

#### Site Selection Criteria

Successful implementation of this plan requires the careful selection of appropriate mitigation sites. Sites must possess physical characteristics conducive to the growth and establishment of the desired tree species. Species included in the mitigation planting program include California bay, big leaf maple, black oak, blue oak, coast live oak, madrone, redwood, sycamore, toyon, and valley oak. With this diversity of species, proper habitat and site selection is critical to the success of the program. The following criteria have been evaluated using the GIS system to locate desirable mitigation sites.

**Aspect**. Generally most native oak species are found growing on north, northeast, southeast and flat areas. These aspects have cooler, moister environments than south and west exposures. Preference has been given to sites with north and east aspects and areas that are flat (no aspect).

**Proposed Grazing Units**. To avoid damage by cattle (i.e., trampling, grazing and rubbing) to the reforestation planting, sites located inside the proposed grazing units must be fenced or otherwise protected.

**Soils**. The Soil Conservation Service (SCS) Soil Survey of Monterey County, California was reviewed to select soil types compatible with the growth and establishment of oak and other hardwood species. The following soil types were selected: Chular, Elder, Elkhorn, Gorgonio, Junipero, Lockwood, Los Osos, Pfeiffer, San Andreas, Santa Inez, and Sheridan.

**Development Areas**. Reforestation sites have been located outside proposed development areas to avoid potential conflicts and to provide better wildlife habitat integration.

**Slope**. Sites with slopes of 30 percent or less were selected to aid in the installation and success of the reforestation program.

**Vegetation Types**. Existing vegetation cover types were reviewed to select areas that were in need of enhancement or could be expanded and linked to other habitat types.

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#### **Reforestation Sites**

The "Potential Reforestation Site Map" (See Map pocket folder) shows the location of the proposed mitigation sites. A total of 2,877 acres are potentially available for the reforestation mitigation program. Overstory tree planting density will vary from twenty (20) to one hundred (100) trees per acre. Approximately 4,800 trees will be planted requiring from 48 to 290 acres of land. Besides the replacement trees, various shrub and herbaceous plants will be planted as understory vegetation. Specific species and planting densities will be determined by the vegetative community that is being reestablished or enhanced.

## PROJECT ASSESSMENT

As described in the Project Description section, only a minimal area of the entire RSC holding will be impacted by development. The forest resources cover only part of the development area. The short-term and long-term impacts are two-fold. First, removal of trees may degrade pockets of habitats on a very localized basis. However, the anticipated grading footprints will be relatively small (6,000 to 15,000 square feet) and dispersed, thereby minimizing the overall impact. Second, the mitigation planting will help to reestablish young trees on RSC. This will minimize the long-term negative impact or perhaps result in a net positive impact by creating young vigorous forest conditions which offsets the continuing natural loss of mature tree.

The alternatives to minimize development impacts on the forest resources at RSC have been included in the design development process. Further reduction could only be accomplished by a reduction in the project scope and size. A reduction in project size due to forest resource impacts is not warranted. Through close interaction and cooperation among the project planners, engineers and Registered Professional Foresters in the design of the project, impacts to tree removal have been reduced to an insignificant level (approximately 0.27 percent removal). Further reduction of project scale would result in reduced levels of reforestation, including replanting of presently non-regenerating oak woodlands.

A guiding design principle for the Rancho San Carlos development is the avoidance of impacts where possible. As such, great effort has gone into minimizing tree removal. Building envelopes have been located in areas with minimal tree cover or tree densities that will allow the residences to be designed around the trees. In addition, the existing road network will be upgraded and widened only as needed to meet the appropriate design standards. While road widening requires some tree removal, the impacts are greatly reduced compared to constructing new roads. Road alignments have been adjusted, when possible, to avoid significant trees, groups of trees, and landmark trees.

The following mitigation and protection measures have been developed to offset the unavoidable loss of trees and habitat and to protect residual trees from construction impacts.

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## TREE PROTECTION GUIDELINES

Young, native trees are generally tolerant of changes in their environment and can usually adapt to construction and landscape changes. However, as trees mature, their environmental tolerance is reduced and significant changes can weaken or kill them (Johnson, 1989).

The root crown and the entire root zone are the most vulnerable parts of a mature tree. Generally the tree's root zone is considered one-third larger than the drip line area. Where possible, no disturbance should occur within this zone.

Common construction related impacts to trees include:

- grade changes caused by cuts and fills within the root zone
- natural drainage changes around trees
- soil compaction in the root zone
  - utility trenching within the root zone
    - pavement or hard impervious surfaces over the root zone
    - excavation for building foundations and septic laterals
    - trunk damage caused by construction equipment

The following guidelines will be followed and enforced by the Conservancy to minimize construction related impacts (Harris, 1983).

All construction managers, heavy equipment operators, and tree cutters will be trained in tree protection procedures prior to the start of construction. Training will be conducted by Registered Professional Foresters.

Before the start of construction in an area where existing trees are to be retained and protected, exclusion fencing will be installed. Fencing will be installed around the perimeter of the tree's drip line. Drip line is defined as the point where the distance from the edge of the tree canopy to the trunk is the greatest. This radius will be used in establishing the perimeter of the exclusion fencing. Fencing material should be highly visible and sturdy. Construction equipment and activities shall not encroach into the exclusion zone without written authorization from the designated forester.

FOREST MANAGEMENT PLAN RANCHO SAN CARLOS Prepared by Ralph Osterling Consultants, Inc. February 18, 1994 RALPH OSTERLING # CONSULTANTS INC By constructing grade control structures (retaining walls at or beyond the drip line and dry wells around the base of trees), cuts and fills within the drip zone of trees will be avoided. If fill soil is placed within the drip zone of any protected tree, proper drainage and aeration must be provided. See Appendix C.

Grade changes that affect surface and subsurface drainage around the tree should be avoided. Adequate drainage is needed to prevent ponding of water around the base of the trees.

Trenching within the drip line of the tree should be minimized. An alternative to trenching is to place utilities in a conduit that is bored through the soil. This minimizes root damage. Trenches should never be excavated closer than half the distance from the trunk to the edge of the tree canopy. If trenching within the drip line is unavoidable, the use of a joint trench for all utilities will help minimize the damage caused by multiple trenching. If possible, roots three (3) inches in diameter and larger should not be cut.

Trees with greater than 30 percent root loss should be provided with supplemental seasonal irrigation. The irrigation should be deep and infrequent, monthly during the growing season. Supplemental irrigation should be provided for one to three years, depending on the degree of root damage or loss. Care should be taken to keep the zone around the root crown (6-10 foot radius around the trunk) dry.

Avoid soil compaction around the tree. When possible, use a thick layer of crushed rock underlain by a geotextile as an alternative to soil compaction for road base preparation within or near the drip zone of trees. Placement of a thick layer of organic mulch such as wood chips is recommended for areas subject to light traffic. Vehicle and equipment parking and materials storage should not be allowed within the drip line of trees at any time.

Maintain a minimum six (6) foot radius around the base of the tree that is dry and well drained. Mature native oaks should not receive regular summer irrigation unless a tree has suffered significant root loss; then the irrigation should be deep and infrequent.

If paving must be placed within the drip zone of a tree, a permeable pavement should be used. Avoid paving within a radius of six (6) feet around the base of any tree.

Crown thinning to compensate for root loss should be avoided.

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#### Landmark Trees

As defined in Chapter 16.60.030E of the Monterey County Code, a *landmark oak tree* is any native oak tree that measures twenty-four (24) inches or larger in diameter measured two (2) feet above the ground. In addition, trees that are <u>visually significant</u>, <u>historically significant</u> or <u>exemplary</u> of their species are also classified as landmark trees. Special emphasis has been placed on preserving and protecting landmark trees because of their significant wildlife, scenic and historic values.

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Avoidance is the primary measure used to preserve and protect landmark trees. Only those trees that are a safety hazards or cannot be avoided will be removed. In addition, removal may be warranted when preservation would require the removal of many other healthy non landmark trees. Where feasible, road and driveway alignments have been adjusted to avoid landmark trees specifically and all trees in general.

Within the areas proposed for development of roads or building sites, each landmark tree will have an exclosure fence erected around its drip line at the widest point between the trunk and the edge of the canopy. Due to the age associated with most landmark trees, it is important to maintain a minimum amount of disturbance and change to the environment of the tree. The area within the exclosure fence is to remain off limits to construction activities and equipment unless prior written authorization is given by the designated forester.

## FOREST IMPROVEMENT

In areas surrounding development or other use areas (trails, roads, vistas, etc.) the forest resources should be inspected for hazard trees or hazardous branches. Only in those areas should these trees be removed or otherwise treated to improve the safety of the area. All removal and pruning should be under the direction of a Registered Forester or qualified resource ecologist.

Exotic plant removal is recommended for the short-term and long-term. Scotch broom has invaded many areas of the ranch. This species and others can be highly invasive and detrimental to the native plant communities. In addition, the fire risk may be increased and the aesthetic qualities may be reduced. Control is accomplished by cutting, spraying, and/or burning. Repeat treatments are necessary for complete eradication.

Control burning is an excellent tool to maintain the vigor of the forest, enhance wildlife habitat values and to decrease wildfire risk. At RSC, fire is a natural element of the forest ecology. Burning will increase nutrient turnover, enhance herbaceous growth, control poison oak, and enhance forest reproduction. An intensive and professionally guided program of controlled burning is recommended for both the forest resource types and the chaparral types. The chaparral types at RSC have been burned over several times and are now decadent and prime for fire management application.

## HOMEOWNER OAK TREE MAINTENANCE GUIDELINES

The following recommendations are for homeowner maintenance of oak trees within the landscaped area of each residence. Each homeowner will receive a management guide for landowners published by the University of California titled, "Living Among the Oaks." In addition to this publication, the following guidelines will be provided to assist the homeowner in the proper care of their native oaks. This guidance will ensure the longevity of the oaks and compatibility with landscaping plans.

## Pruning

Native oaks require very little pruning. Mature oaks may benefit from removal of dead, diseased, or weakened branches. Thinning or "daylighting", the removal of ten to twenty percent of the leaf area, can also benefit the tree by allowing more sunlight to penetrate the canopy. It is important to prune when the tree is dormant. Heavy pruning of evergreen oaks should be performed during July and August. Deciduous oaks are best pruned during December and January. Light pruning can be performed at any time of the year. When pruning is done, it is important to do it correctly. Avoid excessive pruning, do not leave stubs, and do not paint the pruning wounds. Most major pruning is best left to professional tree care specialists who are properly trained and equipped.

#### Watering

Native oak trees are well adapted to the long dry summers of California and normally do not need supplemental irrigation. Many species of native oaks (i.e. coast live oak) are highly susceptible to root disease when they are subjected to summer irrigation. The most vulnerable portion of the oaks root zoning is the area extending out six to ten feet from the trunk of the tree. As a general guide, summer irrigation should be avoided within the inner third (one third of the distance from the trunk to canopy drip line) of the root zone. Avoid planting plants with high water requirements beneath the canopy of native oaks.

During extended drought periods (i.e. 1986-92) bimonthly supplemental irrigation can be beneficial, however the irrigation should be restricted to the outer two-thirds of the root zone. Supplemental watering during drought periods can help maintain tree vigor and resistance to insect attack.

### Fertilizing

Native oaks generally do not require supplemental fertilizer; they receive natural fertilizer from their decomposing leaf litter. Trees under stress due to disease, root pruning, or lack of natural fertilizer may benefit from an annual fertilizer application. Fertilizers should be applied only in the outer two-thirds of the root zone. Nitrogen is the nutrient most often found to be deficient in oaks. Nitrogen application should be at a rate of two to four pounds of actual nitrogen per one thousand square feet of surface area.

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FOREST MANAGEMENT PLAN RANCHO SAN CARLOS Prepared by Ralph Osterling Consultants, Inc. February 18, 1994

## TRANSFER OF RESPONSIBILITY

This Plan is intended to create a permanent forest management program for the site. It is understood, therefore, that in the event of a change in ownership, this Plan shall be as binding on the new owner(s) as it is on the present owner. As a permanent management program, this Plan will be conveyed to the future owner upon sale of the property.

Forest Maintenance Plan Prepared by:

Registered Professional Forester

Forester's Signature

PROFESSIO RALPH S. OSTERLING **#**38 CALIFO 18/94

Owner's Agreement as to the Provisions of the Plan:

**Owner's Name** 

Owner's Signature

Forest Maintenance Plan Approval by:

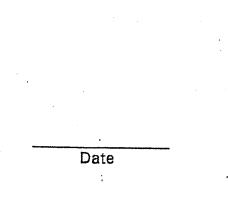
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## **Director of Planning Name**

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Director of Planning Signature

FOREST MANAGEMENT PLAN RANCHO SAN CARLOS Prepared by Ralph Osterling Consultants, Inc. February 17, 1994



Date

RALPH OSTERLING # CONSULTANTS INC

## MAP POCKET

## POTENTIAL REFORESTATION AREA MAP

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## **APPENDIX A**

## LIST OF MAJOR WOODY PLANT SPECIES

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## MAJOR WOODY PLANTS

## TREES

## LATIN NAME

Acer macrophyllum Aesculus californica Alnus rhombifolia Arbutus menziesii Cypressus macrocarpa Juglans hindsii Lithocarpus densiflorus Pinus radiata Pinus ponderosa Platanus racemosa Pseudotsuga menziesii Quercus lobata Quercus dumosa Quercus kelloggii Quercus wislizenii var. wislizenii Quercus agrifolia Quercus chrysolepis Quercus douglasii Salix spp. Sequoia sempervirens Umbrellularia californica

### COMMON NAME

big-leaf maple California buckeye white alder madrone Monterey cypress California black walnut tanbark oak Monterey pine ponderosa pine sycamore Douglas fir valley oak scrub oak black oak interior live oak coast live oak canyon live oak blue oak willow coast redwood California bay

### SHRUBS

Adenostoma fasciculatum Arctostaphios tomentosa spp. tomentosa Artemisia californica Baccharis pilularis var. consanguinea Ceanothus thyrsiflorus Garrya elliptica Heteromeles arbutifolia Holodiscus discolor var. discolor Lonicera spp. Prunus virginiana var. demissa Rhamnus californica ssp. californica Rhamnus crocea spp. crocea Toxicodendron diversilobum Ribes divaricatum var. publiflorum Sambucus mexicana Symphoricarpos mollis Vaccinium ovatum

chamise shaggy-barked manzanita California sage brush coyote bush blue blossom silk tassel bush toyon ocean spray wild honeysuckle western choke cherry coffeeberry redberry, buckthorn poison oak (no common name) elderberry snowberry California huckleberry

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### RALPH OSTERLING # CONSULTANTS INC

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UVAI	SUMIMAKY	<u>- 1 7 1 1</u>		101 101	<u> 106 116 1</u>	1136 1106 1	Tude	Isportes Count	Total Caunt		
	Species	11-0	11-71	10 -43	67- 47	-	+ 00	I aperies coulin		LI. Ru.	ITEE LOSS/1,000 FL. Kd.
Pronghorn Run	valley oak	4								7100	2.4
Black Mtn. Trail	coast live oak	2	-					<b>E</b>	4	6500	0.6
	valley oak	-						-			
Chamisal Pass	bay	<del>،</del>		·					151	33500	4.5
	coast live oak	62	72	7	4	1	2	148		-	
	ltoyon	-									
	valley oak					•		-			
Steelhead Run	coast live oak	7	3						11	1470	7.5
Rumsen Trace	coast live oak		3	3				9	7	850	*8.2
	valley oak		1					-			
Vista Cielo	coast live oak	12	2	1				15	21	4550	4.6
	valley oak	2	4					9			-
Garzas Trail	coast live oak	10	9	5		-		22	28	3800	7.4
	valley oak		2	1	2		1	6			
Long Ridge Trail	bay		1					1	180	14570	12.4
	black oak										
	coast live oak	- 24	27	37	14	1 3		105			
	valley oak	26	28	8	9	4		1 73			
M-10	coast live oak	-	2		1			4	4	1500	2.7
M-19	blue oak	2	2					4	4	150	*26.7
M-23	black oak	1						-		200	*30.0
	coast live oak	n	2					5			
M-29	coast live oak	-						-		1200	0.8
M-3	coast live oak	2		-				<b>С</b>		200	+4.3
M-6 & 7	coast live oak	9	З					<b>6</b>	. 9	1100	8.2
M-8	coast live oak	10		-				19	20	2500	8.0
	redwood	-				_		-			
1-1d	coast live oak	80	ຕ ,						11	900	*12.2
Potrero Trail	coast live oak	47	31	14	4			96		14500	6.6
Rancho San Carlos Rd.	bay	-		-				2	26	48500	0.5
	coast live oak	15	7					23			
	big leaf maple							1			
Arroyo Sequoia	bay	1	1	1				3	45	7750	5.8
	big leaf maple	1						-			
	black oak		2		•		•	5			-
	coast live oak	7	6	С		2		21			
	valley oak	6						15			
SC-3 & 4	coast live oak	*-		·		-			13	1500	8.7
	valley oak	10						1 12			
SC-31	bay ·	2							9	1200	5.0
					:	•					

RANCHO SAN CARLOS ROAD AND DRIVEWAY

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TRFF. REMOVAL	L. SUMMARY											
Location		6"-11"	12"-17"	18"-23"	24"-29"	30"-35"	36"+	Species Coun	Species Count   Total Count   Lineal Ft. Rd.	Lineal Ft. Rd.	Tree Loss/1,000 Ft.	Ft. Rd.
	coast live oak	Ċ										
SC-61, 62, 63	bay	2	-						3 17	2100		8.1
	big leaf maple	1							+	-		
	black oak			***					1			
	coast live oak	6	2					1	1			
	valley oak	1							1			
SC-66 & 67	coast live oak	-	2	e				-	9 9	100		*50.0
SC-89	coast live oak	3	1					7		400		*10.0
SC-90	coast live oak	3	2	2					7 8	1500		5.3
	valley oak		-			1			1			
SC-92	valley oak	2							2 2	1900		1.1
SF-21	coast live oak		1		1				2 2			
SF-32	coast live oak	2	5						7 8	1800		4.4
	maple			1				•	1			
SF-33	black oak		2		1				3 42	2100		20.0
	coast live oak	. 8	3	4				15				-  -
	madrone	14						19	   (			
	valley oak	2	1	1	1			~				
SF-34	coast live oak	4	4		2	•		10	10	400		*25.0
SF-5	coast live oak	2						*	5 5	200		1.7*
SF-6	coast live oak	3		-				1(	23	1800		12.8
	valley oak	2			+			1:				
SF-7	black oak	2	ε					5	32	1850		17.3
	coast live oak	8		5	e			2:	1			
	madrone							1				
	valley oak	2	~						1			
SJ-10	coast live oak	2	-	~				4		1000		4.0
SJ-11	coast live oak	2							2	1800		1.1
SJ-12	coast live oak	e	2					¢		600		*10.0
SJ-17	coast live oak	9	3	~				14	19	2950		6.4
	sycamore	-		-				2				
	valley oak	2		÷		-		U)				
SJ-2	coast live oak	80	-				·	6	6	400		*22.5
SJ-20	coast live oak	2	4	2	-		-	. 10	11	2350		4.7
	redwood			·			-	-				
SJ-9	coast live oak	18	9	2				. 31	31	1300		23.8
Touche Pass	coast live oak	7	-					80	9	10600		0.8
	valley oak	-						-				
Tank 13-1	coast live oak	28	20					48	49	3300		14.8
	madrone		-		_			1				

RANCHO SAN CARLOS ROAD AND DRIVEWAY TREE REMOVAL SHMM

RANCHO SAN CARLOS	ROAD AND DRIVEWAY	TREE REMOVAL SUMMARY
RANCHO	ROAD AN	TREE RE

							ł	AND DESCRIPTION OF A DE		
Location	Species	6"-11" 1	12"-17"	18"-23"	24"-29" 30"-35"	30"-35"	36"+	Species Count Total Co	ount Lineal Ft. Rd.	Species Count   Total Count   Lineal Ft. Rd.   Tree Loss/1,000 Ft. Rd.
IVuelo Palomas	black oak	11	14		4			29	54 2960	18.2
	coast live oak	5	11	2	2			20		
	madrone		-					1		
	valley oak	2	-	1			•	4		
Vuelo Palomas Ext.	coast live oak	13	12					25	25 9350	2.7
TOTALS		467	371	119	54		~	1029	1029 200300	

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RANCHO SAN CARLOS **BUILDING SITE** 

5 m ມ (1) 10 4 น Species Count Total Count 20 <u>a to w to to</u> 10-02 2001 - m N 12 ŝ S 8 01 4 36"+ 30"-35" 2 18"-23" | 24"-29" | 2 e 20 ω 5 3 8 4 3 12"-17" 2 23 4 SIN 9 3 ပာက 9 2 4 4 20 З 6"-11" TREE REMOVAL SUMMARY coast live oak coast live oak black oak coast live oak Species valley oak valley oak valley oak valley oak valley oak black oak valley oak valley oak valley oak valley oak black oak black oak black oak madrone Location Lodge Site SC-33 SC-43 C-28 C-42 1-15 SC-31 M-25 M-28 M-34 M-35 M-33 M-19 M-21 M-22 M-23 M-24 M-18 <u></u>е M-16 M-17 M-27 μ-Υ-°-2 ≥ ž

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coast live oak coast live oak

SC-46

C-47

SC-48

2

big leaf maple coast live oak

RANCHO SAN CARLOS BUILDING SITE TREE REMOVAL SUMMARY

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TREE REMOVAL SUMMAR	L SUMMAK								
Location	Species	6"-11"	12"-17"	18"-23"	24"-29"	30"-35"	36"+	Species Count	Total Count
SC-49	valiey oak		-					~	•
SC-50	black oak								7
	valley oak	1	-	ۍ ۱	-			9	
SC-51	valley oak							-	2
SC-53	valley oak			-					
SC-56	coast live oak							-	3
	valley oak			2				2	
SC-57	coast live oak	<b>7</b>		-				2	4
	valley oak	ł	Ļ					2	
\$C-58	coast live oak	2	. 3					5	10
	valley oak	3	2					2	
SC-59	black oak				-			1	1
SC-60	valley oak		2					2	2
SC-63	coast live oak		-			•			2
	valley oak					-			
SC-65	coast live oak	2	2	-	-	-		7	7
SC-67	coast live oak							2	3
	valley oak					•		1	
SC-69	valley oak		3					3	
SC-70	valley oak		1	> -		-	<b>~</b>	2	
	coast live oak		-	-				2	11
	valley oak	2	4	e					
SC-73	valley oak						2		
	valley oak		-	-				2	
	valley oak	4	-	7	2			9	6
SC-84	valley oak					-		1	
SC-85	valley oak		3	-	-			5	5
	coast live oak	-	-					2	
	valley oak	5	-	e				10	
SC-89	coast live oak		2		۲			3	3
	coast live oak	-	-	1				3	4
	Monterey pine			. 1				Ļ	
SF-5	coast live oak	ю	-	5		1		10	10
	black oak							*	13
	coast live oak			1				-	
	valley oak	3	4	1		2	•	11	
SF-11	coast live oak	2						3	m
	coast live oak		2	2				6	7
	valley oak							1	
SF-15	coast live cak		-					2	4

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RANCHO SAN CARLOS BUILDING SITE TREE REMOVAL SUMMARY

		<u></u>	4511 4711	106 1104	106 116	2011 2511	TUJE	Species Count	Total Count
Location	Species	-1-0	11-71	10 -43	27- 47	22.25	-	apecies coult	I OLAI COUIL
	madrone		-					F	
	valley oak		-					-	
SF-19	coast live oak		5	3	2			15	17
	valley oak							2	
SF-20	coast live oak						-		1
	coast live oak		1	1				2	2
SF-28	big leaf maple			•				1	11
	coast live oak	2	9	1	*-		-	-	
SF-29	big leaf maple		•	1				1	11
	coast live oak	2	5	1	<b></b> -	·		10	
SF-30	black oak			•				1	12
	coast live oak	. 3	1	2	2	-		10	
	valiey oak							<b>~</b>	
SF-31	black oak			-				-	.19
	coast live oak	6	8	-	2			17	
	valley oak		-					~	
SF-34	black oak	1							24
	coast live oak	4	8	e	·	+		2 18	
	valley oak		2		2			5	
	black oak								1
	valley oak							-	1
	coast live oak	*-							1
	coast live oak		4	2	ŝ			6	ĝ
SJ-7	coast live oak			·		2		5	5
	coast live oak		2					°.	3
	bay.								-
	coast live oak		e					7	7
	coast live oak		-					7	7
SJ-18	coast live oak			-	-	-		3	3
	coast live oak		e C		-			4	4
	coast live oak		4			-		9	9
T-2	coast live oak		1					1	F
	valley oak					1		•	1
<u>T-13</u>	blue oak	-		2	<b>*</b> -			e	С
	blue oak		-					•	F
	valley oak					-		-	1
T-30	valley oak								1
TOTALS		. 115	170	87	44	18	17	7 451	451

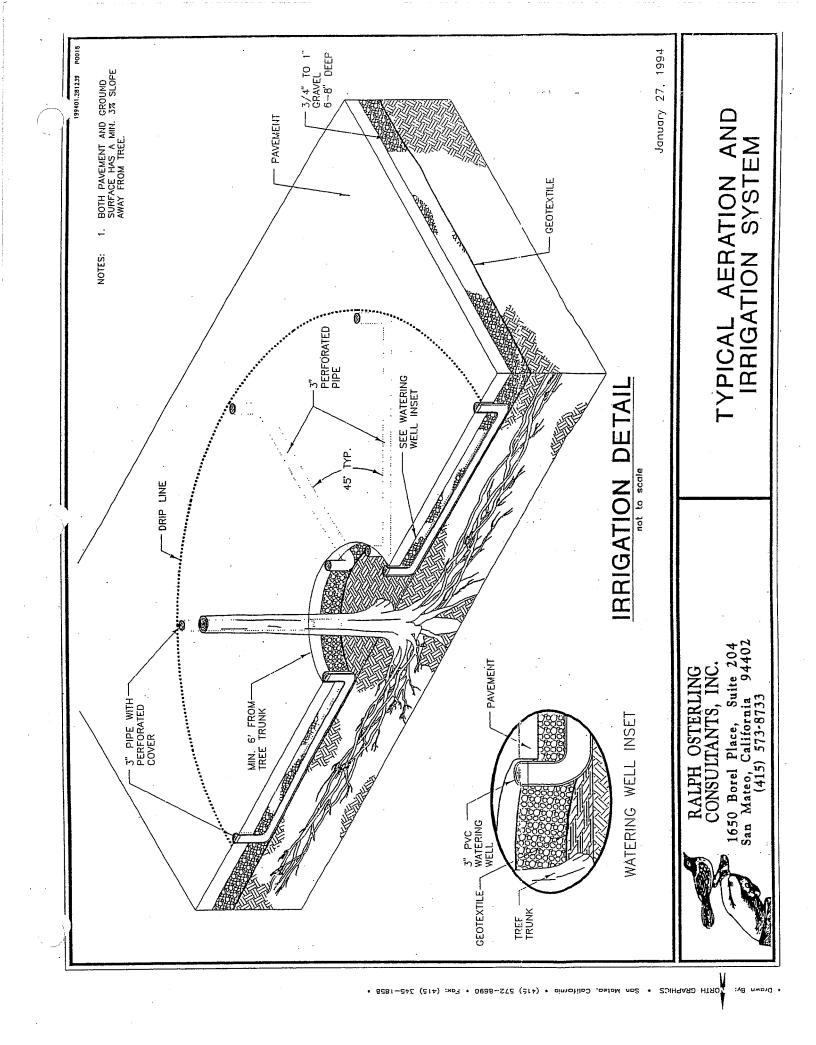
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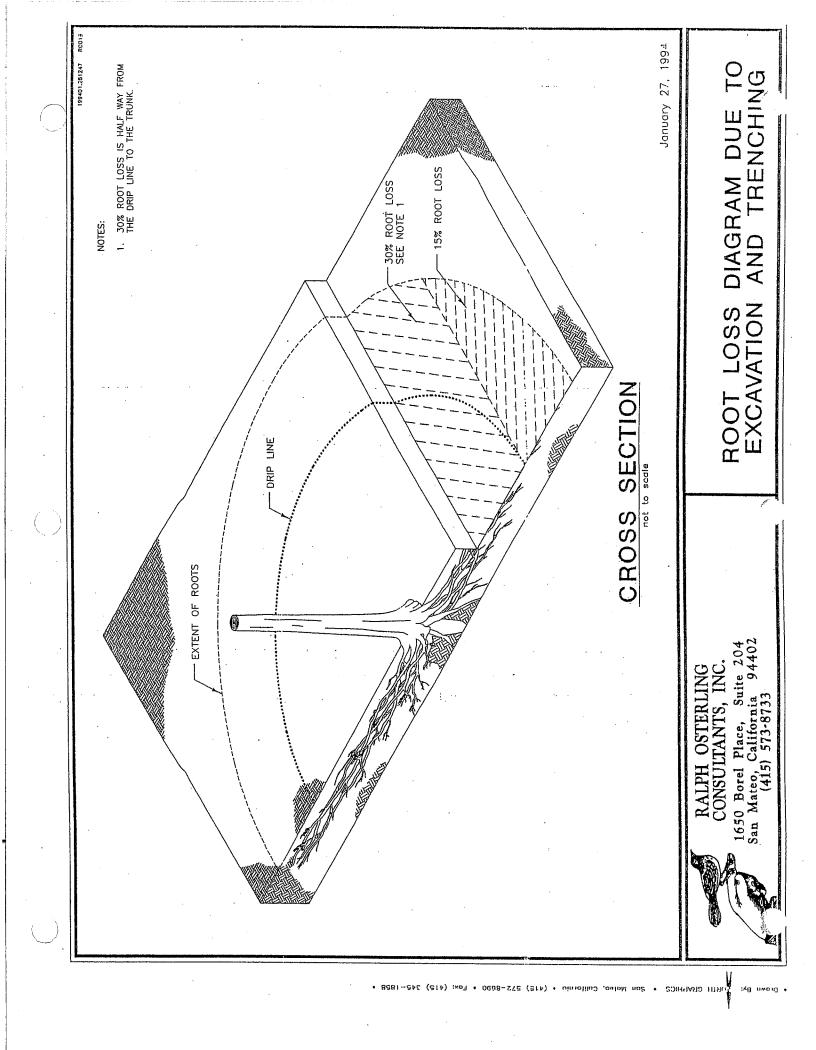
## APPENDIX C

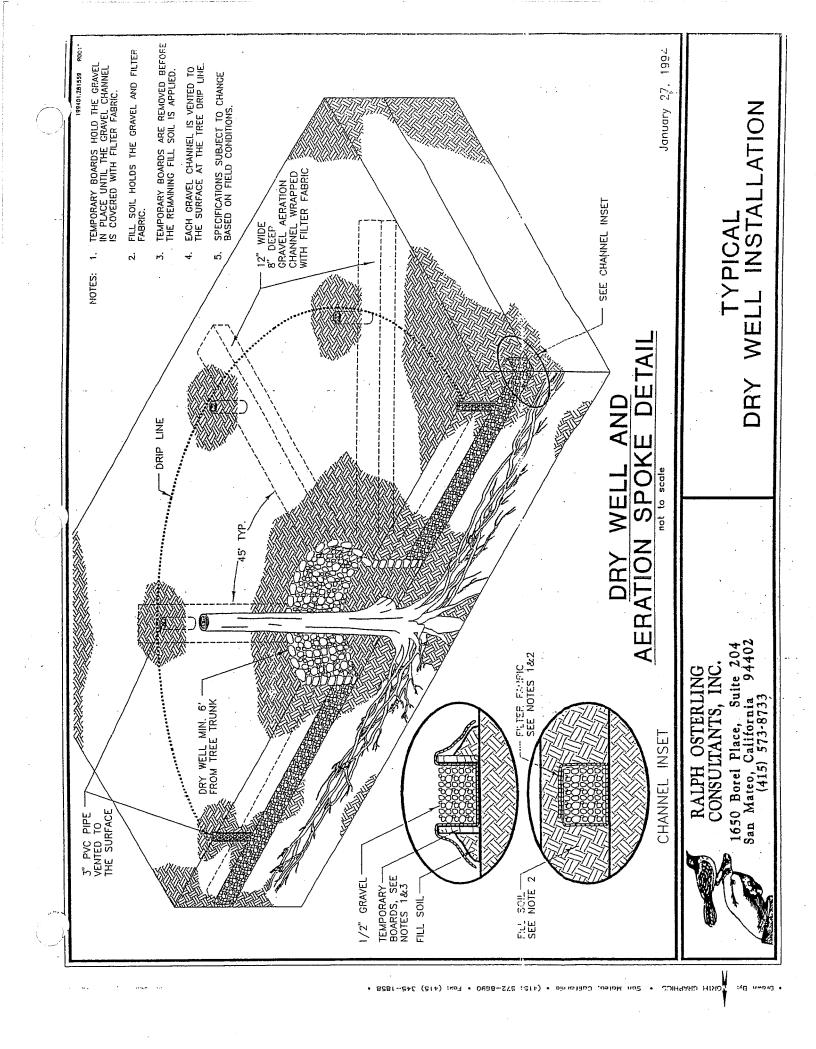
## TREE PROTECTION DETAIL DRAWINGS

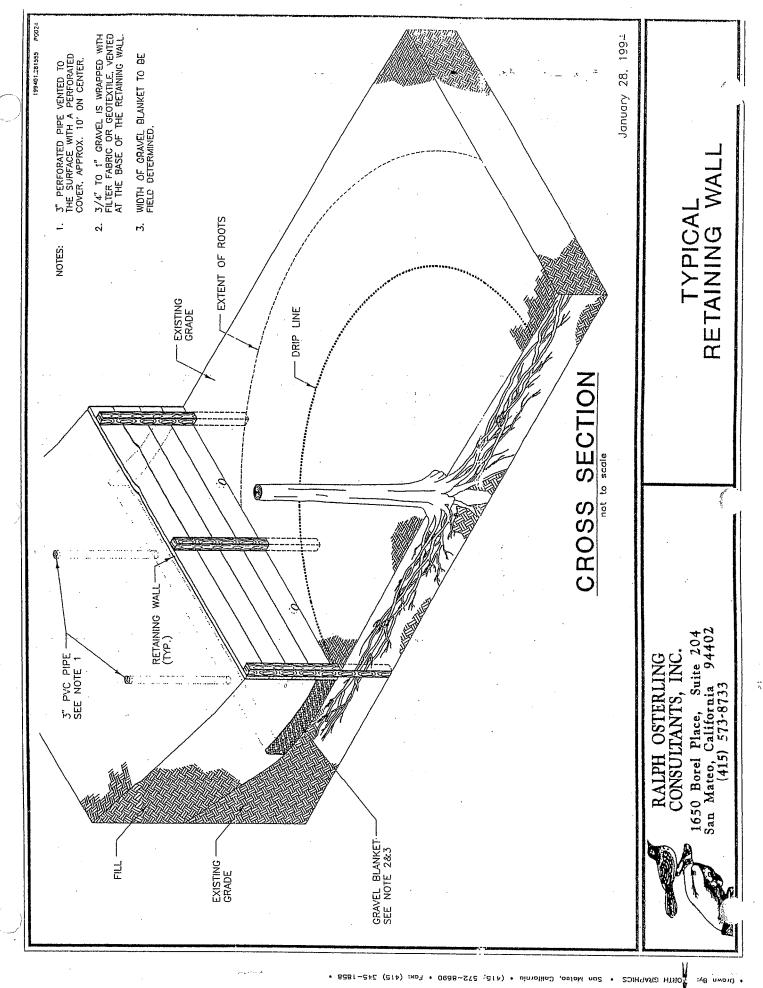
FOREST MANAGEMENT PLAN RANCHO SAN CARLOS Prepared by Ralph Osterling Consultants, Inc. February 18, 1994 RALPH OSTERLING

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## APPENDIX D

## ROAD AND DRIVEWAY TREE SURVEY DATA

FOREST MANAGEMENT PLAN RANCHO SAN CARLOS Prepared by Raiph Osterling Consultants, Inc. February 18, 1994

## RALPH OSTERLING

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	Ctation	ett I Right	ti Species	Diameter   Landma	andmark   Health	Comments
	10040		Vall	15.00	goog	
		2	valley nak	10.00	goog	
Pronghorn Run	Z+30	2 0	variey oan	B DD	good	
Pronghorn Run	2+51	n D	valley uak			
Pronchorn Run	2+65	₽	valley oak	10.00	noofi I	
Pronchorn Run	2+70	4	+ valley oak	8.00	nonfi	
Diack Mtn Trail	1+37		8 valley oak	9.00	Tair	
	1+60	+	+ coast live oak	8.00	goog	
Black Mult. Hall	1+66	Ŧ	13 coast live oak	17.00	good	•
Black Mtn. Irall	1100	- •		9.00	fair	
Black Mtn. Trail				13 00	fair	multi w/ 9". 7" trunks
Chamisal Pass	3+25		B COAST IIVE UAK			underoit
Chamisal Pass	3+55	.12	CO3SI 11/6 DBK	12:00		
	3+75	12	coast live oak	6.00	lond	
	3+80	12	coast live oak	12.00	poor	undercut
	3+90		12 coast live oak	12.00	goog	
	0078	14		8.00	fair	
-			opert live oak	14 00	fair	undercut
Chamisal Pass		71			fair	undernut
Chamisal Pass	4+15	D	COAST IIVE DAK	0,00		
	. 4+30	;-	coast live oak	14.00	Iair	
	UP+V	<u>с</u>	coast live oak	10.00	poor	muti w/ 8", 8", 6" trunks - undercut
		) ( <u>r</u>	onset live nak	20.00	aood	undercut
Chamisal Pass	01-14 0-1-1-0	2 ;	cuast line call	14 00	fair	-
Chamisal Pass	4+80	51		00.11	toir	road fill
	6+10		8 coast live oak			IOAU IIII
	6+20	30	coast live oak	32.00 X	bood	
	6+25	30	coast live oak	8.00	tair	
	6+40	16	coast live oak	14.00	fair	
	6450		10 coast live oak	12.00	fair	road fill
	UTTE .			12.00	pooū	road fill
			coast live	10.00	fair	road fill
	09+00		coast into	16 00	fair	multi w/ 12". 14". 16". 16" trunks - road fill
Chamisal Pass	00+/				, ie	military 40" p" R" R" trinks
Chamisal Pass	7+25	-	coast live oak			
Chamisal Pass	7+50		7 coast live oak	16.00	Tair	
Chamisal Pass	7+55	œ	coast live oak	8.00	fair	undercut
	8+00	5,	10 coast live oak	•	fair	multi w/ 8" trunk - road fill
	8+15 8+15	•	8 coast live oak	12.00	fair	road fill
	0C+8			12.00	fair	road fill
		7	poset live		aood	road fill
	00+01	- '	CUAST IIVE VAN			
Chamisal Pass	10+02	1				
Chamisal Pass	10+03	1			noofi	
Chamisal Pass	10+20		12 coast live oak			
	10+25	16	coast live oak	•	tair	
Chamisal Pass	10+35	10	coast live oak		poor	undercut
	10+40	16	coast live oak	16.00	fair	multi w/ 14", 14" trunks
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l location	Station	l eff IRic	Right! Species	Diameter  Landmark Health	Health	Comments	
Chamical Pace	10+65		000	-	fair	mithiw/ 15" 10"	٦
Chamical Dass	10+00	2 0	mast live nat	11 00	fair	1 1 1 1	
Chamical Pace	10+04	24	roast live oak	0.0	fair		
	11+05	14	coast live oak	12.00	fair	multi w/ 12" trunk	
	11+15	12	coast live oak	14.00	fair		
	11+45		5 coast live oak	16.00	poor	road fill	
Chamisal Pass	11÷60	11	coast live oak	8.00	fair	multi w/ 6" trunk	
Chamisal Pass	11+75		8 coast live oak	16.00	fair	multi w/ 14", 12" trunks	
Chamisal Pass	11+90	13	coast live oak	15.00	fair	multi w/ 9", 12" trunks	
	12+20	17	coast live oak	14.00	good	multi w/ 12" trunk	
Chamisal Pass	12+79		8 ccast live oak	10.00	feir	multi w/ 10" trunk	
Chamisal Pass	12+90		9 coast live oak	12.00	fair		
Chamisal Pass	13+00		9 coast live oak	14.00	fair		
Chamisal Pass	14+30	16	coast live oak	16.00	fair	multi w/ 14," 12" trunks - undercut	
Chamisal Pass	14+70	• •	14 coast live oak	16.00	good	multi w/ 14", 14" trunks - raod fill	
	14+85	14	coast live oak		good	multi w/ 14", 14", 8" trunks - undercut	
Chamisal Pass	15+15	17	coast live oak	16.00	fair		
Chamisal Pass	15+73	2	coast live oak	10.00	good	undercut	
Chamisal Pass	16+00	•	7 coast live oak	14.00	fair	road fill	
Chamisal Pass	16+30	15	coast live oak	12.00	fair	multi w/ 10", 10" trunks	
Chamisal Pass	16+50	15	coast live oak	12.00	fair	multi w/ 10" trunk	
Chamisal Pass	17+20	14	coast live oak		good	multi w/ 10", 12" trunks	
Chamisal Pass	18+15	12	coast live oak		poor	undercut	
Chamisal Pass	18+45	23	coast live oak		fair	multi w/ 10" trunk	
Chamisal Pass	18+80	22	coast live oak		good	multi w/ 6" trunk	
Chamisal Pass	18+90	21	coast live oak		poog		
Chamisal Pass	18+98	17	coast live oak		fair		
Chamisal Pass	19+20	14	coast live oak	8.00	fair		
Chamisal Pass	19+85	11	coast live oak	•	fair		
Chamisal Pass	19+90	14	coast live oak		good		
Chamisal Pass	19+95	21	coast live oak		good	multi w/ 10", 8" trunks	
Chamisal Pass	20+10	10	coast live oak		good	undercut	
Chamisal Pass	20+30	10	coast live oak		good :	undercut	
Chamisal Pass	20+60	18	coast live oak	-	good		
Chamisal Pass	20+75	13	coast live oak	-	fair	undercut	
Chamisal Pass	21+00	15	<ul> <li>coast live oak</li> </ul>	8.00	good	multi w/ 7", 7" trunks	
Chamisal Pass	21+15	14	coast live oak		fair		
	21+45	14	coast live oak	-	fair		
Chamisal Pass	21+65	10	coast live oak	•	fair	undercut	
Chamisal Pass	22+95	17	coast live oak		fair		
	23+10	17	coast live oak	•	fair	multi w/ 6" trunk	
Chamisal Pass	23+30	12	coast live oak	8.00	fair		

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			hti Species				
				6.00		poor	
Chamisal Pass	C2+27	2 !	coast live out	B DD		fair	
Chamisal Pass	23+55	13	COASI IIVE UAN			fair	
	23+90	÷	coast live oak			1000	multi w/ 40" trunk
	24+15	15	coast live oak	14.00		noofi	
	24475	17	coast live oak	16.00		fair	
Chamisal Pass		- 1	coset live oak	8.00		fair	
Chamisal Pass	74+90	2	cuast live out	24 00	×	fair	
Chamisal Pass	25+20	12	COAST IIVE UAK		2	fair	
Chamical Pass	26+15	16	coast live oak	00.01	•		
	26+35	16	coast live oak	16.00	:		
	26470		12 coast live oak	12.00		poor	
Chamisal Pass	74 TUC	۲ ۲		6.00		fair	
Chamisal Pass		2 4	occut live cak	16.00		good	· ·
Chamisal Pass	C8+92	<u>0</u>	COdst live out	10.00		good	
Chamisal Pass	28+75	10	coast live oak			fair	-
Chamical Pass	30+40	16	coast live oak			foir T	leaning
Chamical Pass	30+75	<b>60</b>	coast live oak	10.00			
•	- 0400 Ahead						
ם מכה	0740	ц т	coast live oak	8.00		fair	
Chamisal Pass		2	a most live nak	6.00		poor	
Chamisal Pass		r		24,00	×	good	multi w/ 14", 14" trunks
Chamisal Pass	09+0	-			×	aond 2	
Chamical Pass	0+75		2 coast live oak	N	<		
	96+0	4	coast live oak			Innd	
	1+05	ŝ	coast live oak			poor	
0 1 1	5747		12 coast live oak	-		fair	
	7 1 1 2	"	coast live oak	7.00		poor	
			+ crast live nak	7.00		poor	
Chamisal Pass			and live bak	*-		goog	
Chamisal Pass	1+26		COAST IIVE UAN	-		fair	
Chamisal Pass	1+35		COAST IIVE UAN	-			
Chamisal Pass	1+43	12				hoon	
Pas	1+45		8 coast live oak	_			
	1+51		1 coast live oak		·	lood	
	1+51	<b>.</b>	coast live oak			poor	
			18 coast live oak	د 12.00		fair	multi w/ 12" trunk
				12.00		fair	
Chamisal Pass	7+4					fair	multi w/ 12", 12", 10", 6" trunks
Chamisal Pass	2+ <del>2</del> (		ZZ CURSUIVE VAL		、	fair	multi w/ 6" trunk
Chamisal Pass	2+2	16				fair	multi w/ 10" frink
Chamisal Pass	2+6(	~	20 coast live oak	-			
_	2+2	•	coast live oak				
	2+75	5	coast live oak			Inod	
	2+8		8 coast live oak			lood	
	3+0	4	6 coast live oak		•		
	0+6	4 20		T		fair	
		÷	rust live oak	k 12.00		fair	

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10	Y TREE SURVEY
<b>SANCHO SAN CARLOS</b>	ROAD AND DRIVEWAY
HO SAN	AND DR
RANCE	ROAD

Comments					multi w/ 24" trunk - road fill			multi w/ 7" trunk	mufli w/ 8" trunk												multi w/ 7" trunk	multi w/ 7" trunk	multi w/ 14" 10" trunks			multi w/ 11" trunk	multi w/ 10" trunk	multi w/ 10" trunk	multi w/ 8" trunk			multi w/ 8" - 8" - 7" trucks	SVIDD I O D D D D				hasal ravity	כמו כמאונץ	multi w/ 0" trunk		broken ton	leaning
andmark  Health	fair	fair	poop	good			fair	5			acod	good	good	dood	aood	poop	poop	poop	aood	fair				-	fair			m poop		good	. poop		~	poop	acod	fair	-				poor bre	
Landm					×																												×	×	×							
Diameter	13.00	9.00	6.00	00.6	28.00	14.00	8.00	10.00	10.00	12.00	13.00	17.00	16.00	22.00	10.00	18.00	11.00	8.00	10.00	11.00	14.00	9.00	8.00	10.00	8.00	14.00	10.00	10.00	11.00	12.00	7.00	9.00	46,00	48.00	30.00	9.00	13.00	21.00	12.00	6.00	9.00	11.00
Right Species	coast live oak	6 coast live oak	15 bay	15 coast live oak	10 coast live oak	6 coast live oak	7 coast live oak	12 coast live oak	coast live oak	7 coast live oak	8 coast live cak	10 coast live oak	21 coast live oak	coast live oak	10 coast live oak	27 coast live oak	23 coast live oak	14 coast live oak	coast live oak	coast live oak	coast live oak	10 coast live oak	14 coast live oak	coast live oak	15 toyon	coast live oak	coast live oak	coast live oak	coast live oak	coast live oak	coast live oak	coast live oak	55 coast live oak	23 coast live oak	valley oak	coast live oak	coast live oak	8 coast live oak	coast live oak	coast live oak	coast live oak	coast live oak
Left  R	11				•				7					18					17	;-	4			12		4	13	18	œ	10	<u>1</u> 3		1.		ø	12	10		4	4	8	ς Ω
Station	3+48	3+93	4+30	4+30	4+60	4+97	4+98	5+09	5+40	5+50	10+07	44+26	44+52	44+55	44+90	45+31	125+25	126+50	126+60	127+25	127+65	128+00	130+30	132+00	132+60	132+85	132+95	133+15	133+80	136+15	147+85	149+65	233+50	235+40	246+85	6+40	9+63	11+16	12+40	12+50	12+65	13+10
Location	Chamisal Pass	Chamisal Pass			Chamisal Pass						Chamisal Pass	Chamisal Pass						Chamisal Pass															Chamisal Pass	Chamisal Pass	Chamisal Pass	Steelhead Run	Steelhead Run			Steelhead Run		Steelhead Run

	coast live oak		BULB	Steelhead Run
	6 coast live oak	9	13+15	Steelhead Run
Diame	Species	Station Left  Right	Station	Location
		WΕΥ	s TREE SUR	RANCHO SAN CARLOS ROAD AND DRIVEWAY TREE SURVEY

S	Station	Left Ri	Right		Species	Diameter	Landmark Health fair	<u>k  Health</u>	Comments
13+1 BUL	-15 11	۲	Ø	coast live oak coast live oak	ve oak ve oak	6.00		good	END
BUL	9		. •	coast live oak	ve oak	9.00		good	
BULI	JLB			coast live oak	ve oak	13.00		good	
Ņ	2+35		ក្	coast live oak	ve oak	12.00		poob	leaning
Ń	2+50		4		ve oak	14.00		goog	leaning
ო	3+55		<u>연</u>		ve oak	13.00		0000 0000	
ί Ο	3+90		=!	coast live oak	ve oak	00.12		good	Multi Wi 15 Multi Annu
ά.	3+95			· · · ·	ve oak	21.00	_	good	
'n	+97		ġ,		ve oak	23.00		tair	
Ϋ́,	7+55	<b>-1</b> -	+ (	valley oak	lak :	17,00		tair	END
10+0	<del>1</del> 05		<b>6</b>	coast live oak	ve oak	20.00		good.	
11+7	-75	с С		coast live oak	ve oak	<b>6</b> .00	_	good	
12+9	95	æ		coast live oak	ve oak	11.00	_	good	-
18+9	97		Ť	valley oak	ak j	13.00	_	fair	dead scaffold limbs
19+0	07		ω	valley oak	ak	12.00	~	good	
23+1	15		10	valley oak	oak	16.00	_	fair	dead scaffold limbs
24+2	20		à	coast live oak	ve oak	11.00	_	good	exposed roots
35+6	63	ۍ ب	•	· valley oak	oak	17.00	~	goog	
37+8	80		÷	coast live oak	ve oak	6.00	_	poob .	
37+9	00	+	+	coast live oak	ve oak	10.00	~	good	
38+0	6	<del>9</del>		coast li	coast live oak	8.00	~	goog	
38+6	80	£		coast li	coast live oak	10.00	<b>-</b>	good	
38+6	67	7	-		coast live oak	11.00		poob	•
38+8	86		12	-	ve oak	17.00		good	•
44+0	ß	+	+	coast live oak	ive oak	8.00		goog	· · ·
44+1	Ξ	+	+	coast live oak	ive oak	11.00	0	good	
44+1	18		ល	coast li	coast live oak	10.00	0	good	
44+2	23			valley oak	oak	9.00		goog	
44+2	28	+		valley oak	oak	11.00	0	goog	
44+39	39	æ		coast li	coast live oak	16.00	0	goog	
44+50	50	7		coast li	coast live oak	6.00		goog	END
20+58	58		<del>2</del>		coast live oak	35.00	×	good	leaning
20+58	58		9	-	oak	14.00		good	
23+20	20		ŋ	coast l	coast live oak	13.00	0	poor	estensive decay and cavities
23+	75		9	-	coast live oak	22.00	0	fair	large fire scar; cavity at base
24+25	25		~	coast li	coast live oak	18.00	0	poor	bark missing on one side of tree; decay
291	29+53	ۍ		coast I	coast live oak	7.00	0	fair	
29	29+53	۰ م		coast l	live oak	17.00		fair	
29+0	+95	ო		coast	coast live oak	14.00	0	fair	
90+(	±01	.بر ۲		coast	ive oak	9.00		fair	
30+	+ <u>1</u> 5	12	· ·.	coast	coast live oak	21.00	0	boob	

Location	Station	Left Right	t Species	Diameter	<u>Landmark</u> неаш	11 ICALL	
Garzas Trail	30+19		7 coast live oak	10.00		fair	leaning
	30+27		9 coast live oak	11.00		fair	leaning
Garzas Trail	30+31		9 coast live oak	6.00		fair	sparse foliage
	30+35	15	coast live oak	16.00		good	
Garzas Trail	30+69		+ valley oak	27.00	×	fair	partially dead top
Garzas Trail	30+81	5	coast live oak	9.00		fair	
	30+81	ۍ م	coast live oak	10.00	•	fair	leaning
Garzas Trail	31+19	12	coast live oak	20.00		good	
	31+20	1	coast live oak	19.00		pooĝ	
	33+83	ю	: coast live oak	14.00		good	leaning
	34+70		5 coast live oak	16.00		boog	leaning
Garzas Trail	35+82	ŝ	valley oak	27.00	×	good	
	36+20	80	valley oak	18.00		fair	
Garzas Trail	36+21	11	valley oak	14.00		fair	
Garzas Trail	36+38	ъ С	coast live oak	6.00		fair	
Garzas Trail	36+39	e	coast live oak	11.00		fair	leaning
Garzas Trail	36+41	Ŋ	coast live oak	6.00		fair	
Garzas Trail	38+00		+ valley oak	52.00	×	fair	safety hazard
Long Ridge Trail	10+85	'n	coast live oak	18.00	<u>.</u>	goog	
Long Ridge Trail	11+10	<u>"</u>	coast live oak	23.00		good	leaning
Ridge	11+25	10		13.00		goog	multi w/ 9", 9" trunks
Long Ridge Trail	11+55	10		8.00		good	
Long Ridge Trail	11+60	14		19.00		good	
Long Ridge Trail	11+65	•		23.00		good	
Long Ridge Trail	14+07	11		8.00		goog	
Long Ridge Trail	14+10	11		13.00		good	
Long Ridge Trail	14+90	10	valley oak	12.00		fair	multi w/ 12" trunk
Long Ridge Trail	15+00	++	valley oak	17.00		poor	leaning
Long Ridge Trail	15+68	12	coast live oak	20.00		good	
Long Ridge Trail	16+00	17	coast live oak	23.00		good	multi w/ 18" trunk
Long Ridge Trail	16+18	. <u>1</u> 3	coast live oak	7.00		good	
Long Ridge Trail	16+30	15	coast live oak	19.00	:	good	
Long Ridge Trail	16+50	ۍ ۱	coast live oak	26.00	×	boog	
Long Ridge Trail	16+60	12	coast live oak	17.00		good	· leaning
Long Ridge Trail	16+80	10	valley oak	7.00		poor	
Long Ridge Trail	16+85	12	valley oak	9.00		fair	
Long Ridge Trail	16+90	4	valley oak	6.00		poor	
Long Ridge Trail	17+60	20	valley oak	15.00		fair	
Long Ridge Trail	17+96	12	coast live oak	14.00		good	multi w/ 11", 11", 9" trunks
Long Ridge Trail	18+84		+ coast live oak	22.00		fair	large cavity
Long Ridge Trail	20+80	ى م	coast live oak	12.00		fair	undercut
Long Ridge Trail	20+95	12	coast live oak	26.00	×	good	

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Comments	ieaning; undercut				leaning				•	multi w/ 8" trunk	undercut							leaning			multi w/ 15" trunk		broken top	leaning		••							•		multi w/ 8", 7" trunks					_	_	1	-	
Healthi	poob	fair	fair	good	fair	good	good	good	good	good	goog	fair	good	good	goog	good	good	pooɓ	goog	goog	good	goog	fair	good	fair	pool	poor	fair	fair	fair	fair	goog	good	goog	goog	goog	goog	goog	fair	goog	goog	pooß		
l andmark Health							•										×		×															×							×			
<u> Nismeter II s</u>	ート	22.00	18.00	21.00	13.00	19.00	10.00	10.00	11.00	18.00	17.00	13.00	22.00	13.00	16.00	22.00	25.00	21.00	33.00	23.00	18.00	20.00	11.00	20.00	11.00	6.00	12.00	11.00	10.00	2.00	11.00	12.00	15.00	28.00	11.00	8.00	20.00	10.00	7.00	25.00	31.00	23.00		
	Species	r coast live oak			F coast live oak	o vallev oak	a coast live oak	a coast live oak	coast live oak	coast live oak	coast live oak	core: rive out		coast live nak	coast live cak	ruast live nak	coast live nak	coast live oak	+ roast live nak			coact live nak	coast into oak	+ rnast live oak	+ vallev oak	17 coast live oak			coast live oak	5 coast live oak	6 vallev oak	a vallev oak		ruast live oak	ruast live oak	coast live oak	vallev oak	cnast live oak	coast live oak	vallev oak	11 ruast live oak			
	.eft  Right	+ 4	u u	, न - -	· •	+	التي		u	זמ	(		÷ς	2 07			2 5	<u>v</u> u	<u>n</u> -	+ -	+ u	7	_ u	0 4	⊦ <b>-</b> 1	-		L.		•		• .	ŭ		- - -	- (1	, <del>,</del>	2 7		7 7	5			
		21+45	21+55	71.+77	22754	72440	00177	50177	10+77	G8+7.7	22+86	23+04	23+18	23+22	23+4/	23+63	27+62	24+10	24+24	24+28	24+86	00+07	20+18	G7+G7	000-00	10+07	20102	20100	20102		20107	1010Z	207102	21+12	33+30	00100	08100	04400	00140	34+02	94+46 04+46	01+45	35+10	
	Location	Long Ridge Trail	Ridge.	Long Ridge Trail	Long Ridge Trail			Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Ridge	Long Ridge Trail		Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Ridge	Ridge	Ridge	Ridge	Ridge	Long Ridge Trail	Ridge	Ridge	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail						

comments

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	Lomments																turiti w/ 2014 turit					mulfi w/ 40" truch	mutti w/ 12" tamat	multi w/ 15" 40" 41" 41" to 10"	multi w/ 16" 46" 40" to utility	hasal ravity	basal cavity	multi w/ 36" truck										multi w/ 16" trunk	leaning			
andmark/Hoolth		lal	Tair	0000	noon	0000	boog	nood aood	guod	good	guuu fair	nond		poop	annd	poop	poog		good	poon	poop	fair	aood	good	fair	DOOL	poor		_	good	dood	DOOL	poor							good	Dopr	good
andr					>	< >	<	×	<	×	<						×											×	×	×						×	<					
Diameter		34.00	24.00	17 00	25.00	28.00	22 DD	25.00	20.02	26.00	7 00	14.00	15.00	18.00	20.00	20.00	27.00	8.00	10.00	13.00	10.00	19.00	12.00	16.00	18.00	14.00	23.00	30.00	26.00	25.00	16.00	10.00	10.00	20.00	23.00	24 00	17 00	16.00	16.00	18.00	00.0	20.00
Right Species	50	+ coast live oak		4 coast live oak		coast live oak	coast live oak	coast live oak	coast live oak	12 coast live oak	+ coast live oak	coast live oak	6 coast live oak	7 coast live oak	coast live oak	coast live oak	coast live oak	4 coast live oak	10 coast live oak	14 coast live oak	coast live oak	8 coast live oak	coast live oak	coast live oak	coast live oak	valley oak	coast live oak	coast live oak	coast live oak	coast live oak	12 coast live oak	8 coast live oak	3 coast live oak	coast live oak	5 coast live oak	coast live oak	coast live oak	5 vallev oak			coast live oak	5 coast live oak
Left R	11	+	œ		24	51	12	16	12		+	4			4	£	Q	•			ო		10	10	œ	10	G	്വ റ	12	ŝ				ۍ د		20	15			ম	6	
Station	35+15	35+20	35+25	35+50	35+55	35+85	36+35	36+45	36+59	36+60	36+60	37+18	37+20	37+30	37+60	37+65	37+75	38+00	38+20	38+25	38+53	39+00	39+00	39+00	39+40	39+60	39+65	40+30	40+70	40+95	41+10	41+16	41+20	41+73	41+75	42+47	42+53	42+85	43+00	43+05	43+15	43+30
Location	Long Ridge Trail		Ridge	Long Ridge Trail	Ridge	Ridge	Ridge	Ridge	Ridge	Long Ridge Trail	Long Kidge Trail	Long Kidge Irail	Long Ridge Trail	Long Kidge Trail		Long Ridge Trail	Long Kidge I rail	Long Ridge Trail	Long Kidge Trail		Hidge	Long Kidge Trail	riage	Ridge		Hidge	Ridge	Kidge	Long Kidge Trail	Long Ridge Trail	Ridge	Long Ridge Trail	Ridge	Long Ridge Trail	Ridge	Long Ridge Trail	Long Ridge Trail					

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l Comments		multi w/ 12" trunk			multi w/ 16" trunk				multi w/ 20", 20", 19" trunks	multi w/ 18", 13" trunks			multi w/ 13", 11" trunks		multi w/ 9", 9" trunks					and a start of the	existive uecay		-						•				multi w/ 12" trunk					multi w/ 12" trunk			extensive decay
Healt	good	good	goog	pooɓ	good	good	poor	good	good.	good	poor	good	fair	good	good	good	good	lali	pood	good	io od	hoon	fair		aood	fair	poop	poor	fair	goog	fair	fair	goog		boog.	poob	poob	good	goog	tair	poor .
andmark  Health						×			×		*		:	×								•			×	(					•	•						;	× .	>	< .
Diameter  L	12.00	16.00	19.00	10.00	18.00	24.00	14.00	16.00	27.00	18.00	10.00	13.00	14.00	29.00	11.00	10.00	19.00	9.00	10.00	10.01	23.00	10.01	00.0		40.00	11 00	14.00	6.00	13.00	20.00	14.00	13.00	13.00	. 1	12.00	14.00	11.00	16.00	25.00	8.00	34.00
Right Species	03	coast live oak	15 coast live oak			coast live oak	valley oak	+ coast live oak	coast live oak	+ coast live oak	+ valley nak	+ coast live oak	valley oak	valley oak	6 valley oak	valley oak		6 valley oak	valley oak			12 valley oak	valley oak	valley oak	valley oak on valley nak	-	valley nak	vallev oak	vallev oak	valley oak	8 valley oak	valley oak	valley oak		valley oak	coast live oak		8 valley oak	black oak	valley oak	valley oak
eft Ri		11				15	с О	+	22	+	+' ·	<sup>r.</sup> +	~	7		ມ			<b>O</b>	ব		5	2	2 0	ø	Ű	Þţ	- <b>u</b>	° 9	÷ 5		20	'n		4	10	ŋ		20	9	6
Station		44+00	44+20	44+30	45+75	45+75	45+95	46+30	46+50	47+20	47+30	47+35	47+45	47+95	48+11	48+80	48+90	49+72	49+90	49+95	50+00	50+00	50+00	91+09 17-01	50+15 50+75	07+00	50+73	50+95	50+60	50+70	50+80	50+80	50+85		46+80	50+60	51+05	51+20	51+30	51+50	52+85
I ocation IS	Didne Trail		Didge	. מעקים	rong huge han I and Didae Trail	Ridge	Didae -	Ridge	Ridge		Ridge	Ridge	Ridge	Ridge	Ridge	Long Ridge Trail	Long Ridge Trail	Ridge	Ridge	Ridge	Ridge	Ridge	Long Ridge Trail	afinite arria	Long Riuge Trail	Ridge		Ridge	Ridge Trail	54~ BK=46~ AH Equation	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail				

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Comments																			÷																						
			multi w/ 12" trunk											multi w/ 10" trunk		large cavity	large cavity							heart rot										multi w/ 9" trunk	multi w/ 8" trunk						
	good	poog	poor	fair	good	good	fair	fair	good	fair	goog	fair	good	poog	good	poor	fair		poop	poop	good	fair	fair	fair	pooô	fair	fair	fair	fair 	Tair 	Tair	good	fair	fair	fair	fair	fair	fair	fair	good	poop
													×			×	×			×			×	×					>	<											
1	21.00	14.00	12.00	14.00	13.00	19.00	11.00	12.00	13.00	16.00	13.00	17.00	30.00	11.00	23.00	27.00	31.00		14 00	25.00	14.00	10.00	31.00	27.00	17.00	6.00	7.00	6.00	/.00	∠4.00	9.00	14.00	18.00	10.00	10.00	7.00	7.00	9.00	8.00	15.00	11 NN
rugur - record	5 valley oak	12 valley oak	9 valley oak	12 valley oak	10 coast live oak	12 valley oak	5 valley oak		10 valley oak	15 valley oak	17 coast live oak	3 valley oak	5 valley oak	6 valley oak	5 valley oak	8 valley oak	+ valley oak		+ valiev oak	+ valley oak	+ valley oak	+ valley oak	+ valley oak	valley oak		15 valley oak	valley			ro valley oak			5 coast live oak	7 coast live oak	5 coast live oak	4 coast live oak	coast live oak	5 coast live oak		5 coast live oak	E acast live ook
																	+		Ŧ		+	+	·+	7							L.	n.					ო				
Orderoll 1	G/+9G	61+27	62+40	62+60	62+85	62+87	63+20	63+24	63+43	71+20	71+42	71+73	72+72	74+20	76+35	81+35	82+12		83+60	84+25	88+10	88+17	113+90	116+40	127+80	128+10	128+18	128+18	128+28	120130	120190	129+33	1+66	2+10	3+15	1+70	1+75	2+41	2+47	3+62	5465
	Long Ridge Irail	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Ridge	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	Long Ridge Trail	85+70 BK=81~ AH	l nnd Ridge Trail	Long Ridge Trail	Ridge	Long Ridge Trail	Ridge	Ridge	Ridge	הועטכ		g riuge	Ni-G	M-3				M-6 & 7	M-6 & 7		M-6 & 7				

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broken top; cavities on lower trunk multi w/ 9" trunk - undercut Comment multi w/ 10", 6", 6" trunks multi w/ 8" trunk multi w/ 8" trunk uprooted undercut undercut undercut undercut leaning good fair good good good Landmark Health good poor good good good good poor poor fair poor good poob poor good poor poor poor poor poor 0001 pool air air air air poor poor fair air air fair air fair air × 12.00 11.00 6.00 8.00 7.00 14.00 14.00 10.00 12.00 14.00 6.00 9.00 12.00 7.00 15.00 11.00 16.00 16.00 11.0024.00 12.00 7.00 10.00 10.00 7.00 9.00 10.00 16.00 22.00 Diameter | 13.00 15.00 11.00 16.00 11.00 12.00 13.00 14.00 10.00 8.00 12.00 coast live oak 5 coast live oak 15 coast live oak coast live oak 5 coast live oak 7 coast live oak coast live oak 10 coast live oak + coast live oak Species black oak redwood blue oak blue oak blue oak blue oak s ω m ß 0 ഗ Right 9 0 0 2 Left ო 20 0+72 1+00 1+08 0+20 0+20 +01 +42 2+20 06+0 1+70 1+90 19+75 21+45 21+55 22+15 22+35 13+65 15+00 21+75 0+65<u>+0</u> 10+ 1+50 16+10 16+15 17+50 19+05 19+25 20+40 1+75 1+90 12+15 2+25 12+65 13+Ò0 13+75 14+80 5+85 09+0 Station 8+75 8+38 Location M-6 & 7 -98-M-6 & . M-10 M-19 M-19 M-19 M-23 M-23 M-23 M-23 M-23 M-23 M-29 PT-1 PT-1 PT-1 M-10 M-10 M-10 M-19 PT-1 M-8 8-<u>8</u>-2 8-N M-8 M-8 M-8 M-8 M-8 M-8 8-W M-8 M-8 M-8 8-N ₩ 8-9 2 M-8 M-8 °-8 ⊳ <u>8-№</u> V--8

RANCHO SAN CARLOS ROAD AND DRIVEWAY TREE SURVEY

Location	Station	Left F	Right Species	Diameter	Landmark   Health	alth Comments
PT-1	1+90	÷	+ coast live oak	. 6.00	good	<b>J</b> d
PT-1	1+90	+	+ coast live oak	6.00	goog	od
PT-1	1+90	+	+ coast live oak	6.00	goog	pc .
PT-1	1+90	+	+ coast live oak	8.00	goog	, pc
PT-1	1+90	Ŧ	+ coast live oak	8.00	good	od END
PT-1	1+90	+	+ coast live oak	9.00	goog	bd
PT-1	1+90	+	+ coast live oak	15.00	good	od ·
Potrero Trail	78+85	12	coast live oak	15.00	goog	bd
Potrero Trail	19+00	<b>0</b>	coast live oak	22.00	poob	bd
Potrero Trail	79+03	12	coast live oak	7.00	good	Dd
Potrero Trail	79+16	10	ccast live oak	18.00	puab	od multi w/ 14" trunk - cavity at base
Potrero Trail	79+25	11	coast live oak	6.00	fair	
Potrero Trail	80+00	O)	coast live oak	10.00	good	od multi w/ 8" trunk
Potrero Trail	80+05	10	coast live oak	8.00	fair	multi w/ 6" trunk
Potrero Trail	80+15	10	coast live oak	13.00	fair	<ul> <li>multi w/ 13", 13", 13", 9", 6" trunks</li> </ul>
	106+65	7	coast live oak	10.00	poor	leaning; sparse fo
	107+05		12 coast live oak	7.00	poor	
Potrero Trail	107+20	+	+ coast live oak	11.00	fair	
Potrero Trail	107+21		5 coast live oak	9.00	fair	multi w/ 8" trunk
Potrero Trail	107+25	+	+ coast live oak	7.00	fair	
Potrero Trail	107+36	с,	coast live oak	7.00	poor	or multi w/ 6" trunk
Potrero Trail	107+45	ស	coast live oak	16.00	good	
Potrero Trail	107+48	ഹ	coast live oak	7.00	poor	л.
Potrero Trail	107+70		2 coast live oak	11.00	fair	multi w/ 8" trunk - basal cavity
Potrero Trail	107+87		3 coast live oak	21.00	goog	pc.
Potrero Trail	108+06		14 coast live oak	19.00	poor	or top mostly dead; conks on trunk
Potrero Trail	108+17	13	coast live oak	24.00	X good	
Potrero Trail	108+21		coast live	15.00	fair	large basal cavity
Potrero Trail	108+42		11 coast live oak	6.00	poor	
Potrero Trail	108+42	2	coast live oak	11.00	goog	od multi w/ 11" trunk
Potrero Trail	108+67	Ľ, <sup>k</sup>	10 coast live oak	25.00	X good	pi de la companya de
Potrero Trail	108+97	+	+ coast live oak	9.00	poor	or leaning
Potrero Trail	115+40	÷	+ coast live oak	11.00	good	di serie de la companya de
Potrero Trail	119+50	<b>9</b> 	coast live oak	12.00	poob	d ·
Potrero Trail	126+65	+	+ coast live oak	22.00	fair	leaning
Potrero Trail	128+30	+	+ coast live oak	17.00	good	
Potrero Trail	128+90		7 coast live oak	15.00	boog	
Potrero Trail	129+00		9 coast live oak	16.00	poob	d leaning
Potrero Trail	129+25		9 coast live oak	9.00	poor	
Potrero Trail	130+00		7 coast live oak	14.00	goog	p -
Potrero Trail	130+05		8 coast live oak	11.00	pooß	đ
Potrero Trail	130+23	+	+ coast live oak	7.00	poob	

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Location	Station L	Left  Right	it Species	Diameter	-anomark Health	Healun	
Potrero Trail	130+25	+	+ coast live oak			good	multi w/ 12", 13" trunks
•	130+45		3 coast live oak			good	
Potrero Trail	130+50		4 coast live oak			good	
Potrero Trail	130+55		2 coast live oak			good	
Potrero Trail	130+65	Ŧ	10 coast live oak			fair	leaning
Potrero Trail	130+75		8 coast live oak			good	multi w/ 8" trunk
	130+90	ო	coast live o	oak 12.00		good	
	130+97	*	12 coast live o	oak 26.00	×	good	multi w/ 14" trunk; cavity in 26" trunk
Potrero Trail	131+00	2	coast live o	oak 11.00		good	leaning
Potrero Trail	131+25		7 coast live oak	ak 13.00		good	
	131+50	+	+ coast live nak	-		fair	multi w/ 11" trunk - leaning
Potrero Trail	131+55		2. coast live o	oak 19.00		good	
Potrero Trail	132+38	19	coast live o	oak 8.00		fair	
· -	132+40	20	coast live o	oak 13.00	2	good	
	132+50	+	+ coast live o	oak 9.00		good	leaning
Potrero Trail	132+65	2	coast live o	oak 19.00		fair	
	132+67		3 coast live o	oak 17.00		good	multi w/ 11", 14" trunk
Potrero Trail	132+71	æ	coast live o	oak 17.00 <sup>-</sup>		good	leaning
	132+94	•	13 coast live o	oak 25.00	×	good	multi w/ 14" trunk - leaning
Potrero Trail	133+05	•	12 <sup>°</sup> coast live c	oak 14.00		fair	leaning
Potrero Trail	133+40	15	coast live c	oak 17,00		good	
Potrero Trail	133+57	8	coast live c	oak 15.00		good	
Potrero Trail	134+34		5 coast live c			good	
Potrero Trail	134+46	+	+ coast live c			good	
Potrero Trail	134+75	9	coast live o	Ņ		poob	
Potrero Trail	134+90		2 coast live c			goog	
Potrero Trail	135+23		4 coast live c			good	
Potrero Trail	135+31		12 coast live oak			good	
Potrero Trail	135+36	-	13 coast live oak	-		good	
Potrero Trail	135+50		10 coast live oak	oak 6.00		good	
Potrero Trail	135+50		10 coast live oak			good	
Potrero Trail	135+50	• •	4 coast live oak	oak 7.00		goog	
Potrero Trail	135+50		5 coast live oak	oak 6.00		good	-
Potrero Trail	135+52		10 coast live oak	•		good	· .
Potrero Trail	135+52	+	+ coast live oak			good	
Potrero Trail	135+84	4	coast live oak	oak 17.00		good	
Potrero Trail	135+91		3 coast live oak			good	
Potrero Trail	136+80	7	coast live oak	oak 11.00		good	
Potrero Trail	136+95	10	coast live oak			good	<u>.</u>
Potrero Trail	137+30		7 coast live oak			good	multi w/ 11" trunk
Dotroro Trail	07-107		6 cnast live nak	oak 18.00		μοορ	
	04+/01					5	

RANCHO SAN CARLOS ROAD AND DRIVEWAY TREE SURVEY

topped multiple time for power line clearance multi w/ 9" trunk - leaning/partially uprooted remove for road split around redwood grove large cavity on trunk; suppressed Comments multi w/ 10", 10" trunks exposed roots - leaning multi w/ 9", 14" trunk near 5- mile marker near 5- mile marker near 5- mile marker basal cavity and rot multi w/ 10" trunk multi w/ 7" trunk multi w/ 8" trunk exposed roots undercut undercut undercut undercut leaning eaning leaning END Diameter | Landmark | Health good good poob good good poob good good poot good good good poob good good good poob poob good poot poof poub poob good poob poot poob poob poob poof poob poor poot poot poor air air fair ai. air air air × 10.00 12.00 15.00 15.00 13.00 13.00 13.00 11.00 23.00 8.00 16.00 19.00 11.00 17.00 20.00 9.00 9.00 6.00 6.00 19.00 15.00 10.00 9.00 10.00 9.00 26.00 9.00 7.00 9.00 10.00 10.00 11.00 14.00 10.00 13.00 19.00 16.00 19.00 16.00 7.00 coast live oak 12 coast live oak + coast live oak 10 coast live oak + coast live oak coast live oak coast live oak big leaf maple 9 coast live oak coast live oak coast live oak + coast live oak + coast live oak 10 coast live oak coast live oak 10 coast live oak + coast live oak coast live oak + coast live oak + coast live oak 10 coast live oak + coast live oak + coast live oak 0 coast live oal Species + bay. bay Right + ¢; 4 2 ω 4 Left + 2 σ m 0 Station 37+85 37+90 38+50 09+88 38+90 39+00 39+36 73+00 65+00 68+00 61+50 73+00 286+50 138+00 139+25 65+00 37+80 38+30 38+40 38+50 38+60 38+65 38+90 139+00 39+55 66+00 162+00 65+00 165+00 173+00 286+50 65+00 73+00 73+00 73+00 297+69 298+00 37+70 302+59 304+00 325+00 325+00 Rancho San Carlos Rd. Rancino San Carlos Rd. Rancho San Carlos Rd. Rancho San Carlos Rd. Rancho San Carlos Rd. Rd. Rd. Rd. Rd. Rancho San Carlos Rd Rancho San Carlos Rd. Rď Rancho San Carlos Rd. Rd. R d Rancho San Carlos **Rancho San Carlos** Rancho San Carlos Location Potrero Trail Irai Potrero Trail Potrero Trail Potrero Trail Potrero Trail Potrero Trail Potrero Trai otrero

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l ocation	Station	Left Ri	Right! Species	Diameter L	_andmark  Health	t  Health	Comments
	UUT JCC	-11		14.00		good	exposed roots - leaning
	020100		+ coast live nak	14 00		good	exposed roots
Rancho San Carlos Ku.	0701070	ç	- cuast live dat	B 00		poop	END
Rancho San Carlos Kd.	04840 00-01	<u>y</u> 1	LUDSI IVE VAN	11 00			laaninn
Arroyo Sequoia	97.+77	ຸດ	Day				
Arroyo Sequoia	22+50	12	bay			hour	multi w/ 40" trunk: ton of creek hank
Arroyo Sequoia	23+60	10			>		
Arroyo Sequoia	26+45			21.00	<	good	
Arrovo Sequoia	27+36		5 coast live oak	15.00		good	
	30+00	£	coast live oak	15.00		fair	leaning
	36+07	ۍ	coast live oak	13.00		poor	leaning
	36+12	<i>ر</i>	. coast live oak	26.00	×	poob	
	36+80	7	big leaf maple	6.00		boog	
Arrovo Seducia	37+16	ო	coast live oak	8.00		poog	
Arrovo Seducia	37+50		10 coast live oak	12.00		goog	
	39+00	2	coast live oak	15.00		goog	
	42+50	ŝ	black oak	29.00	×	goog	
Arrovo Sectiola	44+50	+	+ black oak	29.00	×	good	
	44+50	ო	black oak	18.00		good	
Arrovo Sediloja	44+85	+	+ valley oak	15.00		Jood.	
	45+85	ŋ	coast live oak	21.00		good	
	46+20	່ ຕ	black oak	16.00		good	
	50+95		coast live oak	11.00		good	
Arroyo sequola	51+55	) <b>с</b> .	coast live oak	14.00		good	
	51456		5 coast live oak	00.0		dood	
	COTEC S	Ľ		16.00		good	
Arroyo Sequola	00120		K vellev nek	11 00		fair	
Arroyo Sequola				00 66			
Arroyo Sequoia	09+66			00.32		guuu fair	
Arroyo Sequola	55+90		coast live oak	00.41			
Arroyo Sequola	56+30	ഹ	valley oak	10.00		bool	
Arroyo Sequoia	56+35	+	+ coast live oak	15.00		good	
Arrovo Sequoia	56+35	+	+ valley oak	11.00		fair	
Arrovo Sequoia	56+35	10	valley oak	13.00		good	
Arrovo Seduoia	56+35	15	valley oak	12.00		goog	•
Arrovo Sequoia	56+60	. ••	5 coast live oak	10.00		goog	
Arrovo Seducia	56+60		6 valley oak	12:00		pooɓ	
Arrovo Sediloja	57+10	4	+ coast live oak	11.00		good	
	57+25	+	+ vallev oak	9.00		fair	•
	58+15		10 vallev oak	15.00		good	•
-	Back=56+00 Ahead	p				•	
	61+02		3 coast live oak			good	
Arrovo Sedinja	61+06		7 valley oak	17.00		goog	
	61+07		1 coast live oak	10.00		goog	
				•		I	

Location	Station	Left Right		Diameter	Landmark  Health	
Arroyo Sequola	63+07	Ŧ	+ valley oak	9.00	tair	
Arrovo Sequoia	64+30	+	+ valley oak	15.00	goog	leaning
Arroyo Sequoia	65+10	4	valley oak	14.00	pooɓ	leaning
Arroyo Sequoia	72+30		10 valley oak	14.00	poob	
Arroyo Sequoia	72+60	ъ	black oak	13.00	goog	
Arroyo Sequoia	72+60	00	coast live oak	6.00	pooô	
Arroyo Sequoia	72+70		10 valley oak	7.00	fair	
SC-3 & 4	1+00	10	valley oak	11.00	pooɓ	
SC-3 & 4	6+85	10	valley oak	23.00	boog	,
SC-3 & 4	8+90	7	valley oak	36.00	X poor	extensive decay
SC-3 & 4	11+15	ŝ	valley oak	9.00	pooô	
SC-3 & 4	13+25		8 valley oak	10.00	fair	
SC-3 & 4	13+27	2	valley oak	8.00	pooɓ	
SC-3 & 4	13+65	ê	valley oak	10.00	good	
SC-3 & 4	13+70		3 valley oak	10.00	good	
SC-3 & 4	13+80	G	valley oak	8.00	pooɓ	
SC-3 & 4	13+80	9	valley oak	8.00	poob	
SC-3 & 4	13+85	7	valley oak	8.00	pooĝ	
SC-3 & 4	13+86	+	+ valley oak	8.00	pooâ	
SC-3 & 4	14+05		10 coast live oak	11.00	boog	
SC-31	6+45	5 2	bay	23.00	good	
SC-31	7+40			11.00	poob	
SC-31	7+44		5 coast live oak	6.00	pooɓ	
SC-31	7+45	2	coàst live oak	7.00	boog	
SC-31	8+15	4	bay	6.00	poob	
SC-31	8+15	4	bay	. 9.00	goog	_
SC-61,62,63	1+00		5 black oak	18.00	goog	multi w/ 11", 15" trunks
SC-61,62,63	13+70	5	valley oak	9.00	fair	
SC-61,62,63	15+10	10	coast live oak	7.00	poor	leaning
SC-61,62,63	15+10	æ	coast live oak	7.00	poor	leaning
SC-61,62,63	16+85	en L	bay	00.0	poob	
SC-61,62,63	17+50	S	bay	17.00	goog	multi w/ 11", 16" trunks
SC-61,62,63	17+60	ŝ	big leaf maple	10.00	goog	
SC-61,62,63	17+70	80	coast live oak	10.00	poob (	leaning
SC-61,62,63	17+85		8 coast live oak	9.00	goog	
SC-61,62,63	18+13	ω	coast live oak	00.6	poob	leaning
SC-61,62,63	18+22	7	coast live oak	12.00	goog	
SC-61,62,63	18+30	œ	coast live oak	7.00	poob	
SC-61,62,63	18+40	9	coast live oak	9.00	fair	leaning
SC-61,62,63	18+60		5 bay	10.00	goog	
SC-61,62,63	18+90	10	coast live oak	10.00	goog	leaning
SC-61,62,63	18+90	ო	coast live oak	17.00	boog	

Location	Statiuni			22.222					
SC-61,62,63	19+00		5 coast live oak	/e oak	8.00	pooɓ			
SC-66 &67	2+35	2	coast live oak	/e oak	15.00	boog			
SC-66 &67	2+45		3 coast live oak	/e oak	18.00	fair	undercut		
SC-66 &67	2+75	15	bay		21.00	poob	d undercut		
SC-66 &67	8+10		5 coast live oak	/e oak	10.00	good	d leaning		
SC-66 &67	8+10		5 coast live oak	/e oak	19.00	goog			
SC-66 &67	8+19	7	coast live oak	/e oak	12.00	poob	d END		
SC-89	0+30		6 coast live oak	/e oak	12.00	good			
SC-89	0+03	<b>+</b>	+ coast live oak	/e oak	6.00	fair			
SC-89	0+63	+	+ coast live oak	/e oak	6.00	fair			
SC-89	0+63	÷	+ coast live oak	/e oak	00.1	fair			
SC-90	00+2	ы	coast live oak	/e oak	14.00	good	d Tmulti w/ 14" trunk	" trunk	
SC-90	8+30	•	6 coast live oak	ve oak	7.00	fair			
SC-90	8+35		5 coast live oak	ve oak	20.00	poob	q		
SC-90	9+55	œ	coast live oak	/e oak	00.6	poob			
SC-90	11+50	ມີ	coast live oak	ve oak	13.00	poob	q		
SC-90	12+80	<b>+</b>	+ coast live oak	ve oak	7.00	poor	-		
SC-90	12+80	ဖ	valley oak	a,	13.00	fair		-	
SC-90	13+30	+	+ coast live oak	ve:oak	19.00	goog		multi w/ 10" trunk - basal cavity	
SC-92	14+60	ۍ	valley oak	ak	10.00	poob	q	•	
SC-92	14+62		6 valley oak	ak	10.00	good	q		
SF-5	1+25	7	coast live oak	ve oak	13.00	good	<b>.</b>		•
SF-5	1+95	ო		ve oak	10.00	fair		-	
SF-5	2+50		12 coast live oak	ve oak	17.00	pooɓ	d multi w/ 9" trunk	trunk .	
SF-5	3+75	œ	coast live oak	ve oak	10.00	fair			
SF-5	4+90		5 coast live oak	ve oak	12.00	fair			
SF-6	8+90	+	+ valley oak	ak	15.00	poor	-		
SF-6	9+40	ß	valley oak	ak	15.00	poob	ď avold		
SF-6	9+85	ъ	valley·oak	ak	16.00	fair			
SF-6	11+45		5 valley oak	ak	9.00	fair			
SF-6	12+15		5 valley oak	ak	13.00	poor			
SF-6	12+55	+	+ valley oak	ak	28.00	X poor	-		
SF-6	12+87	ŝ	valley oak	äk	18.00	boog	d multi w/ 17" trunk	" trunk	
SF-6	13+26	+	+ valley oak	äk	12.00	poor	 <b></b>		
SF-6	13+60		6 valley oak	ak	8.00	good	ď,		
SF-6	13+65		4 coast live oak	ve oak	12.00	boog			
SF-6	13+75		7 coast live oak	ve oak	8.00	poob	 		
SF-G	13+85	+	+ coast live oak	ve oak	13.00	poob	P		
SF-6	14+60		5 coast live oak	ve oak	22.00	poofi	<b>.</b>		
SF-6	14+70		4 coast live oak	ve oak	12.00	fair			
SF-6	14+90	+	+ coast live oak	ve oak	17.00	poop	, ,		
C L C									

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						avoid by moving left		-																									-								
		tair	poor	fair	poor	poor	fair	good	good	good	goog	goog	goog	good	goog	good	good	good	poob	good	boog	good	poog	good	poob	good	goog	goog	good	good	fair	fair	goog	goog	good	poor	goog	good	goog	good	poob
															×																×		•								
ł.	17.00	13.00	8.00	13.00	8.00	18.00	15.00	7.00	16.00	18.00	12.00	10.00	13.00	7.00	26.00	18.00	9.00	B.00	9.00	20.00	8.00	7.00	18.00	7:00	7.00	11.00	8.00	10.00	12.00	16.00	26.00	16.00	7.00	9,00	7.00	16.00	9.00	10.00	7.00	22.00	8.00
	coast live oak	oig leaf maple	coast live oak	valley oak	coast live oak	coast live oak	valley oak	valley oak	valley oak	coast live oak	coast live oak	coast live oak	madrone	madrone	madrone	madrone	madrone	madrone	black oak	black oak	black oak	madrone	madrone	madrone	valley oak	madrone	madrone.	madrone	coast live oak	madrone											
		N	-	ັ ຕ	4	2	ц. Ц	ιΩ ·	+.+	G	4	7	++	++	æ	0	+	с С	+	4	+	+ +	+	+ +	e	+ +	7	ςΩ,	+	+	+	<b>9</b>	1	-	10	5 C	7	1	0	.+` +	Y
	1+90	2+03	2+05	2+10	2+50	8+67	9+15	0+80	1+63	2+15	2+24	2+24	2+38	2+87	3+75	4+97	06+9	6+40	6+60	7+26	7+28	7+50	7+61	11+25	11+28	11+88	11+93	11+93	12+06	12+07	12+60	12+80	13+00	13+00	13+33	13+33	13+38	14+00	14+03	18+19	19+72
LUCAUUI										•			•			• •			• •	-		-																			
	SF-32	SF-32	SF-32	SF-32	SF-32	SF-32	SF-32	SF-33	SF-33	SF-33	SF-33	SF-33	SF-33	SF-33	SF-33	SF-33	SF-33	SF-33	SF-33	SF-33	SF-33	SF-33	SF-33	SF-33	SF-33	SF-33	SF-33	SF-33	SF-33	SF-33	SF-33	SF-33	SF-33	SF-33	SF-33						

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Comments																							•																	-		
th			Ŧ	-										-71				-		-			-			END							-		cavity							
Heal	good	good	good	good	good	good	good	goog	good	goog	good	fair	fair	good	good	good	fair	poob	good	good	poor	fair	good	fair	good	good	poor	fair	poor	fair	fair	fair	fair	fair	poor	poor	fair	fair	fair	роог	fair	fair
Landmark   Health								×	×																																	
Diameter	6.00	12.00	7.00	16.00	12.00	12.00	11.00	27.00	26.00	17.00	10.00	10.00	11.00	14.00	17.00	16.00	10.00	9.00	9.00	10.00	10.00	11.00	11.00	9.00	8.00	16.00	10.00	10.00	14.00	9.00	12.00	12.00	16.00	6.00	18.00	8.00	13.00	20.00	12.00	10.00	10.00	9.00
Species	madrone ·	madrone	madrone	madrone	madrone	madrone	coast live oak																																			
Right	80	+		÷	<b>ທ</b> .		ဖ	С	ŝ	7	Q		+	+			+		ŝ			2		+	ດ	ŝ	+	ė	ო	+	+	-			ω.	-	•.		Ū	ц,	+	+
 eft F		÷	ო		•	Ø						2	+	+	7	7	+	4		ω	7		5	+			ł			+	+	10	-	ů		ပ	2	ω	8	0	+	+
Station	20+16	20+26	20+34	20+35	20+40	20+40	20+80	2+30	. 2+40	2+40	2+50	2+50	3+00	3+62	3+62	3+67	3+90	0+40	0+50	06+0	1+95	1+96	3+75	3+84	3+89	3+89	2+30	5+31	5+31	5+35	5+45	5+95	6+20	6+70	7+05	7+10	7+15	7+18	7+25	7+65	7+75	7+80
Location																• .																										
	SF-33	SF-33	SF-33	SF-33	SF-33	SF-33	SF-33	SF-34	SJ-2	SJ-9	SJ-9	SJ-9	S.J-9	SJ-9	S.J-9	SJ-9	SJ-9	SJ-9	SJ-9	SJ-9	S.J-9	S.J-9	SJ-9	SJ-9	SJ-9																	

Location	Station	Lett R	Right apecies	22	DIANIELEI		I I Cal	
SJ-9	7+89	10	coast live oak	oak	10.00		fair	
3.1-9	7+90	+	+ coast live oak	oak	9.00		poor	
5,1-9	8+10	+	+ coast live oak	oak	12.00		poor	
9-1-9	8+10	8	coast live oak	: oak	10.00		poor	
6-16	8+20	+	+ coast live oak	e oak	16.00		good	
6-00	6+95	7	+ coast live oak	e oak	00.6	•	poor	cavity
S.J-9	10+80	80	coast live oak	e oak	14.00		good	
6-1.5	10+85	9	coast live oak	e oak	10.00		poor	
6-1.6	10+90	9	coast live oak	e oak	24.00	×	good	
0-1-0	11+25	80	coast live oak	e oak	12.00		fair	
	11+30	Ę	coast live oak	e oak	7.00		poor	
6-1.6	11+50	പ	coast live oak	e oak	10.00		poor	
6-1	11+50	ъ	coast live oak	oak	10.00		poor	
6-1.6	12+02	7	. coast live oak	e oak	11.00		poor	
6-1%	12+15		3 coast live oak	e oak	10.00		poor	multi w/ 8" trunk
3,1-10	6+00		6 coast live oak	e oak	7.00		paor	
3.I-10	6+10			e oak	10.00		fair	
3.1-10	6+70	10	coast live oak	e oak	20.00	_	good	
3.1-10	6+85	16	coast live oak	e oak	12.00	•	fair	
1-11	2+20		5 coast live oak	e oak	10.00		fair	
11-11	7+45		5 coast live oak	e oak	10.00	_	poor	
sJ-12	2+40	0	5. coast live oak	e oak	10.00	_	fair	
3J-12	2+90		3 coast live oak	e oak	16.00	_	pooĝ	
sJ-12	2+95	2	coast live oak	e oak	11.00	_	poor	
.1-12	3+15	+	+ coast live oak	e oak	, 7.00	_	poor	
3,1-12	3+75	0	5 coast live oak	e oak	23.00		good	
sJ-12	5+45	+	+ coast live oak	e oak	16.00	_	poor	multi w/ 15" trunk - leaning
51-17	2+78		8 sycamore	Ð	18.00		poor	
SJ-17	. 3+00	÷	+ coast live oak	e oak	9.00	_	fair	
sJ-17	3+45	υ	coast live oak	e oak	10,00	_	good	
SJ-17	3+75	+	+ valley oak	¥	32.00	×	poor	cavity
SJ-17	3+94	0	5 sycamore	e	10.00	_	fair	
SJ-17	5+07	+	+ coast live oak	e oak	8.00	_	good	
SJ-17	5+30	+	+ coast live oak	e oak	13.00		good	
SJ-17	8+25	Ð	coast live oak	e oak	9.00	~	good	
SJ-17	00+6	+	+ coast live oak	e oak	00.6	•	poor	leaning
SJ-17	8438	+	+ coast live oak	e oak	14.00	•	fair	
SJ-17	11+30	5	coast live oak	e oak	18.00	~	fair	
SJ-17	12+00	+	+ coast live oak	e oak	10.00	_	fair	
S.I-17	12+10		5 coast live oak	e oak	11.00		fair	
SJ-17	12+17		7 coast live oak	e oak	13,00	~	fair	

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FOCATION	oranon	LUL L	Nigitti Species	חומווכוכו	רמוועווומוע וופמווו	L I ICAIL	-11
SJ-17	13+05	2	-	11.00		poor	cavity
SJ-17	17+90		5 valley oak	/.00		poor	
SJ-17	17+92		6 coast live oak	10.00		poor	
SJ-17	17+94	ŝ	coast live oak	9.00		fair	
SJ-20	7+35		10 redwood	38.00	×	poor	leaning
SJ-20	11+90		7 coast live oak	20.00		poor	leaning
SJ-20	15+50		5 coast live oak	38.00	×	poor	cavity
SJ-20	15+70	m	coast live oak	9.00		poor	,
SJ-20	15+80		15 coast live oak	12.00		good	
SJ-20	15+80		5 coast live oak	16.00		fair	
5,1-20	15+14	¢)	roast live oak	24.00	×	μοσί	
SJ-20	16+34		5 coast live oak	12.00		fair	
SJ-20	16+35	ស	coast live oak	14.00		fair	multi w/ 8" trunk
SJ-20	16+90		10 coast live oak	9.00		poor	•
SJ-20	17+63		8 coast live oak	22.00		poop	
Fank Site 13-1	3+40	+	+ coast live oak	9.00		dood	
Tank Site 13-1	3+78	+	+ coast live oak	12.00		dood	
Tank Site 13-1	3+79		6 coast live oak	10.00		poot	
Tank Site 13-1	3+90	+	+ coast live oak	14.00		dood	
Tank Site 13-1	4+10	+.	+ coast live oak	12.00		poob	
Tank Site 13-1	4+82		12 coast live oak	11.00		poob	
Tank Site 13-1	4+87		10 coast live oak	16.00		good	
Tank Site 13-1	5+12	÷	+ coast live oak	00.6		good	
Tank Site 13-1	5+92	+	+ coast live oak	7.00		good	
Tank Site 13-1	7488		12 coast live oak	12.00		poog	
Tank Site 13-1	8+40	+	+ madrone	13.00		goog	
Tank Site 13-1	8+48		9 coast live oak	7.00		good	
Tank Site 13-1	8+58	+	+ coast live oak	10.00		good	
Tank Site 13-1	8+86	÷	+ ccast live oak	12.00		good	
Tank Site 13-1	9+20	ø	coast live oak	17.00		good	
Tank Site 13-1	11+23	+	+ coast live oak	12.00		good	
Tank Site 13-1	11+29	.+	+ coast live oak	12.00		pooli	
Tank Site 13-1	11+53		8 coast live oak	8.00		good	
Tank Site 13-1	11+59		10 coast live oak	10.00		aood	
Tank Site 13-1	11+90	ъ	coast live oak	12.00		dood	
Tank Site 13-1	12+10	+	+ coast live oak	9.00		dood	
Tank Site 13-1	12+30	+	+ coast live oak	7.00		poob	
Tank Site 13-1	12+31	4	coast live oak	9.00		good	
Tank Site 13-1	12+43	5	coast live oak	7.00		dood	
Tank Site 13-1	12+66	+	+ coast live oak	9.00		dood	
Tank Site 13-1	13+00		10 coast live oak	14.00		aaad	

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4 1	Station Left	ft`IRight +	t Species	Diameter  La	Landmark  Healt good	Ith Comments d
13+83			3 coast live oak	11.00	good	q
13+84	•	+	<ul> <li>coast live oak</li> </ul>	11.00	goog	G
13+95 +	т		+ coast live oak	13.00	poob	· G
14+00			5 coast live oak	7.00	poob	
14+30 14+31 +	+	- •	+ coast live oak	13.00	poob	d
+ 19+61 +	+		+ coast live oak	9.00	good	d d
14+61 +	+		+ coast live oak	10.00	good	
14+66 +	+	•	+ coast live oak	10.00	pooô	
	+	-	+ coast live oak	12.00	buob	
14+95 10	10		coast live oak	10.00	poob	
	+		+ coast live oak	00'1	good	
	က		coast live oak	10.00	good	
	ß		coast live oak	8.00	Boog	00
18+00 8	œ		coast live oak	12.00	0000	
	Q	•		00.01	nong	
20+92				13.00	pood	
	ı		10 coast live oak	14.00	00	
21+90 5 20:00	Ð		coast live oak	12.00	puun	
227UU 22415 5	Ľ			15.00	00	dood
	)	-	10 coast live oak	8.00	) D	
16+07 10	9		coast live oak	12.00	fair	
17+12 8	æ		coast live oak	7.00	fair	r trunk damage
55+67			8 coast live oak	2.00	00	good
26+00 9	თ		coast live oak	8.00		
60+15			g coast live oak	00.7	00	good
60+30			e valley oak o soost live oak	11 00	5	
60733 61403			7 roast live nak	20012		aood
			R vallev nak	12,00	fair	r multi w/ 7" trunk
5+98		•	valley oak	2.00	d	
6415 +	+		+ vallev oak	20.00	fair	
6+40			5 coast live oak	26.00	d X	good multi w/ 24" trunk
6+43			5 coast live oak	22.00		good
6+92 +	+		+ coast live oak	24.00	b X	good multi w/ 20" trunk
1 06+2	÷		valley oak	10.00	ວິດີ	good
7+98			7 black oak	14.00	5	good multi w/ 10" trunk
8+30			6 black oak	10.00		poor
8+39		ស	black oak	28.00	×	goog
8+70		e	black oak	7.00	ă	poor

alth Comments		po		ođ	od	òd	po		. po	po	po	od .	or ·	od multi w/ 9" trunk	or		od -	po	Ŀ	þa	þa	<b>-</b>	r multi w/ 14", 8" trunks		þc		pc	č	DF	or cavity	bc		bd	d ·	)d		bd	35	or multi w/ 11" trunk		pd	nd mutition/ 11" truck
<u>rk He</u>	poor	poob	fair	good	good	good	goog	fair	goog	pooɓ	pocê	goog	poor	goog	poor	fair	goog	goog	fair	good	poob	fair	fair	fair	goog	fair	poob	fair	poor	poor	pooɓ	fair	good	goog	goog	fair	goog	poor	poor	goog	goog	
andmark Health									×																				×	×												
Diameter II	Η_	12.00	9.00	15.00	11.00	9.00	10.00	12.00	28.00	13.00	15 00	13.00	12.00	10.00	12.00	9.00	10.00	12.00	12.00	15.00	16.00	11.00	14.00	14.00	12.00	8.00	11.00	10.00	28.00	26.00	14.00	11.00	14.00	13.00	22.00	13.00	13.00	11.00	12.00	12.00	12.00	10.00
Righti Species	lõ	6 black oak	coast live oak	coast live oak	10 coast live oak	11 black oak	5 coast live oak	5 coast live oak	black oak	coast live oak	black oak	black oak	coast live oak	10 black oak	black oak	10 coast live oak	black oak	black oak	8 black oak	10 black oak	3 coast live oak	7 black oak	coast live oak	błack oak	black oak	5 black oak	black oak	black oak	black oak	5 black oak	7 black oak	black oak	black oak	coast live oak		10 coast live oak	+ black oak	black oak	black oak	coast live oak	5 madrone	i secol live act
6ft 12	+		ß	10					S	ო	c	80	12		9		ŋ	8				•	12	14	8		ო	<u>1</u> 0	15			ŋ	10	13	15		+	11		9		
Station	1	10+65	10+80	15+55	15+90	15+90	15+90	18+26	18+32	19+20	19+25	19+25	19+32	19+70	19+71	19+88	19+95	20+05	20+12	20+25	20+32	20+35	20+65	20+65	20+73	20+88	20+95	20+97	21+62	21+85	22+13	22+21	22+80	22+80	22+80	22+85	22+96	22+97	23+00	24+00	24+75	JETJE
	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vueio Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Vuelo Palomas	Wich Delemen

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RANCHO SAN CARLOS

Health	good fair multi w/ 10" trunk		5		poor	-	good multi w/ 10", 6" trunks	good multi w/ 14 uuun good		fair multi w/ 12", 9" trunks	fair poor	fair multi w/ 11, 10, 10, 11, 10, 10, 11, 11, 11, 11,		fair multi w/ 8" trunk fair multi w/ 8" trunk	fair multi w/ 12 uurin	
- II andmark   Health	Diameter Land		9.00					~ ~	ak 9.00	•			oak 12.00		e oak 12.00	200
		-	coast live oak coast live oak	8 coast live oak 3 coast live oak	coast live oak 5 coast live oak	3 coast live oak	5 coast live nak	5 coast invo cak coast live oak	5 coast live oak + coast live oak	+ coast live oak		6 coast live oak	5 coast live oak	5 coast live oak	5 coast live oak	10 coast live out
ARLOS	AT TICHT OF IRIGHT				0+92 1+12 5	1+20	1+52 5 1+58	1+67 5	2+14	2+30 +	2+52 2+86	2+87 7+80	2+92	3+13 3+33	<u>,</u>	
PANCHO SAN CARLOS	ROAD AND DRIVEWAT	Location <u> 11 Dalomas</u>	Vuelo Palomas Ext.	Vuelo Palonias Ext. Vuelo Palomas Ext.	Vuelo Palomas Ext. Vuelo Palomas Ext.	Vuelo Palomas Ext.			Vuelo Palomas Ext.	Vuelo Palomas Ext.	Vuelo Palomas Ext. Viielo Palomas Ext.	Vuelo Palomas Ext.	Vuelo Palomas Ext.	Vuelo Palomas Ext. Vuelo Palomas Ext.	Vuelo Palomas EXI.	Vuelo Palomas Ext. Vuelo Palomas Ext.

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