

*Staub Forestry &  
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## **Forest Resource Evaluation**

### **Eastside Parkway Project**

### **Monterey, California**

**Prepared by**

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## **Assignment/Scope of Services**

The Fort Ord Reuse Authority (FORA) is developing plans to construct a new major arterial to be called “Eastside Parkway” for the purpose of this document. A conceptual site plan has been developed by Whitson Engineers for the proposal as depicted on the attached map (Figure 1; August, 2010). A Habitat Map (Figure 2) was developed for the proposal by Denise Duffy and Associates, Inc.

The current proposed alignment will pass through what was Fort Ord military base property from the end of Eucalyptus Road (where it intersects Parker Flats Cut-off) north and eastward to intersect with Inter-Garrison Road. The current routing of the road will include approximately 3 miles of new construction and 1 mile of road expansion along Inter-Garrison Road. An extension of Gigling Road to intersect the new parkway is also anticipated in this project. The study area for this project comprises approximately 143 acres of which 76 acres are considered to be oak woodland. Grading and construction will not affect all of this area, the exact area of which will be determined when final grading plans are available. The project occurs solely within the jurisdiction of the County of Monterey.

The county wishes to develop biological information to assist in planning the project. This Forest Resource Evaluation is an element of the biological evaluation intended to assist in future planning efforts. The purpose of this forest resource evaluation is to:

- Provide a thorough description of the forest resources within the project area.
- Provide an estimate of the total tree population by size class and general condition rating using stratified random sampling.
- Establish the presence of “landmark” trees as well as any other notable forest resource occurrences or unique values.
- Provide information regarding ongoing forest impacts such as erosion or invasive species.
- Outline potential impacts of grading and road development on forest resources as well as opportunities for tree preservation and protection, including transplanting.

Construction impacts to individual trees are not evaluated in this report. Once development plans are finalized, a separate forest management plan will be prepared to assess specific construction impacts and define tree preservation recommendations.

## **Methodology**

The habitat map for the project (developed by Denise Duffy and Associates, Inc.) delineating vegetation types was used to develop a stratified random sample for tree inventory and conditions within the coast live oak woodland. Plot sampling and a reconnaissance level survey for the entire project area were conducted in May and June of 2011. Aerial photography and soil survey information were reviewed and inventory information and field observations compiled to prepare the forest resources evaluation.

## **Background/Regulatory Framework**

As mentioned above, the project area is situated in the jurisdiction of the County of Monterey. The County's ordinances for tree protection and tree removal permitting applicable to the project are contained in Title 21 Section 21.64.260 of the Monterey County Zoning Ordinance. Oak trees greater than 6 inches in diameter are considered protected and may be removed if they are replaced on at least a one for one basis unless this is shown to be a hardship or detrimental to the long-term health of the remaining habitat. Landmark trees (those greater than 24 inches in diameter) may not be removed without approval. Other mitigations for impacts to oak woodlands may also be applied to the project to assure with State code sections for conservation of oak woodlands. The County ordinance does not specify the size of replacement trees but its objective is one for one replacement over the long term.

## **Site Description**

The proposed parkway commences at the end of Eucalyptus Road and proceeds in a generally northeast direction to intersect and join with Inter-Garrison Road (see Figure 1). There is a major power transmission line following a somewhat similar course in the area. The proposed route traverses several different habitat types ascending what was called "Artillery Hill" before crossing relatively gentle terrain to Inter-Garrison road.

The area features a mix of vegetation types as described below and in the report on biological resources prepared by Denise Duffy and Associates, Inc. This mix and the relatively open character of the tree stands present a hospitable environment for wildlife, which was observed during our fieldwork for this report. The route traverses some areas that receive recreational use such as walking, biking, and horseback riding due to their proximity to homes and businesses and relatively open public access. The site appears to have been used for training purposes during the occupation of the fort and is dissected by numerous roads and trails.

## **Soils**

Soils on the majority of the parcel are mapped in the Soil Survey of Monterey County as Oceano loamy sand (2-15% slope (USDA, 1978). The Oceano series is described as sand and loamy sand to a depth of greater than 80". The soil has developed on old dunes and has rapid permeability. Erosion hazard is slight to moderate. The soil is noted as being subject to wind erosion when exposed for cultivation or otherwise disturbed. Surface erosion was noted in this soil type along existing dirt roads particularly on those roads ascending Artillery Hill. Gullying has occurred in this location. Other older access roads were similarly affected as grades and slopes increased.

Construction measures should take this into account and specifications should include watering and other provisions to protect exposed soil during grading and prior to replanting. Older access roads within the project area should be graded to reduce ongoing erosion and re-vegetated prior to the close of construction operations (See Kleinfelder Geotechnical Report, October 2010).

The southwestern corner of the project area is mapped as Baywood sand 2-15% slope. The Baywood sand is noted as developing on stabilized sand dunes. It is deep and rapidly permeable with a potential rooting depth of 60+ inches. It too is subject to both wind and water erosion when exposed for cultivation or otherwise disturbed.

## Forest Resources

### Tree Stand Description

Vegetation within the Parkway study area has been mapped primarily as Coast Live Oak Woodland (76 acres) with the balance of the project area consisting of Maritime Chaparral and Non-native Grassland with minor amounts of Coastal Scrub, and previously disturbed areas including existing dirt and paved roads (see Figure 2). Vegetation types are described in the Biological Report prepared by Denise Duffy and Associates, Inc.

Forest cover is comprised entirely of coast live oak woodland (*Quercus agrifolia* and associated species). There are a few Monterey cypress (*Cupressus macrocarpa*) and Monterey pine (*Pinus radiata*) seedlings within the oak woodland. These tree species are not native to this site and appear to have seeded in from off-site plantings during the last few decades. The forest understory is dominated by poison oak with coffee berry, manzanita, and interspersed grasses. Pockets of invasive species (primarily iceplant and non-native grasses) occur throughout the area.

Coast live oak density varies greatly from very dense to open savannah. Stand density variation was apparent in the plot data taken on the site. The oak stands are mostly limited in height both by heavy wind pressure and excessive soil drainage. Taller and larger trees occur in pockets of deposition where soils are deeper and areas that retain additional moisture (see discussion of Landmark trees below). Average tree height is generally no more than 25 feet. Many of the sampled stands consist of trees much shorter (10 to 12 feet) with numerous small stems (6-8" diameter). Such stands tend to occur in the openings on the upper slopes of the project area. In general the trees appear to have recovered well from the oak moth defoliation of the past several years.

Coast live oak stands appear to be variable in age and development. Most of the stands are fairly young and may have developed after the development and occupation of the Fort during the twentieth century. Prior to that time it is assumed that the property was grazed intensively and subject to periodic burning which would have limited the extent of oak cover on the site. Numerous large, older trees were noted during our field review along the lower section of Inter-Garrison road which appear to pre-date the development within the former Fort Ord. These are discussed below.

The site is divided by roads and it appears that the area was used extensively for training purposes. Numerous piles of cut *Manzanita* occur throughout the site. These may have been the result of military training exercises. At least a few of these piles are now being used by woodrats at various locations within the project area. Nonetheless, the vegetation over most of the site (comprised of oak woodland, maritime chaparral, and grassland) appears to have been left to

develop in a relatively unaltered state. During our survey it was apparent that the site is used by wildlife including deer, feral pigs, rabbits, rodents, turkeys, and raptors. Very few oak seedlings were observed within the stands surveyed for this project and this is presumed to be due at least in part to the abundance of small rodents and other wildlife use combined with the presence of non-native grasses and fairly dense shade in many areas of woodland.

### Tree Inventory Methodology

The project area as depicted on Figure 1 was examined in the field to evaluate forest resources. A stratified sample of the area was taken by randomly assigning tenth acre circular plots over roughly 2 percent of the area mapped as coast live oak woodland in Figure 2 (see Table 1 below). Tree size was recorded by appropriate size class and tree condition information was summarized for each plot. Tree health was evaluated by visually inspecting from the root crown (where the trunk meets natural grade) to the foliar canopy. Trees judged to be in “good” condition have little appearance of rot, or disease, and good canopy development and color. “Fair” condition trees have minor evidence of disease or decay and less than 30% foliar dieback. A tree rated in “poor” condition would show major evidence of either foliar dieback, or disease/decay, and poor foliage color.

Coast live oak in this location typically shows a “cluster” or “grouped” growth form. This may be a result of the accumulation of multiple acorns by rodents, or the result of browsing by deer on juvenile plants. In any case it makes the definition of an individual tree somewhat subjective in many cases as “clusters” of stems may share a common root system. For the purpose of this inventory, an individual tree was judged to have a minimum of 1 foot of separation from any other adjacent stem at ground level. Trees were then measured at 2 feet above ground level as per Title 21 Section 21.64.260 of the Monterey County Zoning Ordinance. This method may produce a somewhat higher number of “trees” but is indicative of the number of stems within the stand and their density.

The results of the tree inventory sampling across the range of oak woodland in the project area were consolidated into per acre estimates of oak stocking by diameter class as displayed in the following table. These per acre stocking numbers are comparable to results obtained from other tree surveys of oak woodland done within other parts of the former Fort Ord. Total tree inventory estimates for the project area were estimated by expanding per acre stocking by the number of acres of oak woodland. As noted earlier, useful estimates of tree retention and tree removal within the project cannot be obtained until final grading plans are available. While the sample size is limited, the results appear adequate to characterize forest resources within the project area and permit evaluation of overall project impacts as planning progresses.

**Table 1. Estimated Per Acre and Total Tree Inventory**

<b>Species: coast live oak</b>				
<b>Diameter Class:</b>	<b>6-11"</b>	<b>12-23"</b>	<b>24+"</b>	<b>Total</b>
Trees per Acre:	98.5	48.5	<1	148
Total (est.):	7486	3686	57	11229

(Tree population estimated from 2% randomized sample).

Condition evaluations for oaks were somewhat complicated by the earlier defoliation of the trees by California oakworm (*Phryganidia californica*). At the time of the survey the oaks on the property were still recovering from being significantly defoliated by this pest in recent years. Most trees are recovering well and most of those that continue to appear somewhat weakened are expected to recover. Condition analysis was based on examination of limbs, trunk condition, foliar color, and foliar density, and presence/absence of rot and other disease with some allowance made for recent defoliation.

**Table 2. Tree Condition by Size Class (estimated total trees).**

Species: coast live oak				
Diameter Class:	6-11"	12-23"	24+"	Total
Poor:	1160	571	10	1741
Fair:	5877	2893	25	8795
Good:	449	222	22	693

### Forest Health

As described above, it is presumed that most of the oaks on the property populated the site after a change in land use possibly coincident with the establishment of the original Fort Ord. A few of the larger oaks appear to have been resident prior to this and may have provided the seed source for the resulting stand. There are scattered larger oaks within the project area, with a fairly large group along lower Inter-Garrison road, that appear to be in fair to good health. These trees are typically affected by lace lichen and have some limb breakage but are generally healthy based on their obvious ability to heal wounds, etc. These trees are worthy of consideration for protection as described below (see section below on Landmark trees).

The coast live oak stands on these parcels are primarily comprised of clusters of small diameter trees which are fairly short. The trees still show signs of prior California oakworm (*Phryganidia californica*) defoliation and many of the trees have not fully recovered. Recovery from the defoliation appears to be slowed by lack of moisture on the site due to wind pressure and excessively drained sandy soils. The predominance (nearly 80%) of trees in fair condition is characteristic of native, unmanaged oak woodlands. Like most areas of largely undeveloped oak woodland at the former Fort Ord, stands within and adjacent to the project area are in fair condition overall and provide good habitat for numerous wildlife species in spite of being denser than historic norms due to fire suppression.

Oak regeneration within the stands is very low. Very few seedling sized trees were observed. This may be due to combination of wildlife use, low acorn production due to relatively younger average age of trees, low soil moisture due to non-native grasses, and tree stress and shade due to within stand densities.

Oak woodlands at the former Fort Ord including the project area provide wildlife habitat for both common and threatened species. Nests of what is presumed to be Monterey Dusky-footed woodrat (*Neotoma fuscipes Luciana*) have been encountered periodically within these stands (see Photo 1). This is a species of special concern in Monterey County and as such has certain protection requirements. It is also a good indicator of functional habitat.

Photo 1. Example of Presumed Monterey Dusky-Footed Woodrat Nest.



Invasive plant species (particularly iceplant and non-native grasses) were observed in open areas throughout the site. These species compete with existing trees and prevent tree seedlings and other native species from becoming established. Eradication efforts should be employed to remove these plants from the preserved landscape during the development process.

#### Landmark Trees/Significant Trees

The survey for this report measured a total of 57 coast live oak trees which meet the 24 inch diameter threshold which defines Landmark trees in *Monterey County Zoning Ordinance Title 21* based on their size (See Table 3; and Figure 3 attached).

Photo 2. Example of a Landmark Tree with Lace Lichen Draping its Canopy.



Trees of this size generally appear to have become established on the site prior to its use by the military when conditions were far more open and occur in areas where they have access to abundant light and moisture. Of the 57 landmark trees found within the project area, 22 are in good condition, 25 are in fair condition, and 10 were judged to be in poor condition. While these older trees show varying affects of disease, primarily various forms of rot, and in most cases have lace lichen within their canopies (see Photo 2 above), a relatively higher percentage of them are in good condition compared with smaller diameter classes, reflecting their dominant growing positions.

There are numerous large trees present along both sides of the eastern portion of Inter-Garrison Road. These trees have benefited by access to additional light and moisture from road run-off in this location. Many of the trees are in good to excellent condition and are visually remarkable. To the extent feasible these individual trees should be considered for preservation when grading plans are developed. Several of the trees on the balance of the proposed route are on the margins of the proposed right of way and may be avoidable by minor changes in cut and fill placement or employing retaining wall structures. However, use of retaining walls can be extremely costly and cumbersome and 3:1 graded and landscape slopes can be more visually attractive, especially on cutslopes. We recommend that they only be considered in circumstances where they are the only feasible means of protecting landmark trees in good condition (or other high value resources) and costs have been fully evaluated and considered reasonable.

#### Screen Trees

There is ample opportunity to preserve trees as screening vegetation along the proposed route. As discrete design elements and road set-backs are currently unavailable, no effort was made to enumerate and describe the trees available for this purpose along the roads. This should be a topic of the forest management plan prepared when more detailed grading plans have been developed. The existing trees close to the right of way were examined and most were found to be in fair or better health and suitable for retention for screening.

### **Development Impacts to Forest Resources:**

#### Design Considerations

In general the proposed route follows relatively gentle grades and in some portions follows existing road routes within the old military base. The route traverses several different vegetation types which are endemic to the wildland area of the central coast and therefore visually appealing. The project area has been delineated to encompass all potential grading needs for road construction and so tree removal will necessarily be pervasive within the proposed corridor, although portions the study area will not be affected by grading to construct the Parkway. The total amount of tree removal for the project will be determined when designs are completed and will be evaluated in the forest management plan for the project. It is expected that existing oaks will be preserved wherever feasible. The condition and location of the existing stands present opportunities to accomplish this with appropriate planning during initial design and engineering phases of the development.

Where road intersections occur within oak woodland areas (at Inter-Garrison Road for instance) care should be taken to preserve natural landscape as feasible in the layout. These areas will need extra protection during construction to reduce impact to preserved trees. Such sites can be identified by a forester/arborist. Additionally, post-construction landscaping should include native oak planting and transplanting with associated natural understory species in order to replace natural habitat where practical and preserve the natural character of the area. Likewise graded areas and fill slopes throughout the corridor should be replanted with coast live oak and a mix of native species. Ingress and egress design should avoid existing trees where feasible. Diligence will be required to minimize impacts to existing “edge” trees by confining fill placement and utilizing suitable excavation and tree protection practices. “Islands” of existing trees should be specifically selected in the design wherever feasible to provide separation and visual relief within the right of way. A qualified arborist/forester should be consulted during the design phase to assist in incorporating these elements.

### Other Design Considerations

In order to maximize tree preservation, retaining walls could be employed to limit grading and extension of fill within oak woodland areas. This is likely to be particularly important along Inter-Garrison Road in order to preserve landmark or other high value oaks. Equipment storage areas should be designated in the construction plans and located outside oak woodland rooting zones (1.5 times the radius of an oak’s dripline or not within the dripline at the very least) or treated appropriately (6” – 8” of coarse wood chips and pruning to assure adequate equipment clearance) in order to avoid impacts to existing trees.

The feasibility of adjusting the proposed route to other habitats (e.g. non-native grassland, shrublands, and/or disturbed areas) outside the Fort Ord Habitat Conservation Area was evaluated in order to reduce the total number of trees removed. More open areas that might be suitable parkway alignments are apparent in both the MPC EVOC and Monterey Downs parcels. However, their use for the Parkway would split both parcels, dramatically reduce their usefulness for their assigned purposes, and largely eliminate the open areas that were part of the reason for designating these parcels for development in the Fort Ord Reuse Plan. Another alignment that might reduce tree impacts would still split the MPC EVOC parcel but then would then run east into shrublands. Such an alignment would directly impact a Habitat Conservation Area and sensitive maritime chaparral habitats within it.

### Oak Removal/ Oak Woodland Mitigation

The project is an integral part of the long term planning for new land uses at the former Fort Ord, which has included extensive conservation and mitigation planning. Oak tree and woodland mitigation strategies and requirements are subject to a host of plans, codes and agencies, including the Fort Ord Habitat Management Plan, Fort Ord Reuse Plan and EIR, Draft Fort Ord Habitat Conservation Plan, Draft Fort Ord Master Plan, Greater Monterey Peninsula General Plan, Draft Monterey County General Plan EIR, Monterey County Code Chapters 16.60 and 21.64.260, State PRC Section 21083.4, and others. However, determination of mitigation requirements is beyond the scope of this evaluation. It is reasonable to assume that mitigation will be accomplished through some combination of already designated Habitat Management

Areas, potential designation of additional oak woodland conservation areas, mitigation fees, and protection and restoration practices (including tree replacement plantings) applied on and/or offsite.

It is anticipated that there will be opportunities to reduce oak removal and mitigate habitat loss within the project study area through careful project design, facility location, and adherence to construction practices described above. If needed, there may be opportunities to accomplish off-site mitigation for oak removal through participation in planting programs with allied agencies and jurisdictions. Off-set contributions may also be made to other programs such as the Oak Woodlands Conservation Fund (as per Public Resource Code 21083.4). A discussion of proposed mitigations for tree loss will be provided in the forest management plan and CEQA analysis for the proposal.

#### Tree Replacement/Replanting/Transplanting

Tree planting is probably the most widely used mitigation measure for tree removal and has been a core requirement in Monterey County tree protection ordinances where a standard provision is replacement of oaks greater than 6" on a one to one ratio. Given already planned mitigations, the relative lack within the study area of suitable planting areas, and the undesirability of incremental conversion of other habitat types to oak woodland, tree replanting can be considered a useful mitigation of limited application for this project.

When the project design is completed and suitable planting areas for oaks can be identified, an estimate of the appropriate number of replacement seedlings can be made based on available planting space. Since coast live oak is effectively the only tree native to the site, it should be the only tree species credited for replanting for mitigation purposes. All native trees should be selected from known local seed sources and use small planting stock (supercells or D40 tree pots are preferred) as studies show that young seedlings establish more quickly, require less irrigation for a shorter duration, and will outgrow a larger planted tree. Smaller trees are easier to plant and maintain if they are given effective and highly visible protection from browsing and inadvertent mechanical damage. Planting of local seed stock can be accomplished in a much shorter time frame using smaller stock, which can be grown on a contract basis in order to have adequate numbers of trees available at the close of the project. A few larger trees may be planted when an immediate visual effect is desired. Successful establishment generally requires monitoring, weed control and supplemental watering for a three to five year period.

#### *Transplanting Opportunities*

There may be as many as several hundred small to medium-sized, individual stem trees within the proposed route which are suitable for transplanting and many of these occur in open areas with reasonable access. Oaks suitable for transplanting are a potentially significant resource that might be used within the project itself or sold to other vendors for use on other projects. Transplanting oaks that must be removed for the project and would otherwise simply become greenwaste conserves some of their ecological and landscape value while at least marginally defraying removal and disposal costs. Because effective transplanting operations can be costly and require extensive planning and coordination, it is essential to explore the feasibility of

making oak transplanting a specific project component early in the planning and development process.

To that end, we suggest the following approach:

1. Determine whether or not the Parkway project itself can feasibly make use of any of the oaks suitable for transplanting that will have to be removed for Parkway construction. If so, specify the number, size, planting location, method(s) of extraction and installation, and estimated costs of such transplants.
2. Determine whether or not suitable transplant trees may be sold for off-site use.
3. Solicit bid proposals from qualified tree transplanting companies to: transplant specified oaks for the Parkway project and/or purchase and remove specified oaks for off-site use.

If such a program is pursued, the following points should be kept in mind:

- The vast majority of the existing stands on the property are comprised of numerous clusters of small trees. These trees generally do not make appropriate transplants as they have a common root system which will be damaged when removed and individual tree crowns are usually unbalanced.
- A transplanting program requires extensive evaluation and planning as suitable transplants should be marked and removed prior to the beginning of grubbing and grading operations and may need pre-treatment (root cutting and hardening off as well as watering prior to actual removal of the transplant tree).
- Costs are highly sensitive to tree size and whether and how long trees will be stored prior to planting. Lowest costs and best results usually occur when transplants can be dug, moved and replanted without any time in storage. In such cases, treespades with rootballs in sizes from 5' (for trees from 2" to 5" in diameter) up to 14' (for trees from 14" to 18" in diameter) will usually give best results. Treespades usually cannot be used once infrastructure is in place or if trees need to be stored and maintained from 6 months to two years with rootballs contained in a box or basket. Transplanting costs for stored trees are often 1.5 to 2 times as much as for trees that can be directly moved and planted at the same time. Cranes can be a significant cost and are generally required to place trees with rootballs in boxes or baskets. However, their use tends to increase flexibility in placing transplants in partially developed landscapes and on somewhat steeper slopes. Transplanting costs can range from as little \$250 for a 3"+ treespaded tree to \$25,000 or more for a 16"+ tree planted after 18 months in storage.
- In many cases, and particularly for the Parkway project, it is probably most appropriate to focus on thrifty trees in the 3" to 10" diameter range for best adaptability and cost effectiveness.

### **Recommendation Summary:**

The plan for the parkway should recognize the value and abundance of coast live oaks within the right of way and preserve the character of this vegetation as much as feasible. In addition there are large "landmark" trees that should be considered for preservation in the design. In order to accomplish these goals a qualified Forester/Arborist has been included as part of the design team. The final project design will require a Forest Management Plan as specified in Title 21 of the Monterey County Zoning Ordinance. The FMP should specify both general and location

specific tree protection measures based on evaluation of current grading plans. In order to assure that recommendations in the FMP are consistent with the final site lay out it is crucial that there be pre-planning coordination between the forester and project engineers. A follow-up inventory should be conducted based on proposed grading plans to determine the specific impacts of construction proposals.

There are intact stands of coast live oak on the proposed route that show current use of animal species of special concern in Monterey County. Any future alignment alternatives should be preceded by adequate biological study to define the necessary mitigations to minimize impacts to these species

There are likely to be opportunities to preserve valuable screen trees and landmark trees along the route by implementing design alternatives. Future designs should consider the use of varying the road grade, shifting the road alignment, containing fill in retaining walls, altering cut slope design, etc., in order to preserve existing trees. Although natural reproduction of oaks along the proposed parkway is limited, there are numerous suitable transplant trees. Conservation and use of these trees on-site and/or off-site should be fully evaluated with adequate lead time as outlined above.

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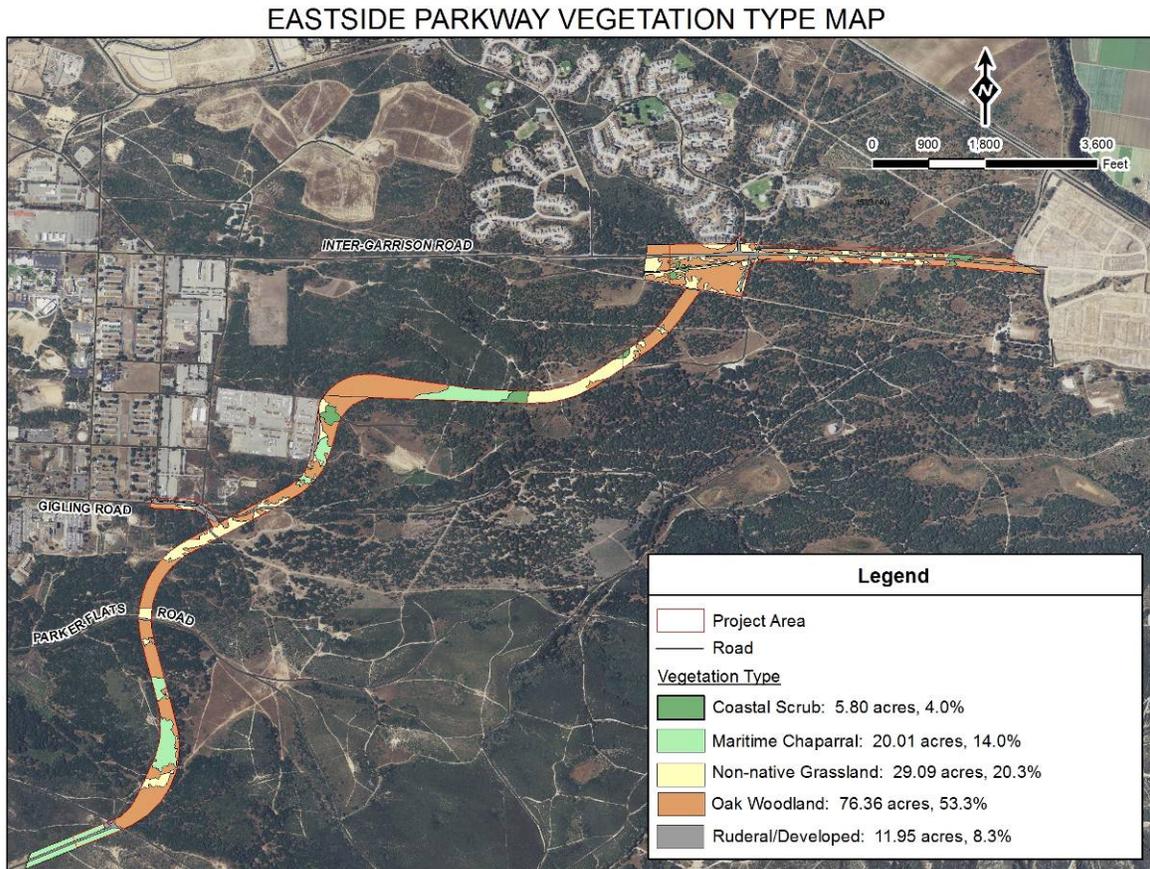
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Figure 1. Project Study Area Map

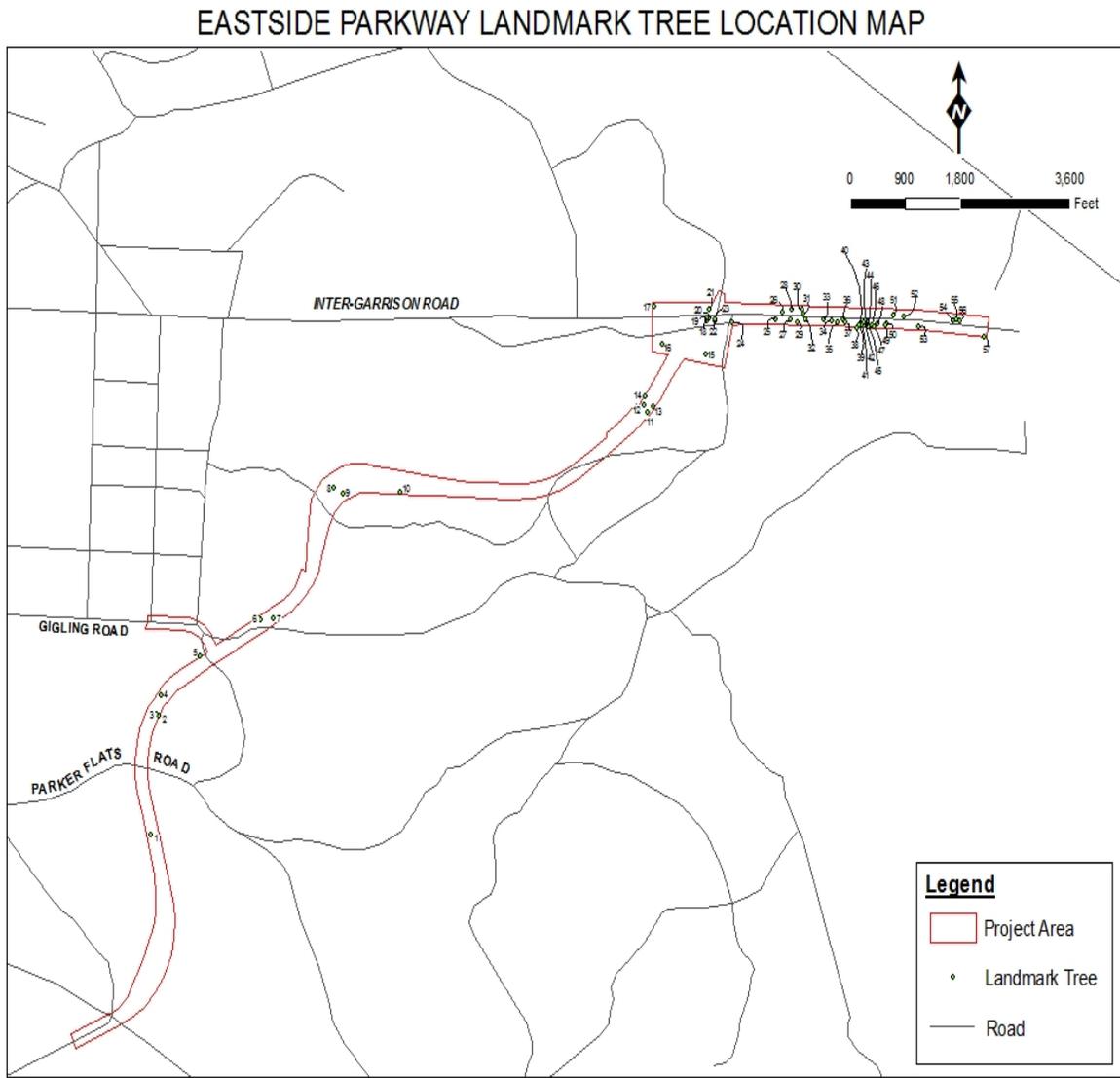


Figure 2. Vegetation/Habitat Map



6/2/11

Figure 3. Landmark Tree Location Map



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Table 3. Landmark Tree List

Tree Number	DBH	Condition	Notes
1	26	F	trending to good, some rot present
2	28	F	on margin of road construction
3	28	F	Decumbent, some rot
4	26,17	G	
5	24,22,22	F	
6	24,14	F	Heavy lace lichen, pockets of rot
7	32	P	
8	26	P	Heavily defoliated
9	28	F	Trending to poor, basal rot
10	26	F	some rot
11	30	P	Rot, small crown, extensive lace lichen
12	28	P	Large Base-rotten
13	26	F	Nest 2/3 away from stem in lower branch
14	32	P	multi-stem, abundant lace lichen
15	38	G	
16	28	P	Rot, small crown, extensive lace lichen
17	29, 19	F	Rat nest at base of tree
18	40	G	
19	30	G	
20	34	G	
21	28, 16	F	
22	30	P	
23	40	G	some rot
24	28	G	
25	24,16,20	F	
26	26	F	
27	30	G	some lace lichen
28	30	P	
29	24,16	P	
30	23, 22	F	
31	24	G	
32	24,24	F	lace lichen
33	26,20,14	F	multi stem, trending to poor
34	29	G	
35	24,14,12	F	multi stem
36	24,20,22	F	limb rot
37	30	F	rot
38	30	G	

39	26,18,10	G	
40	36	G	trending to fair, some rot present
41	27	G	
42	30	G	
43	26	F	
44	30	G	excellent health, very good appearance
45	34	G	some rot present
46	34,32,30	F	trending to poor, broken limbs
47	28	F	
48	30	G	very large healthy crown
49	24	F	rot present
50	24	G	
51	31, 27	G	
52	23.4	G	
53	30	G	evidence of wildlife use
54	28, 21	F	
55	30	F	
56	27, 16	F	
57	36	P	nearly dead, hollow trunk