



Wednesday, May 26, 2021

6:00 pm Open Session

AGENDA

REGULAR MEETING

HILLTOP PARK AD HOC COMMITTEE

Marina City Council Chambers
211 Hillcrest Avenue
Marina, CA

Zoom Meeting URL: <https://us02web.zoom.us/j/86197332148?pwd=a0xQdVM4YnVOYktodS9HYVNXbVJlZz09>

Zoom Meeting Telephone Only Participation: 1-669-900-9128 - Webinar ID: 861 9733 2148
Passcode: park

In response to Governor Newsom’s Executive Order N.29-20 and City Council Resolution 2020-29 ratifying the Proclamation of a Local Emergency by the City Manager/Director of Emergency Services related to the COVID-19 (coronavirus) pandemic, public participation in the City of Marina City Council and other public meetings shall be electronic only and without a physical location for public participation, until further notice in compliance with California state guidelines on social distancing.

PARTICIPATION

You may participate in the City Council meeting in real-time by calling Zoom Meeting via the weblink and phone number provided at the top of this agenda. Instructions on how to access, view and participate in remote meetings are provided by visiting the City’s home page at <https://cityofmarina.org/>. Attendees can make oral comments during the meeting by using the “Raise Your Hand” feature in the webinar or by pressing *9 on your telephone keypad if joining by phone only. If you are unable to participate in real-time, you may email to marina@cityofmarina.org with the subject line “Public Comment Item#__” (insert the item number relevant to your comment) or “Public Comment – Non Agenda Item.” Comments will be reviewed and distributed before the meeting if received by 5:00 p.m. on the day of the meeting. All comments received will become part of the record. Council will have the option to modify their action on items based on comments received. For the hearing impaired, the City provides a “Live Transcription” option in the Zoom meeting. To view the Live Transcription, please click on the button title “Live Transcription” at the lower portion of the screen

1. **CALL TO ORDER**



2. **ROLL CALL & ESTABLISHMENT OF QUORUM**

3. **MOMENT OF SILENCE & PLEDGE OF ALLEGIANCE**

4. **ACTION ITEMS**

Action listed for each Agenda item is that which is brought forth for Ad Hoc Committee consideration and possible action. The Ad Hoc Committee may, at its discretion, take action on any items. The public is invited to approach the podium to provide up to four (4) minutes of public comment.

- a. HILLTOP PARK AD HOC COMMITTEE TO RECEIVE A PRESENTATION AND PROVIDE RECOMMENDATIONS TO THE CITY COUNCIL ON TREES, GRASSES, AND SHRUBS, WHICH IS ALL PLANT MATERIAL TO BE INCORPORATED IN THE DEVELOPMENT OF THE HILLTOP PARK AT THE DUNES

5. **ADJOURNMENT**

CERTIFICATION:

I, Edna Gomez, Administrative Assistant (Job Title) for the City of Marina, do hereby certify that a copy of the foregoing agenda was posted at Marina City Council Chambers bulletin board, 211 Hillcrest Avenue; City Kiosk at the corner of Del Monte Boulevard and Reservation Road; and Monterey County Free Library Marina Branch at 190 Seaside Circle on or before 6:30 p.m. **Friday, May 21, 2021.**

Signature



May 19, 2021
Date Posted

May 13, 2021

Item No. **4a**

Honorable Mayor and Members
of the Hilltop Park Ad Hoc Committee

Hilltop Park Ad Hoc Committee Meeting
of May 26, 2021

HILLTOP PARK AD HOC COMMITTEE TO RECEIVE A PRESENTATION AND PROVIDE RECOMMENDATIONS TO THE CITY COUNCIL ON TREES, GRASSES, AND SHRUBS, WHICH IS ALL PLANT MATERIAL TO BE INCORPORATED IN THE DEVELOPMENT OF THE HILLTOP PARK AT THE DUNES

REQUEST:

It is requested that the Hilltop Park Ad Hoc Committee receive a presentation and provide recommendations to the City Council on trees, grasses, and shrubs, which is all plant material to be incorporated in the development of the Hilltop Park at The Dunes.

BACKGROUND:

At the regular meeting on May 19, 2020, the City Council adopted Resolution No. 2020-53, approving the amendment to the University Village (now The Dunes on Monterey Bay) Phase 2 Tentative Map. The amendment included conceptual layouts of the City Park within Phase 2 known as Hilltop Park.

The Dunes Specific Plan Community Design Strategy for the Park System Design Concept of Hilltop Park is defined as follows:

This site has significant topography which yields beautiful panoramas from the top of the plateau. This park is proposed to be a passive park with an emphasis on native planting, dunes, sheltered overlooks and seating areas, picnic and barbecue facilities, and a dog park. Trails should follow the site contours to provide access from Eighth and Ninth streets.

On March 11, 2021 the Planning Commission approved a tree removal permit for Phase 2 East of The Dunes on Monterey Bay for the removal of 50 trees, including 18 coast live oak, two (2) Torrey pine, three (3) Monterey pine, four (4) Monterey cypress, and one (1) eucalyptus, together with 22 trees inadvertently removed within Phase 2 East of the Dunes on Monterey Bay Specific Plan Area (see **Attachment 1**). Many of the inadvertently removed trees were in the area to be developed as Hilltop Park. The permit requires the planting of 144 coast live oak and 60 other species, some of which will be planted in the Hilltop Park pending recommendations from the Ad Hoc Committee. The remainder of the required tree plantings will be outside of the Hilltop Park.

Several reports were prepared by a certified arborist to support the tree removal permitting process. These include the December 4, 2019 *Tree Survey Results for The Dunes on Monterey Bay Project-Phase 2 (Attachment 2)*, the March 19, 2020 *Tree Removal Application for The Dunes on Monterey Bay Project-Phase 2 University Villages East (Attachment 3)*, and the December 16, 2020 *Arborist Report to Obtain a Supplemental Tree Removal Permit for the Dunes on Monterey Bay Project, Phase 2 East-Evaluation Area 3 (Attachment 4)*. The reports are being provided for background information. The December 16, 2020 *Arborist Report to Obtain a Supplemental Tree Removal Permit for the Dunes on Monterey Bay Project, Phase 2 East-Evaluation Area 3* includes Figure 2 which depicts the location and species of trees that were removed on the site of the future Hilltop Park.

At the regular meeting on April 20, 2021, the City Council received a presentation and approve the concept plan for Hilltop Park at The Dunes (see **Attachment 5**). As part of the approval, City Council directed that an Ad Hoc Committee be formed to provide input on trees, grasses, and shrubs, and all

plant material to be incorporated in the development of the Hilltop Park. The Ad Hoc Committee is to be formed with the Mayor, Dr. Fred Watson, along with representatives of neighborhood groups with representatives to include the Tree Committee, the Recreation and Cultural Services Commission, Citizens for Sustainable Marina, and the Marina Tree and Garden Club.

Dr. Fred Watson has prepared a web page with information on the history of Hilltop Park which can be accessed at the following link: <http://www.cccal.info/proj/usa/ca/cc/FortOrd/HilltopPark/index.htm>

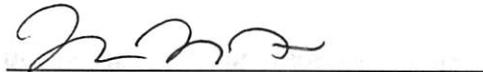
ANALYSIS:

Completion of final design of Hilltop Park depends on the final selection of plant material which includes trees, grasses, and shrubs. The Specific Plan calls for and emphasis on native planting. Elements outside of plant material will remain consistent with the conceptual plan for Hilltop Park which was approved by City Council on April 20, 2021. Input for the Ad Hoc Committee will be the last information required to complete the final design and construction plans for the Sea Haven Park.

The Dunes development team for the park, including the landscape architect and the arborist, will be available at the meeting to make a presentation and answer questions.

CONCLUSION:

The Ad Hoc Committee recommendations on trees, grasses, and shrubs, which is all plant material to be incorporated in the development of the Hilltop Park at The Dunes will be instrumental in completing the development of the park. Recommendations will be presented to the City Council for final consideration at a future City Council meeting.



Brian McMinn, P.E., P.L.S.
Public Works Director/City Engineer
City of Marina

REVIEWED/CONCUR:



Layne P. Long
City Manager
City of Marina

ATTACHMENT 1



COMMUNITY DEVELOPMENT
City of Marina

Applicant/Owner:

Marina Community Partners
110 Tenth Street
Marina, CA 93933
93940

STAFF REPORT

Agenda Item #6a
Planning Commission
March 11, 2021

TO: Planning Commissioners

FROM: Christy Hopper, Planning Services Manager

RE: Open a Public Hearing, Take any Testimony from the Public, and Consider Adopting a Resolution approving a Tree Removal Permit for the removal of 50 Trees, including 18 coast live oak, two (2) Torrey pine, three (3) Monterey pine, four (4) Monterey cypress, and one (1) eucalyptus, together with 22 trees inadvertently removed within Phase 2 East of the University Villages (Dunes on Monterey Bay) Specific Plan Area, subject to Conditions

SUMMARY OF ISSUES

- Is the proposal consistent with the City General Plan?
- Does the proposal meet the requirements of the University Villages Specific Plan?
- Does the proposal comply with the City Zoning Ordinance and other pertinent regulations?
- Are the environmental concerns appropriately addressed?

ENVIRONMENTAL DETERMINATION

On May 31, 2005, the Marina City Council adopted Resolution No. 2005-127, certifying the final Environmental Impact Report (SCH. No. 2004091167) for the University Villages Specific Plan in accordance with the California Environmental Quality Act and state and local guidelines, making certain findings and determinations thereto, adopting a statement of overriding considerations, and adopting a mitigation monitoring and reporting program. The project EIR anticipated and analyzed residential uses at these locations. Therefore, the Planning Division of the City of Marina determined that the project impacts were analyzed and properly mitigated in the University Villages EIR and no further mitigation is required.

ALTERNATIVES

The Planning Commission may:

1. Approve the application as submitted or as modified with findings and conditions; or,
2. Deny the application with findings; or,
3. Continue the application with direction to staff and the applicant.

PROJECT LOCATION

The trees that are the subject of this Tree Removal Permit are located within Evaluation Area 3 as delineated in the Arborist Reports prepared by Denise Duffy & Associates Inc., and further illustrated as Phase 2 East of the Dunes on Monterey Bay Specific Plan area (Exhibit 2) shown below.

Exhibit 1 – Evaluation Area 3

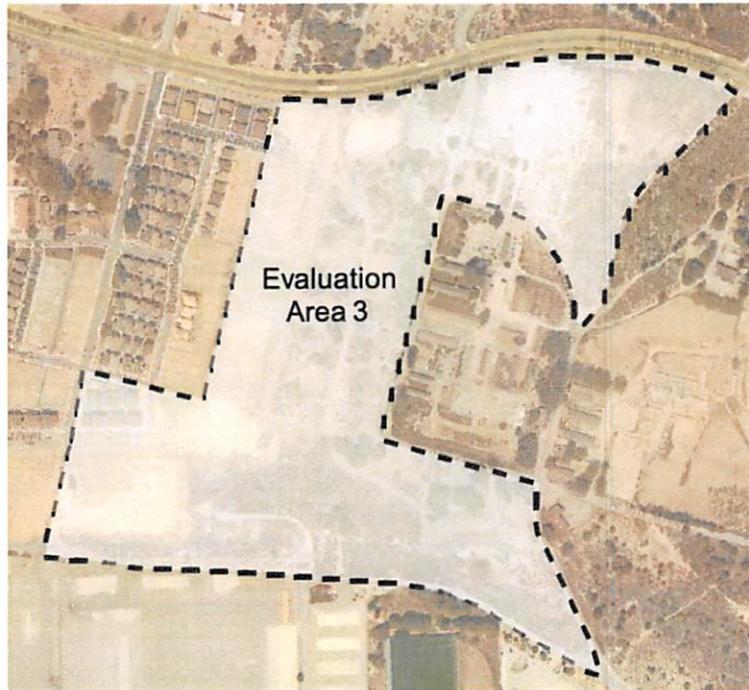
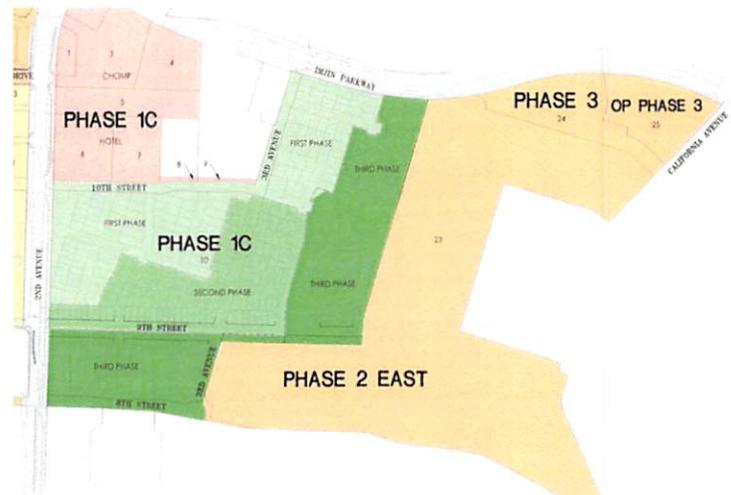


Exhibit 2 – Project Phases East of 2nd Avenue



BACKGROUND

In addition to approving the final EIR on May 31, 2005, the Marina City Council approved the University Villages Specific Plan (UVSP) together with a Tentative Subdivision Map for the 358-acre project site, Site and Architectural Design Review for all phases of the residential units within the development, and a Tree Removal Permit for Phase 1 of the Specific Plan.

On July 8, 2005, the City entered into a Development Agreement with Marina Community Partners, LLC (MCP) for the University Villages project. The agreement states that, “As a result of the execution of this Agreement, both Parties can be assured that the Project can proceed without disruption caused by a change in City planning and development policies and requirements, which assurance will thereby reduce the actual or perceived risk of planning, financing and proceeding with construction of the Project and promote the achievement of the private and public objectives of the Project.”

In October 2019, Denise Duffy & Associates, Inc. (DD&A) conducted a field inventory of protected trees within portions of Phases 2 and 3 of the project site in three separate evaluation areas, including Evaluation Area 3 shown in Exhibit 1 above. The tree inventory was conducted in accordance with Section 5.9. Existing Tree Removal, Relocation, and Replacement Standards (Tree Standards) of the Specific Plan, Final Environmental Impact Report (FEIR) and Resolution, the project’s Mitigation Monitoring and Reporting Program (MMRP), and 2005 Marina Municipal Code (MMC) Chapter 12.04 (Tree Removal, Preservation, and Protection) per MMRP Impact BR-2.2. The methods and results of the field inventory are detailed in the *Tree Survey Results for the Dunes on Monterey Bay Project – Phase 2* (DD&A, 2019).

On December 22, 2021, Marina Community Partners (MCP) submitted a Supplemental Tree Removal Permit Application for 50 trees located on the University Villages Phase 2 East site as described below.

ANALYSIS

The University Villages Specific Plan states that the removal of any tree that was preserved as part of a previous tree removal permit shall require a new application of a tree removal permit. This applies to trees in the public right of way as well as on private lots. Trees that are exempt from this process include those that have died or experienced structural damage to the point that they pose a safety hazard. Those trees may be removed without any additional permit applications.

Compliance with Development Agreement Provisions

State Planning and Land Use law provides that the rules, regulations, and official policies governing permitted uses of the land, governing density, and governing design, improvement, and construction standards and specifications, applicable to development of the property subject to a development agreement, shall be those rules, regulations, and official policies in force at the time of execution of the agreement, unless otherwise provided by the development agreement (GC §65866.a). Therefore, the 2005 provisions of MMC Chapter 12.04 supersede those of the current tree protection ordinance (MMC 17.51) as applied to UVSP development as well as other City policies, regulations and guidelines adopted prior to the approval of the Development Agreement between the City and MCP.

General Plan Compliance

The Community Design & Development Element of the City's General Plan, in effect in 2005, contains policies that address Environmental Protection and Conservation, including Biological Resources. Policy 4.120 states, "All oak trees shall be replaced and maintained with new trees of the same stock as those found onsite or in the site vicinity according to the following replacement formula: a minimum one-for-one (one replacement tree for each tree removed) where replacement trees are proposed to be the same diameter or greater than those to be removed; a minimum three-to-one (three replacement trees for each tree removed) for replacement trees of lesser diameter than those proposed for removal, unless, as determined by arborist, the site's specific environmental conditions would not sufficiently support a healthy oak habitat. All diameter measurements shall be taken at 4.5 feet from ground level. Replacement trees shall be a mixture of sizes."

Zoning Ordinance Compliance

The Marina Municipal Code (MMC) defines "tree" as any living woody perennial plant having a single stem of six inches or more measured at four and one-half feet above the ground while standing on the high side of the tree, also referred to as diameter at breast height (DBH), or a multi-stemmed plant having an aggregate diameter of ten inches or more measured at DBH, and any living woody perennial plant which was planted in accordance with requirements of an approved compensation plan or was planted as part of a landscaping plan approved by the city. MMC defines "dripline" as the greater of the outermost edge of the tree's canopy, or fifteen times DBH measured from the center point of the tree.

The City's 2005 MMC Chapter 12.04 requires a tree removal permit to remove, damage, or relocate, or cause to be removed, damaged, or relocated any tree on any property within City limits, unless exempted by MMC Sections 12.04.040 or 12.04.050. MMC Section 12.04.030 also prohibits construction activities within the dripline of any tree, unless these activities are conducted in compliance with tree protection guidelines adopted by resolution of the planning commission.

Section 12.04.060.B of the 2005 MMC requires the following finding for tree removal:

"The proximity of the trees to planned streets, residential building pads and other planned infrastructure, conflicts with the approved locations of the construction activities and, therefore, must be removed."

Subsection 12.04.060.D.3 requires the following review process for tree removal requests:

"In the event that the tree removal request is associated with a development proposal, the city manager or designee will refer the development proposals, a written report and recommended mitigation measures and conditions of approval to the site and architectural design review board, the minor subdivision committee or the planning commission, as appropriate, for their approval, denial or conditional approval of the tree removal permit."

The City's Tree Committee typically reviews all tree removal requests for recommendation to Planning Commission. However, due to the restrictions imposed as a result of the COVID-19 pandemic, the Planning Commission has assumed all of the duties of both the Design Review Board and Tree Committee until further notice. The City Manager has referred the applicant's request for the removal of trees to the Planning Commission for consideration.

MMC Section 12.040.100 provides the framework for mitigation required to unauthorized tree removals and states that *“the planting of replacement trees on site or the payment to the city to fund the purchase, planting and maintenance of off-site tree plantings should be in accordance with the tree replacement formula found in Section 12.04.060C (2:1) multiplied by three (6:1) for each tree removed in violation of this chapter.”*

Compliance with Citywide Design Guidelines and Standards

The City of Marina Design Guidelines and Standards as amended January 2, 2002 addresses Tree Removal as follows:

“The removal of any trees must be in accordance with the terms and conditions of a Tree Removal Permit pursuant to Chapter 12.04, Tree Removal, Preservation and Protection, of the Marina Municipal Code, granted concurrently with other development entitlements pursuant to Section 12.04.060 of said chapter. If it becomes necessary to remove additional trees any time after such approvals, a request for the removal of additional trees shall be considered and acted upon by the review body that acted upon the initial tree removal permit granted for the project unless the City Manager under his/her authority determines that some other individual or review body should act upon such additional request.”

Performance Standards include the following:

- Native flora should be given preference over traditional ornamental species when they can perform similar functions in the landscape. In particular, coast live oak (*Quercus agrifolia*), the only tree native to the city, should be included in landscape plans whenever feasible.
- Native species used in landscaping shall originate from local sources to protect the genetic integrity of those species in natural areas and shall be raised locally. Exceptions may be made when it can be demonstrated that no adverse impacts will occur.

Compliance with University Villages (Dunes on Monterey Bay) Specific Plan

The Specific Plan adopted May 31, 2005 anticipated the removal of trees within the project area and provided policy guidance and measures to mitigate the environmental impacts of such removal. The University Village Specific Plan (UVSP) identifies a ‘tree’ as Monterey cypress, Monterey pine and Eucalyptus species 6-inches in DBH (Diameter at Breast Height) and above only. In general, the trees located within the University Villages Specific Plan area consist of Monterey cypress, Monterey pine, coast live oak and eucalyptus. The use of the term “trees” in this Specific Plan refers to those species.

All trees within the University Villages Specific Plan area shall be inventoried by a licensed forester or certified arborist. The majority shall be individually rated, while small groups with similar stand characteristics may be rated as a group. Prior to issuance of a tree removal permit, a map showing all numbered trees proposed to remain, be relocated or removed shall be submitted along with a plan delineating replacement trees.

The Supplemental Arborist Report dated December 16, 2020 (Attachment 2) identified an additional 50 trees, 28 of which are proposed for removal due to conflicts with approved improvements and unknown underground utilities, and 22 that were inadvertently removed by a demolition subcontractor working for Shea Homes. These 22 trees had been planned to remain as part of a naturally vegetated area located in the future Hilltop Park. The Hilltop Park plan will incorporate restoration planting of the damaged area to reestablish the naturally occurring trees and vegetation within the park.

As a result of the grading and fill required in large portions of tree driplines, the 28 trees (excluding six acacia trees per UVSP Standards) proposed for removal include:

- Two (2) Torrey pine (*Pinus torreyana*) both measuring from 6" DBH;
- Four (4) Monterey cypress (*Hesperocyparis macrocarpa*, syn. *Cupressus macrocarpa*) ranging from 6" to 42" DBH;
- Three (3) Monterey pine (*Pinus radiata*) ranging from 6" to 27" DBH;
- 18 coast live oak (*Quercus agrifolia*) ranging from 6" to 22" DBH; and
- One (1) eucalyptus species (*Eucalyptus* sp.), 30" DBH.

22 trees were inadvertently removed during the initial grading of Evaluation Area 3. These trees were not scheduled for removal and no tree removal permit had been obtained. The area where the trees were removed is proposed as a neighborhood park, which was intended to retain a portion of the natural native landscape. Trees removed inadvertently include:

- One (1) Torrey pine tree, 6" DBH;
- Three (3) Monterey cypress trees, (removed prior to data collection);
- Three (3) Monterey pine trees, ranging from 6" to 17" DBH;
- 10 coast live oak, ranging from 6" to 21" DBH, and
- Five (5) eucalyptus species, ranging from 10 to 16" DBH.

Tree Replacement

The provisions of Chapter 12.04 of the 2005 MMC regulate tree removal within the Specific Plan area. The removal of all trees identified as protected in the Specific Plan and determined to be in good or fair condition are required to be replaced at a 2:1 ratio, unless removed without a Tree Removal Permit. In such cases, the recommended ratio is multiplied by a factor of 3 (6:1).

General Plan policy 4.120 specifies that the replacement ratio for coast live oak trees determined to be in good or fair condition The City's General Plan requires the replacement of coast live oak at a ratio of 3:1 if less than the diameter of the tree removed. For trees removed without a permit, the 2005 Tree Ordinance recommends that the replacement ratio be multiplied by a factor of 3 (9:1).

The calculations for trees to be removed and replaced with a Tree Removal Permit are as follows:

- 28 trees to be removed with a permit (minus one eucalyptus) consist of 18 coast live oak (3:1 per General Plan = 54) and 9 other species (2:1 per Chapter 12.04 = 18) shall be replaced with a total 72 replacement trees.

The calculations for trees removed without a Tree Removal Permit are to be replaced as follows:

- 22 trees removed (minus 5 eucalyptus) consist of 10 coast live oak (3:1 per General Plan = 30 x 3 per Chapter 12.04 = 90) and 7 other species (2:1 = 14 x 3 per Chapter 12.04 = 42) totals 132 replacement trees.

Altogether, 144 coast live oak and 60 other species totaling 204 trees are recommended for replacement.

The project must comply with the mitigation measures and regulatory requirements of the FEIR and MMRP for the Specific Plan, as well as the UVSP Tree Standards, including:

- Pre-construction surveys for active nests shall be conducted by a qualified biologist within 250 feet of proposed construction activities no more than 30 days prior to construction. If active nests are found and the biologist determines that construction activities would adversely affect the nest or cause nest abandonment, then those activities shall be avoided in these areas until the young have fledged, as by the qualified biologist. Once the young have fledged, construction activities may resume in the vicinity and no further mitigation shall be required.
- Prior to removal of large trees, a qualified biologist shall survey the trees for the presence of roosting bats. If special-status bat species are present, the following measures shall be implemented:
 - a. Tree removal should not occur if maternity bat roosts are present (between April 15 and August 1) in the trees to be removed.
 - b. No tree removal should occur within 300 feet of the maternity roost until all of the young bats have fledged, as determined by a qualified biologist.
 - c. If special-status bats are present but there is not an active maternity roost, a Memorandum of Understanding (MOU) with the California Department of Fish and Wildlife (CDFW) should be obtained in order to remove the animals prior to tree removal. Alternate habitat may need to be provided if bats are to be excluded from maternity roosts. A roost with comparable spatial and thermal characteristics should be constructed as directed by a qualified biologist. In the event that adult bats need to be handled and relocated, a qualified biologist shall prepare and implement a relocation plan subject to approval by CDFW that includes relocating all bats found on-site to an alternate suitable habitat. A Mitigation and Monitoring Plan that mitigates for loss of bat roosting habitat should be prepared by a qualified biologist and approved by CDFW prior to tree removal.

Recommendation

Staff recommends that the Planning Commission approve the Tree Removal Permit to allow the removal of 28 trees, with such removal compensated by the replacement planting of 72 comparable specimen trees and an additional 132 comparable specimen trees to compensate for the removal of 22 trees without a Tree Removal Permit, including 10 coast live oaks, in accordance with Policy 4.120 of the Community Design & Development Element of the City's General Plan and the provisions of Chapter 12.04 of the 2005 Municipal Code.

MOTION

Move to adopt a resolution approving Tree Removal Permit TP 2021-01 to acknowledge the removal of 22 mature trees without a permit in violation of City regulations, to be compensated by the replacement planting of 132 specimen trees, and to allow the removal of an additional 28 mature trees to be compensated by the replacement planting of 72 specimen trees, for a total of 204 specimen trees.

Attachments:

1. Draft Resolution with Exhibits
2. Tree Removal Application for The Dunes on Monterey Bay Project – University Villages Phase 2 East.
3. Supplemental Arborist Report prepared by Denise Duffy & Associates, Inc. for The Dunes on Monterey Bay Project, Phase 2 East– Evaluation Area 3, dated December 16, 2020.

RESOLUTION NO. 2021-

A RESOLUTION OF THE CITY OF MARINA PLANNING COMMISSION APPROVING TREE REMOVAL PERMIT TP 2021-01 FOR THE REMOVAL OF 28 TREES FOR RESIDENTIAL DEVELOPMENT AND COMPENSATION FOR THE REMOVAL OF 22 TREES WITHOUT A TREE REMOVAL PERMIT WITHIN PHASE TWO EAST OF THE UNIVERSITY VILLAGES (DUNES ON MONTEREY BAY) SPECIFIC PLAN

WHEREAS, on December 22, 2020, Marina Community Partners (MCP), the Applicant, submitted an application to remove twenty-eight (28) mature trees located within the University Villages (Dunes on Monterey Bay) Specific Plan area; and,

WHEREAS, a Supplemental Arborist Report prepared by Denise Duffy & Associates, Inc. for The Dunes on Monterey Bay Project, Phase 2 East – Evaluation Area 3, dated December 16, 2020 prepared and submitted on behalf of the Applicant, identified another 22 trees that had been removed without a mandatory Tree Removal Permit, and;

WHEREAS, at a special meeting of May 31, 2005, the Marina City Council adopted Resolutions No. 2005-127 through 2005-135 taking the following actions: certifying the final Environmental Impact Report (SCH. No. 2004091167) for the Specific Plan project; approving General Plan map and text amendments; making findings and determinations pursuant to California Water Code Section 10911(c) and California Government Code Section 66473(B)(3); approving the Dunes on Monterey Bay Specific Plan; approving the Tentative Map for the 358 acre project site; approving Site and Architectural Design Review for all phases of the residential units within the development; approving a Tree Removal Permit for Phase 1; finding that the legislative land use approval for the project is consistent with the Fort Ord Reuse Plan; and authorizing execution by the Marina Redevelopment Agency of specified agreements and making required statutory findings and approvals for developing the project within the former Fort Ord Redevelopment Project Area No. 3., and;

WHEREAS, On May 31, 2005, the Marina City Council adopted Resolution No. 2005-127, certifying the final Environmental Impact Report (SCH. No. 2004091167) for the University Villages project in accordance with the California Environmental Quality Act and state and local guidelines, making certain findings and determinations thereto, adopting a statement of overriding considerations, and adopting a mitigation monitoring and reporting program. The project EIR anticipated and analyzed residential uses for these sites. Therefore, the Planning Division of the City of Marina determined that the project impacts were analyzed and properly mitigated in the University Villages EIR and no further mitigation is required; and,

WHEREAS, on March 11, 2021, the Marina Planning Commission conducted a duly noticed public meeting to consider a Tree Removal Permit (TP 2021-01) within the University Villages (Dunes on Monterey Bay) Specific Plan area, considered all public testimony, written and oral, presented at the public meeting, and received and considered the written information and recommendation of the staff report for the March 11, 2021 meeting related to the proposed tree removal.

NOW, THEREFORE BE IT RESOLVED that the Planning Commission of the City of Marina hereby approves Tree Removal Permit TP 2021-01, acknowledging the removal of one (1) Torrey

pine tree, three (3) Monterey cypress trees, three (3) Monterey pine trees, 10 coast live oak, and five (5) eucalyptus trees without a permit in violation of City regulations, to be compensated by the replacement planting of 132 specimen trees, and allowing the removal of two (2) Torrey pine trees, four (4) Monterey cypress trees (*Cupressus macrocarpa*), three (3) Monterey pine trees (*Pinus radiata*), 18 coast live oak trees (*Quercus agrifolia*), and one (1) eucalyptus tree (*Eucalyptus* sp.), to be replaced by 72 specimen trees, for a total of 204 specimen trees, located within Phase 2 East of the University Villages (Dunes on Monterey Bay) Specific Plan area, subject to the following findings and recommended conditions of approval:

Findings

1. Consistency with City Policies and Plans – That, as noted within the staff report for the March 11, 2021 Planning Commission meeting, the proposed trees removal is consistent with the policies within the Marina General Plan (October 31, 2000) and the University Villages (Dunes on Monterey Bay) Specific Plan (May 31, 2005).
2. Tree Removal – that the proximity of the trees to planned streets, residential building pads and other planned infrastructure, conflicts with the approved locations of the construction activities and, therefore, must be removed.

Conditions of Approval

1. Substantial Compliance - The project shall be accomplished in substantial compliance with the terms of the Tree Removal Permit with the details as specified herein.
2. Permits – Prior to the issuance of a building permit for first residential unit for Phase II East or prior approval of improvements plan for Phase II East, whichever occurs first, the applicant shall submit to the Planning Office for review and approval a tree compensation plan that shows tree replacement as follows:
 - a. Except for coast live oak trees, all other existing trees in good or fair condition, which are removed shall be replaced on site at a ratio of two replacement trees for each tree removed (2:1). Such trees that were removed without a tree removal permit shall be replaced on site at a ratio of six replacement trees for each tree removed (6:1). The total number of non-oak replacement trees shall be 60 trees.
 - b. Existing coast live oak trees, all other existing trees in good or fair condition, which are removed shall be replaced on site at a ratio of two replacement trees for each tree removed (3:1). Such trees that were removed without a tree removal permit shall be replaced on site at a ratio of nine replacement trees for each tree removed (9:1). The total number of coast-live oak replacement trees shall be 144 trees.
 - c. The minimum size of tree selection is 15-gallon. For trees that will be planted in areas of special interest, such as focal points and neighborhood entries, the minimum size of tree selection is 24” boxed trees.
3. Pre-construction surveys for active nests shall be conducted by a qualified biologist within 250 feet of proposed construction activities no more than 30 days prior to

construction. If active nests are found and the biologist determines that construction activities would adversely affect the nest or cause nest abandonment, then those activities shall be avoided in these areas until the young have fledged, as determined by the qualified biologist. Once the young have fledged, construction activities may resume in the vicinity and no further mitigation measures shall be required.

4. Prior to the removal of large trees, a qualified biologist shall survey the trees for presence of roosting bats. If special-status bat species are determined to be present, the following measures shall be implemented.
 - a. Tree removal should not occur if maternity bat roosts are present (between April 15 and August 1) in the trees to be removed.
 - b. No tree removal should occur within 300 feet of the maternity roost until all young bats have fledged, as determined by a qualified biologist.
 - c. If special-status bats are present but there is not an active maternity roost, a Memorandum of Understanding (MOU) with the California Department of Fish and Wildlife (CDFW) should be obtained in order to remove the animals prior to tree removal. Alternate habitat may need to be provided if bats are to be excluded from maternity roosts. A roost with comparable spatial and thermal characteristics should be constructed as directed by a qualified biologist. In the event that adult bats need to be handled and relocated, a qualified biologist shall prepare and implement a relocation plan subject to approval by CDFW that includes relocating all bats found on-site to an alternate suitable habitat. A Mitigation and Monitoring Plan that mitigates for loss of bat roosting habitat should be prepared by a qualified biologist and approved by CDFW prior to tree removal.

5. Indemnification - The applicant shall agree as a condition of approval of this project to defend, at its sole expense, indemnify and hold harmless from any liability the City and reimburse the City for any expenses incurred resulting from, or in connection with, the approval of the project, including any appeal, claim, suit or legal proceeding. The City may, at its sole discretion, participate in the defense of any such action, but such participation shall not relieve the applicant of its obligations under this condition.

PASSED AND ADOPTED by the Planning Commission of the City of Marina at a regular meeting duly held on the 11th day of March 2021, by the following vote:

AYES, COMMISSIONERS:
NOES, COMMISSIONERS:
ABSENT, COMMISSIONERS:
ABSTAIN, COMMISSIONERS:

ATTEST:

Chair

Christy Hopper
Planning Services Manager
City of Marina



MEMORANDUM

Date: December 4, 2019

To: Doug Yount, Project Director, Marina Community Partners, LLC

From: Erin Harwayne, AICP, Senior Project Manager, DD&A
Patric Krabacher, ISA Certified Arborist 11759, Assistant Environmental Scientist, DD&A
Liz Camilo, Assistant Environmental Scientist, DD&A

RE: Tree Survey Results for The Dunes on Monterey Bay Project – Phase 2

Denise Duffy & Associates, Inc. (DD&A) is contracted to provide environmental consulting services for The Dunes on Monterey Bay Project – Phase 2 (project). To inform the development of project design plans that preserve as many healthy trees as practicable, DD&A conducted a field inventory of protected trees, as defined by the City of Marina (City) and the University Villages Specific Plan (UVSP), within the project site in October 2019. The tree inventory was conducted in accordance with City Municipal Code Chapter 17.51 (Tree Removal, Preservation, and Protection), the UVSP Existing Tree Removal, Relocation, and Replacement Standards, the project’s Final Environmental Impact Report (FEIR) and Resolution, and the project’s Mitigation Monitoring and Reporting Program (MMRP). A detailed plan defining trees proposed to be removed or retained will follow once project plans are finalized.

METHODS

DD&A biologists, including ISA Certified Arborist Patric Krabacher, conducted tree surveys of the project site on October 4, 9, 10, 11, 14, 16, and 17, 2019. The survey area encompassed the project’s construction limits, and included three separate evaluation areas (**Figure 1**).¹ Protected trees (trees that require a tree removal permit from the City and are defined in the UVSP) were inventoried in accordance with FEIR and MMRP Mitigation Measure BR-2.2, as follows:

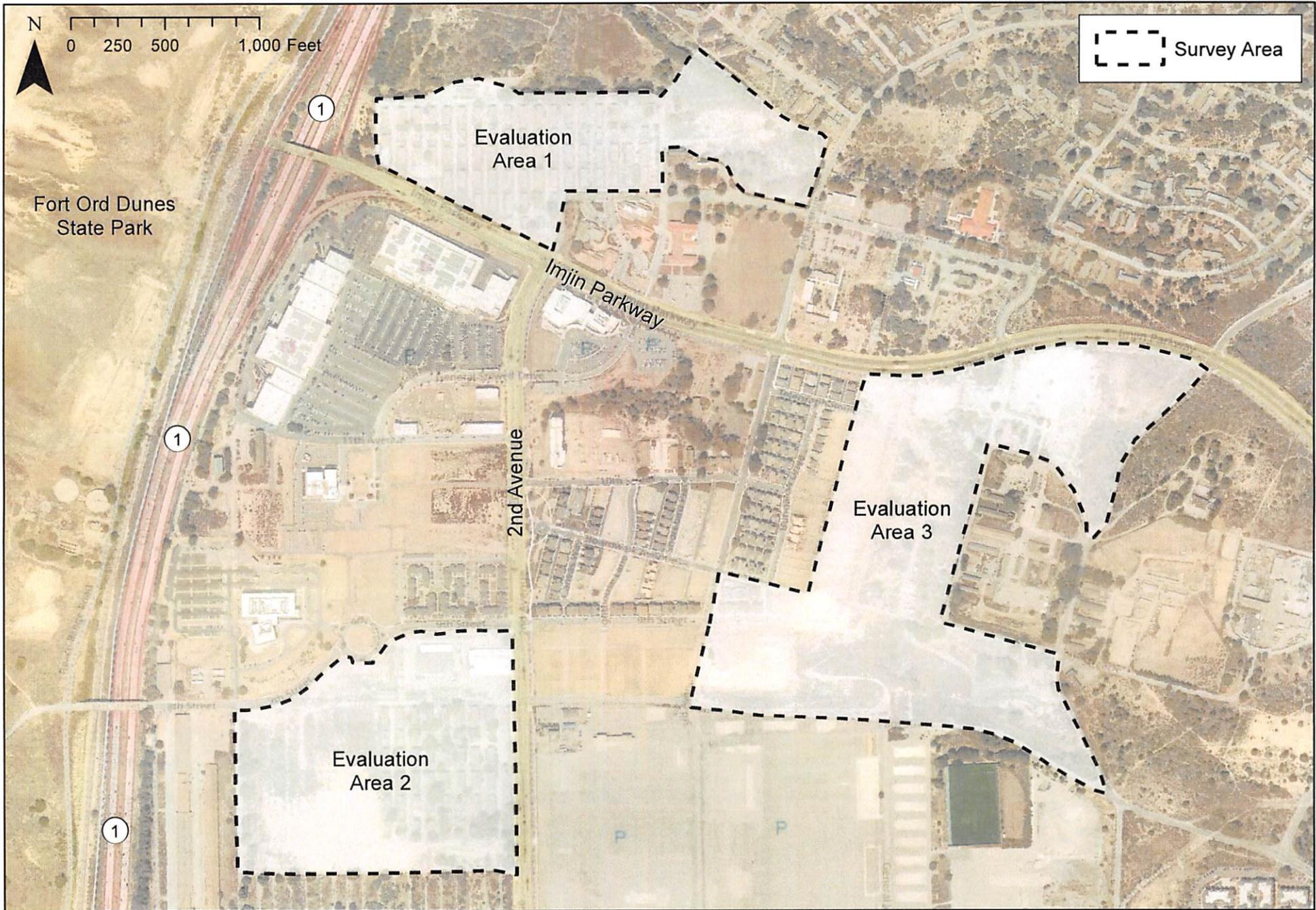
Any tree removal that occurs during the construction phase of the project shall be subject to the conditions in the City of Marina Municipal Code Chapter 12.04 (newer version Chapter 17.51) (Tree Removal and Protection) or the UVSP tree standards and shall be mitigated accordingly.

Regulatory Framework

City of Marina Municipal Code

City of Marina Municipal Code (MMC) Section 17.51.030 requires a tree removal permit to remove, damage, or relocate, or cause to be removed, damaged, or relocated any tree on any property within City limits, unless exempted by MMC Sections 17.51.040 or 17.51.050. MMC Section 17.51.030 also prohibits

¹ Some trees outside the survey area were inventoried because part of their canopy fell within the survey area and could potentially be impacted by construction activities.



Denise Duffy & Associates, Inc.
 Planning and Environmental Consulting

**The Dunes on Monterey Bay Project — Phase 2
 Tree Survey Area**

Date
 11/8/2019
 Scale
 1 in = 700 ft

Figure
1

construction activities within the dripline of any tree, unless these activities are conducted in compliance with tree protection guidelines adopted by resolution of the planning commission.

MMC defines “Tree” as any living woody perennial plant having a single stem of six inches or more diameter at breast height (DBH) or a multi-stemmed plant having an aggregate diameter of ten inches or more measured at DBH, and any living woody perennial plant which was planted in accordance with requirements of an approved compensation plan or was planted as part of a landscaping plan approved by the city. MMC defines “Dripline” as the greater of the outermost edge of the tree’s canopy, or fifteen times DBH measured from the center point of the tree.

UVSP Tree Standards

UVSP Tree Standards call for the preservation of as many healthy Monterey cypress trees and oak trees as practicable. In accordance with the UVSP Tree Standards, Monterey cypress trees and oak trees that are in good or fair condition must be protected during construction and preserved wherever practicable. If relocation is possible, Monterey cypress and oak trees shall be removed by machinery, be immediately replanted at a new site, and be watered and fertilized. Monterey cypress and oak trees in good or fair condition that are removed shall be replaced on-site at a ratio of two replacement trees for every one removed (2:1). UVSP classifies tree health based on the following definitions:

- *Good.* Tree is healthy and vigorous as indicated by color of foliage and density, has no apparent signs of insect, disease, structural defects or mechanical injury. Tree has good form and structure.
- *Fair.* Tree is in average condition and vigor for the area, but may show minor insect, disease, or physiological problems. Trees rated as Fair/Poor may be improved with correctional pruning.
- *Poor.* Tree that is in a general state of decline and may show severe structural or mechanical defects which may lead to failure, may have insect or disease damage, but is not dead.
- *Dead/Snags.* Dead standing trees.

Survey Methods

Trees within the survey area were inventoried in accordance with the following protocol, which was designed to meet the requirements of both MMC Chapter 17.51 and the USVP Tree Standards:

- All trees (including dead snags) 6” DBH or greater were tagged with a GPS location and a numbered aluminum marker (on the most feasible/visible location possible).
- Tree diameter was recorded at breast height (4.5 feet above ground) or (for multi-stemmed trees) at the most representable location.
- Multi-stemmed trees were recorded as one tree if the root crown (the point where the trunk meets natural grade) was contiguous. Multi-stemmed tree DBH was calculated by taking the square root of the squared sum of all stems measured ($\sqrt{\text{Stem 1 DBH}^2 + \text{Stem 2 DBH}^2 + \text{Stem 3 DBH}^2 \dots}$). This equation returns the diameter at the base of the tree (Chojnacky, 1999).
- Species, size, and health class were recorded for each tree.

Tree health was based on the UVSP classification system, and was evaluated by visually inspecting each tree from its root crown to its foliar canopy for signs of decay, disease, or insect infestations, including sudden oak death (SOD), California oakworm, oak branch canker, foamy bark canker, oak ambrosia beetles, oak bark beetles, and *Phytophthora* root and crown rot.

GPS data were collected using a Trimble® TDC600 GPS and were then digitized using Trimble® TerraFlex and ESRI® ArcGIS 10.4. GPS data were collected using geographic coordinate system Universal Transverse Mercator (UTM) Zone 10 North and the World Geodetic System 1984 (WGS84) datum. The Trimble® TDC600 GPS has a GNSS accuracy of 1.5 meters.

RESULTS

Of the 650 trees inventoried within the survey area, approximately 86 percent are in fair condition, eight percent are in poor condition, three percent are in good condition, and three percent are dead snags (**Figure 2a-2c; Appendix A**). Trees in fair condition (most of the inventoried trees) are showing signs of decay, disease, and/or insect infestations, including California oakworm, pitch canker, oak branch canker, foamy bark canker, oak ambrosia beetles, oak bark beetles, and *Phytophthora* root and crown rot. No indicators or symptoms of SOD were observed.

DISCUSSION

Final project design plans must incorporate mitigation measures and regulatory requirements of the FEIR and Resolution, the MMRP, MMC Chapter 17.51, and UVSP Tree Standards, as follows:

- Monterey cypress trees and oak trees that are in good or fair condition must be protected during construction and preserved wherever practicable.
- If relocation is possible, Monterey cypress and oak trees shall be removed by machinery, be immediately replanted at a new site, and be watered and fertilized.
- Monterey cypress and oak trees in good or fair condition that are removed shall be replaced on-site at a ratio of two replacement trees for every one removed.
- A tree removal permit from the City shall be acquired for any tree that is proposed to be removed, damaged, or relocated, unless exempted by MMC Sections 17.51.040 or 17.51.050.
- If construction activities are proposed within the dripline of any tree, best management practices presented in **Appendix B**, should be implemented to the greatest extent feasible.

To finalize the tree removal permit application, the final project design plan should include all trees surveyed with a determination of *remain*, *relocate*, or *remove*.

If you have any comments or questions regarding this report, please contact Patric Krabacher at pkrabacher@ddaplanning.com or (831) 373-4341 ext. 29.

REFERENCES

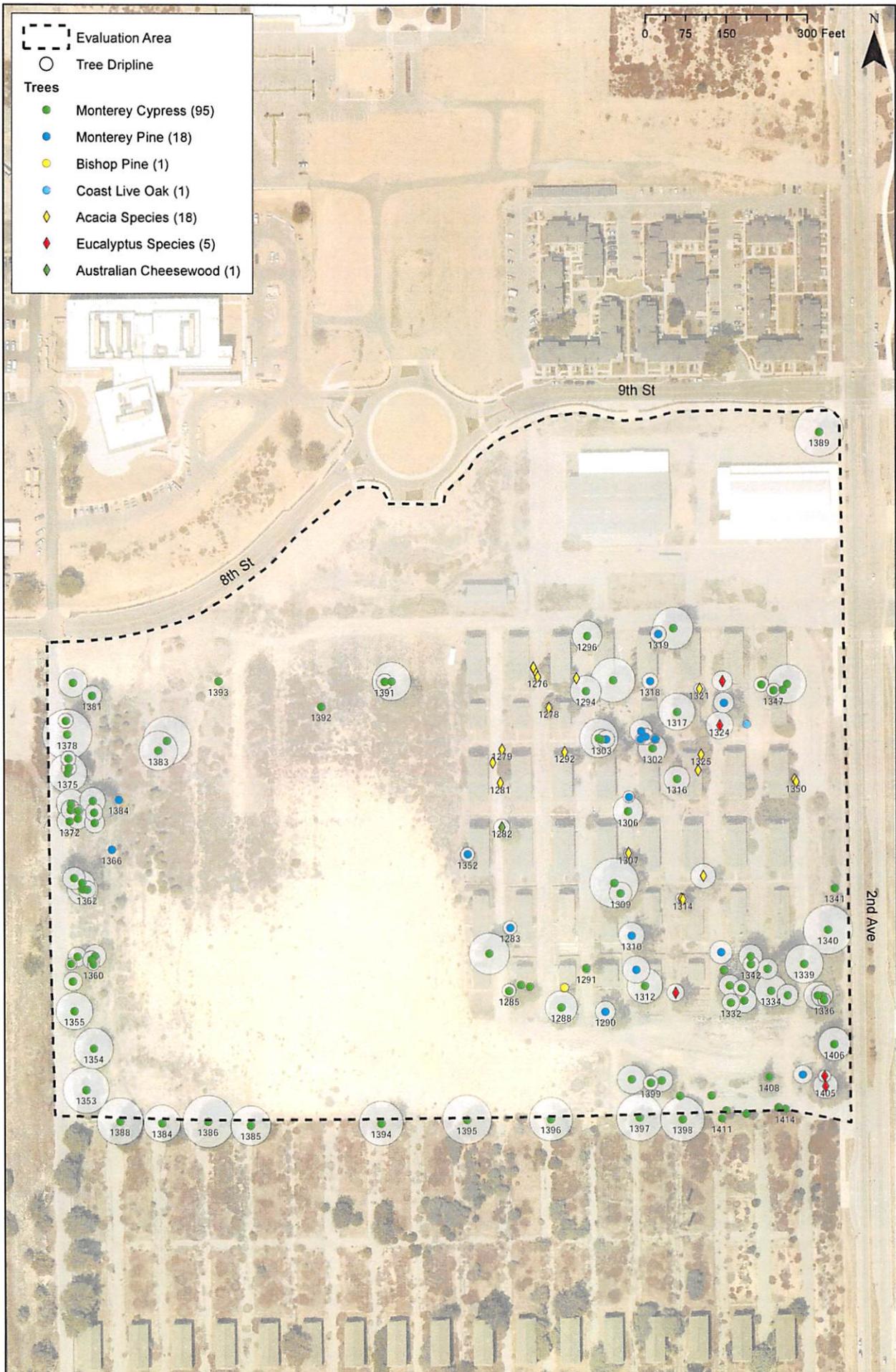
David C. Chojnacky, 1999. Converting Tree Diameter Measured at Root Collar to Diameter at Breast Height.

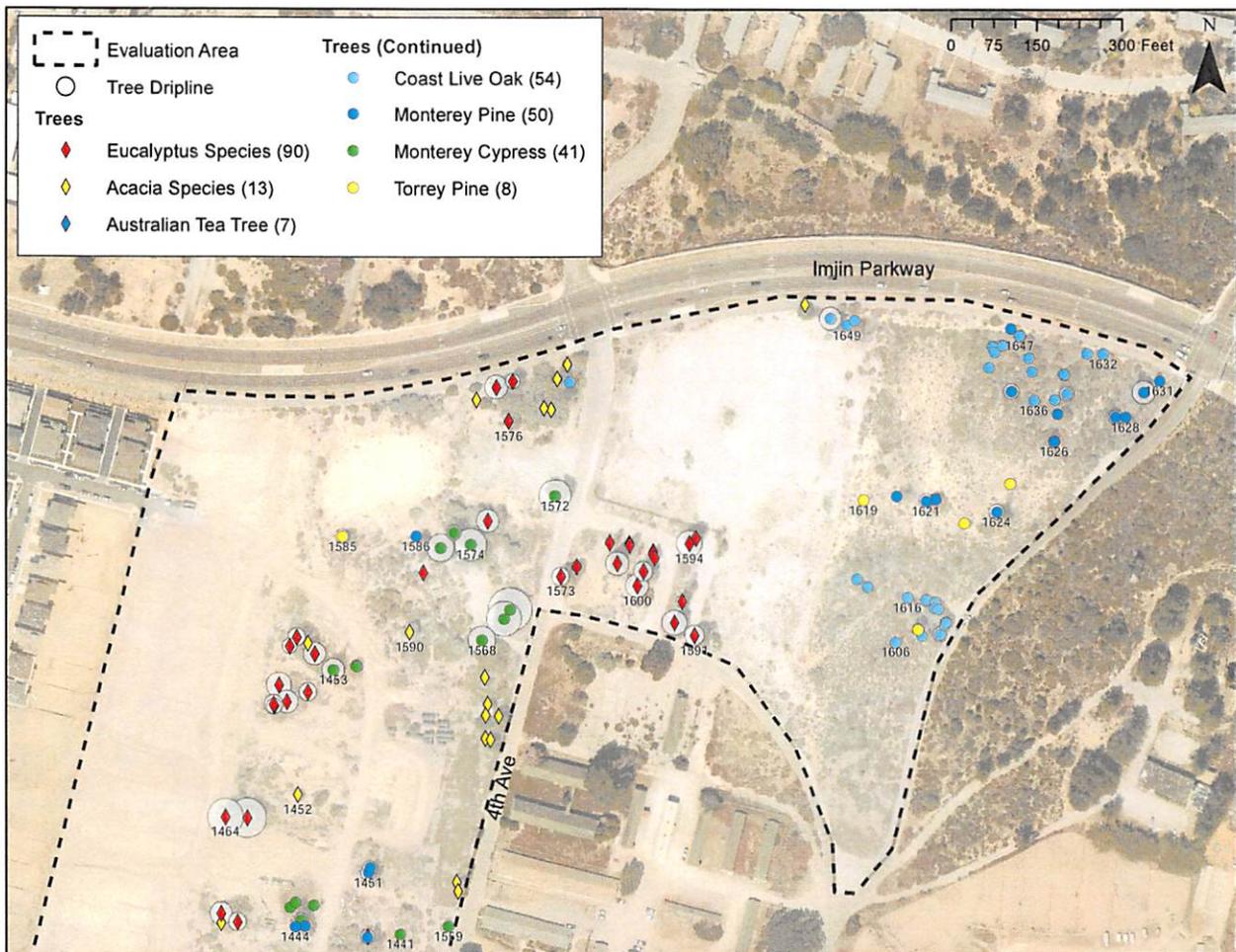


- | | |
|------------------------|---------------------------|
| Evaluation Area | Trees (Continued) |
| Tree Dripline | Eucalyptus Species (90) |
| Trees | Acacia Species (13) |
| Monterey Cypress (128) | Australian Cheesewood (1) |
| Monterey Pine (31) | Glossy Privet (1) |
| Coast Live Oak (11) | Strawberry Tree (1) |
| Torrey Pine (1) | |

- Evaluation Area
 - Tree Dripline
- Trees**
- Monterey Cypress (95)
 - Monterey Pine (18)
 - Bishop Pine (1)
 - Coast Live Oak (1)
 - ◆ Acacia Species (18)
 - ◆ Eucalyptus Species (5)
 - ◆ Australian Cheesewood (1)

0 75 150 300 Feet





APPENDIX A

Tree Table

THE DUNES ON MONTEREY BAY PROJECT, PHASE 2 — EVALUATION AREA 1 TREE INVENTORY

Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)				Total DBH (in)	Dripline (ft)	Health
1001	<i>Eucalyptus sp.</i>	Eucalyptus	9	8			12	8	Fair
1002	<i>Eucalyptus sp.</i>	Eucalyptus	30				30	19	Fair
1003	<i>Eucalyptus sp.</i>	Eucalyptus	12	6			13	8	Fair
1004	<i>Eucalyptus sp.</i>	Eucalyptus	7	8			11	7	Poor
1005	<i>Eucalyptus sp.</i>	Eucalyptus	12	9			15	9	Poor
1006	<i>Eucalyptus sp.</i>	Eucalyptus	25				25	16	Fair
1007	<i>Eucalyptus sp.</i>	Eucalyptus	16				16	10	Fair
1008	<i>Eucalyptus sp.</i>	Eucalyptus	14				14	9	Fair
1009	<i>Eucalyptus sp.</i>	Eucalyptus	40				40	25	Fair
1010	<i>Eucalyptus sp.</i>	Eucalyptus	39				39	24	Fair
1011	<i>Eucalyptus sp.</i>	Eucalyptus	17				17	11	Fair
1012	<i>Eucalyptus sp.</i>	Eucalyptus	25				25	16	Fair
1013	<i>Eucalyptus sp.</i>	Eucalyptus	15				15	9	Fair
1014	<i>Eucalyptus sp.</i>	Eucalyptus	6				6	4	Fair
1015	<i>Eucalyptus sp.</i>	Eucalyptus	38				38	24	Fair
1016	<i>Eucalyptus sp.</i>	Eucalyptus	28				28	18	Fair
1017	<i>Eucalyptus sp.</i>	Eucalyptus	20				20	13	Fair
1018	<i>Eucalyptus sp.</i>	Eucalyptus	36				36	23	Fair
1019	<i>Pinus radiata</i>	Monterey Pine	8				8	5	Fair
1020	<i>Eucalyptus sp.</i>	Eucalyptus	28	6	6	6	30	19	Fair
1021	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6				6	4	Fair
1022	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	12				12	8	Fair
1023	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	23	12	10	6	28	18	Fair
1024	<i>Quercus agrifolia</i>	Coast Live Oak	9	9			13	8	Fair
1025	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6				6	4	Fair
1026	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6	6			8	5	Fair
1027	<i>Quercus agrifolia</i>	Coast Live Oak	6				6	4	Fair
1028	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	8				8	5	Fair
1029	<i>Pinus radiata</i>	Monterey Pine	6				6	4	Fair
1030	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	8	8	6	6	14	9	Fair
1031	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6	6	8	9	9	18	Fair
1032	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6	6	6	6	12	8	Fair
1033	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	13	13	12		22	14	Fair
1034	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6	7	7	10	11	19	Fair
1035	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	10	8			13	8	Fair

THE DUNES ON MONTEREY BAY PROJECT, PHASE 2 — EVALUATION AREA 1 TREE INVENTORY

Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)								Total DBH (in)	Dripline (ft)	Health
1036	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	10	8	9	9	6				19	12	Fair
1037	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	12	10	10	11	13	12	6	8	30	19	Fair
1038	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6	6	12	8	6				18	11	Fair
1039	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	10								10	6	Fair
1040	<i>Pinus radiata</i>	Monterey Pine	10								10	6	Fair
1041	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	13	11	6	6	6				20	12	Fair
1042	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6	8	9						13	8	Fair
1043	<i>Pinus radiata</i>	Monterey Pine	9								9	6	Fair
1044	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	24								24	15	Fair
1045	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	33	10							34	22	Fair
1046	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	24								24	15	Fair
1047	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	21								21	13	Fair
1048	<i>Quercus agrifolia</i>	Coast Live Oak	9	10	6	8					17	10	Fair
1049	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	8	9	7	7					16	10	Fair
1050	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	17								17	11	Fair
1051	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6	13							14	9	Fair
1052	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	20								20	13	Fair
1053	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	20								20	13	Fair
1054	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	18								18	11	Fair
1055	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6	6	8	17	8				22	14	Fair
1056	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	10	6	6	8					15	10	Fair
1057	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	18	15							23	15	Fair
1058	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	20	8							22	13	Fair
1059	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	16								16	10	Fair
1060	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	28								28	18	Fair
1061	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	13	13							18	11	Fair
1062	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	20								20	13	Fair
1063	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	19								19	12	Fair
1064	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	18								18	11	Fair
1065	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	20								20	13	Fair
1066	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	20	10							22	14	Fair
1067	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	20								20	13	Fair
1068	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6								6	4	Fair
1069	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	19								19	12	Fair
1070	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	20								20	13	Fair

THE DUNES ON MONTEREY BAY PROJECT, PHASE 2 — EVALUATION AREA 1 TREE INVENTORY

Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)						Total DBH (in)	Dripline (ft)	Health
1071	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6						6	4	Fair
1072	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	13	9					16	10	Fair
1073	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	12						12	8	Fair
1074	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	16	6					17	11	Fair
1075	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	14	12	6	17	8	6	28	17	Fair
1076	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	23						23	14	Fair
1077	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	11	15					19	12	Fair
1078	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	7						7	4	Fair
1079	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	11						11	7	Fair
1080	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	21						21	13	Fair
1081	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	8	6					10	6	Fair
1082	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	23						23	14	Fair
1083	<i>Pinus radiata</i>	Monterey Pine	21						21	13	Fair
1084	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	10						10	6	Fair
1085	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	18						18	11	Fair
1086	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	16						16	10	Fair
1087	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	21						21	13	Fair
1088	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	13						13	8	Fair
1089	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	17	8	6				20	12	Fair
1090	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	20						20	13	Fair
1091	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	17	6	8				20	12	Fair
1092	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	10	12	13	6			21	13	Fair
1093	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	12	13	6	6			20	12	Fair
1094	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	12	10					16	10	Fair
1095	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	12	6					13	8	Fair
1096	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	20						20	13	Fair
1097	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	8						8	5	Fair
1098	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	14	14					20	12	Fair
1099	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	20						20	13	Fair
1100	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	18						18	11	Fair
1101	<i>Pinus radiata</i>	Monterey Pine	28						28	18	Fair
1101	<i>Pinus radiata</i>	Monterey Pine	30						30	19	Fair
1102	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	32						32	20	Fair
1103	<i>Pinus radiata</i>	Monterey Pine	12	12	12				21	13	Fair
1104	<i>Pinus radiata</i>	Monterey Pine	24						24	15	Fair

THE DUNES ON MONTEREY BAY PROJECT, PHASE 2 — EVALUATION AREA 1 TREE INVENTORY

Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)				Total DBH (in)	Dripline (ft)	Health
1105	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6	4	4		8	5	Fair
1106	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	26				26	16	Fair
1107	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	35				35	22	Fair
1108	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	13	13	11	6	22	14	Fair
1109	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	29				29	18	Fair
1110	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	10				10	6	Fair
1111	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	20				20	13	Fair
1112	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	18				18	11	Fair
1113	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	15	15	15		26	16	Fair
1114	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	8				8	5	Fair
1115	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	14	10	11	14	25	15	Fair
1116	<i>Eucalyptus sp.</i>	Eucalyptus	16				16	10	Fair
1117	<i>Eucalyptus sp.</i>	Eucalyptus	15				15	9	Fair
1118	<i>Eucalyptus sp.</i>	Eucalyptus	11				11	7	Fair
1119	<i>Eucalyptus sp.</i>	Eucalyptus	8				8	5	Fair
1120	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	29				29	18	Fair
1121	<i>Eucalyptus sp.</i>	Eucalyptus	27				27	17	Poor
1122	<i>Eucalyptus sp.</i>	Eucalyptus	20	8	15	15	20	23	Fair
1123	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	12				12	8	Fair
1124	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	17				17	11	Fair
1125	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	12				12	8	Fair
1126	<i>Eucalyptus sp.</i>	Eucalyptus	40				40	25	Fair
1127	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	12	7	12		18	11	Fair
1128	<i>Eucalyptus sp.</i>	Eucalyptus	44	27	44		68	42	Fair
1129	<i>Pinus radiata</i>	Monterey Pine	28				28	18	Poor
1130	<i>Pinus radiata</i>	Monterey Pine	11				11	7	Dead
1131	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	32				32	20	Fair
1132	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	32	20	24	32	55	34	Fair
1133	<i>Pinus radiata</i>	Monterey Pine	15				15	9	Fair
1134	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	40				40	25	Good
1135	<i>Eucalyptus sp.</i>	Eucalyptus	52				52	33	Fair
1136	<i>Eucalyptus sp.</i>	Eucalyptus	12				12	8	Fair
1137	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	30				30	19	Fair
1138	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	31				31	19	Fair
1139	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	34				34	21	Fair

THE DUNES ON MONTEREY BAY PROJECT, PHASE 2 — EVALUATION AREA 1 TREE INVENTORY

Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)			Total DBH (in)	Dripline (ft)	Health
1140	<i>Pinus radiata</i>	Monterey Pine	21			21	13	Fair
1141	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	54	42	40	79	50	Fair
1142	<i>Pinus radiata</i>	Monterey Pine	14			14	9	Fair
1143	<i>Eucalyptus sp.</i>	Eucalyptus	32	20	17	41	26	Fair
1144	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	7			7	4	Fair
1145	<i>Eucalyptus sp.</i>	Eucalyptus	44			44	28	Fair
1146	<i>Eucalyptus sp.</i>	Eucalyptus	38			38	24	Fair
1147	<i>Eucalyptus sp.</i>	Eucalyptus	46			46	29	Fair
1148	<i>Eucalyptus sp.</i>	Eucalyptus	12			12	8	Fair
1149	<i>Eucalyptus sp.</i>	Eucalyptus	19	9		21	13	Fair
1150	<i>Eucalyptus sp.</i>	Eucalyptus	34			34	21	Fair
1151	<i>Eucalyptus sp.</i>	Eucalyptus	34			34	21	Fair
1152	<i>Eucalyptus sp.</i>	Eucalyptus	34			34	21	Fair
1153	<i>Eucalyptus sp.</i>	Eucalyptus	15	14		21	13	Fair
1154	<i>Eucalyptus sp.</i>	Eucalyptus	24	20		31	20	Fair
1155	<i>Eucalyptus sp.</i>	Eucalyptus	33			33	21	Fair
1156	<i>Eucalyptus sp.</i>	Eucalyptus	33	13		35	22	Fair
1157	<i>Eucalyptus sp.</i>	Eucalyptus	32			32	20	Fair
1158	<i>Eucalyptus sp.</i>	Eucalyptus	36			36	23	Fair
1159	<i>Eucalyptus sp.</i>	Eucalyptus	13	13		18	11	Fair
1160	<i>Eucalyptus sp.</i>	Eucalyptus	21			21	13	Fair
1161	<i>Eucalyptus sp.</i>	Eucalyptus	61			61	38	Fair
1162	<i>Eucalyptus sp.</i>	Eucalyptus	10			10	6	Fair
1163	<i>Eucalyptus sp.</i>	Eucalyptus	27			27	17	Fair
1164	<i>Eucalyptus sp.</i>	Eucalyptus	34			34	21	Fair
1165	<i>Eucalyptus sp.</i>	Eucalyptus	19			19	12	Fair
1166	<i>Eucalyptus sp.</i>	Eucalyptus	42			42	26	Fair
1167	<i>Eucalyptus sp.</i>	Eucalyptus	11			11	7	Fair
1168	<i>Eucalyptus sp.</i>	Eucalyptus	41	19		45	28	Fair
1169	<i>Eucalyptus sp.</i>	Eucalyptus	37	13		39	25	Fair
1170	<i>Eucalyptus sp.</i>	Eucalyptus	40			40	25	Fair
1171	<i>Eucalyptus sp.</i>	Eucalyptus	11			11	7	Fair
1172	<i>Eucalyptus sp.</i>	Eucalyptus	40			40	25	Fair
1173	<i>Eucalyptus sp.</i>	Eucalyptus	37			37	23	Fair
1174	<i>Eucalyptus sp.</i>	Eucalyptus	10			10	6	Fair

THE DUNES ON MONTEREY BAY PROJECT, PHASE 2 — EVALUATION AREA 1 TREE INVENTORY

Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)							Total DBH (in)	Dripline (ft)	Health
1175	<i>Eucalyptus sp.</i>	Eucalyptus	20							20	13	Fair
1176	<i>Eucalyptus sp.</i>	Eucalyptus	12	12	12					21	13	Fair
1177	<i>Eucalyptus sp.</i>	Eucalyptus	24	17						29	18	Fair
1178	<i>Eucalyptus sp.</i>	Eucalyptus	19	18						26	16	Fair
1179	<i>Eucalyptus sp.</i>	Eucalyptus	34							34	21	Fair
1180	<i>Eucalyptus sp.</i>	Eucalyptus	21							21	13	Fair
1181	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	21							21	13	Fair
1182	<i>Eucalyptus sp.</i>	Eucalyptus	53							53	33	Fair
1183	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	20							20	13	Fair
1184	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	28	7	6					29	18	Fair
1185	<i>Pinus radiata</i>	Monterey Pine	11							11	7	Fair
1186	<i>Eucalyptus sp.</i>	Eucalyptus	18	18	20	20	15	15		44	27	Fair
1187	<i>Pinus radiata</i>	Monterey Pine	13							13	8	Dead
1188	<i>Pinus radiata</i>	Monterey Pine	22							22	14	Dead
1189	<i>Pinus radiata</i>	Monterey Pine	20	10						22	14	Fair
1190	<i>Pinus radiata</i>	Monterey Pine	7							7	4	Good
1191	<i>Eucalyptus sp.</i>	Eucalyptus	23							23	14	Fair
1192	<i>Ligustrum lucidum</i>	Glossy Privet	7	7						10	6	Fair
1193	<i>Pinus radiata</i>	Monterey Pine	8							8	5	Poor
1194	<i>Pinus radiata</i>	Monterey Pine	18	18						25	16	Dead
1195	<i>Quercus agrifolia</i>	Coast Live Oak	11	11	10					18	12	Fair
1196	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6	8	8	10	10	8	6	22	13	Fair
1197	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	20							20	13	Fair
1198	<i>Quercus agrifolia</i>	Coast Live Oak	13	13	15	13	13	9	13	34	21	Good
1199	<i>Pinus radiata</i>	Monterey Pine	22							22	14	Fair
1200	<i>Quercus agrifolia</i>	Coast Live Oak	7	8	7					13	8	Fair
1201	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	9							9	6	Fair
1202	<i>Eucalyptus sp.</i>	Eucalyptus	23							23	14	Fair
1203	<i>Eucalyptus sp.</i>	Eucalyptus	13	12						18	11	Fair
1204	<i>Eucalyptus sp.</i>	Eucalyptus	18							18	11	Fair
1205	<i>Eucalyptus sp.</i>	Eucalyptus	9	10	11					17	11	Fair
1206	<i>Eucalyptus sp.</i>	Eucalyptus	18	15						23	15	Fair
1207	<i>Eucalyptus sp.</i>	Eucalyptus	11	15						19	12	Fair
1208	<i>Eucalyptus sp.</i>	Eucalyptus	17	9						19	12	Fair
1209	<i>Eucalyptus sp.</i>	Eucalyptus	21							21	13	Fair

THE DUNES ON MONTEREY BAY PROJECT, PHASE 2 — EVALUATION AREA 1 TREE INVENTORY

Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)						Total DBH (in)	Dripline (ft)	Health
1210	<i>Eucalyptus sp.</i>	Eucalyptus	23						23	14	Fair
1211	<i>Eucalyptus sp.</i>	Eucalyptus	9	14					17	10	Fair
1212	<i>Eucalyptus sp.</i>	Eucalyptus	21						21	13	Fair
1213	<i>Eucalyptus sp.</i>	Eucalyptus	15						15	9	Fair
1214	<i>Eucalyptus sp.</i>	Eucalyptus	20						20	13	Fair
1215	<i>Eucalyptus sp.</i>	Eucalyptus	20						20	13	Fair
1216	<i>Eucalyptus sp.</i>	Eucalyptus	50	9					51	32	Fair
1217	<i>Eucalyptus sp.</i>	Eucalyptus	30	6	13				33	21	Fair
1218	<i>Eucalyptus sp.</i>	Eucalyptus	7	9					11	7	Fair
1219	<i>Eucalyptus sp.</i>	Eucalyptus	21						21	13	Fair
1220	<i>Eucalyptus sp.</i>	Eucalyptus	38						38	24	Fair
1221	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	20	12	14				27	17	Fair
1222	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	20						20	13	Good
1223	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	19						19	12	Fair
1224	<i>Quercus agrifolia</i>	Coast Live Oak	8	8	9	9	9		19	12	Good
1225	<i>Quercus agrifolia</i>	Coast Live Oak	9	8	6				13	8	Fair
1226	<i>Quercus agrifolia</i>	Coast Live Oak	7	7	9	8			16	10	Fair
1227	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	20	9	6	8			24	15	Fair
1228	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	17	8	8	6			21	13	Fair
1229	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	16	6	8	10			21	13	Fair
1230	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	12	12	12	10			23	14	Fair
1231	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	7	9					11	7	Fair
1232	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	27						27	17	Fair
1233	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6	7	8	9	9	9	16	16	Fair
1234	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	32						32	20	Fair
1235	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	9	7					11	7	Fair
1236	<i>Eucalyptus sp.</i>	Eucalyptus	20	20	26				38	24	Fair
1237	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	23						23	14	Fair
1238	<i>Pinus radiata</i>	Monterey Pine	6						6	4	Fair
1239	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	7						7	4	Fair
1240	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	8						8	5	Fair
1241	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	20						20	13	Fair
1242	<i>Pinus radiata</i>	Monterey Pine	15						15	9	Fair
1243	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	16						16	10	Fair
1244	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	54	16	16	14			60	38	Fair

THE DUNES ON MONTEREY BAY PROJECT, PHASE 2 — EVALUATION AREA 1 TREE INVENTORY

Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)					Total DBH (in)	Dripline (ft)	Health
1245	<i>Pinus torreyana</i>	Torrey Pine	8					8	5	Fair
1246	<i>Quercus agrifolia</i>	Coast Live Oak	9					9	6	Fair
1247	<i>Pinus radiata</i>	Monterey Pine	10					10	6	Fair
1248	<i>Pinus radiata</i>	Monterey Pine	6					6	4	Dead
1249	<i>Pinus radiata</i>	Monterey Pine	12	9				15	9	Fair
1250	<i>Pinus radiata</i>	Monterey Pine	7					7	4	Dead
1251	<i>Pinus radiata</i>	Monterey Pine	12					12	8	Fair
1252	<i>Quercus agrifolia</i>	Coast Live Oak	14	16	10	8	6	26	16	Fair
1253	<i>Pinus radiata</i>	Monterey Pine	14					14	9	Fair
1254	<i>Pinus radiata</i>	Monterey Pine	6					6	4	Good
1255	<i>Acacia sp.</i>	Acacia	9	8				12	8	Fair
1256	<i>Acacia sp.</i>	Acacia	6					6	4	Fair
1257	<i>Acacia sp.</i>	Acacia	8	11				14	9	Fair
1258	<i>Acacia sp.</i>	Acacia	10					10	6	Fair
1259	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	13					13	8	Fair
1260	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	33					33	21	Fair
1261	<i>Acacia sp.</i>	Acacia	11	6				13	8	Fair
1262	<i>Acacia sp.</i>	Acacia	6					6	4	Fair
1263	<i>Acacia sp.</i>	Acacia	7	13	13			20	12	Fair
1264	<i>Eucalyptus sp.</i>	Eucalyptus	11	10				15	9	Fair
1265	<i>Acacia sp.</i>	Acacia	7					7	4	Fair
1266	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	9					9	6	Poor
1267	<i>Pittosporum undulatum</i>	Australian Cheesewood	10					10	6	Poor
1268	<i>Acacia sp.</i>	Acacia	6					6	4	Fair
1269	<i>Acacia sp.</i>	Acacia	8					8	5	Fair
1270	<i>Arbutus unedo</i>	Strawberry Tree	9	13				16	10	Fair
1271	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	16					16	10	Fair
1272	<i>Acacia sp.</i>	Acacia	7					7	4	Fair
1273	<i>Acacia sp.</i>	Acacia	8					8	5	Fair
1274	<i>Acacia sp.</i>	Acacia	24					24	15	Fair
1415	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	53	44				69	43	Fair
1416	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	34					34	21	Fair

THE DUNES ON MONTEREY BAY PROJECT, PHASE 2 — EVALUATION AREA 2 TREE INVENTORY

Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)				Total DBH (in)	Dripline (ft)	Health
1275	<i>Acacia sp.</i>	Acacia	9				9	6	Fair
1276	<i>Acacia sp.</i>	Acacia	8	6			10	6	Fair
1277	<i>Acacia sp.</i>	Acacia	6				6	4	Fair
1278	<i>Acacia sp.</i>	Acacia	6	6	6	6	12	8	Fair
1279	<i>Acacia sp.</i>	Acacia	9				9	6	Fair
1280	<i>Acacia sp.</i>	Acacia	7				7	4	Fair
1281	<i>Acacia sp.</i>	Acacia	6				6	4	Fair
1282	<i>Pittosporum undulatum</i>	Australian Cheesewood	11	9	12	14	23	15	Fair
1283	<i>Pinus radiata</i>	Monterey Pine	21				21	13	Dead
1284	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	60				60	38	Fair
1285	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	12	10	6	8	20	13	Poor
1286	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	8				8	5	Poor
1287	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6	6	6		10	6	Poor
1288	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	48				48	30	Fair
1289	<i>Pinus muricata</i>	Bishop Pine	15				15	9	Fair
1290	<i>Pinus radiata</i>	Monterey Pine	30				30	19	Fair
1291	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	10	8	6		14	9	Fair
1292	<i>Acacia sp.</i>	Acacia	6	6			8	5	Fair
1293	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	58				58	36	Fair
1294	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	47				47	29	Fair
1295	<i>Acacia sp.</i>	Acacia	7				7	4	Fair
1296	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	45				45	28	Fair
1297	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	66				66	41	Fair
1298	<i>Pinus radiata</i>	Monterey Pine	33				33	21	Fair
1299	<i>Pinus radiata</i>	Monterey Pine	16				16	10	Poor
1300	<i>Pinus radiata</i>	Monterey Pine	24				24	15	Poor
1301	<i>Pinus radiata</i>	Monterey Pine	14				14	9	Dead
1302	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	43				43	27	Fair
1303	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	30				30	19	Fair
1304	<i>Pinus radiata</i>	Monterey Pine	25				25	16	Poor
1305	<i>Pinus radiata</i>	Monterey Pine	18				18	11	Poor
1306	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	45				45	28	Fair
1307	<i>Acacia sp.</i>	Acacia	15				15	9	Fair
1308	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	72				72	45	Fair
1309	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	33				33	21	Fair

THE DUNES ON MONTEREY BAY PROJECT, PHASE 2 — EVALUATION AREA 2 TREE INVENTORY

Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)			Total DBH (in)	Dripline (ft)	Health
1310	<i>Pinus radiata</i>	Monterey Pine	39			39	24	Fair
1311	<i>Pinus radiata</i>	Monterey Pine	40			40	25	Fair
1312	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	52			52	33	Fair
1313	<i>Eucalyptus sp.</i>	Eucalyptus	17	20		26	16	Fair
1314	<i>Acacia sp.</i>	Acacia	15			15	9	Fair
1315	<i>Acacia sp.</i>	Acacia	16			16	10	Fair
1316	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	24	30		38	24	Fair
1317	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	54			54	34	Fair
1318	<i>Pinus radiata</i>	Monterey Pine	24			24	15	Dead
1319	<i>Pinus radiata</i>	Monterey Pine	24			24	15	Poor
1320	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	61			61	38	Fair
1321	<i>Acacia sp.</i>	Acacia	6	11	9	15	10	Fair
1322	<i>Eucalyptus sp.</i>	Eucalyptus	30			30	19	Dead
1323	<i>Pinus radiata</i>	Monterey Pine	31			31	19	Poor
1324	<i>Eucalyptus sp.</i>	Eucalyptus	40			40	25	Poor
1325	<i>Acacia sp.</i>	Acacia	6			6	4	Fair
1326	<i>Acacia sp.</i>	Acacia	6	6		8	5	Fair
1327	<i>Acacia sp.</i>	Acacia	37			37	23	Poor
1328	<i>Pinus radiata</i>	Monterey Pine	33			33	21	Dead
1329	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	12			12	8	Fair
1330	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	32			32	20	Fair
1331	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	24			24	15	Fair
1332	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	26			26	16	Fair
1333	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	36			36	23	Fair
1334	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	48			48	30	Fair
1335	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	32			32	20	Fair
1336	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	19			19	12	Fair
1337	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	30	18	13	40	25	Fair
1338	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	32			32	20	Fair
1339	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	32	40	25	57	36	Fair
1340	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	72			72	45	Fair
1341	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	7			7	4	Poor
1342	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	24			24	15	Fair
1343	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	35			35	22	Fair
1344	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	30			30	19	Fair

THE DUNES ON MONTEREY BAY PROJECT, PHASE 2 — EVALUATION AREA 2 TREE INVENTORY

Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)				Total DBH (in)	Dripline (ft)	Health
1345	<i>Quercus agrifolia</i>	Coast Live Oak	8	8			11	7	Fair
1346	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	22				22	14	Dead
1347	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	10	18			21	13	Fair
1348	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	11				11	7	Fair
1349	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	34	36	28	10	58	36	Fair
1350	<i>Acacia sp.</i>	Acacia	8	6			10	6	Fair
1351	<i>Acacia sp.</i>	Acacia	8	8			11	7	Fair
1352	<i>Pinus radiata</i>	Monterey Pine	20				20	13	Fair
1353	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	69				69	43	Fair
1354	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	59				59	37	Fair
1355	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	54				54	34	Fair
1356	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	25	15			29	18	Fair
1357	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	18				18	11	Fair
1358	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	28				28	18	Fair
1359	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	26				26	16	Fair
1360	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	13	13			18	11	Fair
1361	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	33				33	21	Fair
1362	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	27				27	17	Good
1363	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	46				46	29	Fair
1364	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	36				36	23	Fair
1365	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	33				33	21	Fair
1366	<i>Pinus radiata</i>	Monterey Pine	8				8	5	Good
1367	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	31				31	19	Poor
1368	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	26				26	16	Fair
1369	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	38				38	24	Fair
1370	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	16				16	10	Poor
1371	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	32				32	20	Fair
1372	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	36				36	23	Fair
1373	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	28				28	18	Fair
1374	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	43				43	27	Fair
1375	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	57				57	36	Fair
1376	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	23				23	14	Fair
1377	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	22				22	14	Fair
1378	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	73				73	46	Fair
1379	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	23				23	14	Fair

THE DUNES ON MONTEREY BAY PROJECT, PHASE 2 — EVALUATION AREA 2 TREE INVENTORY

Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)							Total DBH (in)	Dripline (ft)	Health
1380	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	43							43	27	Fair
1381	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	31							31	19	Fair
1382	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	70							70	44	Fair
1383	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	58							58	36	Poor
1384	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	41	36						55	34	Fair
1384	<i>Pinus radiata</i>	Monterey Pine	6							6	4	Good
1385	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	59							59	37	Fair
1386	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	76							76	48	Fair
1388	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	68							68	43	Fair
1389	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	72							72	45	Good
1390	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	24	30	42					57	36	Poor
1391	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	19	14						24	15	Poor
1392	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	7							7	4	Fair
1393	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6							6	4	Fair
1394	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	66							66	41	Fair
1395	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	72							72	45	Fair
1396	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	64							64	40	Fair
1397	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	64	25						69	43	Fair
1398	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	66							66	41	Fair
1399	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	16	16						23	14	Fair
1400	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	31	30						43	27	Fair
1401	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	12	12	11	11	13	15	16	34	21	Fair
1403	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	8							8	5	Fair
1404	<i>Eucalyptus sp.</i>	Eucalyptus	19							19	12	Fair
1405	<i>Eucalyptus sp.</i>	Eucalyptus	35	8	9					37	23	Fair
1406	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	20	9	9	10	6	10	11	18	32	Fair
1407	<i>Pinus radiata</i>	Monterey Pine	28							28	18	Dead
1408	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	16							16	10	Poor
1409	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6							6	4	Good
1410	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	9							9	6	Good
1411	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6	6						8	5	Good
1412	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	8	6	6					12	7	Good
1413	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	12							12	8	Good
1414	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	9							9	6	Good

THE DUNES ON MONTEREY BAY PROJECT, PHASE 2 — EVALUATION AREA 3 TREE INVENTORY

Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)				Total DBH (in)	Dripline (ft)	Health
1417	<i>Quercus agrifolia</i>	Coast Live Oak	6	10	10		15	10	Fair
1418	<i>Pinus radiata</i>	Monterey Pine	6	6			8	5	Fair
1419	<i>Pinus torreyana</i>	Torrey Pine	6				6	4	Fair
1420	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	19				19	12	Fair
1421	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	43				43	27	Fair
1422	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	31				31	19	Fair
1423	<i>Leptospermum laevigatum</i>	Australian Tea Tree	15	15			21	13	Fair
1424	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	75				75	47	Fair
1425	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	33	16			37	23	Good
1426	<i>Leptospermum laevigatum</i>	Australian Tea Tree	8	6	12	10	19	12	Fair
1427	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	17				17	11	Fair
1428	<i>Leptospermum laevigatum</i>	Australian Tea Tree	10	12			16	10	Dead
1429	<i>Leptospermum laevigatum</i>	Australian Tea Tree	6				6	4	Fair
1430	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	32	30	15	15	55	35	Fair
1431	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	21				21	13	Fair
1432	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	33				33	21	Good
1433	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	22				22	14	Fair
1434	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	24				24	15	Fair
1435	<i>Eucalyptus sp.</i>	Eucalyptus	20				20	13	Fair
1436	<i>Eucalyptus sp.</i>	Eucalyptus	17				17	11	Poor
1437	<i>Eucalyptus sp.</i>	Eucalyptus	28				28	18	Fair
1438	<i>Eucalyptus sp.</i>	Eucalyptus	20	11	12	6	26	17	Fair
1439	<i>Eucalyptus sp.</i>	Eucalyptus	26				26	16	Fair
1440	<i>Pinus radiata</i>	Monterey Pine	15				15	9	Fair
1441	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	7				7	4	Fair
1442	<i>Eucalyptus sp.</i>	Eucalyptus	21				21	13	Fair
1443	<i>Pinus radiata</i>	Monterey Pine	6	6			8	5	Fair
1444	<i>Pinus radiata</i>	Monterey Pine	15				15	9	Fair
1445	<i>Pinus radiata</i>	Monterey Pine	14				14	9	Fair
1446	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	10	10	8	8	19	12	Fair
1447	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6				6	4	Fair
1448	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6	13			14	9	Fair
1449	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	8				8	5	Fair
1450	<i>Pinus radiata</i>	Monterey Pine	21				21	13	Poor
1450	<i>Quercus agrifolia</i>	Coast Live Oak	6	6			8	5	Fair

THE DUNES ON MONTEREY BAY PROJECT, PHASE 2 — EVALUATION AREA 3 TREE INVENTORY

Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)						Total DBH (in)	Dripline (ft)	Health
1451	<i>Pinus radiata</i>	Monterey Pine	23						23	14	Fair
1452	<i>Acacia sp.</i>	Acacia	6						6	4	Fair
1453	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	32						32	20	Fair
1454	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	16						16	10	Fair
1455	<i>Eucalyptus sp.</i>	Eucalyptus	20	20	10	11			32	20	Fair
1456	<i>Acacia sp.</i>	Acacia	8						8	5	Fair
1457	<i>Eucalyptus sp.</i>	Eucalyptus	16	16	11				25	16	Fair
1458	<i>Eucalyptus sp.</i>	Eucalyptus	6	8	8	17			21	13	Fair
1459	<i>Eucalyptus sp.</i>	Eucalyptus	30	18					35	22	Poor
1460	<i>Eucalyptus sp.</i>	Eucalyptus	22	16					27	17	Fair
1461	<i>Eucalyptus sp.</i>	Eucalyptus	22						22	14	Fair
1462	<i>Eucalyptus sp.</i>	Eucalyptus	32						32	20	Poor
1463	<i>Eucalyptus sp.</i>	Eucalyptus	25						25	16	Dead
1464	<i>Eucalyptus sp.</i>	Eucalyptus	32	32	23				51	32	Fair
1465	<i>Eucalyptus sp.</i>	Eucalyptus	25	25	16	24	8	30	55	34	Fair
1466	<i>Eucalyptus sp.</i>	Eucalyptus	25						25	16	Fair
1467	<i>Eucalyptus sp.</i>	Eucalyptus	32						32	20	Fair
1468	<i>Acacia sp.</i>	Acacia	6	8	7				12	8	Fair
1469	<i>Eucalyptus sp.</i>	Eucalyptus	18	14	14	10	12	6	6	20	Fair
1470	<i>Eucalyptus sp.</i>	Eucalyptus	30						30	19	Poor
1471	<i>Eucalyptus sp.</i>	Eucalyptus	26	24	14	11			40	25	Fair
1472	<i>Pinus torreyana</i>	Torrey Pine	20						20	13	Fair
1473	<i>Quercus agrifolia</i>	Coast Live Oak	7	6					9	6	Poor
1474	<i>Leptospermum laevigatum</i>	Australian Tea Tree	6						6	4	Fair
1475	<i>Quercus agrifolia</i>	Coast Live Oak	6						6	4	Fair
1476	<i>Quercus agrifolia</i>	Coast Live Oak	8	8	8	8	6	7	18	12	Fair
1477	<i>Quercus agrifolia</i>	Coast Live Oak	9	11					14	9	Fair
1478	<i>Quercus agrifolia</i>	Coast Live Oak	6						6	4	Fair
1479	<i>Pinus radiata</i>	Monterey Pine	15						15	9	Fair
1481	<i>Quercus agrifolia</i>	Coast Live Oak	8	8	7				13	8	Fair
1482	<i>Quercus agrifolia</i>	Coast Live Oak	6	6					8	5	Fair
1483	<i>Quercus agrifolia</i>	Coast Live Oak	16	7					17	11	Fair
1484	<i>Quercus agrifolia</i>	Coast Live Oak	10	7					12	8	Fair
1485	<i>Quercus agrifolia</i>	Coast Live Oak	6						6	4	Fair
1486	<i>Pinus radiata</i>	Monterey Pine	19	10					21	13	Poor

THE DUNES ON MONTEREY BAY PROJECT, PHASE 2 — EVALUATION AREA 3 TREE INVENTORY

Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)							Total DBH (in)	Dripline (ft)	Health	
1487	<i>Pinus radiata</i>	Monterey Pine	11							11	7	Poor	
1488	<i>Quercus agrifolia</i>	Coast Live Oak	6							6	4	Fair	
1489	<i>Eucalyptus sp.</i>	Eucalyptus	7	7						10	6	Fair	
1490	<i>Quercus agrifolia</i>	Coast Live Oak	8	7	7	6				14	9	Poor	
1491	<i>Eucalyptus sp.</i>	Eucalyptus	20							20	13	Fair	
1492	<i>Pinus radiata</i>	Monterey Pine	16	7						17	11	Fair	
1493	<i>Quercus agrifolia</i>	Coast Live Oak	6	6						8	5	Fair	
1494	<i>Pinus radiata</i>	Monterey Pine	12							12	8	Fair	
1495	<i>Pinus radiata</i>	Monterey Pine	30	25						39	24	Fair	
1496	<i>Pinus radiata</i>	Monterey Pine	12							12	8	Fair	
1497	<i>Pinus radiata</i>	Monterey Pine	7							7	4	Fair	
1498	<i>Quercus agrifolia</i>	Coast Live Oak	12	9						15	9	Fair	
1499	<i>Quercus agrifolia</i>	Coast Live Oak	6							6	4	Fair	
1500	<i>Pinus torreyana</i>	Torrey Pine	6							6	4	Fair	
1501	<i>Quercus agrifolia</i>	Coast Live Oak	6							6	4	Fair	
1502	<i>Pinus radiata</i>	Monterey Pine	6							6	4	Fair	
1503	<i>Pinus radiata</i>	Monterey Pine	11							11	7	Fair	
1504	<i>Quercus agrifolia</i>	Coast Live Oak	8	6	9	10	6	6	8	6	21	13	Fair
1505	<i>Eucalyptus sp.</i>	Eucalyptus	16							16	10	Fair	
1506	<i>Eucalyptus sp.</i>	Eucalyptus	11	7	8	12				19	12	Fair	
1507	<i>Eucalyptus sp.</i>	Eucalyptus	27							27	17	Fair	
1508	<i>Eucalyptus sp.</i>	Eucalyptus	24	10						26	16	Fair	
1509	<i>Quercus agrifolia</i>	Coast Live Oak	6	6	8					12	7	Fair	
1510	<i>Eucalyptus sp.</i>	Eucalyptus	8	6						10	6	Fair	
1511	<i>Quercus agrifolia</i>	Coast Live Oak	8	6						10	6	Fair	
1512	<i>Quercus agrifolia</i>	Coast Live Oak	6							6	4	Fair	
1513	<i>Quercus agrifolia</i>	Coast Live Oak	12							12	8	Fair	
1514	<i>Leptospermum laevigatum</i>	Australian Tea Tree	8	10	10					16	10	Fair	
1514	<i>Pinus radiata</i>	Monterey Pine	12							12	8	Dead	
1515	<i>Leptospermum laevigatum</i>	Australian Tea Tree	9							9	6	Fair	
1516	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	76							76	48	Fair	
1517	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	17	7	7					20	12	Fair	
1518	<i>Pinus radiata</i>	Monterey Pine	12							12	8	Fair	
1519	<i>Pinus radiata</i>	Monterey Pine	6							6	4	Fair	
1520	<i>Pinus radiata</i>	Monterey Pine	7							7	4	Poor	

THE DUNES ON MONTEREY BAY PROJECT, PHASE 2 — EVALUATION AREA 3 TREE INVENTORY

Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)		Total DBH (in)	Dripline (ft)	Health
1521	<i>Pinus radiata</i>	Monterey Pine	9		9	6	Poor
1522	<i>Pinus radiata</i>	Monterey Pine	18		18	11	Poor
1523	<i>Pinus radiata</i>	Monterey Pine	13		13	8	Fair
1524	<i>Pinus radiata</i>	Monterey Pine	7		7	4	Fair
1525	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	23		23	14	Fair
1526	<i>Pinus radiata</i>	Monterey Pine	10		10	6	Fair
1527	<i>Pinus radiata</i>	Monterey Pine	9		9	6	Fair
1528	<i>Pinus radiata</i>	Monterey Pine	17		17	11	Fair
1529	<i>Eucalyptus sp.</i>	Eucalyptus	6		6	4	Fair
1530	<i>Eucalyptus sp.</i>	Eucalyptus	15	10	18	11	Fair
1531	<i>Eucalyptus sp.</i>	Eucalyptus	29		29	18	Fair
1532	<i>Pinus radiata</i>	Monterey Pine	25		25	16	Poor
1533	<i>Eucalyptus sp.</i>	Eucalyptus	11	10	15	9	Fair
1534	<i>Eucalyptus sp.</i>	Eucalyptus	14		14	9	Fair
1535	<i>Quercus agrifolia</i>	Coast Live Oak	6	6	8	5	Fair
1536	<i>Pinus radiata</i>	Monterey Pine	24		24	15	Dead
1537	<i>Pinus radiata</i>	Monterey Pine	21		21	13	Poor
1538	<i>Pinus radiata</i>	Monterey Pine	19		19	12	Poor
1539	<i>Pinus radiata</i>	Monterey Pine	24		24	15	Poor
1540	<i>Pinus radiata</i>	Monterey Pine	24		24	15	Dead
1542	<i>Pinus radiata</i>	Monterey Pine	14		14	9	Fair
1543	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	64		64	40	Fair
1544	<i>Pinus radiata</i>	Monterey Pine	14		14	9	Fair
1545	<i>Pinus radiata</i>	Monterey Pine	6	9	11	7	Fair
1546	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	77		77	48	Good
1547	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	55		55	34	Good
1548	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	33		33	21	Fair
1549	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	35		35	22	Good
1550	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	48		48	30	Fair
1551	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	45		45	28	Fair
1552	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	30		30	19	Fair
1553	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	30		30	19	Fair
1554	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	50		50	31	Good
1555	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	40		40	25	Fair
1556	<i>Quercus agrifolia</i>	Coast Live Oak	10		10	6	Fair

THE DUNES ON MONTEREY BAY PROJECT, PHASE 2 — EVALUATION AREA 3 TREE INVENTORY

Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)							Total DBH (in)	Dripline (ft)	Health
1557	<i>Acacia sp.</i>	Acacia	7	6						9	6	Fair
1558	<i>Acacia sp.</i>	Acacia	6							6	4	Fair
1559	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6	6	7					11	7	Fair
1560	<i>Acacia sp.</i>	Acacia	6							6	4	Fair
1561	<i>Acacia sp.</i>	Acacia	7	6	6					11	7	Fair
1562	<i>Acacia sp.</i>	Acacia	8							8	5	Fair
1563	<i>Acacia sp.</i>	Acacia	8	8						11	7	Fair
1564	<i>Acacia sp.</i>	Acacia	7	6	7					12	7	Fair
1565	<i>Acacia sp.</i>	Acacia	6							6	4	Fair
1566	<i>Acacia sp.</i>	Acacia	9							9	6	Fair
1567	<i>Acacia sp.</i>	Acacia	8							8	5	Fair
1568	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	39							39	24	Poor
1569	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	50							50	31	Fair
1570	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	62							62	39	Fair
1571	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	10	7						12	8	Fair
1572	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	44							44	28	Fair
1573	<i>Eucalyptus sp.</i>	Eucalyptus	13	11	19					26	16	Fair
1574	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	44							44	28	Fair
1575	<i>Eucalyptus sp.</i>	Eucalyptus	32	6						33	20	Fair
1576	<i>Eucalyptus sp.</i>	Eucalyptus	8	7	6					12	8	Fair
1577	<i>Acacia sp.</i>	Acacia	7							7	4	Fair
1578	<i>Acacia sp.</i>	Acacia	7							7	4	Fair
1579	<i>Quercus agrifolia</i>	Coast Live Oak	12							12	8	Fair
1580	<i>Acacia sp.</i>	Acacia	9	11						14	9	Fair
1581	<i>Acacia sp.</i>	Acacia	13							13	8	Fair
1582	<i>Eucalyptus sp.</i>	Eucalyptus	20							20	13	Poor
1583	<i>Eucalyptus sp.</i>	Eucalyptus	33							33	21	Poor
1584	<i>Acacia sp.</i>	Acacia	6	6						8	5	Fair
1585	<i>Pinus torreyana</i>	Torrey Pine	21							21	13	Fair
1586	<i>Pinus radiata</i>	Monterey Pine	15							15	9	Poor
1587	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	21							21	13	Fair
1588	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	39							39	24	Fair
1589	<i>Eucalyptus sp.</i>	Eucalyptus	7							7	4	Fair
1590	<i>Acacia sp.</i>	Acacia	10							10	6	Fair
1591	<i>Eucalyptus sp.</i>	Eucalyptus	8	10	10	10	11	12	10	7	7	Fair

THE DUNES ON MONTEREY BAY PROJECT, PHASE 2 — EVALUATION AREA 3 TREE INVENTORY

Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)														Total DBH (in)	Dripline (ft)	Health	
1592	<i>Eucalyptus sp.</i>	Eucalyptus	11	11	10	6	6	13	12	6	10	6	10	9	7	12	8	37	23	Fair
1593	<i>Eucalyptus sp.</i>	Eucalyptus	17														17	11	Fair	
1594	<i>Eucalyptus sp.</i>	Eucalyptus	13	15	15	13	12	9	17	8							37	23	Fair	
1595	<i>Eucalyptus sp.</i>	Eucalyptus	13														13	8	Fair	
1596	<i>Eucalyptus sp.</i>	Eucalyptus	6														6	4	Fair	
1597	<i>Eucalyptus sp.</i>	Eucalyptus	8														8	5	Fair	
1598	<i>Eucalyptus sp.</i>	Eucalyptus	9														9	6	Fair	
1599	<i>Eucalyptus sp.</i>	Eucalyptus	13	10	8	11	10	11	9								27	17	Fair	
1600	<i>Eucalyptus sp.</i>	Eucalyptus	33														33	21	Fair	
1601	<i>Eucalyptus sp.</i>	Eucalyptus	16	13	13	8	6	15	11	9							33	21	Fair	
1602	<i>Eucalyptus sp.</i>	Eucalyptus	9														9	6	Fair	
1603	<i>Eucalyptus sp.</i>	Eucalyptus	9	9													13	8	Fair	
1604	<i>Eucalyptus sp.</i>	Eucalyptus	6	12													13	8	Fair	
1605	<i>Eucalyptus sp.</i>	Eucalyptus	9	9	8												15	9	Fair	
1606	<i>Quercus agrifolia</i>	Coast Live Oak	6	6													8	5	Fair	
1607	<i>Pinus torreyana</i>	Torrey Pine	16														16	10	Fair	
1608	<i>Quercus agrifolia</i>	Coast Live Oak	9	6													11	7	Fair	
1609	<i>Quercus agrifolia</i>	Coast Live Oak	13	10	6	8	6										20	13	Fair	
1610	<i>Quercus agrifolia</i>	Coast Live Oak	16														16	10	Fair	
1611	<i>Quercus agrifolia</i>	Coast Live Oak	7														7	4	Fair	
1612	<i>Quercus agrifolia</i>	Coast Live Oak	8	6													10	6	Fair	
1613	<i>Quercus agrifolia</i>	Coast Live Oak	7	7													10	6	Poor	
1614	<i>Quercus agrifolia</i>	Coast Live Oak	6														6	4	Fair	
1614	<i>Quercus agrifolia</i>	Coast Live Oak	8	7	7												13	8	Fair	
1615	<i>Quercus agrifolia</i>	Coast Live Oak	13	10	6												17	11	Fair	
1616	<i>Quercus agrifolia</i>	Coast Live Oak	9	7													11	7	Fair	
1617	<i>Quercus agrifolia</i>	Coast Live Oak	7	6													9	6	Fair	
1618	<i>Quercus agrifolia</i>	Coast Live Oak	6	6	8												12	7	Fair	
1619	<i>Pinus torreyana</i>	Torrey Pine	7														7	4	Fair	
1620	<i>Pinus radiata</i>	Monterey Pine	10	9													13	8	Dead	
1621	<i>Pinus radiata</i>	Monterey Pine	20														20	13	Poor	
1622	<i>Pinus radiata</i>	Monterey Pine	10	9	9												16	10	Poor	
1623	<i>Pinus torreyana</i>	Torrey Pine	6														6	4	Fair	
1624	<i>Pinus radiata</i>	Monterey Pine	22	6													23	14	Fair	
1625	<i>Pinus torreyana</i>	Torrey Pine	6														6	4	Fair	

THE DUNES ON MONTEREY BAY PROJECT, PHASE 2 — EVALUATION AREA 3 TREE INVENTORY

Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)					Total DBH (in)	Dripline (ft)	Health
1626	<i>Pinus radiata</i>	Monterey Pine	16					16	10	Fair
1627	<i>Pinus radiata</i>	Monterey Pine	11	7				13	8	Fair
1628	<i>Pinus radiata</i>	Monterey Pine	8					8	5	Fair
1629	<i>Pinus radiata</i>	Monterey Pine	19					19	12	Poor
1630	<i>Pinus radiata</i>	Monterey Pine	33	9				34	21	Poor
1631	<i>Pinus radiata</i>	Monterey Pine	7					7	4	Poor
1632	<i>Quercus agrifolia</i>	Coast Live Oak	7	6				9	6	Fair
1633	<i>Quercus agrifolia</i>	Coast Live Oak	7					7	4	Fair
1634	<i>Quercus agrifolia</i>	Coast Live Oak	13	11	7	6	8	21	13	Fair
1635	<i>Quercus agrifolia</i>	Coast Live Oak	12					12	8	Fair
1636	<i>Quercus agrifolia</i>	Coast Live Oak	6					6	4	Fair
1637	<i>Quercus agrifolia</i>	Coast Live Oak	12	6	10			17	10	Fair
1638	<i>Quercus agrifolia</i>	Coast Live Oak	6	6				8	5	Fair
1639	<i>Pinus radiata</i>	Monterey Pine	23					23	14	Poor
1640	<i>Quercus agrifolia</i>	Coast Live Oak	10	9				13	8	Fair
1643	<i>Quercus agrifolia</i>	Coast Live Oak	12	10				16	10	Fair
1644	<i>Quercus agrifolia</i>	Coast Live Oak	6	6				8	5	Fair
1645	<i>Quercus agrifolia</i>	Coast Live Oak	10	12				16	10	Fair
1646	<i>Pinus radiata</i>	Monterey Pine	7					7	4	Fair
1647	<i>Quercus agrifolia</i>	Coast Live Oak	11	11	9			18	11	Fair
1648	<i>Quercus agrifolia</i>	Coast Live Oak	8	7	6			12	8	Fair
1649	<i>Quercus agrifolia</i>	Coast Live Oak	7					7	4	Fair
1650	<i>Quercus agrifolia</i>	Coast Live Oak	13	22	20			32	20	Poor
1651	<i>Acacia sp.</i>	Acacia	6	6	6			10	6	Fair

APPENDIX B

Recommended Best Management Practices

Tree Protection

Prior to the commencement of construction activities:

- Trees located adjacent to the construction area shall be protected from damage by construction equipment by the use of temporary fencing in combination with wrapping of trunks with protective materials wherever there may be construction present.
- Fencing shall consist of chain link, heavy duty snowdrift or plastic mesh, hay bales, or field fence. Portions of existing fencing may also be used.
- Fencing is not to be attached to the tree but free standing and self-supporting so as not to damage trees. Fencing shall be rigidly supported both vertically and horizontally and shall stand a minimum of height of six feet above grade.
- Soil compaction, parking of vehicles or heavy equipment, stockpiling of construction materials, and/or dumping of materials is not to be allowed adjacent to trees on the property especially within fenced areas.
- Fenced areas and the trunk protection materials shall remain in place during the entire construction period.

During grading and excavation activities:

- Trenching located adjacent to any tree should be done by hand where practical and any roots greater than 1.5 –inches diameter should be bridged or pruned appropriately.
- Any roots that must be cut should be cut by manually digging a trench and cutting exposed roots with a saw, vibrating knife, rock saw, narrow trencher with sharp blades, or other approved root pruning equipment.
- Any roots damaged during grading or excavation should be exposed to sound tissue and cut cleanly with a saw.

The following are offered as guidelines when pruning;

- In general trees will be assessed then pruned first for safety, next for health, and finally for aesthetics. No more than 25% of the tree overall crown will be pruned in one season.
- Type of pruning is determined by the size of branches to be removed. General guidelines for branch removal are:
 1. Fine Detail pruning–limbs under two (2) inch diameter are removed.
 2. Medium Detail Pruning–Limbs between two (2) and four (4) inch diameter.
 3. Structural Enhancement–limbs greater than four (4) inch diameter.
 4. Broken and cracked limbs–removed will be removed in high traffic areas of concern.

Crown thinning is the cleaning out of or removal of dead diseased, weakly attached, or low vigor branches from a tree crown and consist of the following steps:

- All trees will be pre-assessed on how the tree will be pruned from the top down.
- Tree trimmers will favor branches with strong, U-shaped angles of attachment and where possible remove branches with weak, V-shaped angles of attachment and/or included bark.
- Lateral branches will be evenly spaced on the main stem of young trees and areas of fine pruning.
- Branches that rub or cross another branch will be removed where possible.
- Lateral branches will be no more than one-half to three-quarters of the diameter of the stem to discourage the development of co-dominant stems where feasible.

ATTACHMENT 3



DENISE DUFFY & ASSOCIATES, INC.
PLANNING AND ENVIRONMENTAL CONSULTING

MEMORANDUM

DATE: March 19, 2020

TO: Doug Yount, Project Director
Shea Homes

FROM: Patric Krabacher, ISA Certified Arborist 11759, Environmental Scientist
Denise Duffy & Associates, Inc.

RE: Tree Removal Application for The Dunes on Monterey Bay Project – Phase 2
University Villages East

Denise Duffy & Associates, Inc. (DD&A) is contracted by Shea Homes (SH) to provide environmental consulting services for the Dunes on Monterey Bay Project – Phase 2 (project), located within the City of Marina (City) in Monterey County, California. To inform development of project design plans, DD&A conducted a field inventory of protected trees within the project site (consisting of three separate evaluation areas [Figure 1]) in October 2019. The tree inventory was conducted in accordance with Section 5.9. Existing Tree Removal, Relocation, and Replacement Standards (Tree Standards) of the City-approved University Villages Specific Plan (UVSP; approved on May 31, 2005), the project’s Final Environmental Impact Report (FEIR) and Resolution, the project’s Mitigation Monitoring and Reporting Program (MMRP), and 2005 Marina Municipal Code (MMC) Chapter 12.04 (Tree Removal, Preservation, and Protection)¹ per MMRP Impact BR-2.2. The methods and results of the field inventory are detailed in the *Tree Survey Results for the Dunes on Monterey Bay Project – Phase 2* (DD&A, 2019), hereafter the “Arborist Report.”

Based on the results of the Arborist Report and current design plans (**Appendix A**) for Evaluation Area 3, or “University Villages East,” 168² of the 234 trees in Evaluation Area 3 are proposed for removal (**Figure 2; Appendix B**). In accordance with the 2005 MMC Chapter 12.04, a tree removal permit from the City is required to remove, damage, or relocate trees within City limits. This report also includes the required components of a tree removal permit application, including a statement on the reason for the requested action, the species, size, health, physical identification tag number, and location (including root zone dripline and canopy) of each tree proposed for removal (**Figure 2, Appendix B**), and photographs of each tree proposed for removal (**Appendix C**).

LIMITATIONS

At the direction of SH, this assessment is based exclusively on the UVSP Tree Standards. It is not the intent of this report to provide a monetary valuation of the trees or provide risk assessment for any tree on this parcel, as any tree can fail at any time. No clinical diagnosis was performed on any pest or pathogen that may or may not be present within the site.

¹ To remain in compliance with the approved MMRP and FEIR, the 2005 MMC 12.04 was used instead of the current MMC 17.51.

² Please note that 14 additional acacia trees (*Acacia* spp.) were mapped in Evaluation Area 3 (Figure 2). However, UVSP Development Regulations, Page 118 acacia species were not recorded in the tree table (Appendix B) or in this report.

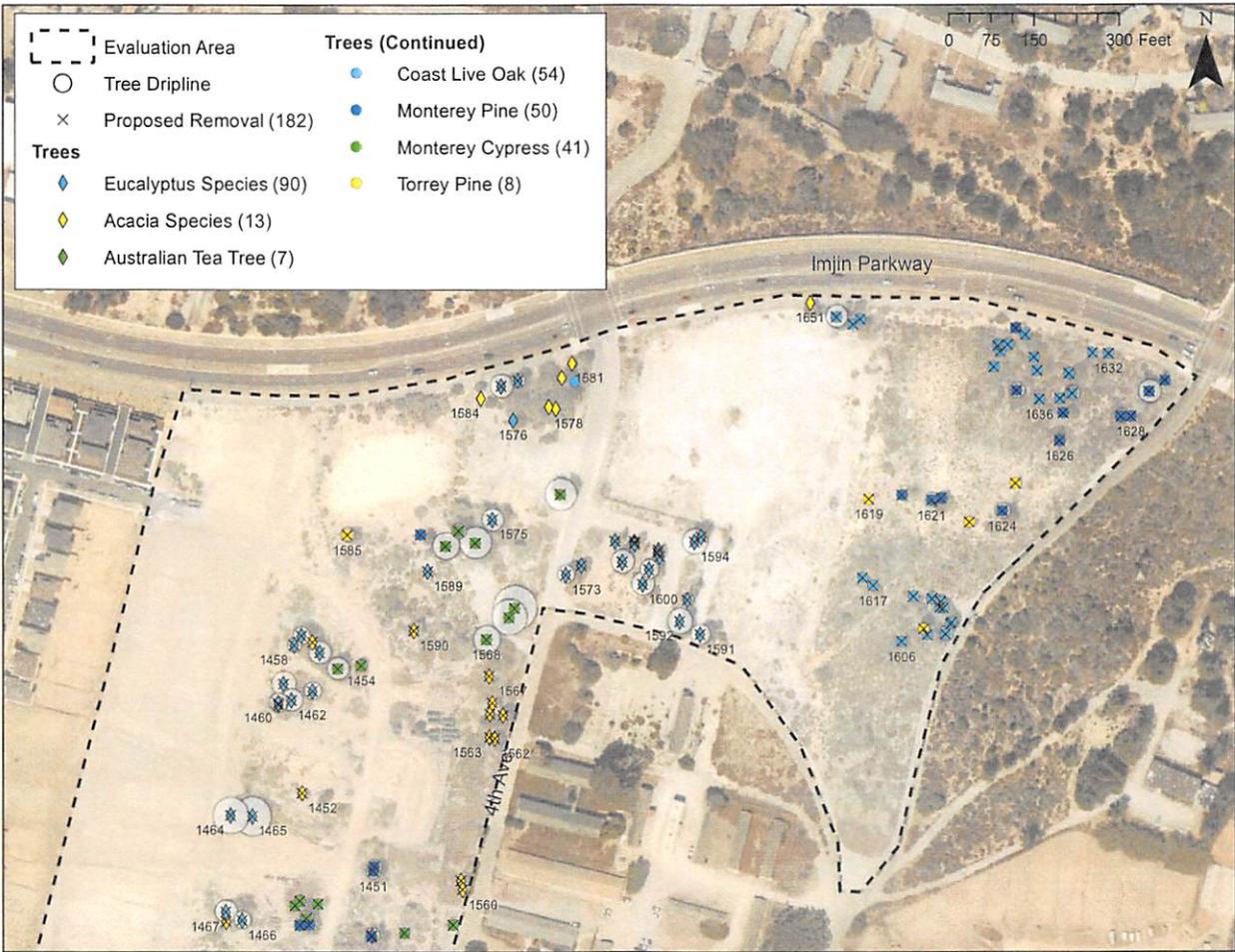


Denise Duffy & Associates, Inc.
 Planning and Environmental Consulting

The Dunes on Monterey Bay Project — Phase 2 Project Location Map

Date
 3/17/2020
 Scale
 1 in = 700 ft

Figure
1



In addition to an inspection of the property, DD&A relied on information provided by SH (such as survey data, property boundaries, and property ownership information) to prepare this report, and must reasonably rely on the accuracy of the information provided. DD&A shall not be responsible for another's means, methods, techniques, schedules, or procedures, or for contractor safety or any other related programs, or for another's failure to complete the work in accordance with approved plans and specifications.

TREES PROPOSED FOR REMOVAL

As a result of project activities, 168 trees are proposed for removal in Evaluation Area 3 (**Figure 2; Appendix B**). These include:

- 41 Monterey pine trees (*Pinus radiata*) ranging from 6" to 34" DBH,
- 39 Monterey cypress trees (*Hesperocyparis macrocarpa*, syn. *Cupressus macrocarpa*) ranging from 6" to 77" DBH,
- 33 Coast live oak trees (*Quercus agrifolia*) ranging from 6" to 32" DBH,
- Seven Torrey pine trees (*Pinus torreyana*) ranging from 6" to 21" DBH,
- Five Australian tea trees (*Leptospermum laevigatum*) ranging from 6" to 21" DBH, and
- 43 eucalyptus trees (*Eucalyptus* spp.) ranging from 6" to 55" DBH.

Per UVSP Tree Standards, Page 118, eucalyptus condition was not recorded. Of the remaining 125 trees planned for removal in Evaluation Area 3, five are dead, 21 are in poor condition, five are in good condition, and 94 are in fair condition (**Appendix B**). Trees in fair condition are in average vigor for the area, but are showing signs of decay, disease, and/or insect infestations, including root rot fungus (*Armillaria* sp.), bark beetles, coryneum canker fungus (also known as cypress canker), and *Phytophthora* root and crown rot.

A tree removal permit is not required for the five dead trees; however, per the UVSP Tree Standards, dead trees was recorded during the October 2019 field inventory.

DISCUSSION

Aside from the five dead trees, a tree removal permit from the City is required for all 163 live trees, and design plans must incorporate mitigation measures and regulatory requirements of UVSP Tree Standards, as follows:

- Existing trees in good or fair condition to be removed shall be replaced on site at a ratio of two replacement trees for each tree removed (2:1).
- The minimum size of tree selection is 15-gallon. Minimum 24" box trees shall be located in areas of special interest such as focal points and neighborhood entries.
- For any trees proposed to be removed or relocated between January and July, surveys for active nests of birds-of-prey birds shall be undertaken by a qualified biologist. If active nests are found and the biologist determines that construction activities would remove the nest or have the potential to cause abandonment, then those activities shall be avoided until the young have fledged and are no longer dependent upon the nests for survival.

CONCLUSION

Removal and replacement is recommended for 99 trees in good or fair condition (**Figure 1; Appendix B**). Removal is also recommended for 43 eucalyptus trees; however, per UVSP Tree Standards, the condition of eucalyptus species was not recorded and, therefore, these trees are not required to be replaced. Five trees are dead and are also recommended for removal; however, per UVSP Tree Standards, mitigation for removal of dead trees is also not required. Therefore, per UVSP Tree Standards, a total of 198 replacement plantings are required to mitigate for the removal of the 99 healthy trees.

A tree removal permit from the City is required for all trees except the five dead trees. Best management practices while working around trees are included in **Appendix D**.

If you have any comments or questions regarding this report, please contact Patric Krabacher at pkrabacher@ddaplanning.com or at (831) 373-4341 ext. 29.

REFERENCES

Denise Duffy and Associates, Inc, 2019. Tree Survey Results for The Dunes on Monterey Bay Project – Phase 2.

APPENDIX A

Site Plan

APPENDIX B

Table of Trees Proposed for Removal

Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)					Total DBH (in)	Dripline (ft)	Condition	Status
1418	<i>Pinus radiata</i>	Monterey Pine	6	6				8	5	Fair	Remove and Replace
1419	<i>Pinus torreyana</i>	Torrey Pine	6					6	4	Fair	Remove and Replace
1420	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	19					19	12	Fair	Remove and Replace
1421	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	43					43	27	Fair	Remove and Replace
1422	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	31					31	19	Fair	Remove and Replace
1423	<i>Leptospermum laevigatum</i>	Australian Tea Tree	15	15				21	13	Fair	Remove and Replace
1424	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	75					75	47	Fair	Remove and Replace
1428	<i>Leptospermum laevigatum</i>	Australian Tea Tree	10	12				16	10	Dead	Remove
1429	<i>Leptospermum laevigatum</i>	Australian Tea Tree	6					6	4	Fair	Remove and Replace
1430	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	32	30	15	15	26	55	35	Fair	Remove and Replace
1431	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	21					21	13	Fair	Remove and Replace
1432	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	33					33	21	Good	Remove and Replace
1433	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	22					22	14	Fair	Remove and Replace
1434	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	24					24	15	Fair	Remove and Replace
1435	<i>Eucalyptus sp.</i>	Eucalyptus	20					20	13	*	Remove
1436	<i>Eucalyptus sp.</i>	Eucalyptus	17					17	11	*	Remove
1437	<i>Eucalyptus sp.</i>	Eucalyptus	28					28	18	*	Remove
1438	<i>Eucalyptus sp.</i>	Eucalyptus	20	11	12	6		26	17	*	Remove
1439	<i>Eucalyptus sp.</i>	Eucalyptus	26					26	16	*	Remove
1440	<i>Pinus radiata</i>	Monterey Pine	15					15	9	Fair	Remove and Replace
1441	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	7					7	4	Fair	Remove and Replace
1442	<i>Eucalyptus sp.</i>	Eucalyptus	21					21	13	*	Remove
1443	<i>Pinus radiata</i>	Monterey Pine	6	6				8	5	Fair	Remove and Replace
1444	<i>Pinus radiata</i>	Monterey Pine	15					15	9	Fair	Remove and Replace
1445	<i>Pinus radiata</i>	Monterey Pine	14					14	9	Fair	Remove and Replace
1446	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	10	10	8	8	6	19	12	Fair	Remove and Replace
1447	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6					6	4	Fair	Remove and Replace
1448	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6	13				14	9	Fair	Remove and Replace
1449	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	8					8	5	Fair	Remove and Replace
1450	<i>Quercus agrifolia</i>	Coast Live Oak	6	6				8	5	Fair	Remove and Replace
1451	<i>Pinus radiata</i>	Monterey Pine	23					23	14	Fair	Remove and Replace
1453	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	32					32	20	Fair	Remove and Replace
1454	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	16					16	10	Fair	Remove and Replace
1455	<i>Eucalyptus sp.</i>	Eucalyptus	20	20	10	11		32	20	*	Remove
1457	<i>Eucalyptus sp.</i>	Eucalyptus	16	16	11			25	16	*	Remove
1458	<i>Eucalyptus sp.</i>	Eucalyptus	6	8	8	17		21	13	*	Remove

Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)							Total DBH (in)	Dripline (ft)	Condition	Status
1459	<i>Eucalyptus sp.</i>	Eucalyptus	30	18						35	22	*	Remove
1460	<i>Eucalyptus sp.</i>	Eucalyptus	22	16						27	17	*	Remove
1461	<i>Eucalyptus sp.</i>	Eucalyptus	22							22	14	*	Remove
1462	<i>Eucalyptus sp.</i>	Eucalyptus	32							32	20	*	Remove
1463	<i>Eucalyptus sp.</i>	Eucalyptus	25							25	16	*	Remove
1464	<i>Eucalyptus sp.</i>	Eucalyptus	32	32	23					51	32	*	Remove
1465	<i>Eucalyptus sp.</i>	Eucalyptus	25	25	16	24	8	30		55	34	*	Remove
1466	<i>Eucalyptus sp.</i>	Eucalyptus	25							25	16	*	Remove
1467	<i>Eucalyptus sp.</i>	Eucalyptus	32							32	20	*	Remove
1469	<i>Eucalyptus sp.</i>	Eucalyptus	18	14	14	10	12	6	6	32	20	*	Remove
1470	<i>Eucalyptus sp.</i>	Eucalyptus	30							30	19	*	Remove
1471	<i>Eucalyptus sp.</i>	Eucalyptus	26	24	14	11				40	25	*	Remove
1472	<i>Pinus torreyana</i>	Torrey Pine	20							20	13	Fair	Remove and Replace
1473	<i>Quercus agrifolia</i>	Coast Live Oak	7	6						9	6	Poor	Remove
1486	<i>Pinus radiata</i>	Monterey Pine	19	10						21	13	Poor	Remove
1487	<i>Pinus radiata</i>	Monterey Pine	11							11	7	Poor	Remove
1490	<i>Quercus agrifolia</i>	Coast Live Oak	8	7	7	6				14	9	Poor	Remove
1514	<i>Leptospermum laevigatum</i>	Australian Tea Tree	8	10	10					16	10	Fair	Remove and Replace
1515	<i>Leptospermum laevigatum</i>	Australian Tea Tree	9							9	6	Fair	Remove and Replace
1516	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	76							76	48	Fair	Remove and Replace
1517	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	17	7	7					20	12	Fair	Remove and Replace
1518	<i>Pinus radiata</i>	Monterey Pine	12							12	8	Fair	Remove and Replace
1519	<i>Pinus radiata</i>	Monterey Pine	6							6	4	Fair	Remove and Replace
1520	<i>Pinus radiata</i>	Monterey Pine	7							7	4	Poor	Remove
1521	<i>Pinus radiata</i>	Monterey Pine	9							9	6	Poor	Remove
1522	<i>Pinus radiata</i>	Monterey Pine	18							18	11	Poor	Remove
1523	<i>Pinus radiata</i>	Monterey Pine	13							13	8	Fair	Remove and Replace
1524	<i>Pinus radiata</i>	Monterey Pine	7							7	4	Fair	Remove and Replace
1525	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	23							23	14	Fair	Remove and Replace
1526	<i>Pinus radiata</i>	Monterey Pine	10							10	6	Fair	Remove and Replace
1527	<i>Pinus radiata</i>	Monterey Pine	9							9	6	Fair	Remove and Replace
1528	<i>Pinus radiata</i>	Monterey Pine	17							17	11	Fair	Remove and Replace
1532	<i>Pinus radiata</i>	Monterey Pine	25							25	16	Poor	Remove
1533	<i>Eucalyptus sp.</i>	Eucalyptus	11	10						15	9	*	Remove
1534	<i>Eucalyptus sp.</i>	Eucalyptus	14							14	9	*	Remove
1535	<i>Quercus agrifolia</i>	Coast Live Oak	6	6						8	5	Fair	Remove and Replace

Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)			Total DBH (in)	Dripline (ft)	Condition	Status
1536	<i>Pinus radiata</i>	Monterey Pine	24			24	15	Dead	Remove
1537	<i>Pinus radiata</i>	Monterey Pine	21			21	13	Poor	Remove
1538	<i>Pinus radiata</i>	Monterey Pine	19			19	12	Poor	Remove
1539	<i>Pinus radiata</i>	Monterey Pine	24			24	15	Poor	Remove
1540	<i>Pinus radiata</i>	Monterey Pine	24			24	15	Dead	Remove
1541	<i>Pinus radiata</i>	Monterey Pine	12			12	8	Dead	Remove
1542	<i>Pinus radiata</i>	Monterey Pine	14			14	9	Fair	Remove and Replace
1543	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	64			64	40	Fair	Remove and Replace
1544	<i>Pinus radiata</i>	Monterey Pine	14			14	9	Fair	Remove and Replace
1545	<i>Pinus radiata</i>	Monterey Pine	6	9		11	7	Fair	Remove and Replace
1546	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	77			77	48	Good	Remove and Replace
1547	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	55			55	34	Good	Remove and Replace
1548	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	33			33	21	Fair	Remove and Replace
1549	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	35			35	22	Good	Remove and Replace
1550	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	48			48	30	Fair	Remove and Replace
1551	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	45			45	28	Fair	Remove and Replace
1552	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	30			30	19	Fair	Remove and Replace
1553	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	30			30	19	Fair	Remove and Replace
1554	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	50			50	31	Good	Remove and Replace
1555	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	40			40	25	Fair	Remove and Replace
1556	<i>Quercus agrifolia</i>	Coast Live Oak	10			10	6	Fair	Remove and Replace
1559	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6	6	7	11	7	Fair	Remove and Replace
1568	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	39			39	24	Poor	Remove
1569	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	50			50	31	Fair	Remove and Replace
1570	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	62			62	39	Fair	Remove and Replace
1571	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	10	7		12	8	Fair	Remove and Replace
1572	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	44			44	28	Fair	Remove and Replace
1573	<i>Eucalyptus sp.</i>	Eucalyptus	13	11	19	26	16	*	Remove
1574	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	44			44	28	Fair	Remove and Replace
1575	<i>Eucalyptus sp.</i>	Eucalyptus	32	6		33	20	*	Remove
1582	<i>Eucalyptus sp.</i>	Eucalyptus	20			20	13	*	Remove
1583	<i>Eucalyptus sp.</i>	Eucalyptus	33			33	21	*	Remove
1585	<i>Pinus torreyana</i>	Torrey Pine	21			21	13	Fair	Remove and Replace
1586	<i>Pinus radiata</i>	Monterey Pine	15			15	9	Poor	Remove
1587	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	21			21	13	Fair	Remove and Replace
1588	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	39			39	24	Fair	Remove and Replace

Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)											Total DBH (in)	Dripline (ft)	Condition	Status				
1589	<i>Eucalyptus sp.</i>	Eucalyptus	7													7	4	*	Remove		
1591	<i>Eucalyptus sp.</i>	Eucalyptus	8	10	10	10	11	12	10	7	7						29	18	*	Remove	
1592	<i>Eucalyptus sp.</i>	Eucalyptus	11	11	10	6	6	13	12	6	10	6	10	9	7	12	8	37	23	*	Remove
1593	<i>Eucalyptus sp.</i>	Eucalyptus	17														17	11	*	Remove	
1594	<i>Eucalyptus sp.</i>	Eucalyptus	13	15	15	13	12	9	17	8								37	23	*	Remove
1595	<i>Eucalyptus sp.</i>	Eucalyptus	13														13	8	*	Remove	
1596	<i>Eucalyptus sp.</i>	Eucalyptus	6														6	4	*	Remove	
1597	<i>Eucalyptus sp.</i>	Eucalyptus	8														8	5	*	Remove	
1598	<i>Eucalyptus sp.</i>	Eucalyptus	9														9	6	*	Remove	
1599	<i>Eucalyptus sp.</i>	Eucalyptus	13	10	8	11	10	11	9									27	17	*	Remove
1600	<i>Eucalyptus sp.</i>	Eucalyptus	33														33	21	*	Remove	
1601	<i>Eucalyptus sp.</i>	Eucalyptus	16	13	13	8	6	15	11	9								33	21	*	Remove
1602	<i>Eucalyptus sp.</i>	Eucalyptus	9														9	6	*	Remove	
1603	<i>Eucalyptus sp.</i>	Eucalyptus	9	9													13	8	*	Remove	
1604	<i>Eucalyptus sp.</i>	Eucalyptus	6	12													13	8	*	Remove	
1605	<i>Eucalyptus sp.</i>	Eucalyptus	9	9	8												15	9	*	Remove	
1606	<i>Quercus agrifolia</i>	Coast Live Oak	6	6													8	5	Fair	Remove and Replace	
1607	<i>Pinus torreyana</i>	Torrey Pine	16														16	10	Fair	Remove and Replace	
1608	<i>Quercus agrifolia</i>	Coast Live Oak	9	6													11	7	Fair	Remove and Replace	
1609	<i>Quercus agrifolia</i>	Coast Live Oak	13	10	6	8	6										20	13	Fair	Remove and Replace	
1610	<i>Quercus agrifolia</i>	Coast Live Oak	16														16	10	Fair	Remove and Replace	
1611	<i>Quercus agrifolia</i>	Coast Live Oak	7														7	4	Fair	Remove and Replace	
1612	<i>Quercus agrifolia</i>	Coast Live Oak	8	6													10	6	Fair	Remove and Replace	
1613	<i>Quercus agrifolia</i>	Coast Live Oak	7	7													10	6	Poor	Remove	
1614	<i>Quercus agrifolia</i>	Coast Live Oak	6														6	4	Fair	Remove and Replace	
1615	<i>Quercus agrifolia</i>	Coast Live Oak	13	10	6												17	11	Fair	Remove and Replace	
1616	<i>Quercus agrifolia</i>	Coast Live Oak	9	7													11	7	Fair	Remove and Replace	
1617	<i>Quercus agrifolia</i>	Coast Live Oak	7	6													9	6	Fair	Remove and Replace	
1618	<i>Quercus agrifolia</i>	Coast Live Oak	6	6	8												12	7	Fair	Remove and Replace	
1619	<i>Pinus torreyana</i>	Torrey Pine	7														7	4	Fair	Remove and Replace	
1620	<i>Pinus radiata</i>	Monterey Pine	10	9													13	8	Dead	Remove	
1621	<i>Pinus radiata</i>	Monterey Pine	20														20	13	Poor	Remove	
1622	<i>Pinus radiata</i>	Monterey Pine	10	9	9												16	10	Poor	Remove	
1623	<i>Pinus torreyana</i>	Torrey Pine	6														6	4	Fair	Remove and Replace	
1624	<i>Pinus radiata</i>	Monterey Pine	22	6													23	14	Fair	Remove and Replace	
1625	<i>Pinus torreyana</i>	Torrey Pine	6														6	4	Fair	Remove and Replace	

<i>Tree ID</i>	<i>Scientific Name</i>	<i>Common Name</i>	<i>Individual Stem DBH (in)</i>				<i>Total DBH (in)</i>	<i>Dripline (ft)</i>	<i>Condition</i>	<i>Status</i>
1626	<i>Pinus radiata</i>	Monterey Pine	16				16	10	Fair	Remove and Replace
1627	<i>Pinus radiata</i>	Monterey Pine	11	7			13	8	Fair	Remove and Replace
1628	<i>Pinus radiata</i>	Monterey Pine	8				8	5	Fair	Remove and Replace
1629	<i>Pinus radiata</i>	Monterey Pine	19				19	12	Poor	Remove
1630	<i>Pinus radiata</i>	Monterey Pine	33	9			34	21	Poor	Remove
1631	<i>Pinus radiata</i>	Monterey Pine	7				7	4	Poor	Remove
1632	<i>Quercus agrifolia</i>	Coast Live Oak	7	6			9	6	Fair	Remove and Replace
1633	<i>Quercus agrifolia</i>	Coast Live Oak	7				7	4	Fair	Remove and Replace
1634	<i>Quercus agrifolia</i>	Coast Live Oak	13	11	7	6	21	13	Fair	Remove and Replace
1635	<i>Quercus agrifolia</i>	Coast Live Oak	12				12	8	Fair	Remove and Replace
1636	<i>Quercus agrifolia</i>	Coast Live Oak	6				6	4	Fair	Remove and Replace
1637	<i>Quercus agrifolia</i>	Coast Live Oak	12	6	10		17	10	Fair	Remove and Replace
1638	<i>Quercus agrifolia</i>	Coast Live Oak	6	6			8	5	Fair	Remove and Replace
1639	<i>Pinus radiata</i>	Monterey Pine	23				23	14	Poor	Remove
1640	<i>Quercus agrifolia</i>	Coast Live Oak	10	9			13	8	Fair	Remove and Replace
1641	<i>Quercus agrifolia</i>	Coast Live Oak	8	7	7		13	8	Fair	Remove and Replace
1643	<i>Quercus agrifolia</i>	Coast Live Oak	12	10			16	10	Fair	Remove and Replace
1644	<i>Quercus agrifolia</i>	Coast Live Oak	6	6			8	5	Fair	Remove and Replace
1645	<i>Quercus agrifolia</i>	Coast Live Oak	10	12			16	10	Fair	Remove and Replace
1646	<i>Pinus radiata</i>	Monterey Pine	7				7	4	Fair	Remove and Replace
1647	<i>Quercus agrifolia</i>	Coast Live Oak	11	11	9		18	11	Fair	Remove and Replace
1648	<i>Quercus agrifolia</i>	Coast Live Oak	8	7	6		12	8	Fair	Remove and Replace
1649	<i>Quercus agrifolia</i>	Coast Live Oak	7				7	4	Fair	Remove and Replace
1650	<i>Quercus agrifolia</i>	Coast Live Oak	13	22	20		32	20	Poor	Remove

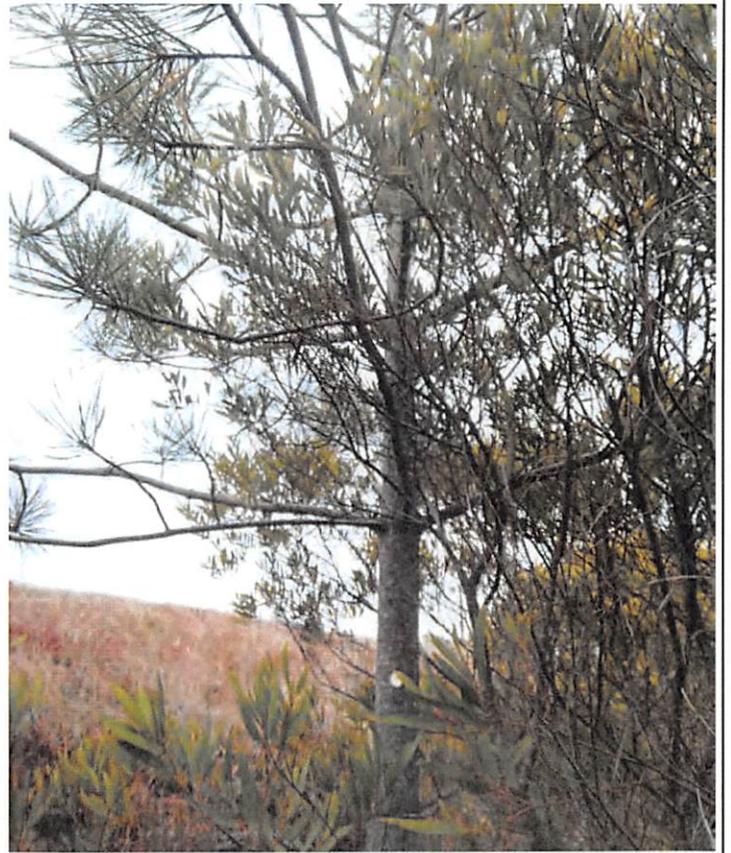
*Per UVSP Tree Standards, eucalyptus condition was not recorded.

APPENDIX C

Photo Log



Tree 1418. Monterey Pine



Tree 1419. Torrey Pine



Tree 1420. Monterey Cypress



Tree 1421. Monterey Cypress



Tree 1422. Monterey Cypress



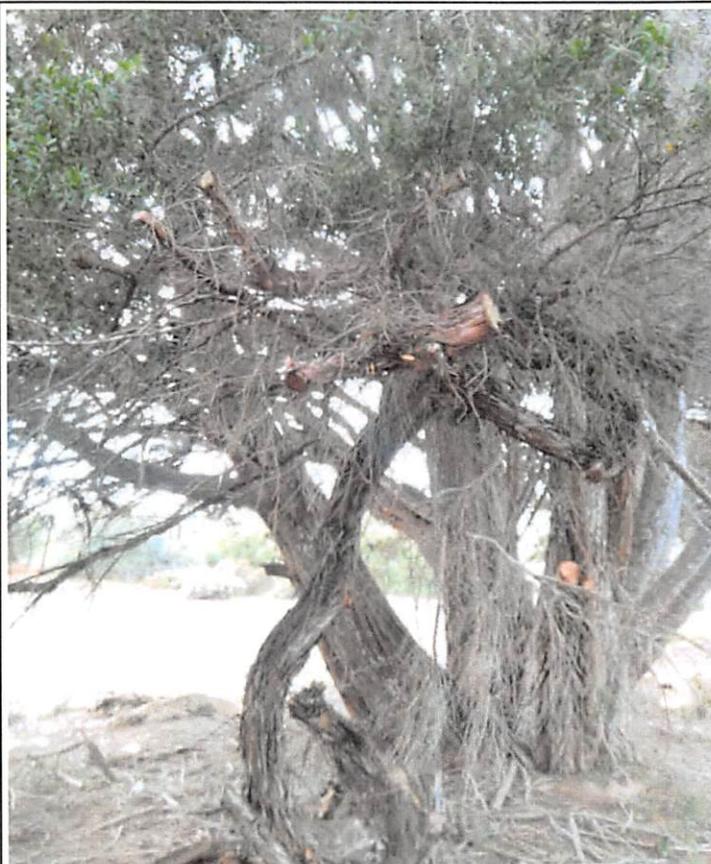
Tree 1423. Australian Tea Tree



Tree 1424. Monterey Cypress



Tree 1428. Australian Tea Tree



Tree 1429. Australian Tea Tree



Tree 1430. Monterey Cypress



Tree 1431. Monterey Cypress



1432. Tree Monterey Cypress



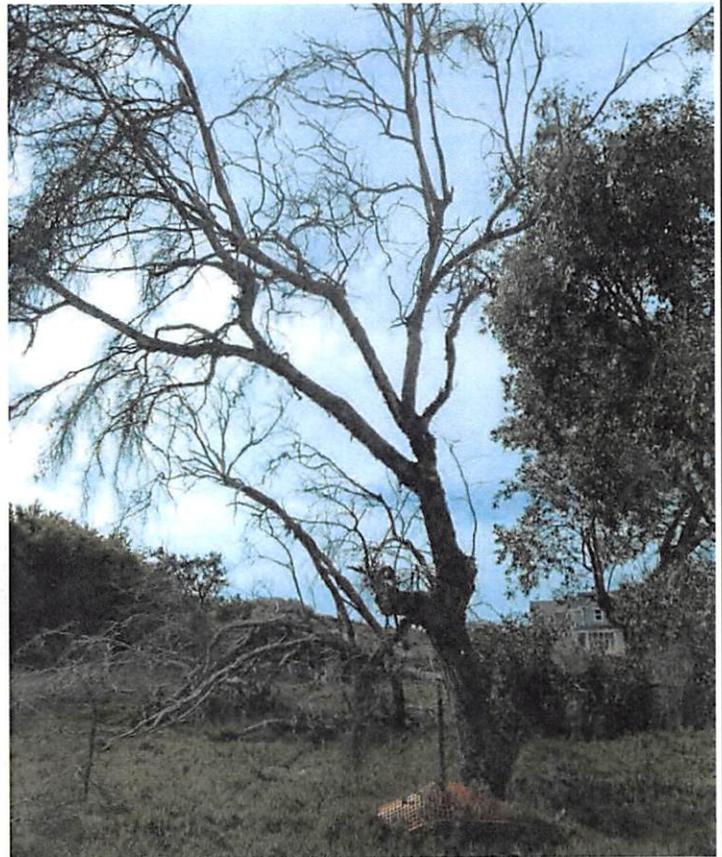
Tree 1433. Monterey Cypress



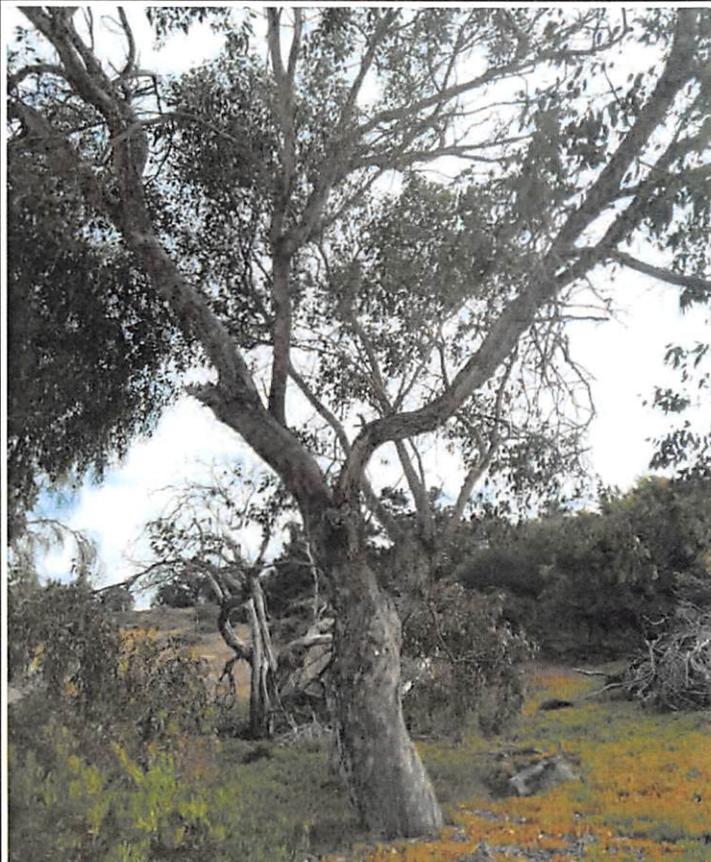
Tree 1434. Monterey Cypress



Tree 1435. Eucalyptus



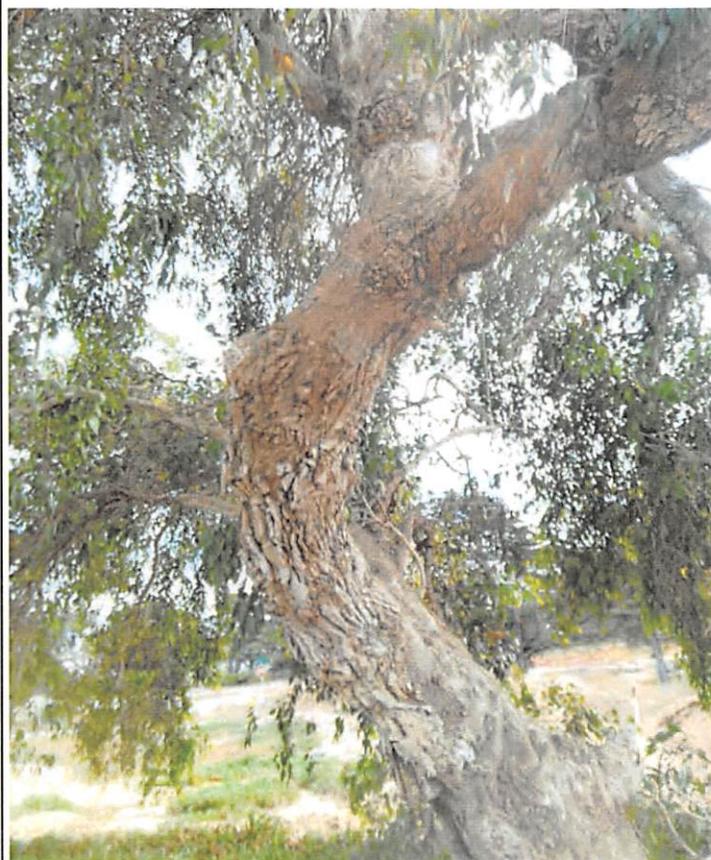
Tree 1436. Eucalyptus



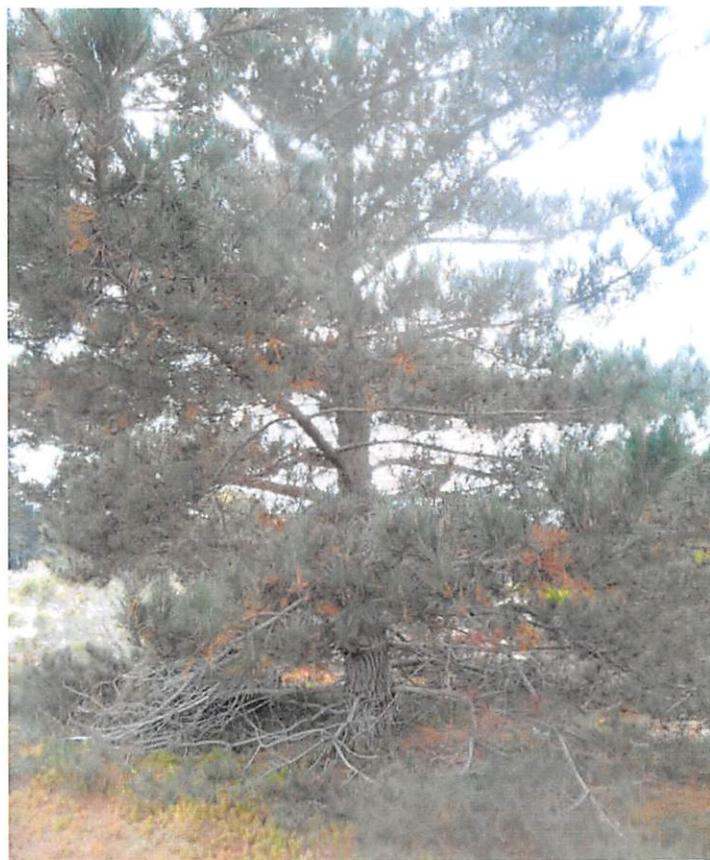
Tree 1437. Eucalyptus



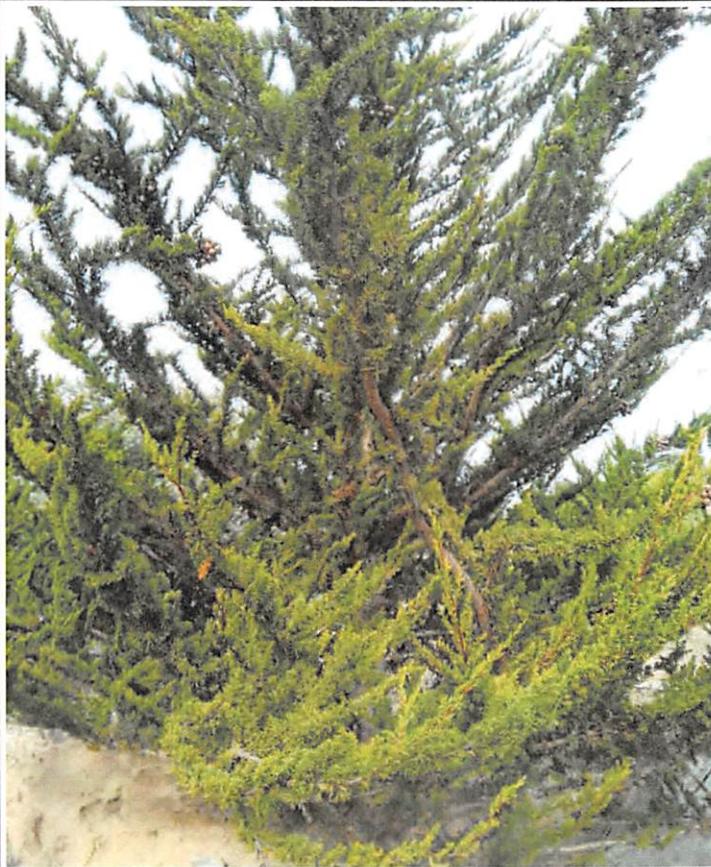
Tree 1438. Eucalyptus



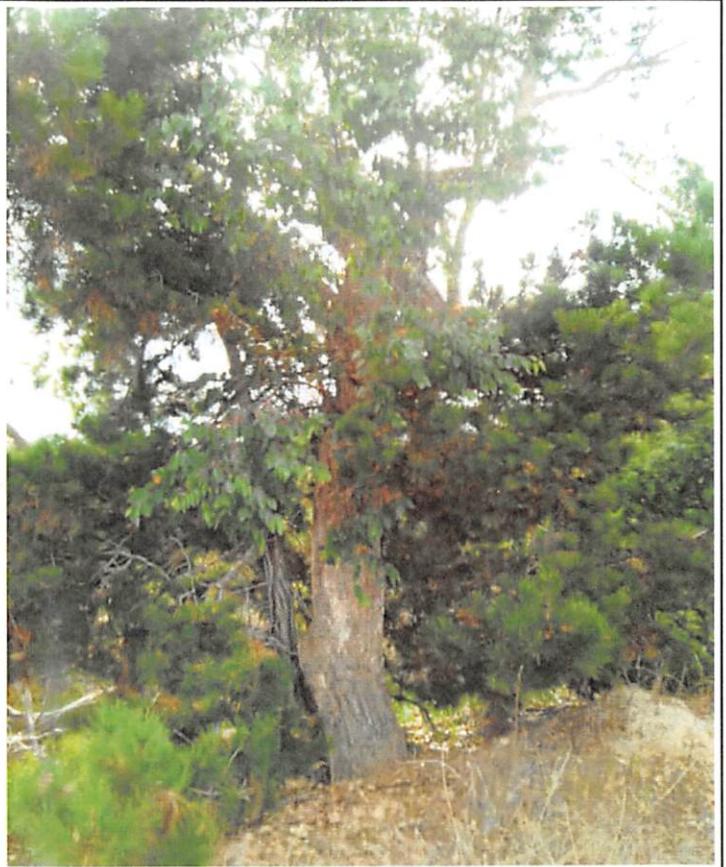
Tree 1439. Eucalyptus



Tree 1440. Monterey Pine



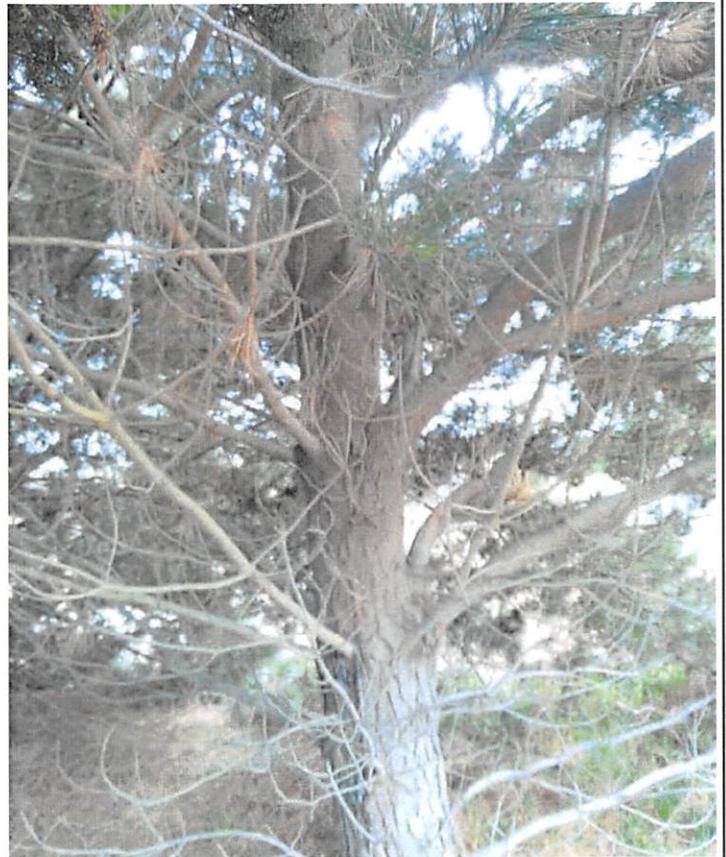
Tree 1441. Monterey Cypress



Tree 1442. Eucalyptus



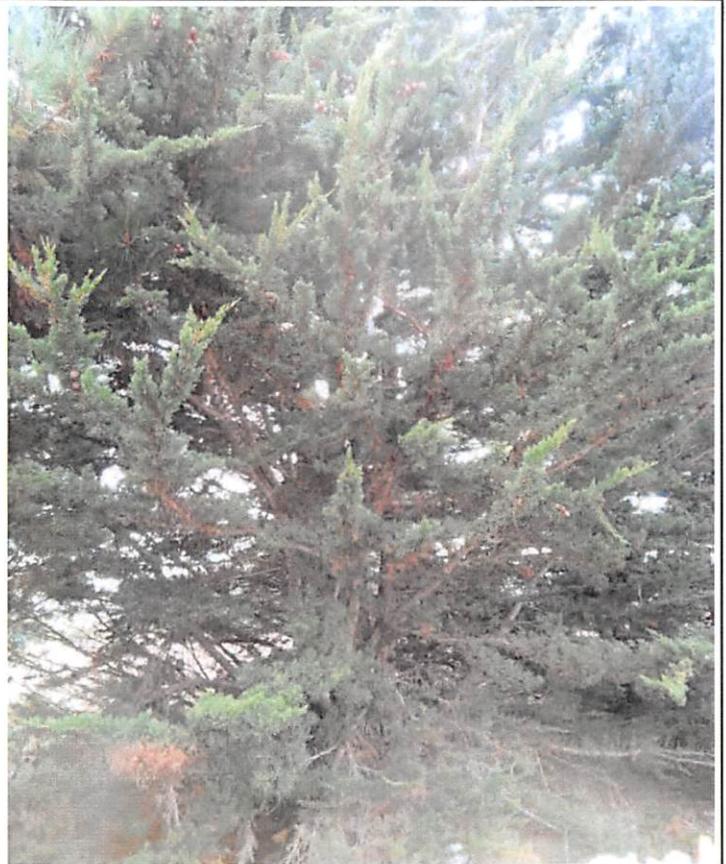
Tree 1443. Monterey Pine



Tree 1444. Monterey Pine



Tree 1445. Monterey Pine



Tree 1446. Monterey Cypress



Tree 1447. Monterey Cypress



Tree 1448. Monterey Cypress



Tree 1449. Monterey Cypress



Tree 1450. Monterey Cypress



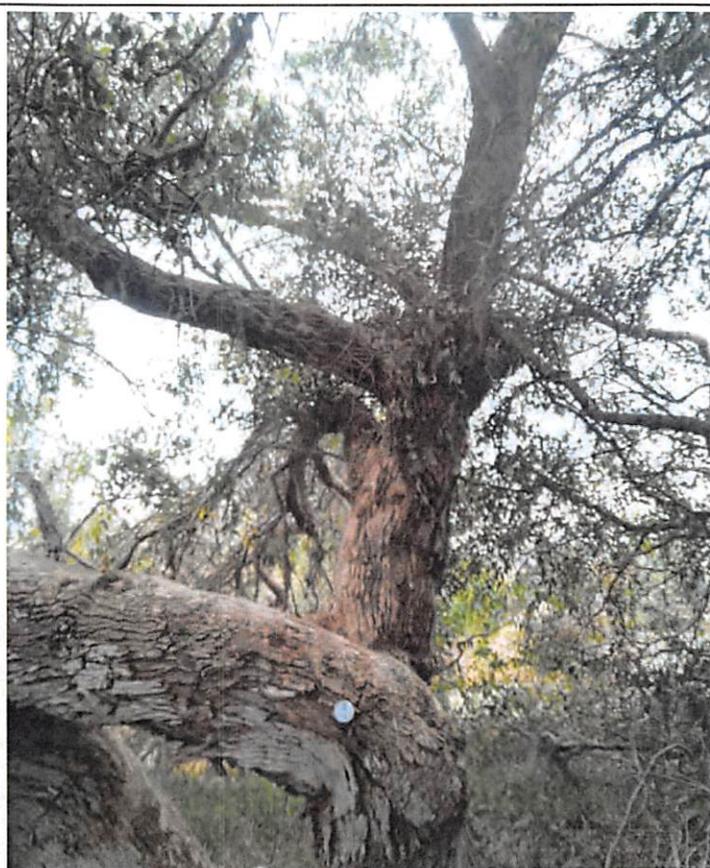
Tree 1451. Monterey Pine



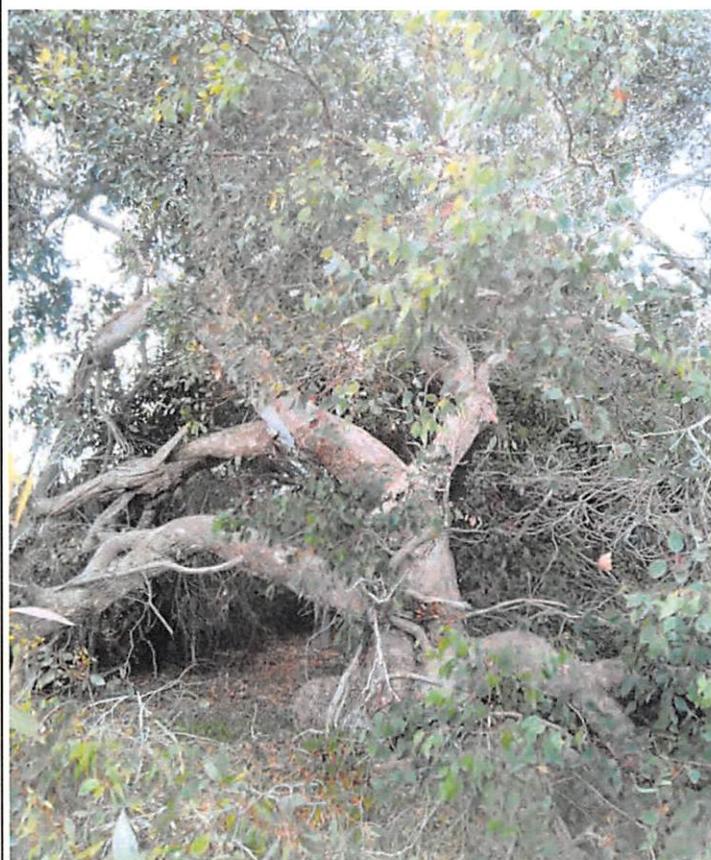
Tree 1453. Monterey Cypress



Tree 1454. Monterey Cypress



Tree 1455. Eucalyptus



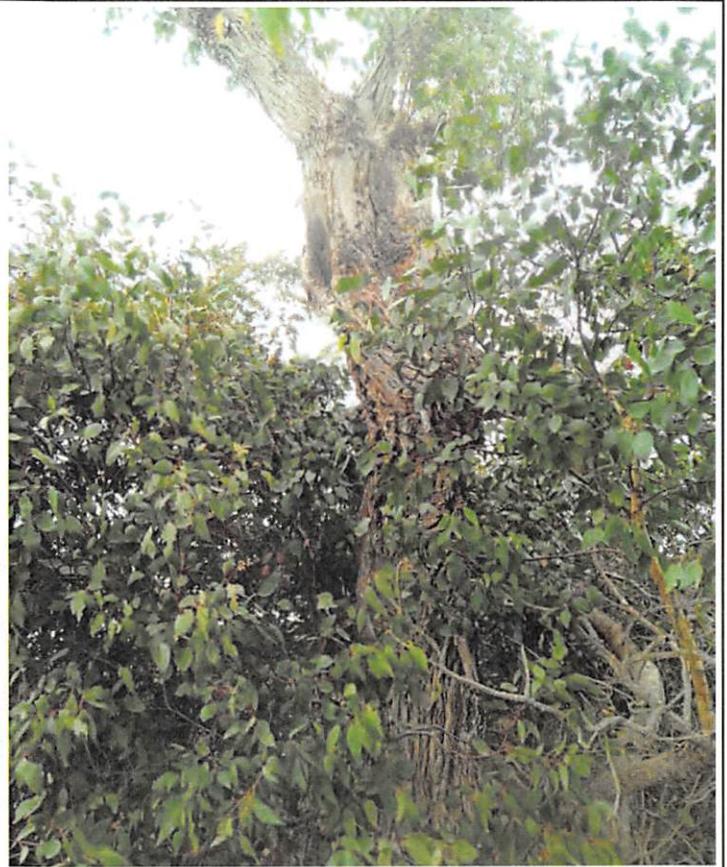
Tree 1457. Eucalyptus



Tree 1458. Eucalyptus



Tree 1459. Eucalyptus



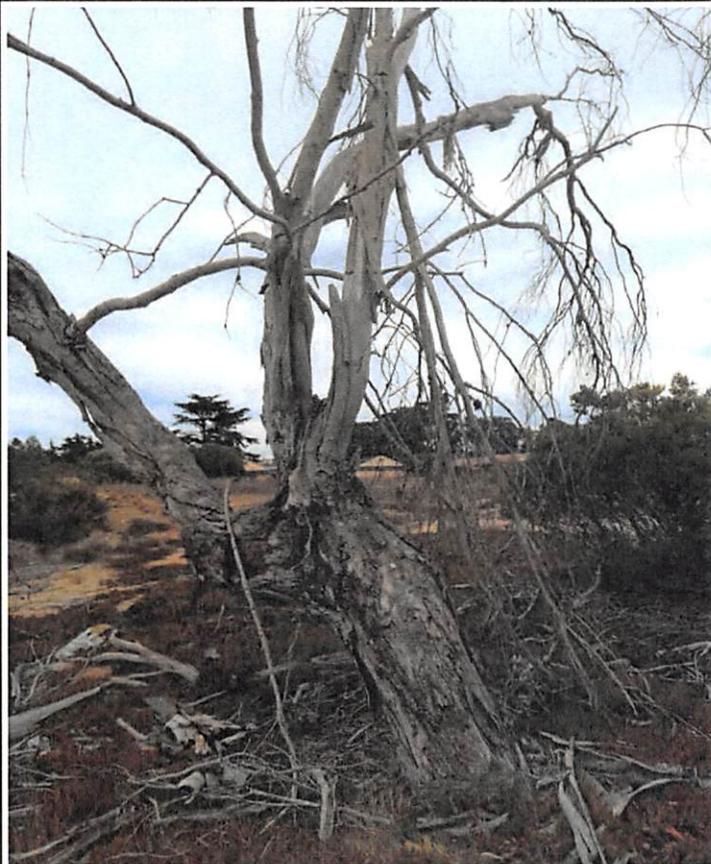
Tree 1460. Eucalyptus



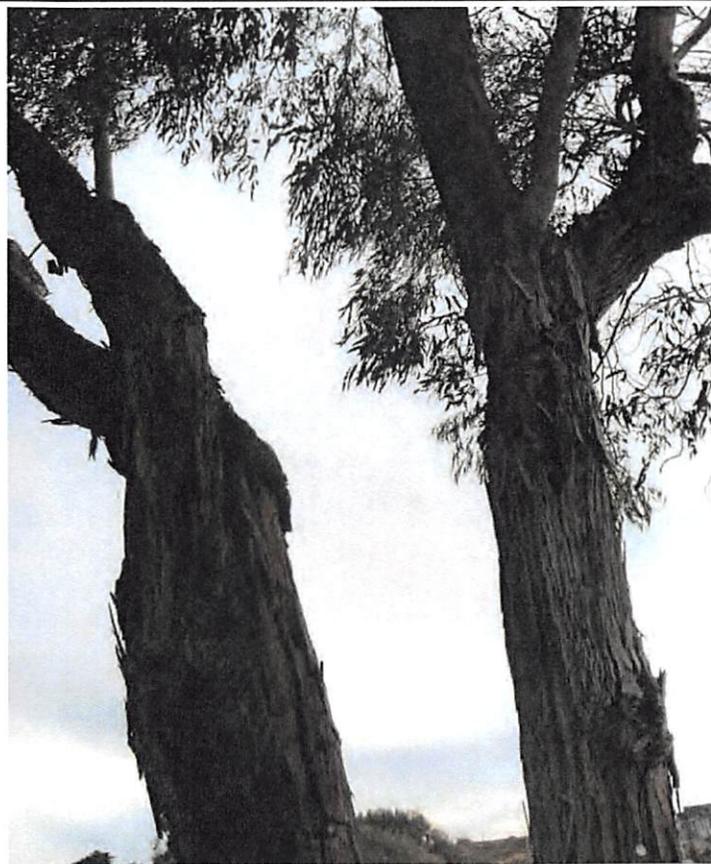
Tree 1461. Eucalyptus



Tree 1462. Eucalyptus



Tree 1463. Eucalyptus



Tree 1464. Eucalyptus



Tree 1465. Eucalyptus



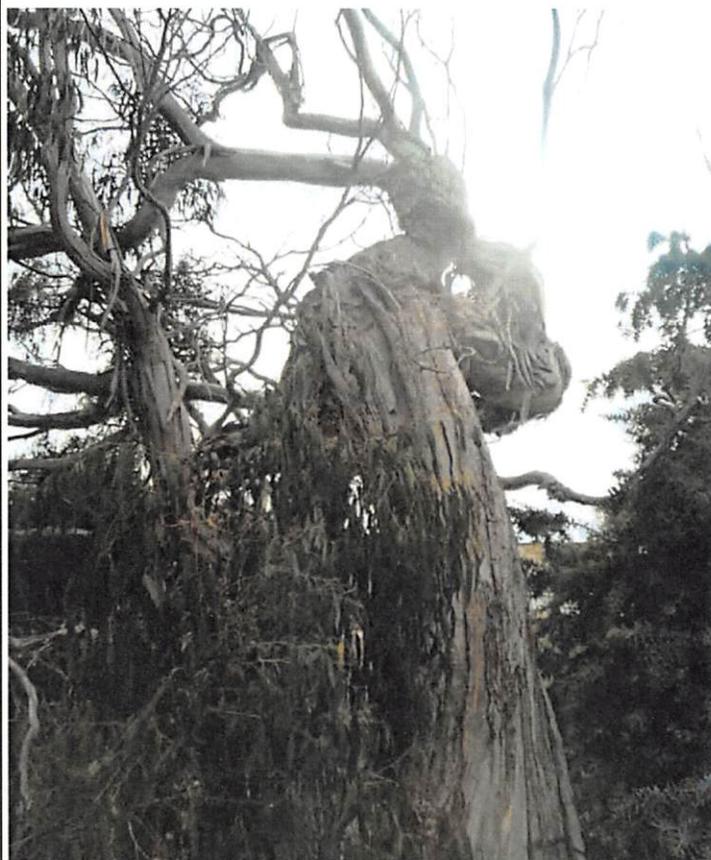
Tree 1466. Eucalyptus



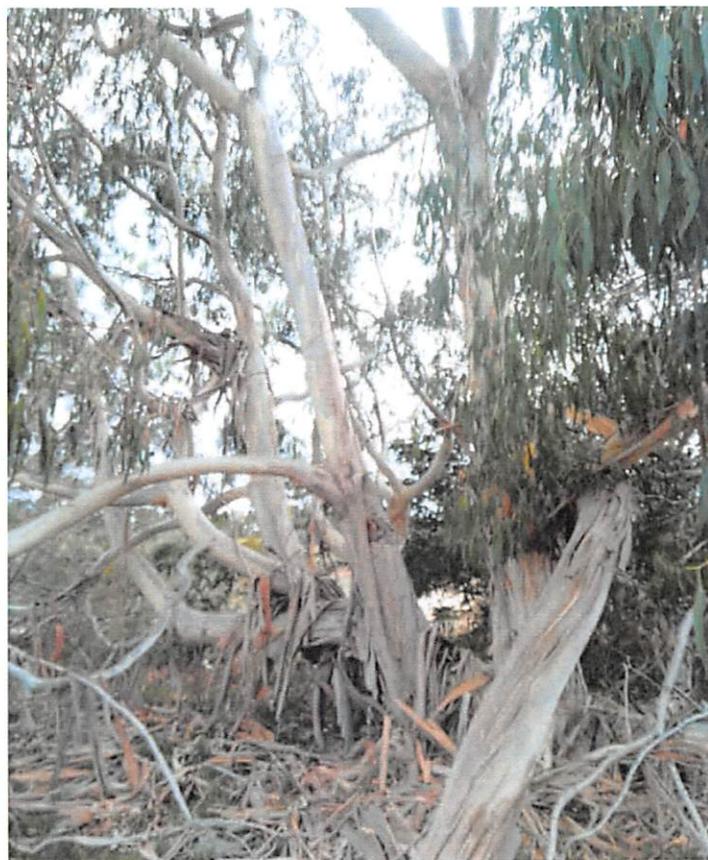
Tree 1467. Eucalyptus



Tree 1469. Eucalyptus



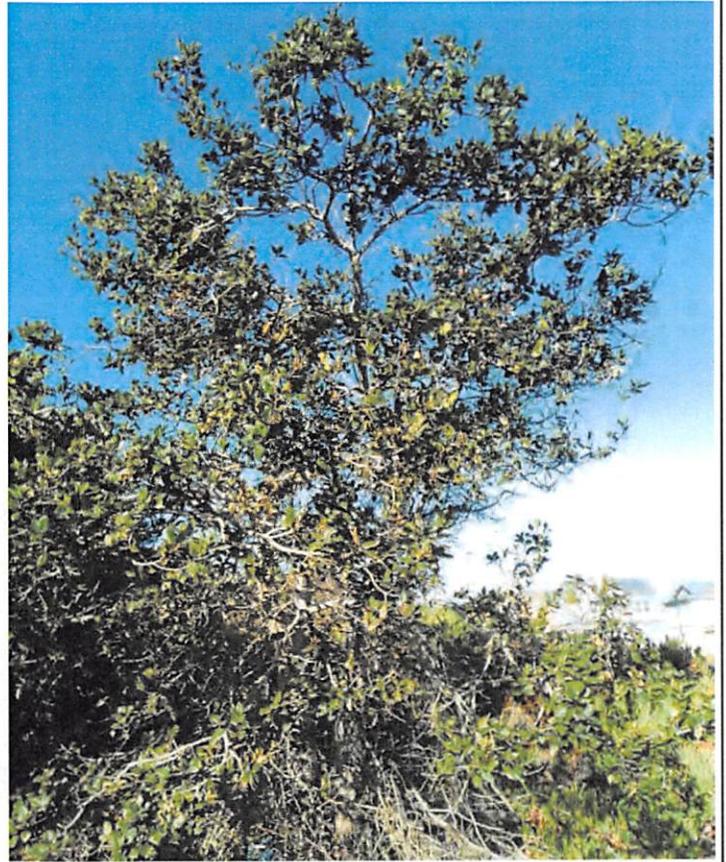
Tree 1470. Eucalyptus



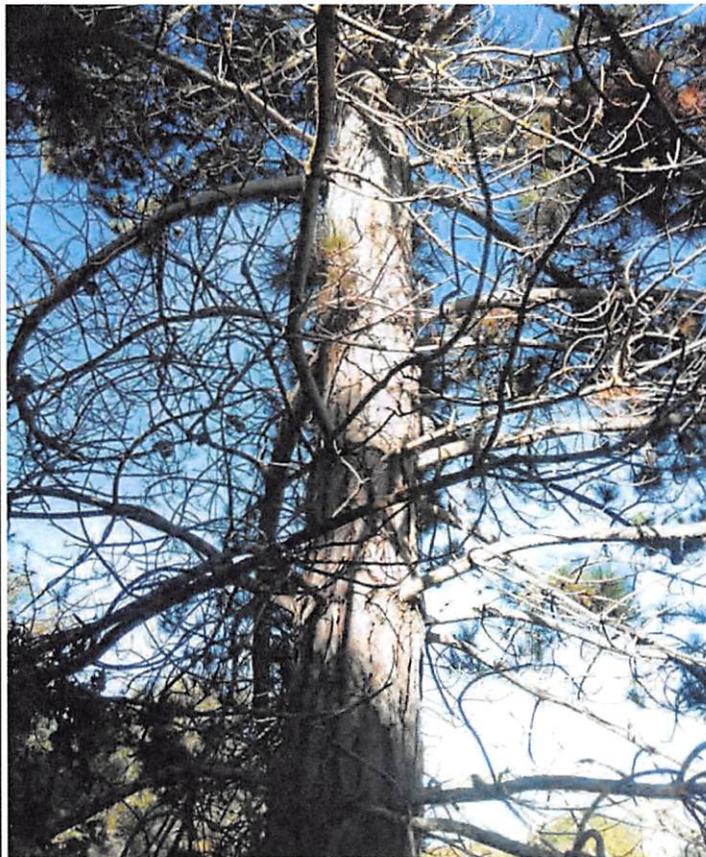
Tree 1471. Eucalyptus



Tree 1472. Torrey Pine



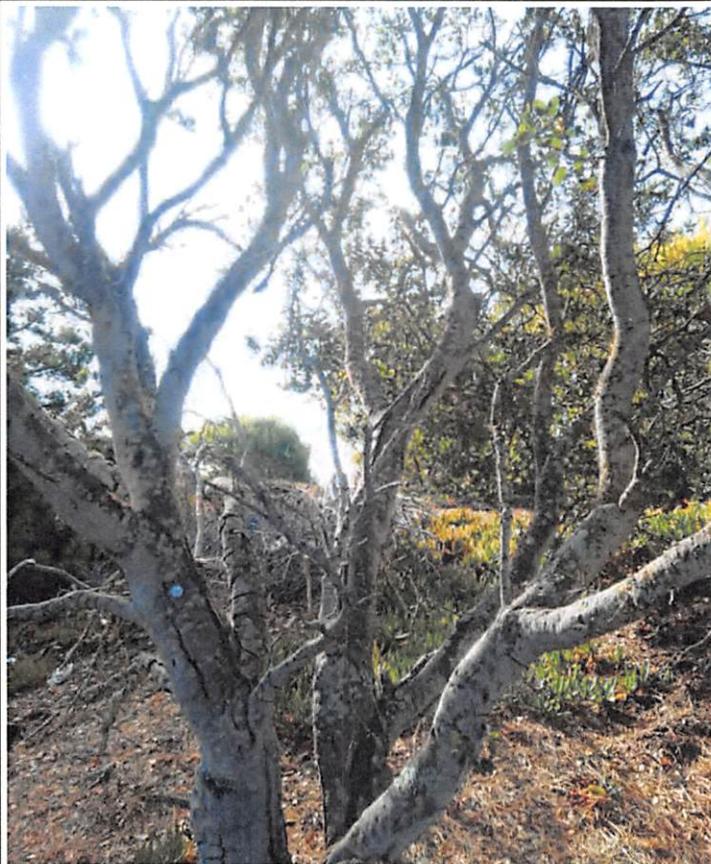
Tree 1473. Coast Live Oak



Tree 1486. Monterey Pine



Tree 1487. Monterey Pine



Tree 1490. Coast Live Oak



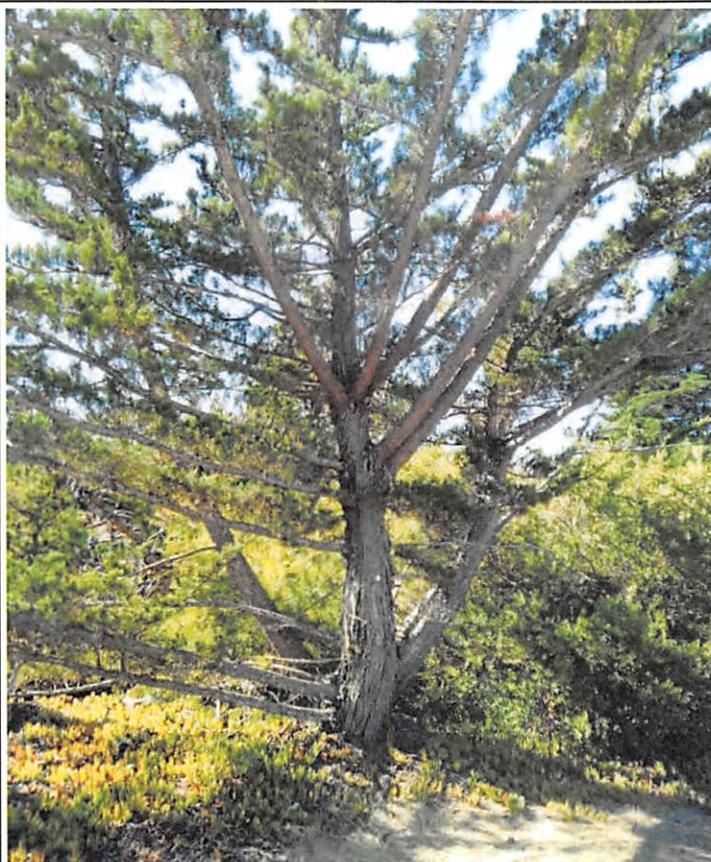
Tree 1514. Australian Tea Tree



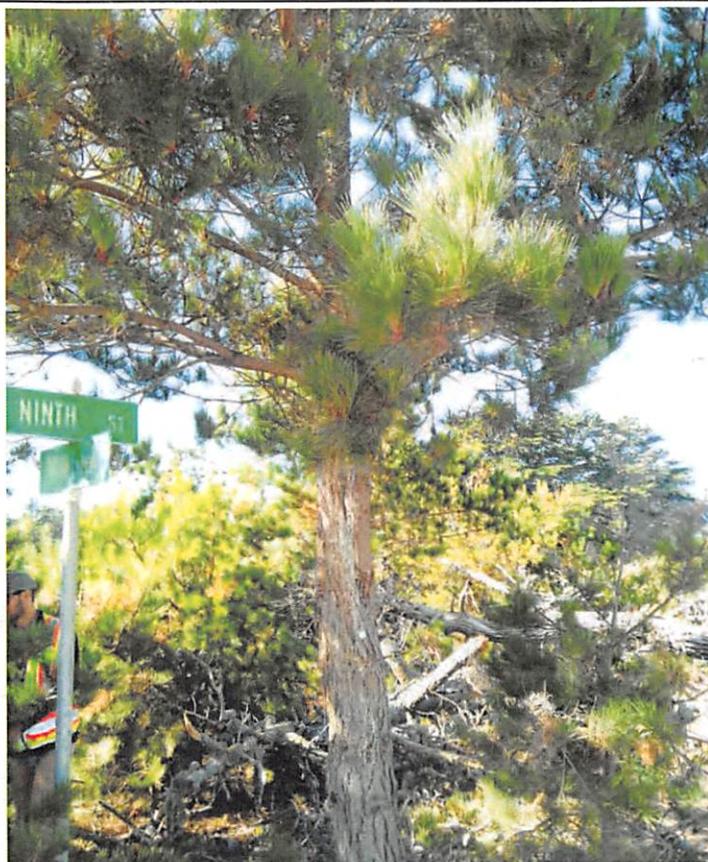
Tree 1515. Australian Tea Tree



Tree 1516. Monterey Cypress



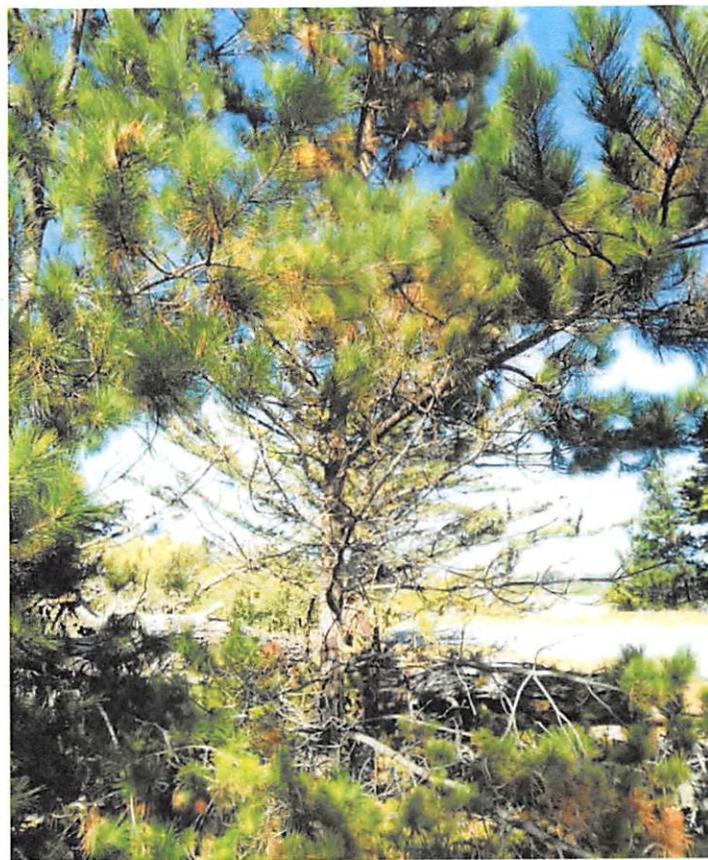
Tree 1517. Monterey Cypress



Tree 1518. Monterey Pine



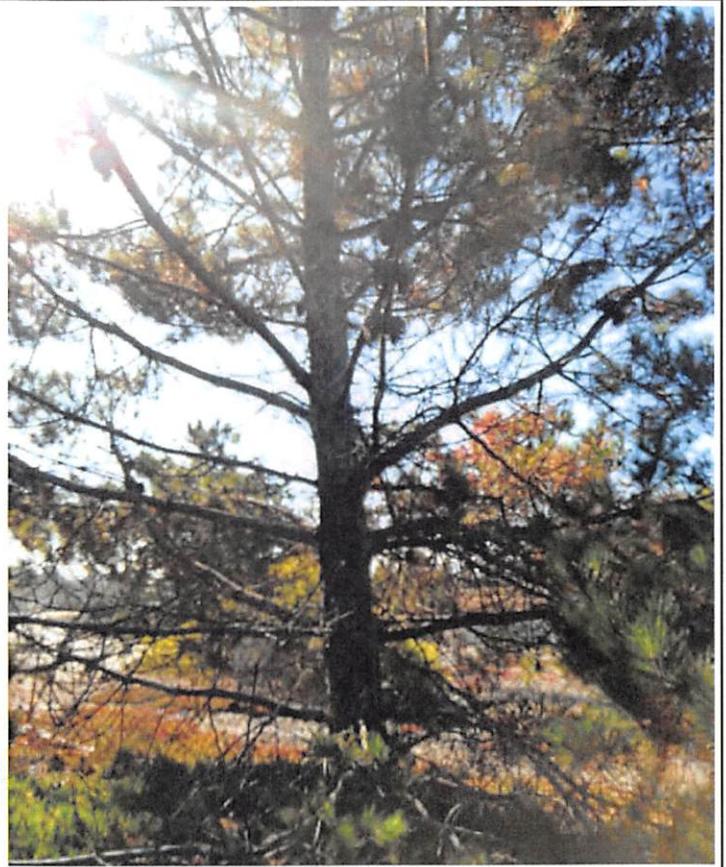
Tree 1519. Monterey Pine



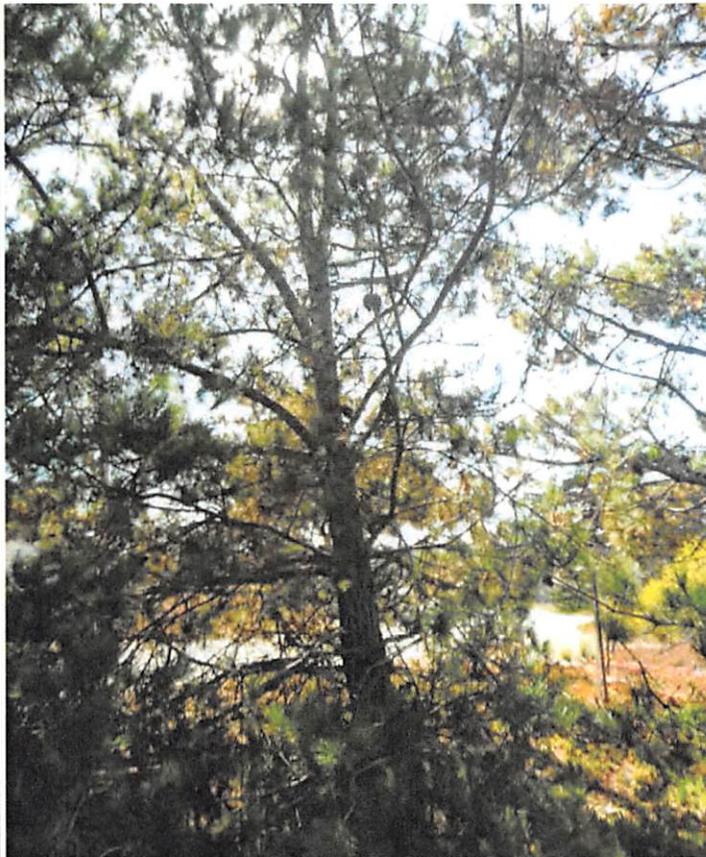
Tree 1520. Monterey Pine



Tree 1521. Monterey Pine



Tree 1522. Monterey Pine



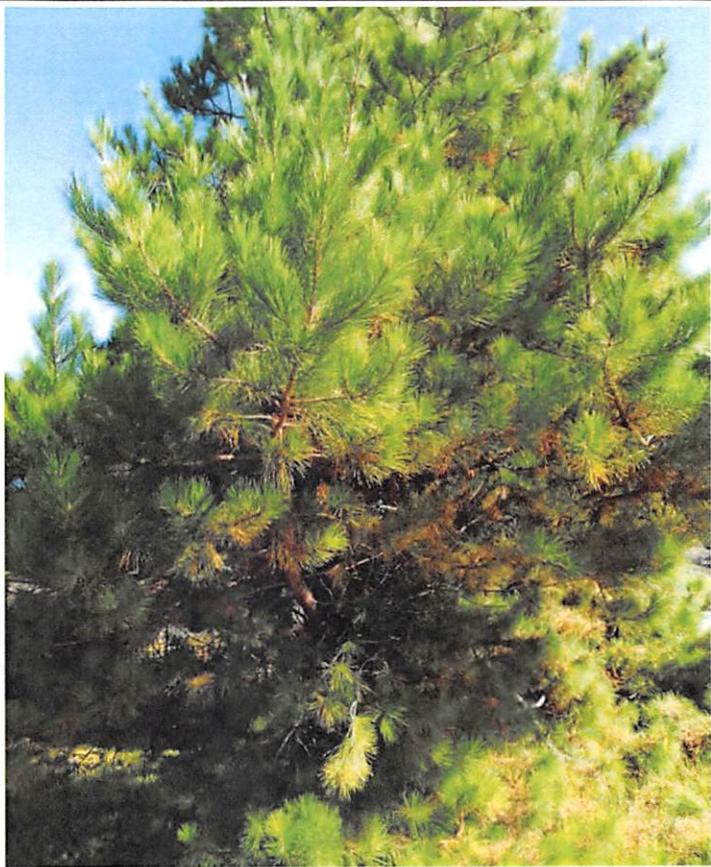
Tree 1523. Monterey Pine



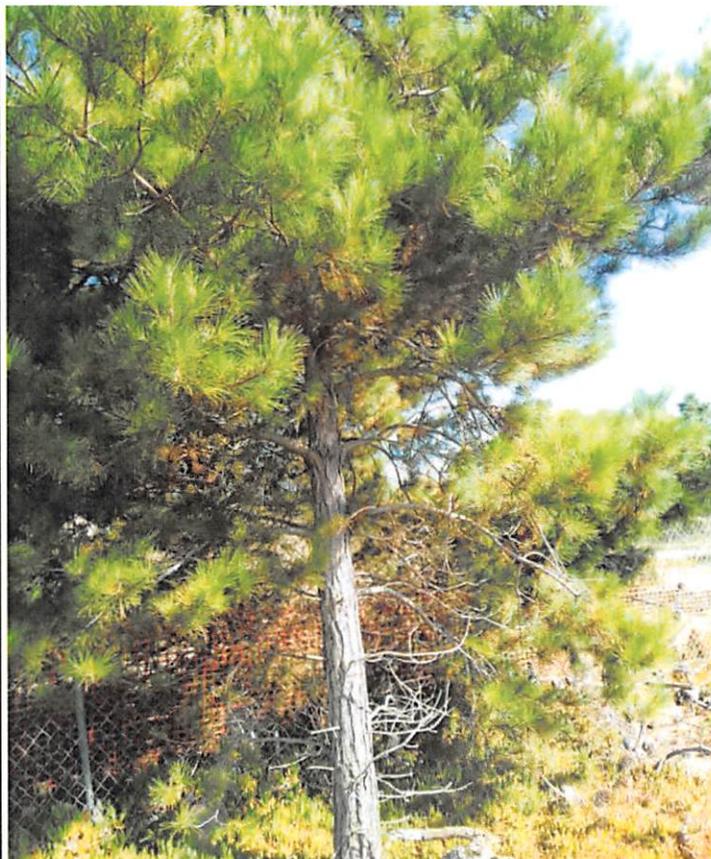
Tree 1524. Monterey Pine



Tree 1525. Monterey Cypress



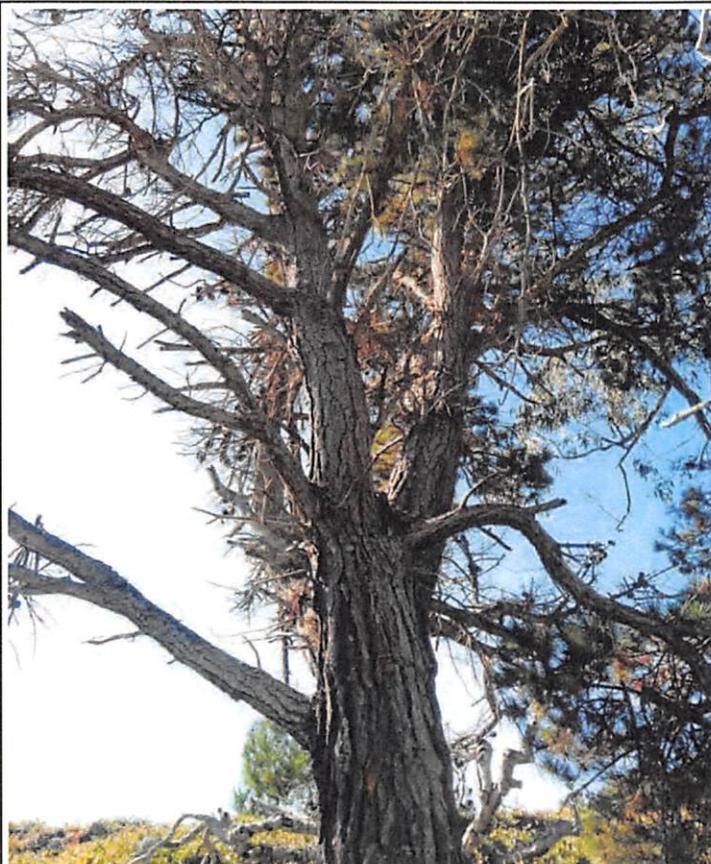
Tree 1526. Monterey Pine



Tree 1527. Monterey Pine



Tree 1528. Monterey Pine



Tree 1532. Monterey Pine



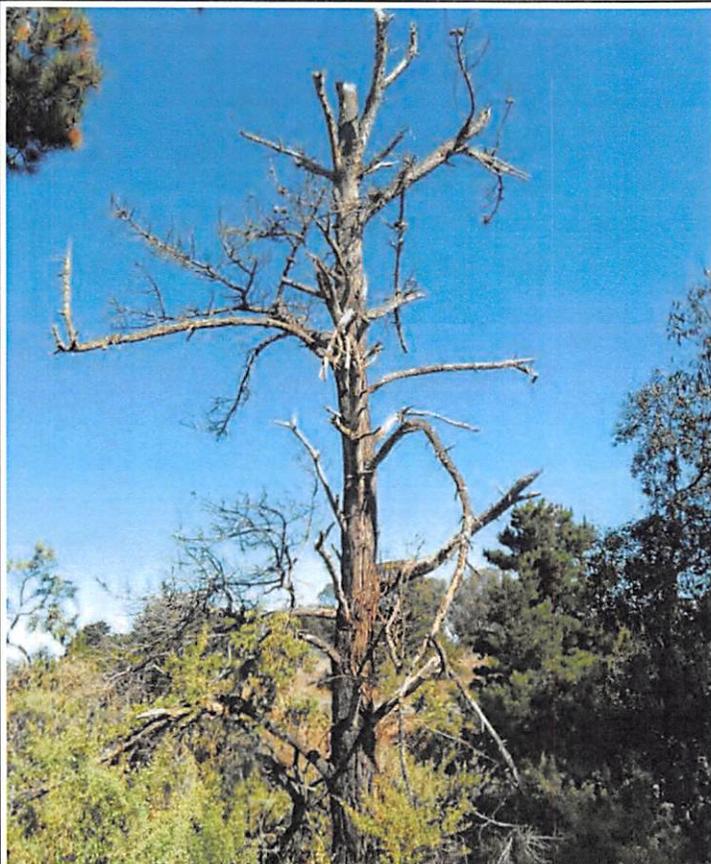
Tree 1533. Eucalyptus



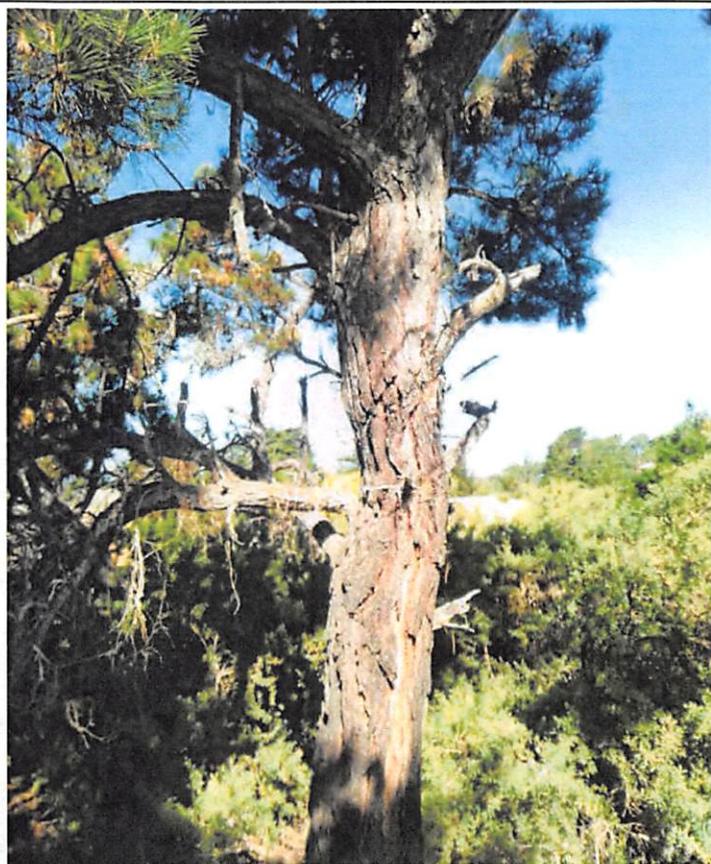
Tree 1534. Eucalyptus



Tree 1535. Coast Live Oak



Tree 1536. Monterey Pine



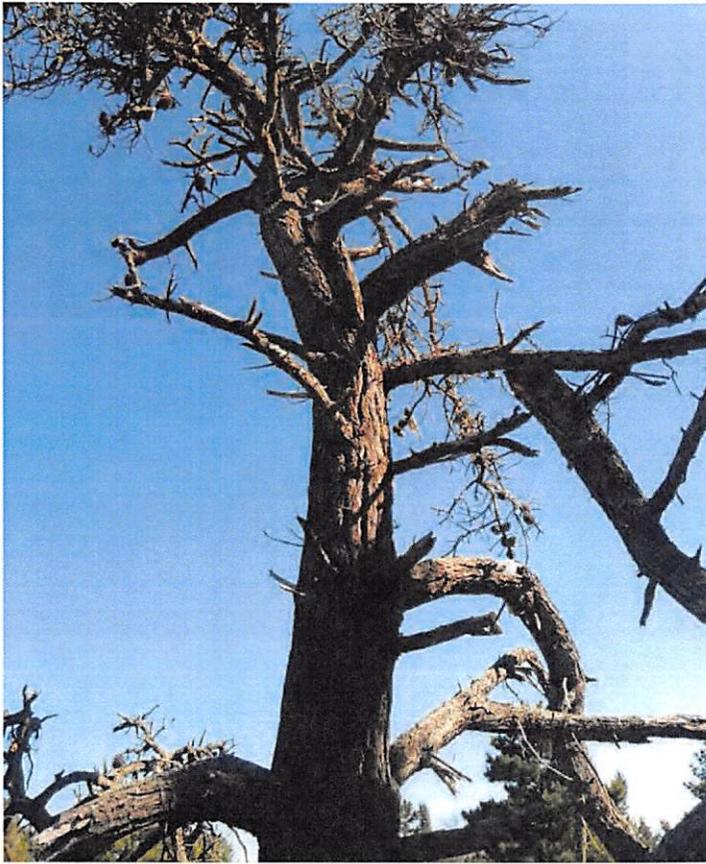
Tree 1537. Monterey Pine



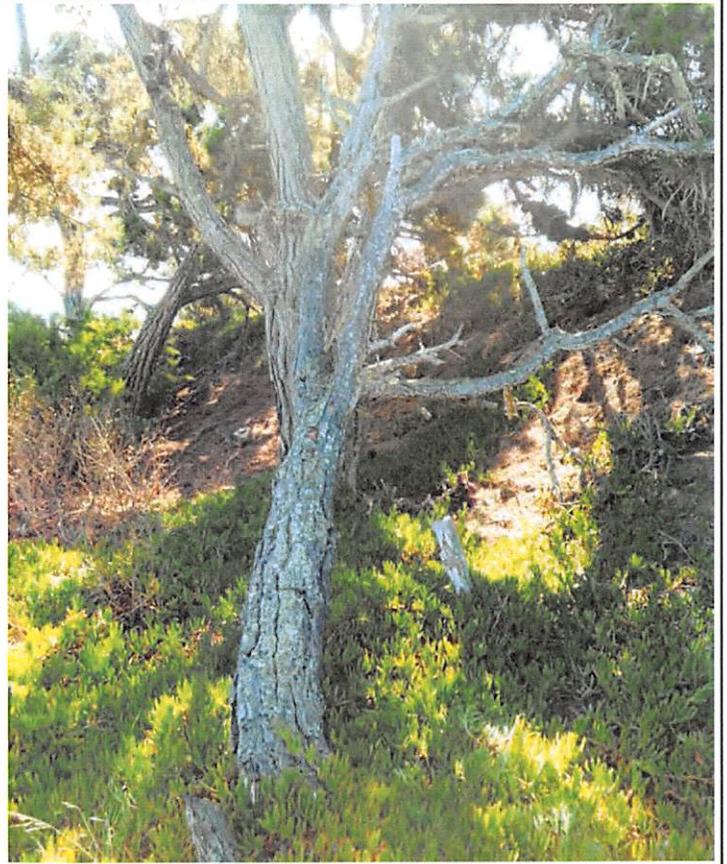
Tree 1538. Monterey Pine



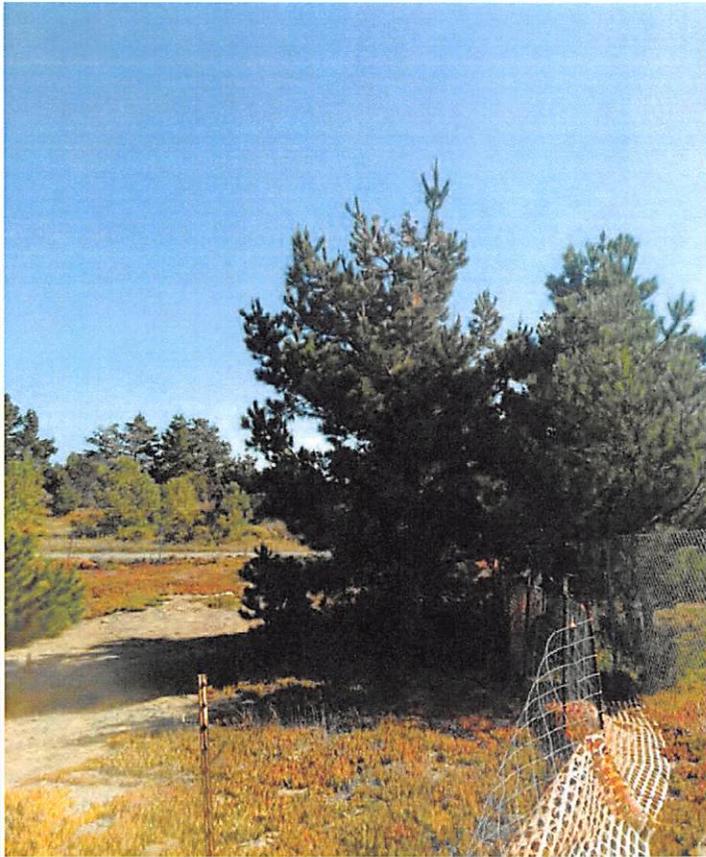
Tree 1539. Monterey Pine



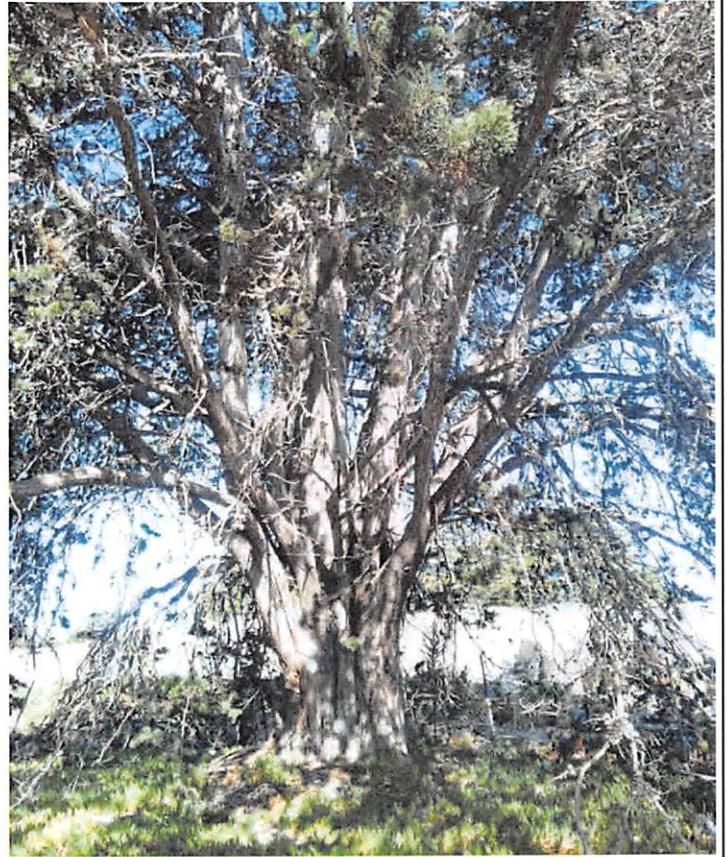
Tree 1540. Monterey Pine



Tree 1541. Monterey Pine



Tree 1542. Monterey Pine



Tree 1543. Monterey Cypress

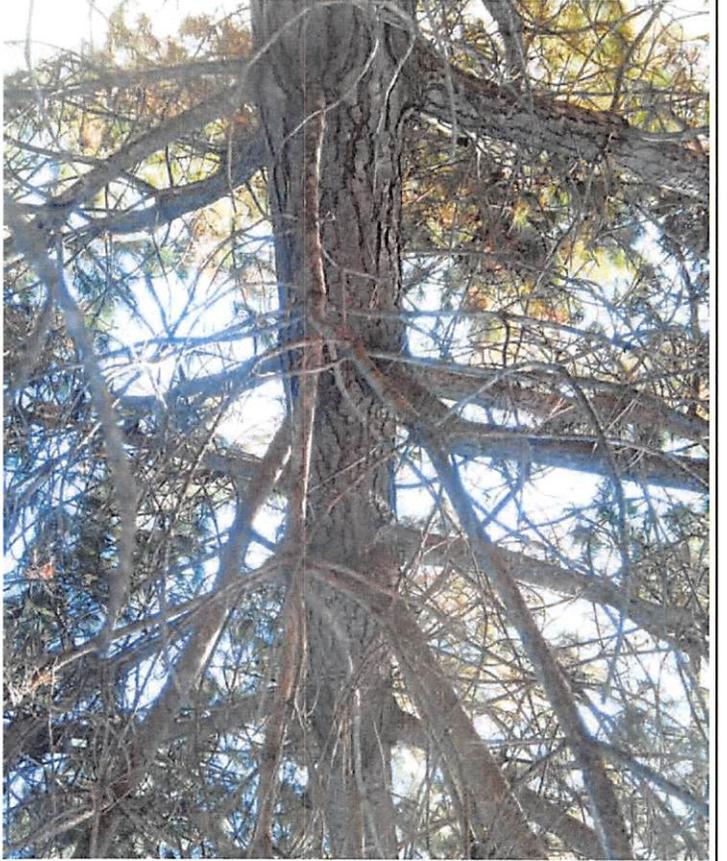
Tree 1546. Monterey Cypress



Tree 1547. Monterey Cypress



Tree 1544. Monterey Pine

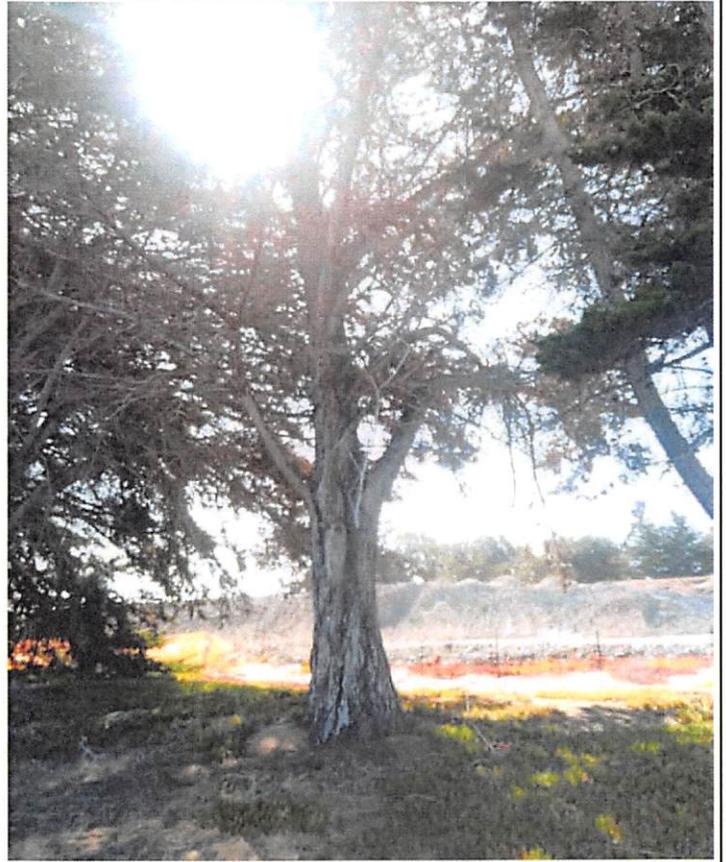


Tree 1545. Monterey Pine

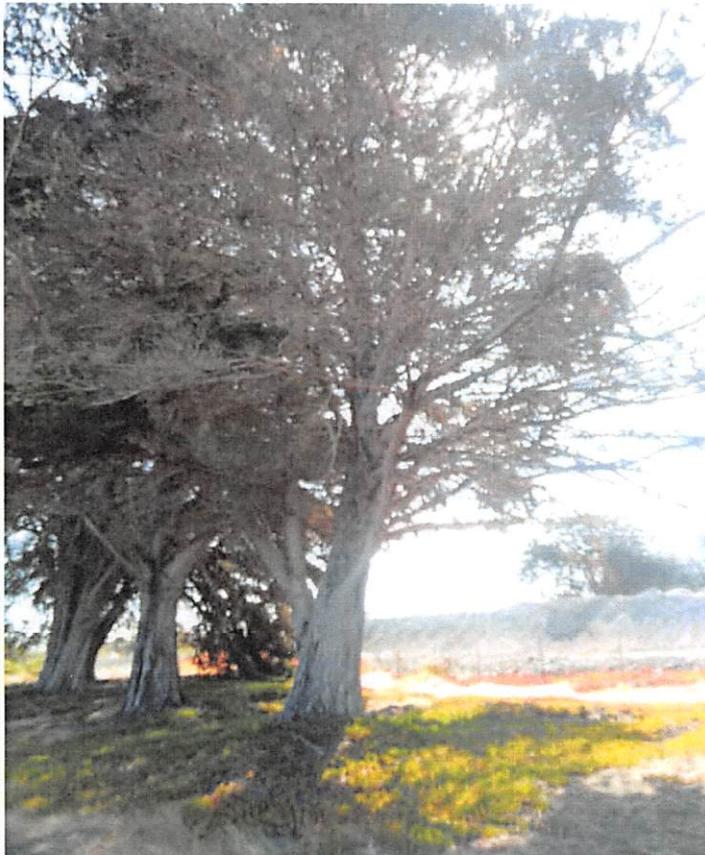




Tree 1548. Monterey Cypress



Tree 1549. Monterey Cypress



Tree 1550. Monterey Cypress



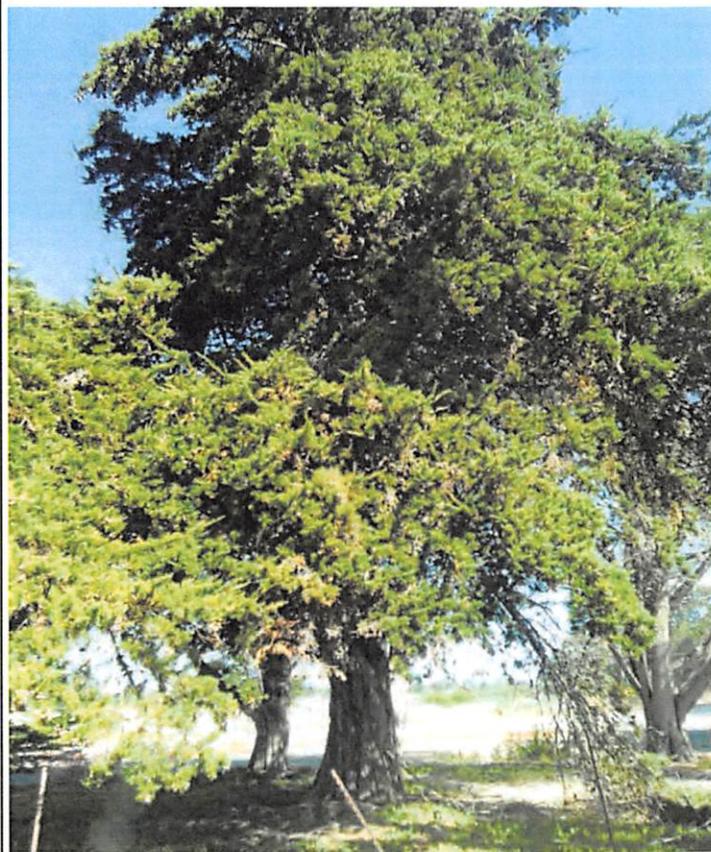
Tree 1551. Monterey Cypress



Tree 1552. Monterey Cypress



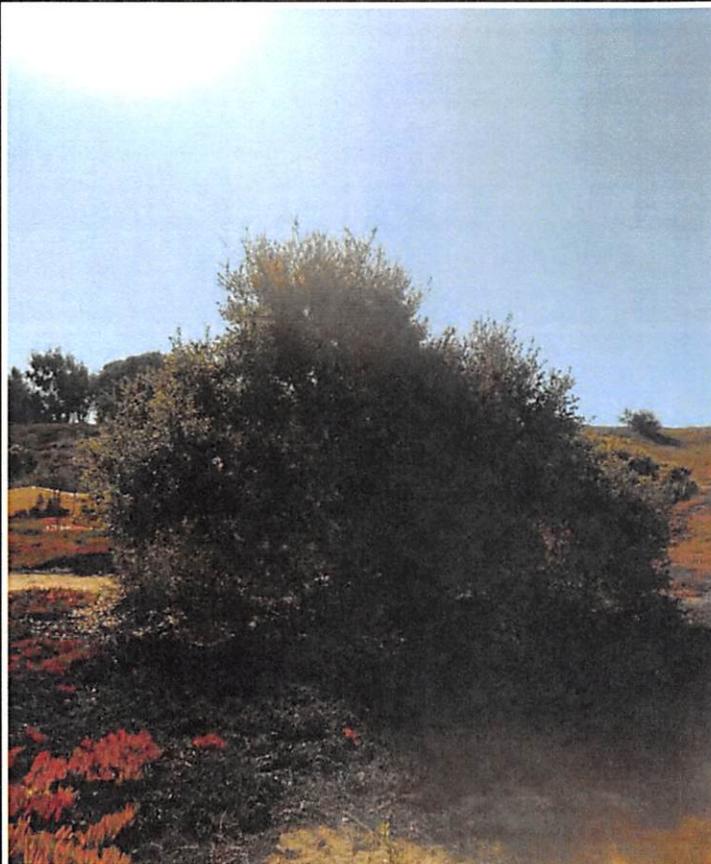
Tree 1553. Monterey Cypress



Tree 1554. Monterey Cypress



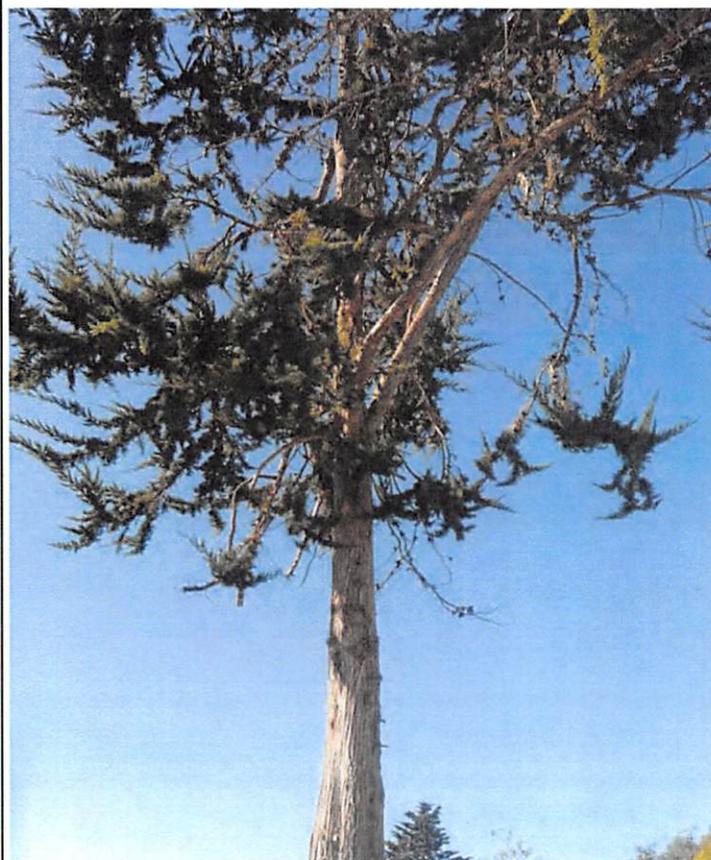
Tree 1555. Monterey Cypress



Tree 1556. Coast Live Oak



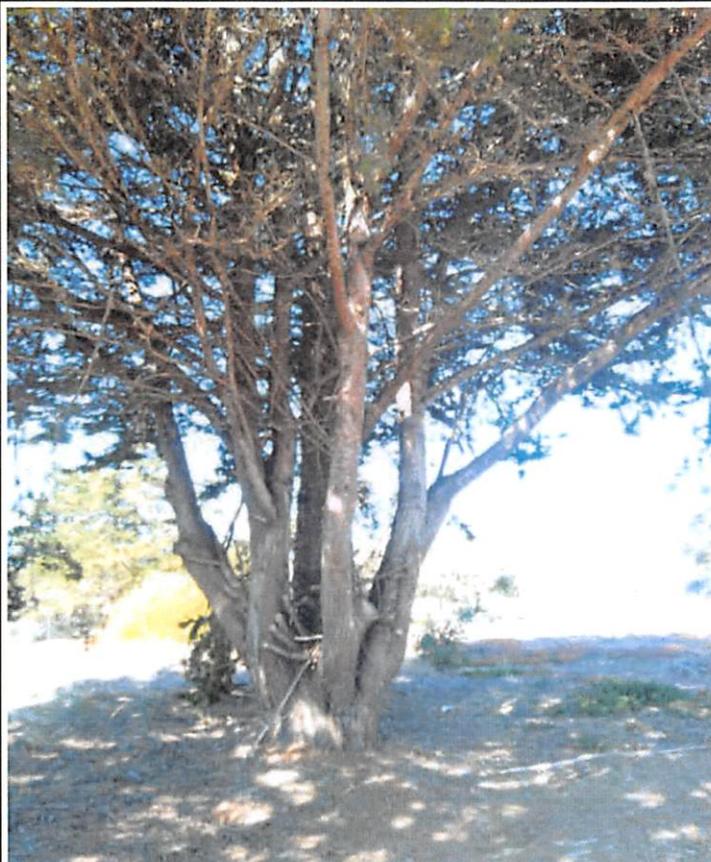
Tree 1559. Monterey Cypress



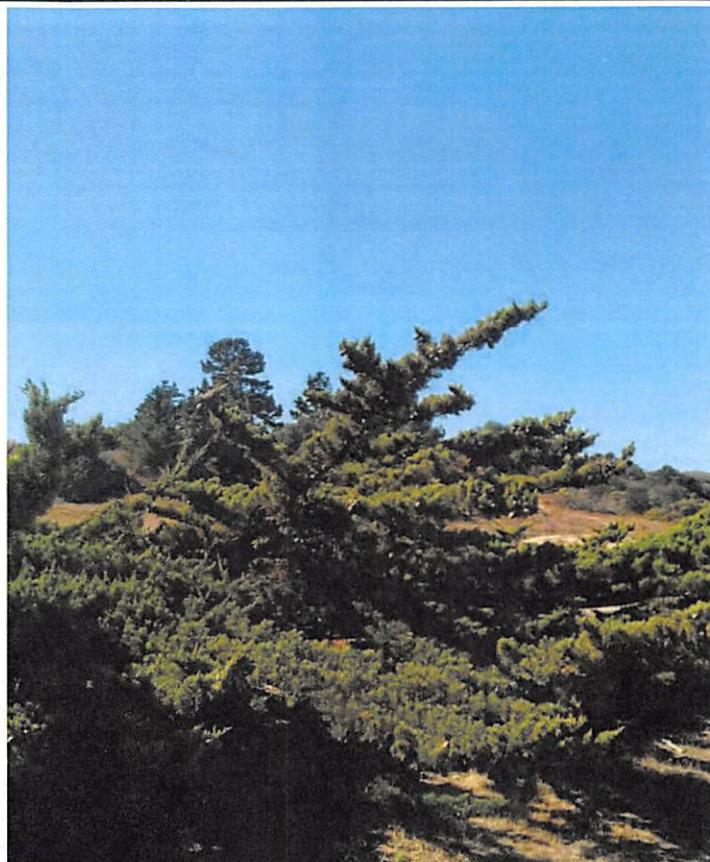
Tree 1568. Monterey Cypress



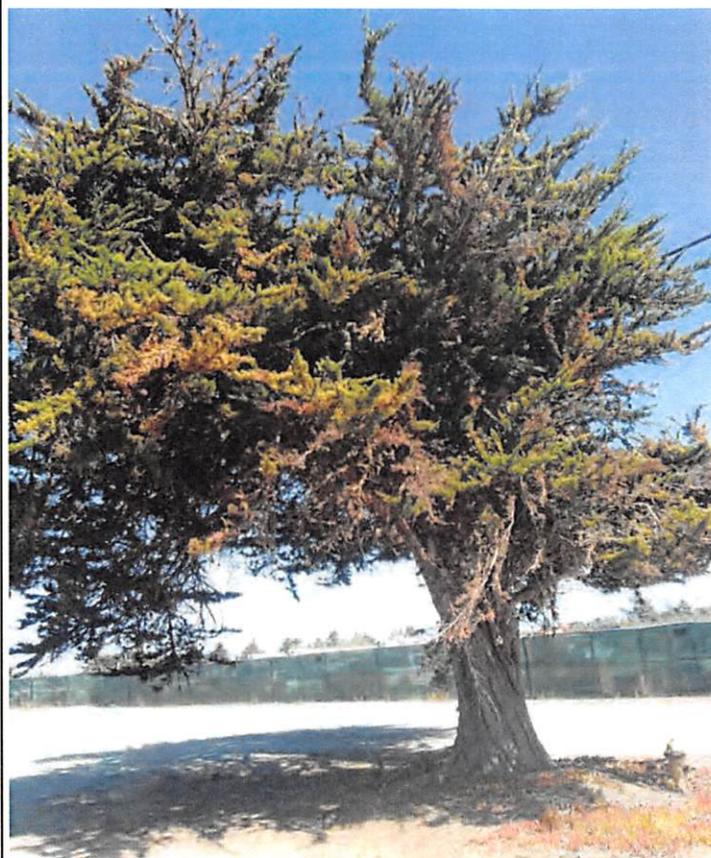
Tree 1569. Monterey Cypress



Tree 1570. Monterey Cypress



Tree 1571. Monterey Cypress

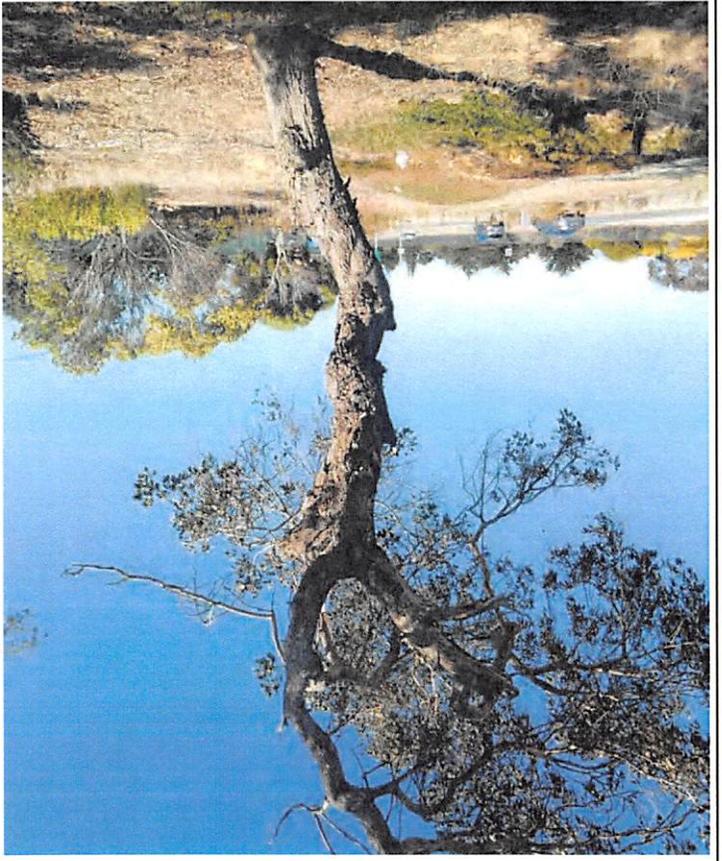


Tree 1572. Monterey Cypress



Tree 1573. Eucalyptus

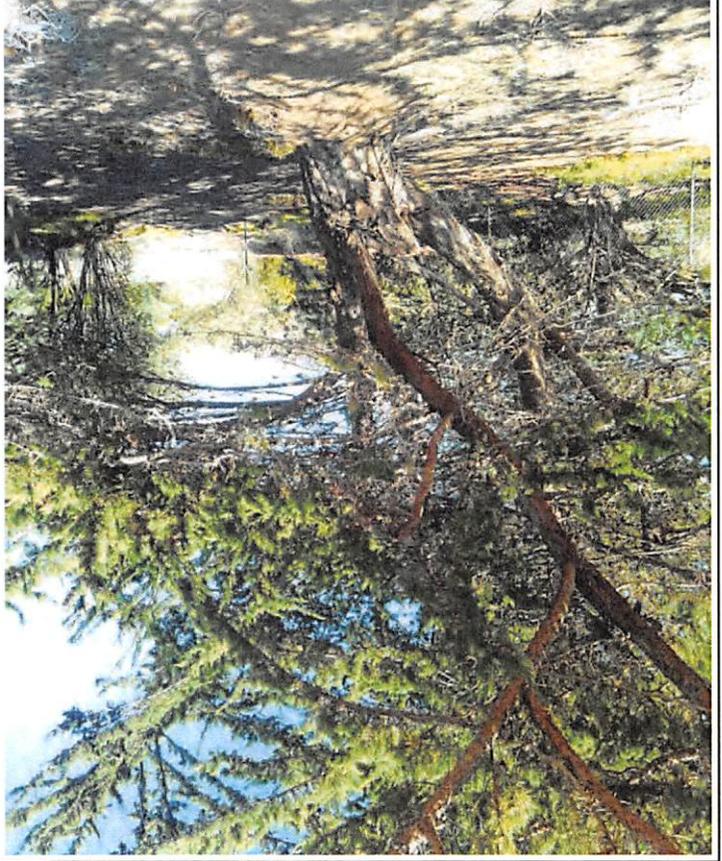
Tree 1582, Eucalyptus



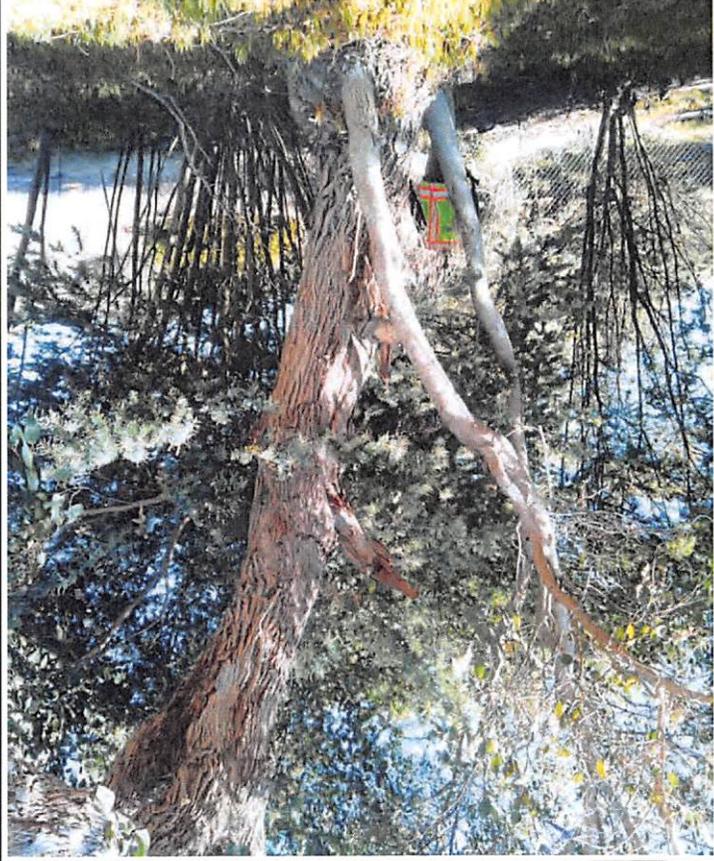
Tree 1583, Eucalyptus

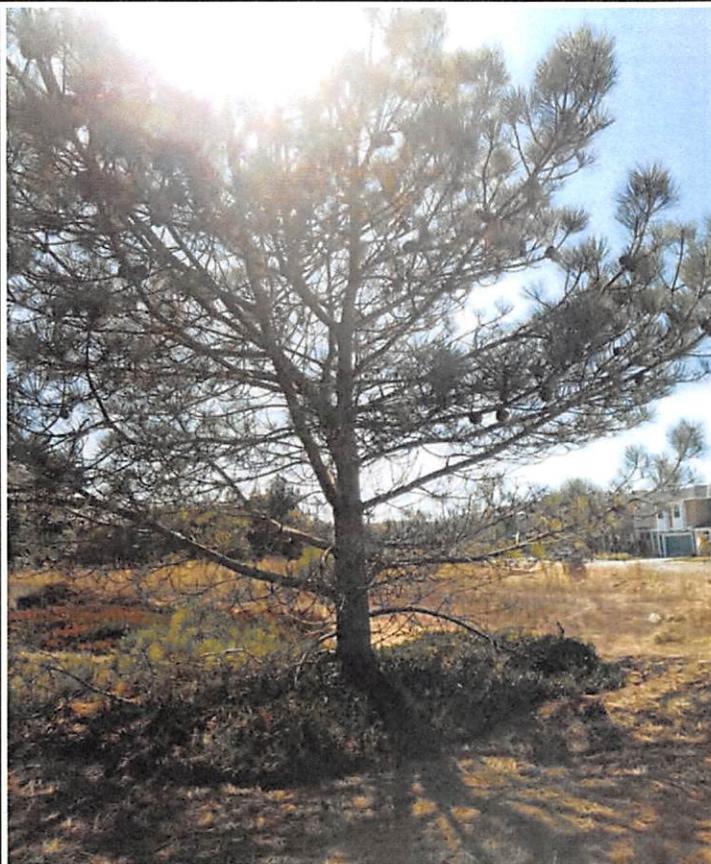


Tree 1574, Monterey Cypress



Tree 1575, Eucalyptus

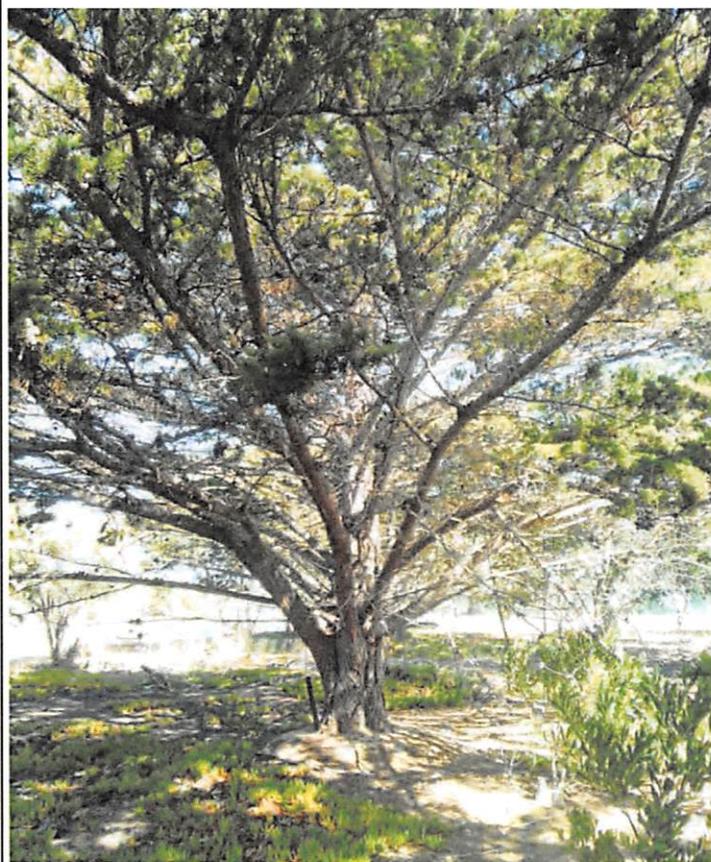




Tree 1585. Torrey Pine



Tree 1586. Monterey Pine



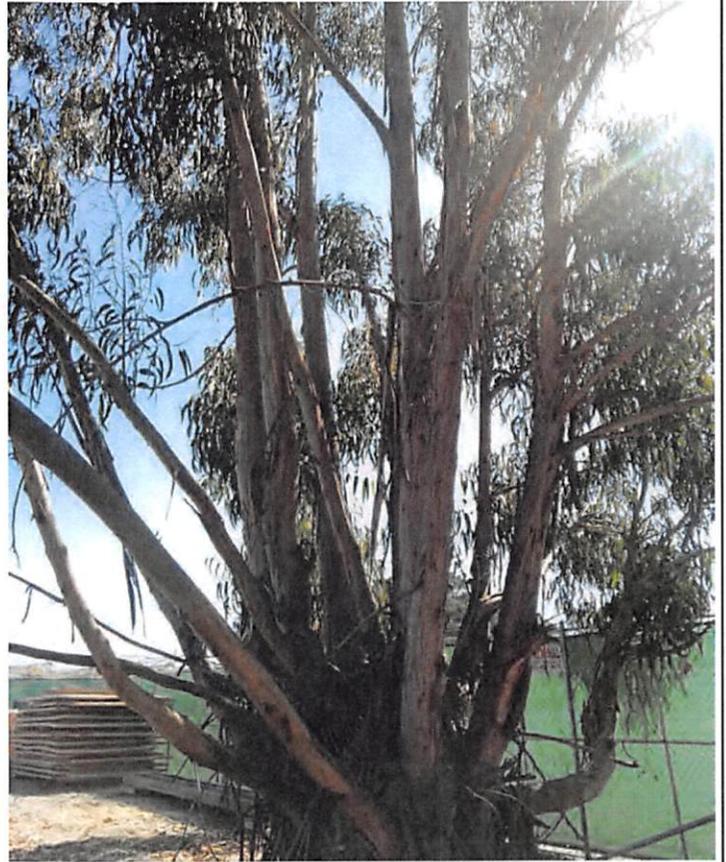
Tree 1587. Monterey Cypress



Tree 1588. Monterey Cypress



Tree 1589. Eucalyptus



Tree 1591. Eucalyptus



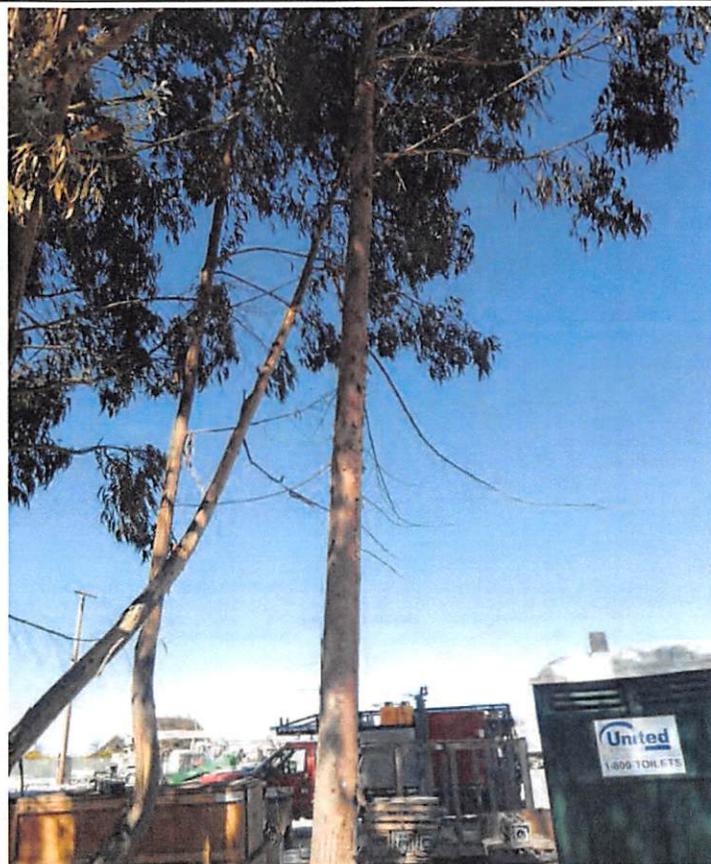
Tree 1592. Eucalyptus



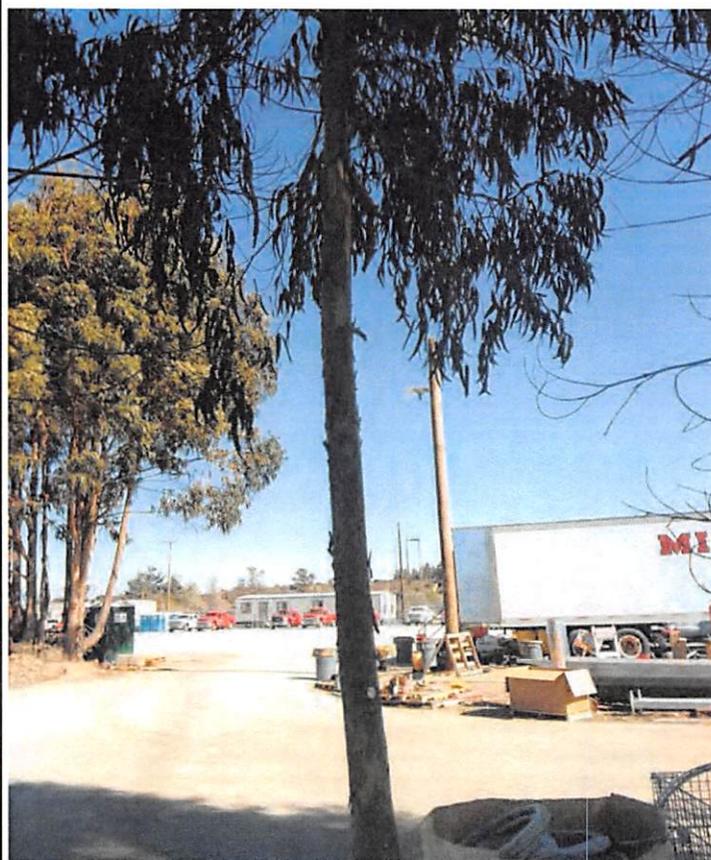
Tree 1593. Eucalyptus



Tree 1594. Eucalyptus



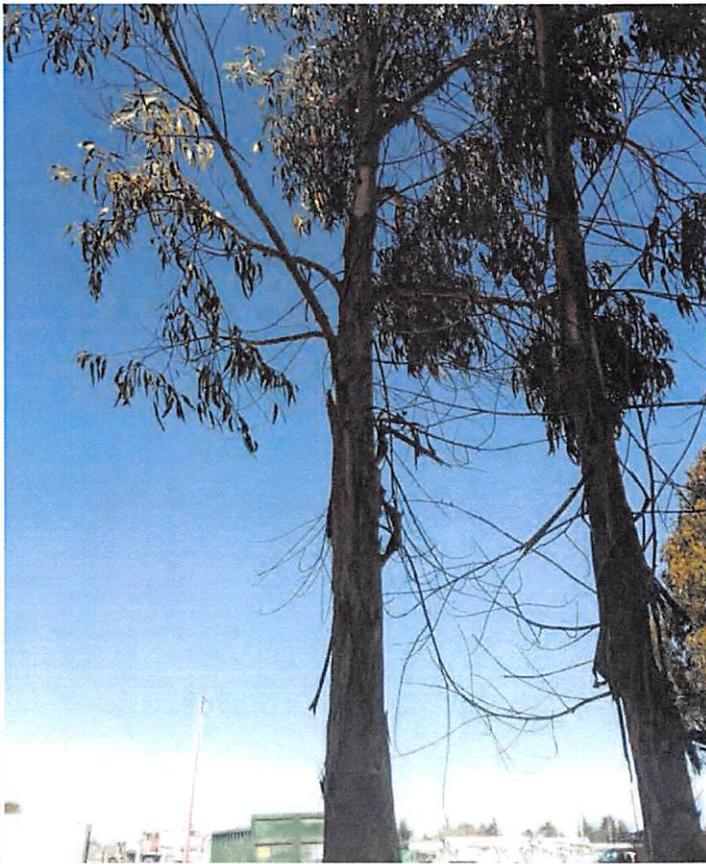
Tree 1595. Eucalyptus



Tree 1596. Eucalyptus



Tree 1597. Eucalyptus



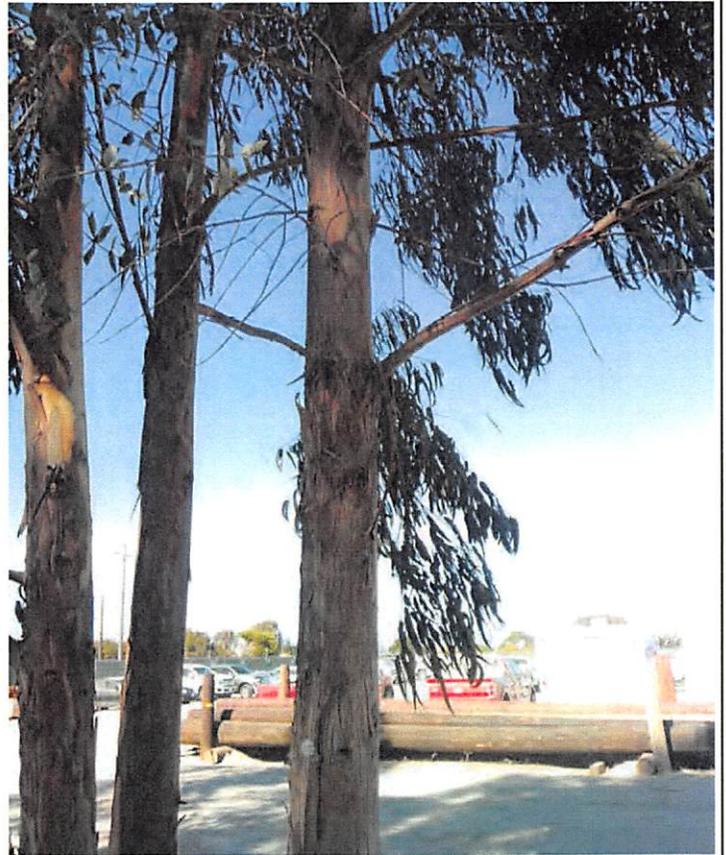
Tree 1598. Eucalyptus



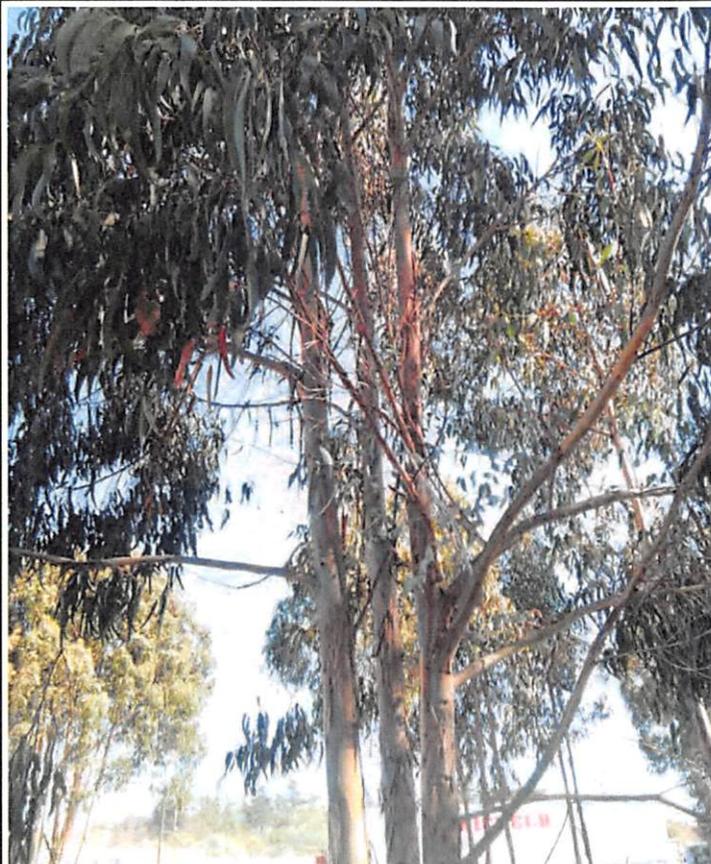
Tree 1600. Eucalyptus



Tree 1601. Eucalyptus



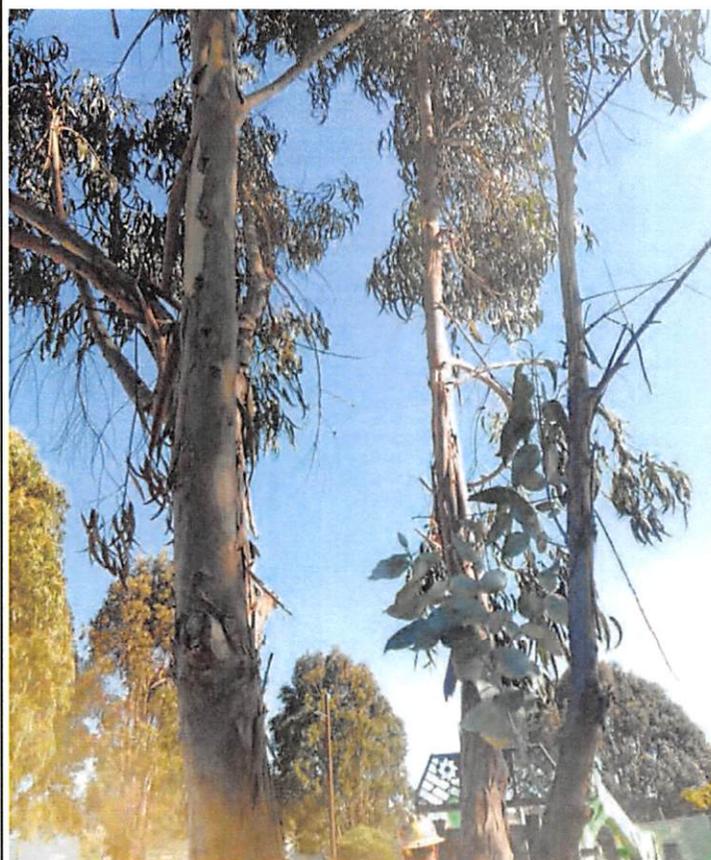
Tree 1602. Eucalyptus



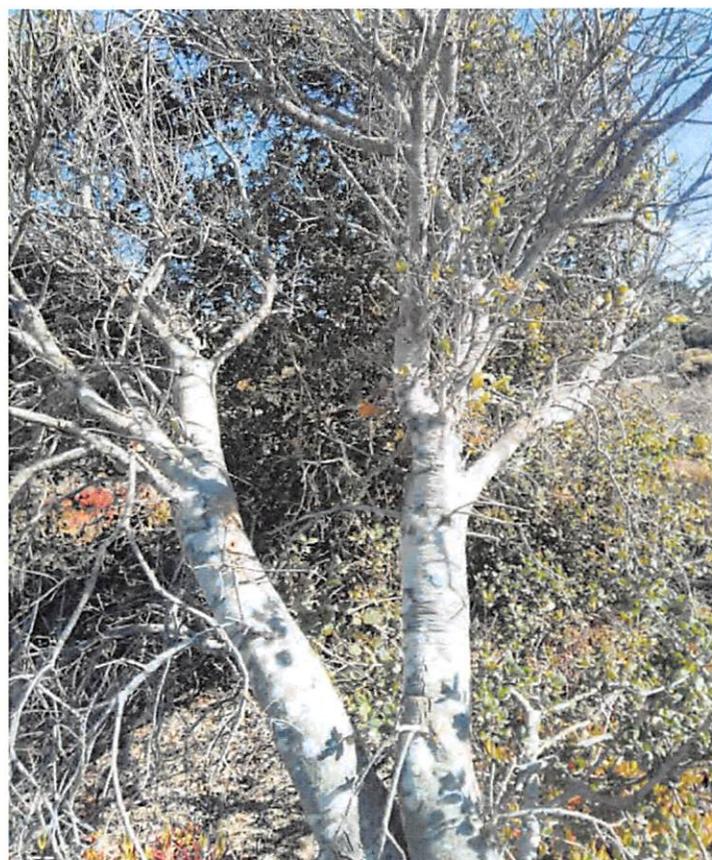
Tree 1603. Eucalyptus



Tree 1604. Eucalyptus



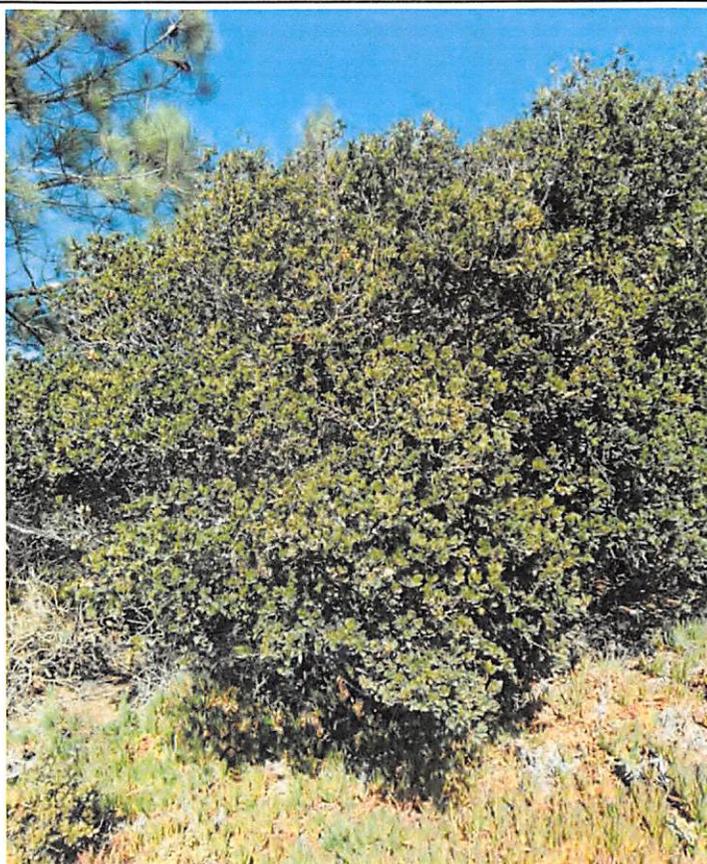
Tree 1605. Eucalyptus



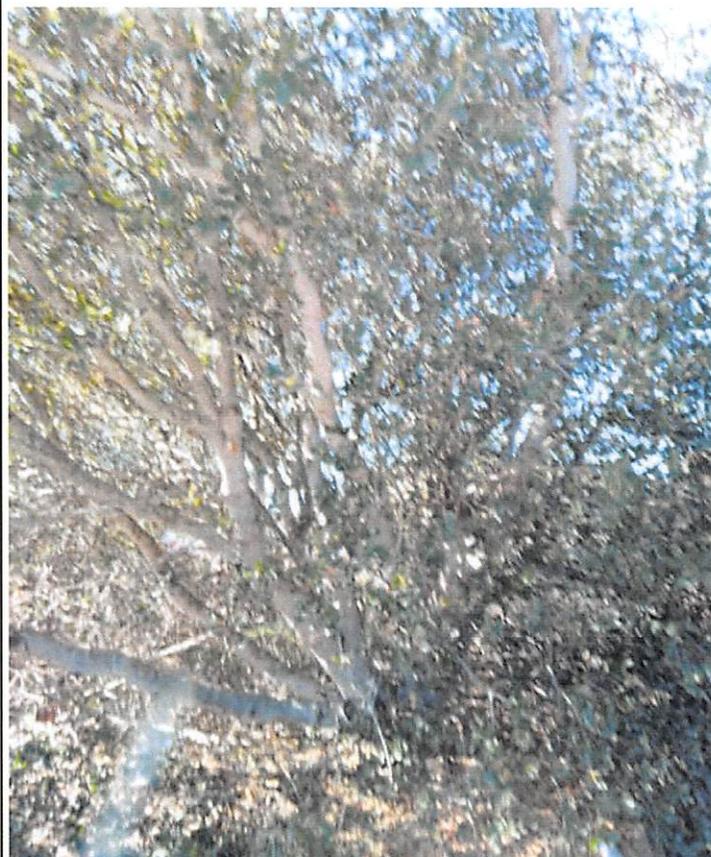
Tree 1606. Coast Live Oak



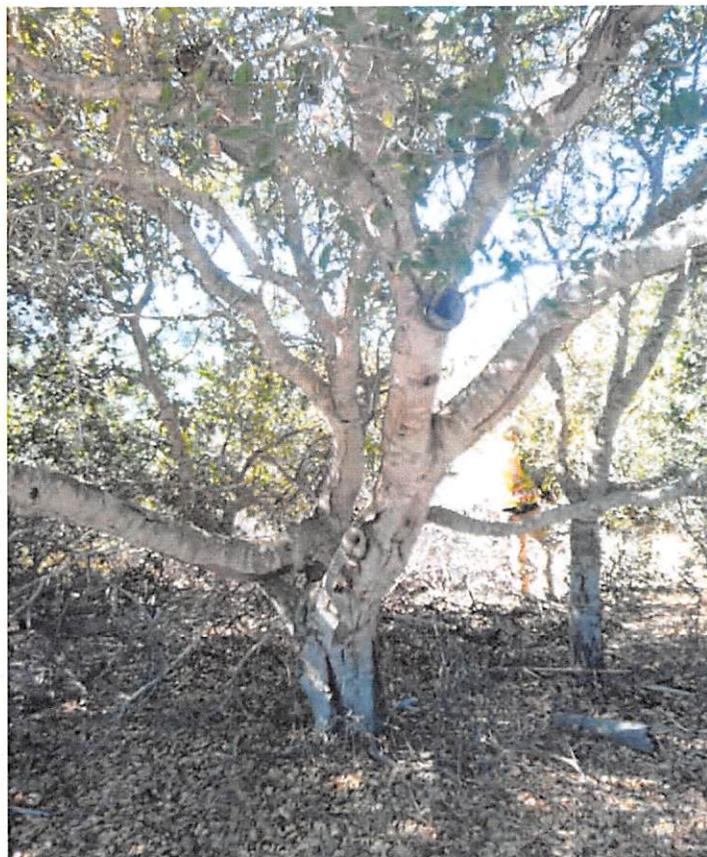
Tree 1607. Torrey Pine



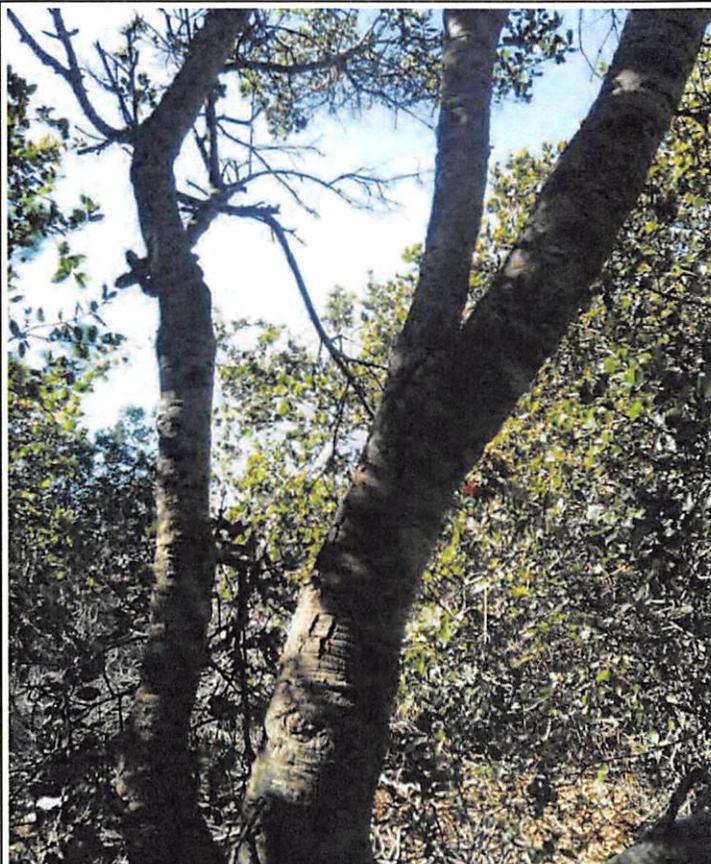
Tree 1608. Coast Live Oak



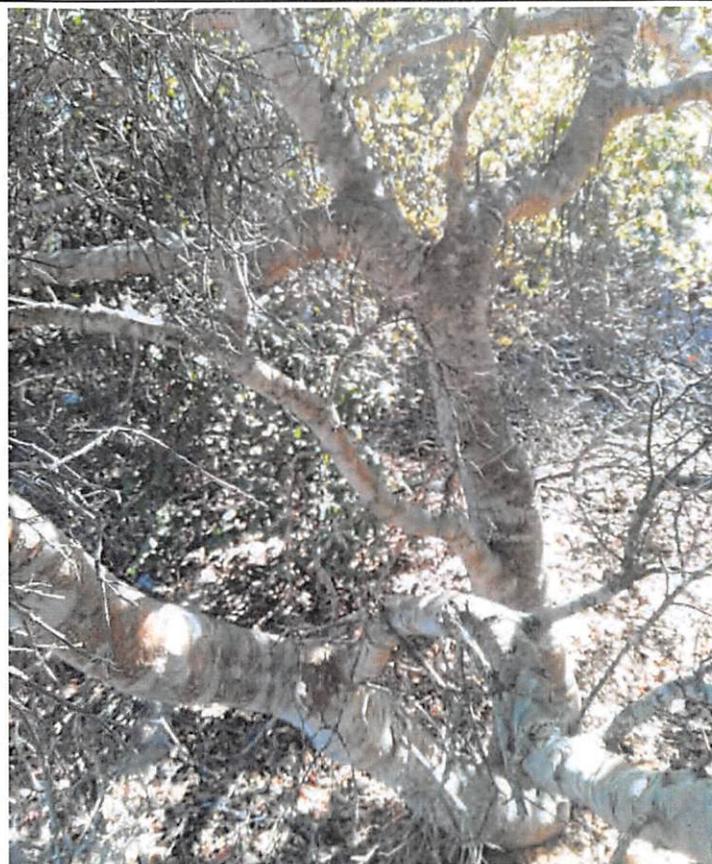
Tree 1609. Coast Live Oak



Tree 1610. Coast Live Oak



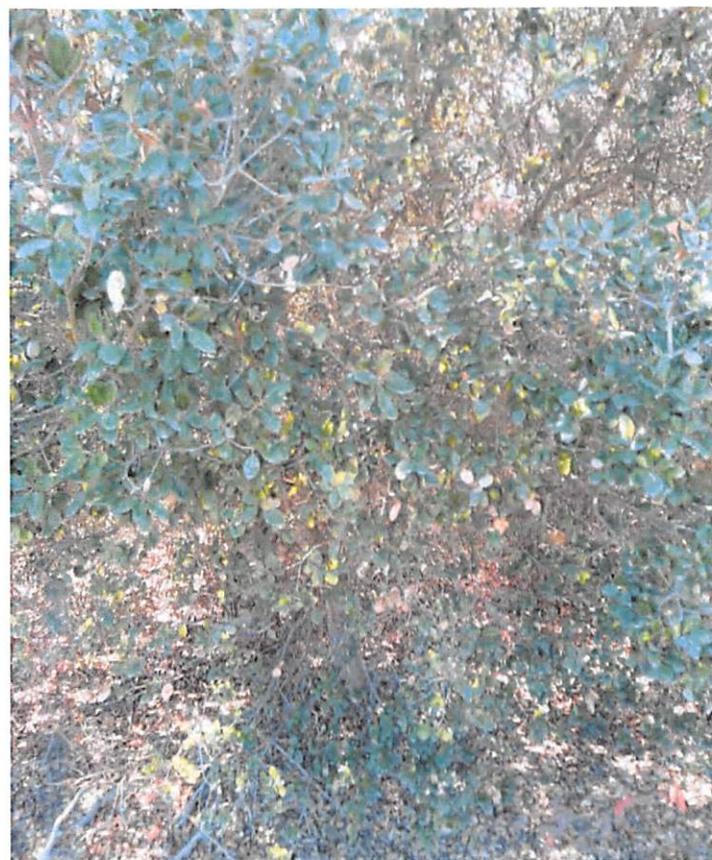
Tree 1611. Coast Live Oak



Tree 1612. Coast Live Oak



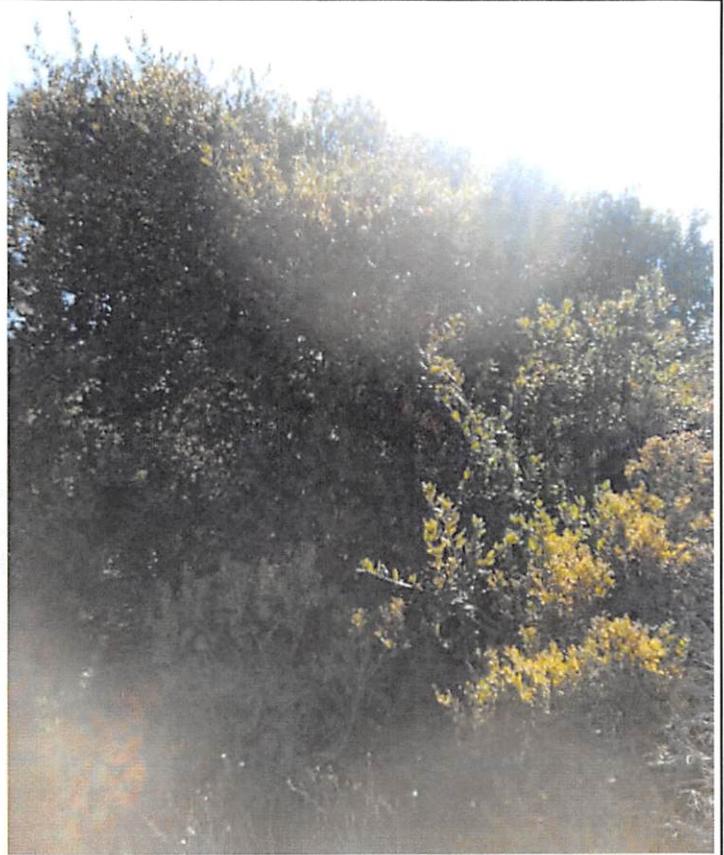
Tree 1613. Coast Live Oak



Tree 1614. Coast Live Oak



Tree 1615. Coast Live Oak



Tree 1616. Coast Live Oak



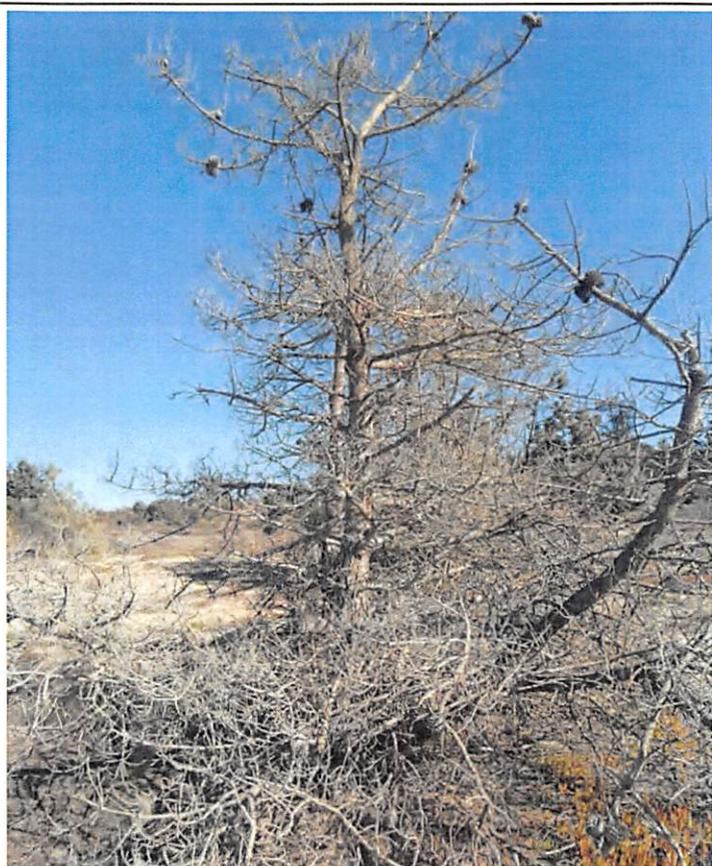
Tree 1617. Coast Live Oak



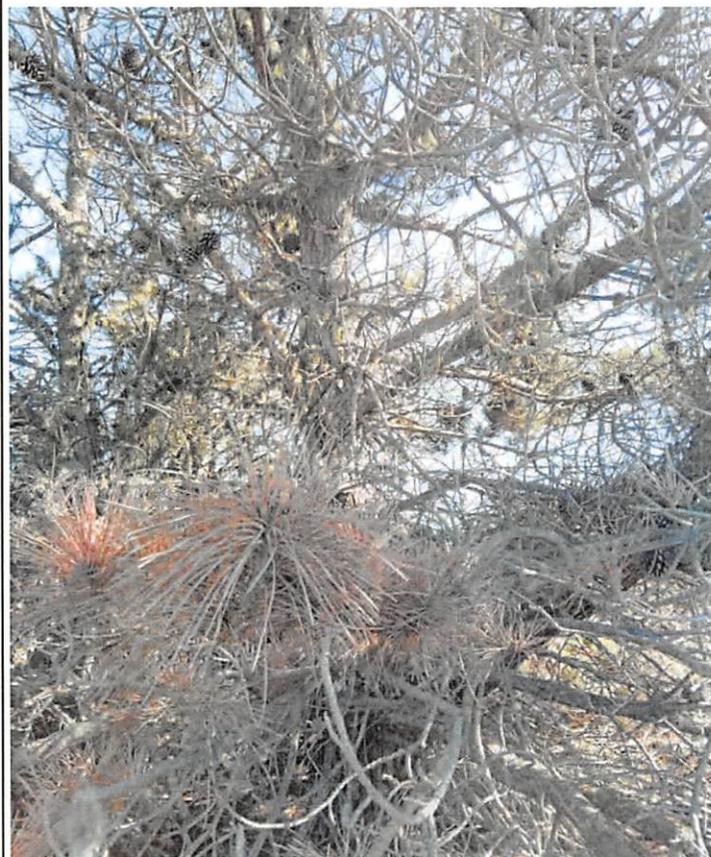
Tree 1618. Coast Live Oak



Tree 1619. Torrey Pine



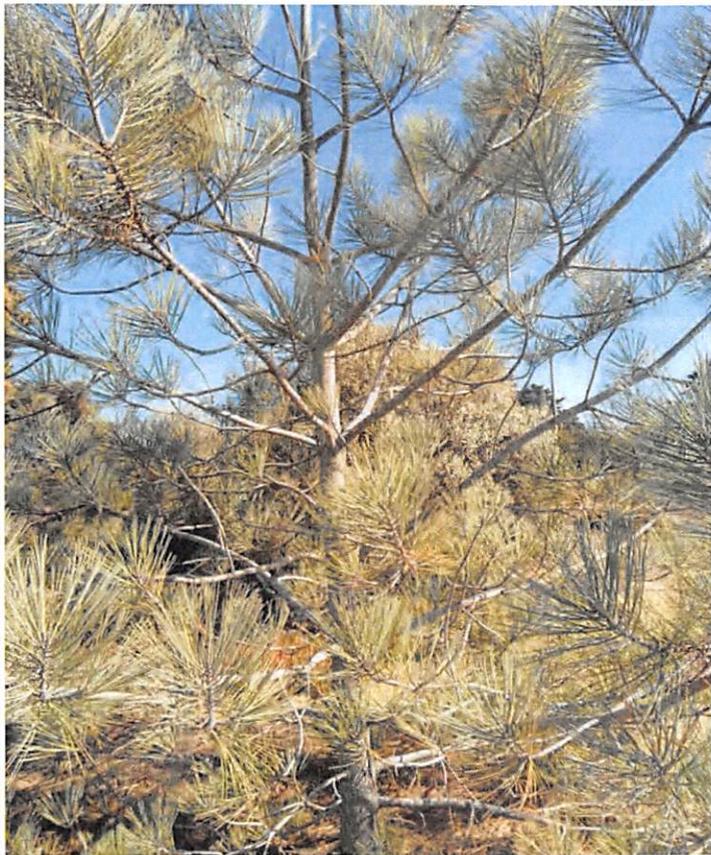
Tree 1620. Monterey Pine



Tree 1621. Monterey Pine



Tree 1622. Monterey Pine



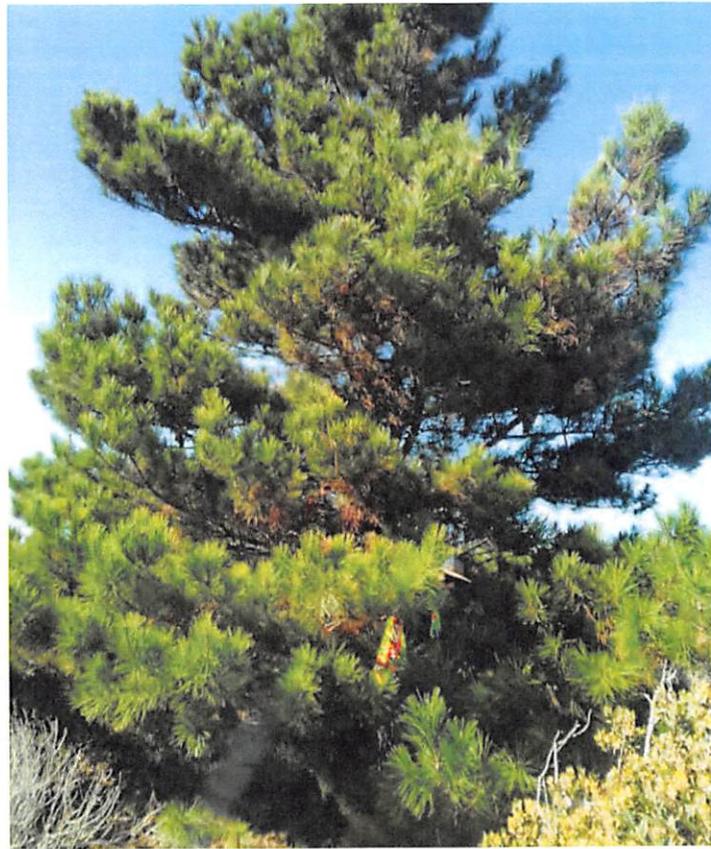
Tree 1623. Torrey Pine



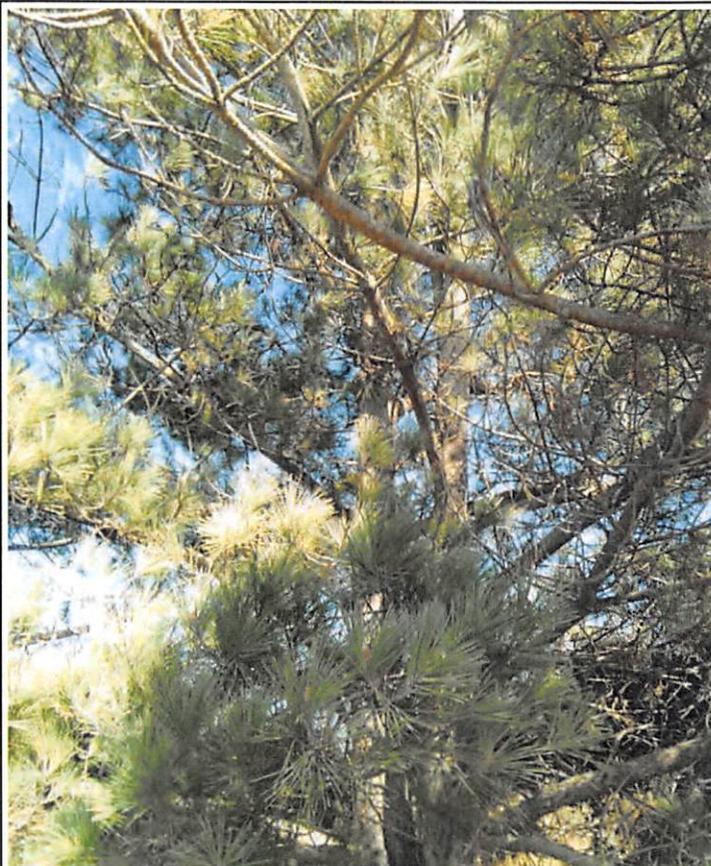
Tree 1624. Monterey Pine



Tree 1625. Torrey Pine



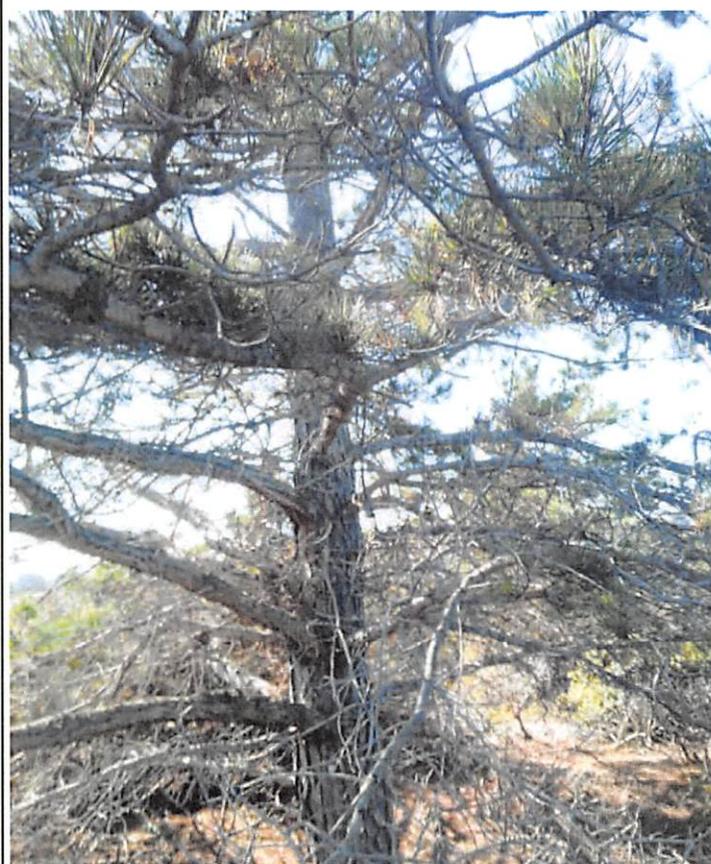
Tree 1626. Monterey Pine



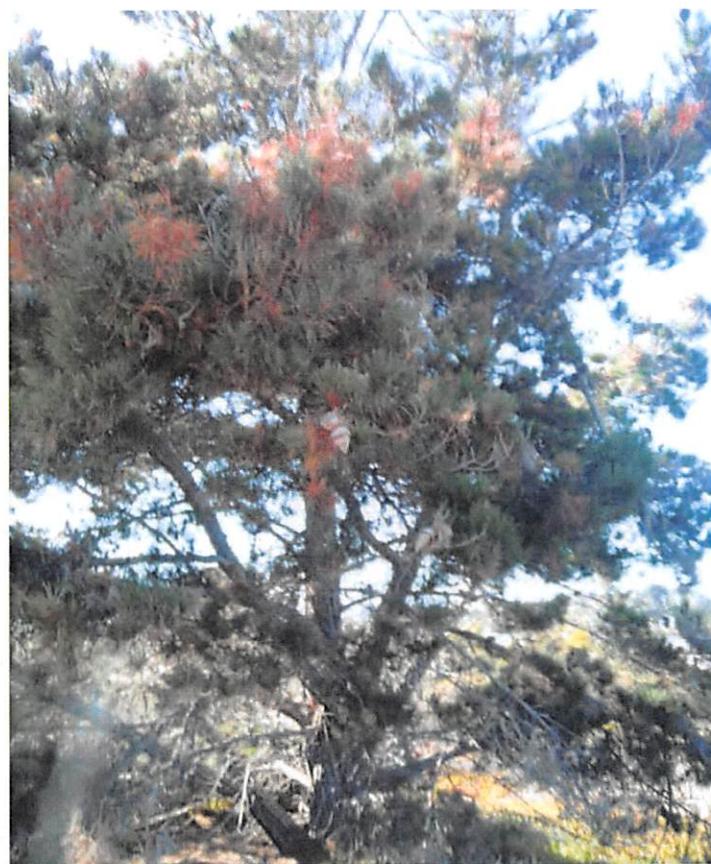
Tree 1627. Monterey Pine



Tree 1628. Monterey Pine



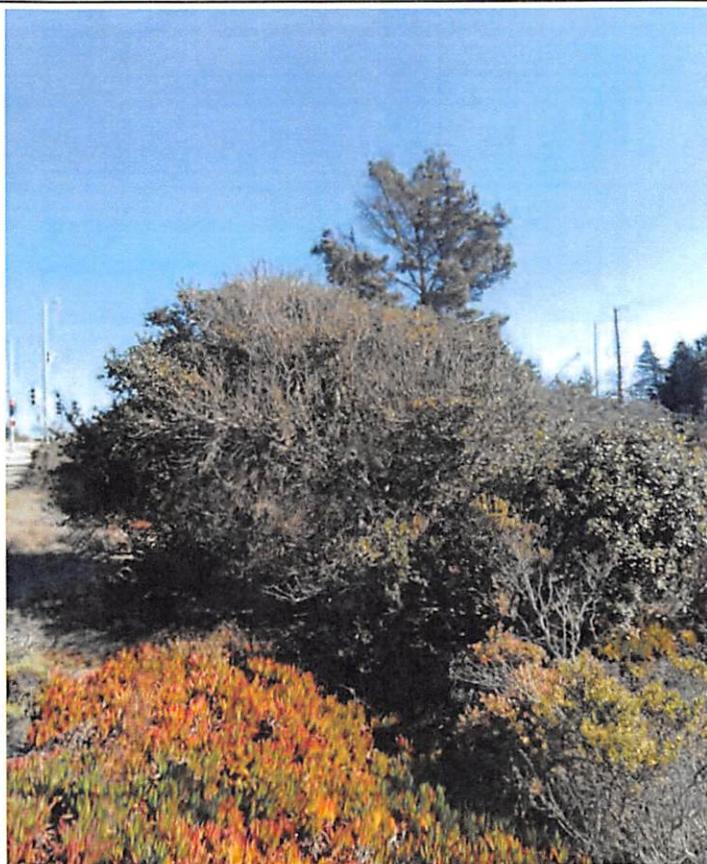
Tree 1629. Monterey Pine



Tree 1630. Monterey Pine



Tree 1631. Monterey Pine



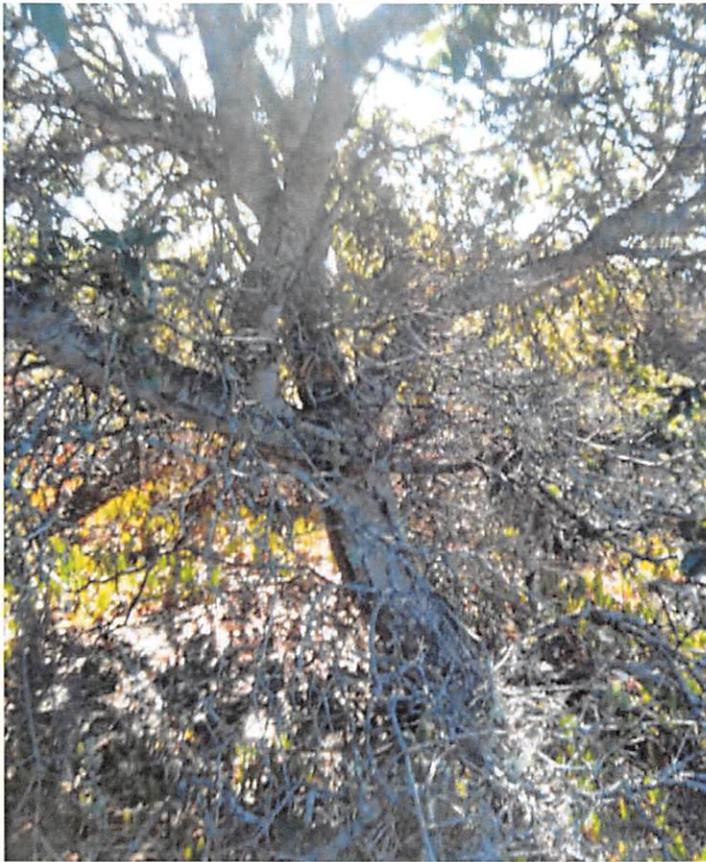
Tree 1632. Coast Live Oak



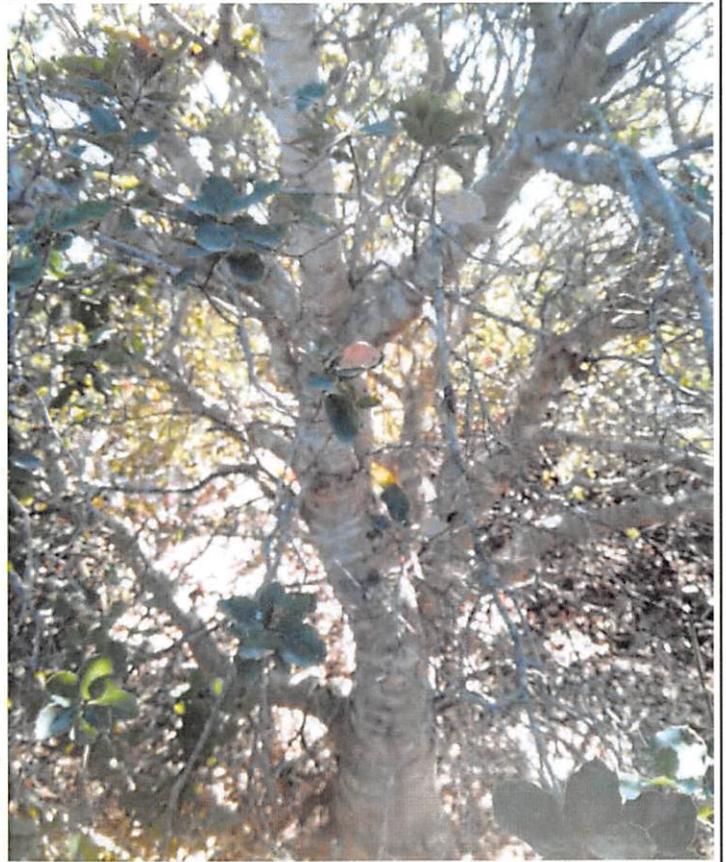
Tree 1633. Coast Live Oak



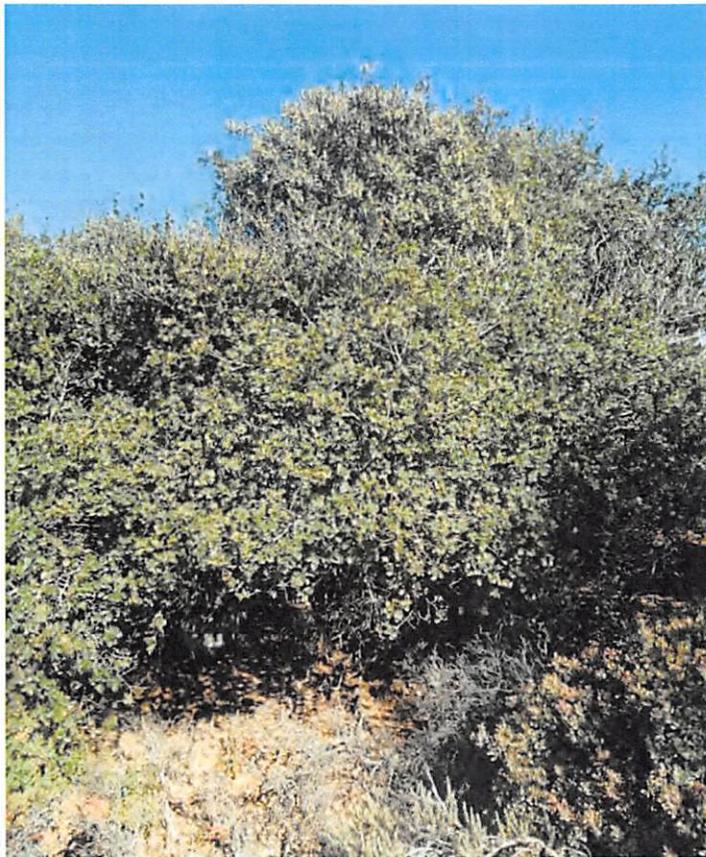
Tree 1634. Coast Live Oak



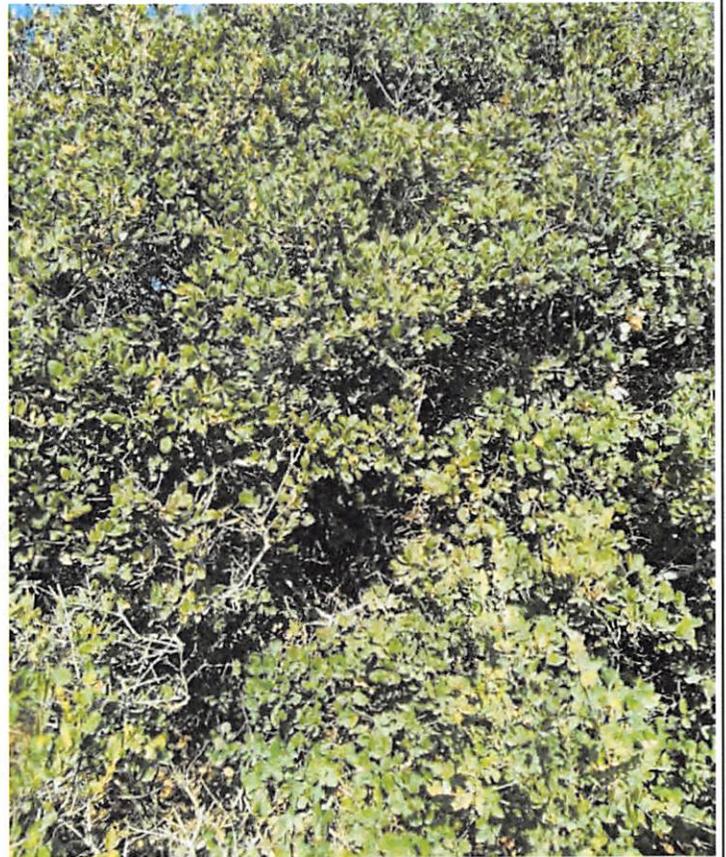
Tree 1635. Coast Live Oak



Tree 1636. Coast Live Oak



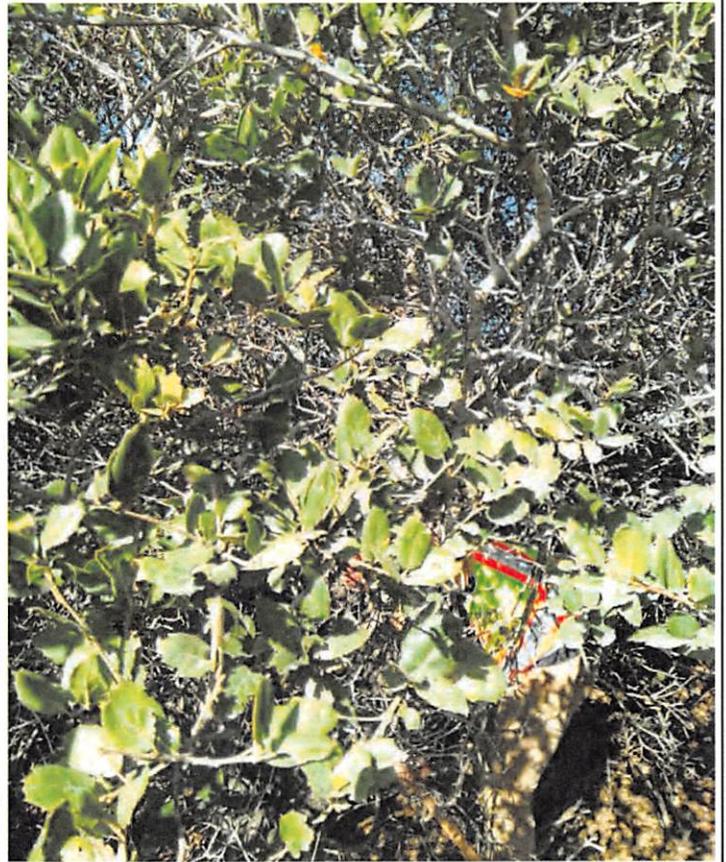
Tree 1637. Coast Live Oak



Tree 1638. Coast Live Oak



Tree 1639. Monterey Pine



Tree 1640. Coast Live Oak



Tree 1641. Coast Live Oak



Tree 1643. Coast Live Oak



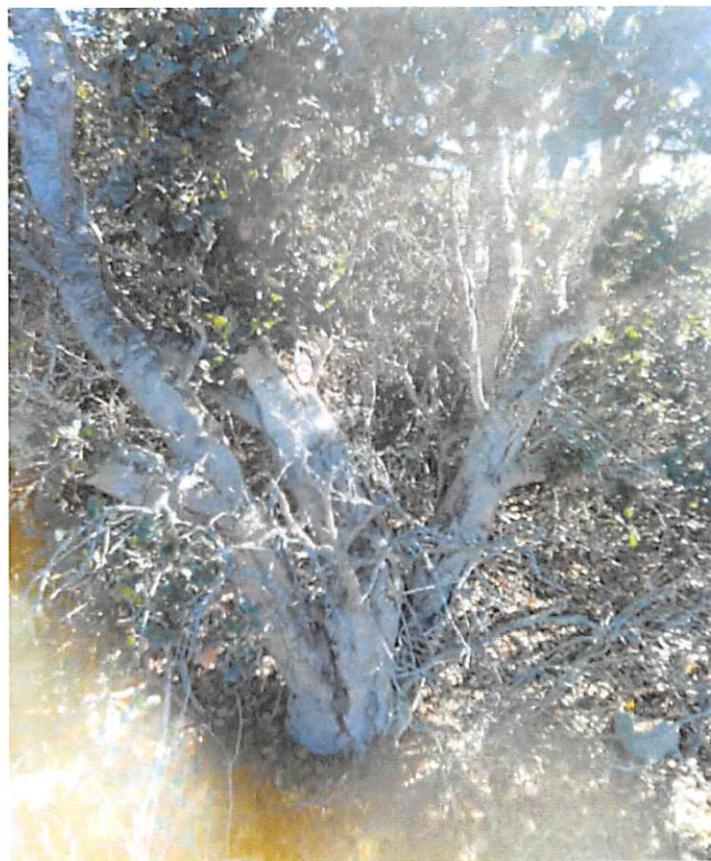
Tree 1644. Coast Live Oak



Tree 1645. Coast Live Oak



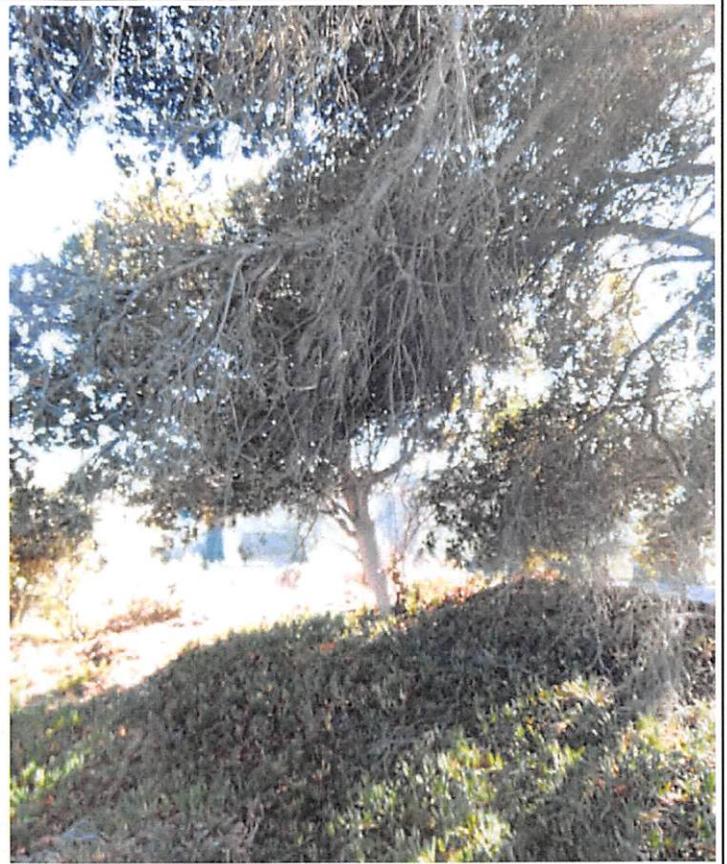
Tree 1646. Monterey Pine



Tree 1647. Coast Live Oak



Tree 1648. Coast Live Oak



Tree 1649. Coast Live Oak



Tree 1650. Coast Live Oak

APPENDIX D

Best Management Practices When Working Near Trees

RECOMMENDED BEST MANAGEMENT PRACTICES FOR TREE PRESERVATION

Tree Protection

Fencing and Barricades

All trees in the project area which are scheduled for preservation shall be temporarily fenced prior to all project-related activities. Fencing shall be installed at the edge of the root zone (the area located within 15 times the trunk diameter in all directions) unless an alternate location is determined essential to the construction of the project. Fencing shall consist of chain link or plastic link fence which is maintained at a minimum height of four feet above grade during all phases of construction.

Fenced areas shall not be used for material stockpile, storage, or vehicle parking. Dumping of materials, chemicals, or garbage shall be prohibited within fenced areas. Fenced areas shall be maintained in natural condition at natural or existing grade and shall not be compacted.

All approved construction within the root zone shall include construction barricades. Barricades shall be upright and be constructed from two-inch by four-inch planks standing a minimum of eight feet vertically, conforming to the tree, and shall be tied with wire or rope forming a maximum of one-inch space between the planks. If the tree's configuration or site conditions do not lend themselves to the installation of this type barricade, a certified arborist or City Forester shall designate alternate tree protection methods. Under certain conditions where soil compaction is probable, fences may also be required around a tree or grouping of trees. The use of recycled lumber, synthetic lumber, or similar materials approved by a certified arborist or City Forester is encouraged.

Tree Pruning

Tree pruning shall be minimal but, when necessary, shall be performed in accordance with American National Safety Institute (ANSI) A300 Pruning Standards. Pruning may include the larger canopied trees that have deadwood or are exhibiting some minor structural defect or minor disease that must be compensated. Should the health and vigor of any tree decline, it shall be treated as appropriately recommended by a certified arborist or qualified forester. In general, trees shall be assessed then pruned first for safety (e.g., broken and cracked limbs shall be removed in high-traffic areas of concern), next for health, and finally for aesthetics. No more than 25% of the overall tree crown shall be pruned in one season.

Tree pruning may include crown thinning, crown raising, crown reduction, or crown restoration, as described below.

Crown Thinning

Crown thinning is the cleaning out of or removal of dead, diseased, weakly attached, or low vigor branches from a tree crown. Crown thinning shall be conducted as follows:

- All trees shall be pre-assessed on how the tree will be pruned from the top down.
- Tree trimmers shall favor branches with strong, U-shaped angles of attachment and, where possible, remove branches with weak, V-shaped angles of attachment and/or included bark.
- Lateral branches shall be evenly spaced on the main stem of young trees and areas of fine pruning.
- Branches that rub or cross another branch shall be removed where possible.
- Lateral branches shall be no more than one-half to three-quarters of the diameter of the stem to discourage the development of co-dominant stems where feasible.
- In most cases, trimmers shall not remove more than one-quarter of the living crown of a tree at one time. If it is necessary to remove more, it shall be done over successive years.

Crown Raising

Crown raising removes the lower branches of a tree to provide clearance for buildings, vehicles, pedestrians, and vistas. Crown raising shall be conducted as follows:

- Live branches on at least two-thirds of a tree's total height shall be maintained wherever possible. The removal of too many lower branches would hinder the development of a strong stem.
- All basal sprouts and vigorous epicormic sprouts shall be removed where feasible.

Crown Reduction

Crown reduction is used to reduce the height and/or spread of trees and is used for maintaining the structural integrity and natural form of a tree. Crown reduction shall be conducted only when absolutely necessary, as follows:

- Pruning cuts shall be at a lateral branch that is at least one-third the diameter of the stem to be removed wherever possible.
- When it is necessary to remove more than half of the foliage from a branch, it may be necessary remove the entire branch.

Crown Restoration

Crown restoration is used to improve the structure and appearance of trees that have been topped or severely pruned using heading cuts. One of three sprouts on main branch stubs should be selected to reform a natural appearing crown. Selected vigorous sprouts may need to be thinned to ensure adequate attachment for the size of the sprout. Restoration may require several years of pruning.

Root Pruning

Where alternative routes are not available, any subsurface construction related activities for the project shall avoid cutting major roots with a diameter of two inches or more, unless necessary. All approved construction within the root zone shall conform to the following construction practices:

- Hand trenching at point or line of grade cuts closest to the trunk to expose major roots two inches or more in diameter.
- In cases where rock or unusually dense soil prevents hand trenching, mechanical trenching may be permitted provided that work inside the dripline is closely supervised to prevent tearing or other damage to major roots.
- Exposed major roots shall be cut with a saw to form a smooth surface and avoid tearing or jagged edges.
- Absorbent tarp or heavy cloth fabric shall be placed over grade cuts where roots are exposed and secured with stakes and two to four inches of compost or wood chips spread over the tarp to prevent moisture loss. Care shall be taken that moisture levels beneath tarped areas remain comparable to surrounding areas until backfilling occurs. Some watering of these areas may be necessary to maintain moisture levels, and such measures shall remain in effect through all phases of construction, including all delays and other periods of inactivity.

ATTACHMENT 4



DENISE DUFFY & ASSOCIATES, INC.
PLANNING AND ENVIRONMENTAL CONSULTING

MEMORANDUM

Date: December 16, 2020
To: Doug Yount, Project Director
Shea Homes
From: Patric Krabacher, ISA Certified Arborist 11759/Environmental Scientist
Denise Duffy & Associates, Inc.
RE: Arborist Report to Obtain a Supplemental Tree Removal Permit for The Dunes on Monterey Bay Project, Phase 2 East – Evaluation Area 3

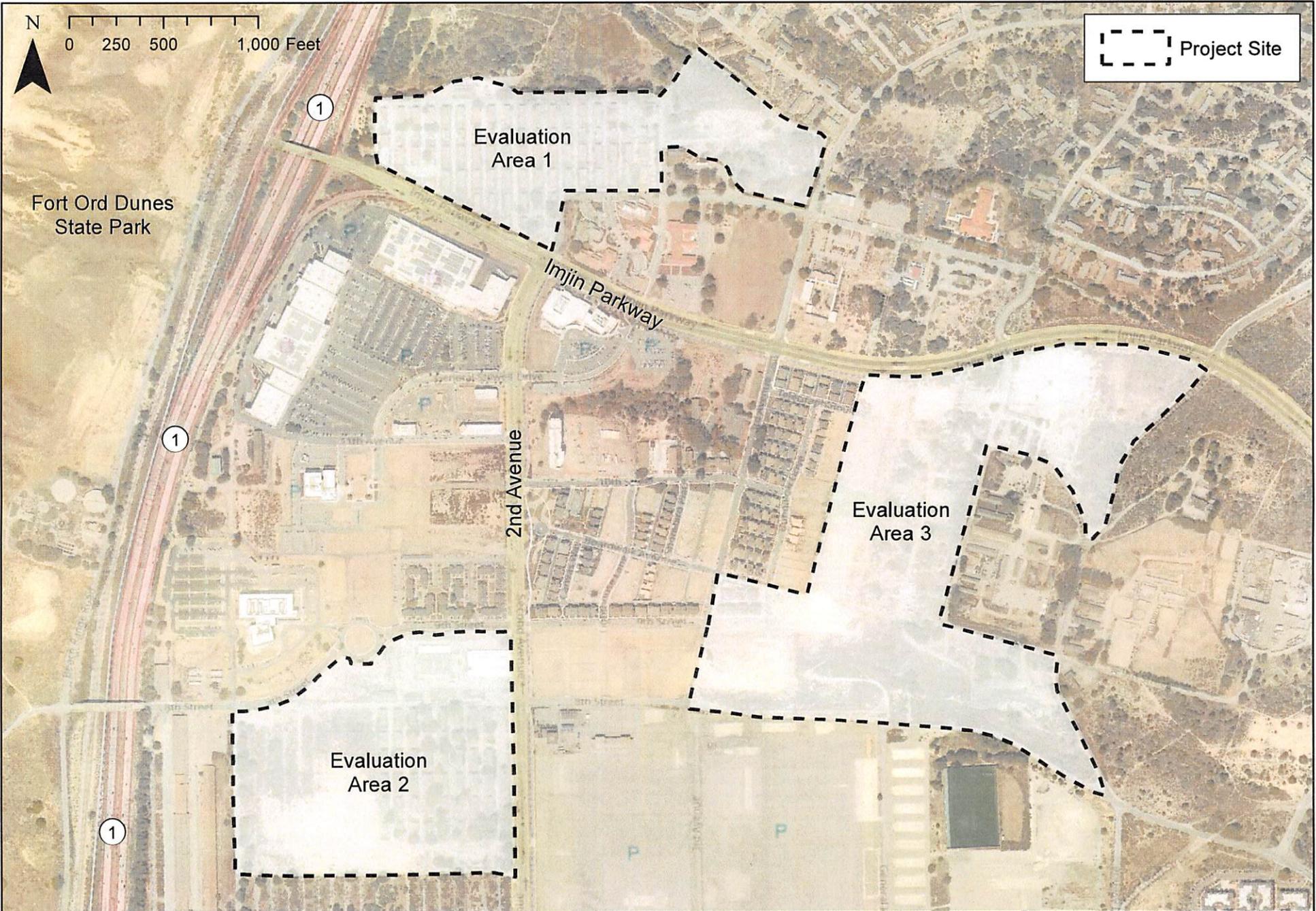
Denise Duffy & Associates, Inc. (DD&A) is contracted by Shea Homes (SH) to provide environmental consulting services for The Dunes on Monterey Bay Project, Phase 2 East– Evaluation Area 3 (project; **Figure 1; Appendix A**). To inform the development of project design plans that preserve as many healthy trees as practicable, DD&A conducted a field inventory of protected trees—as defined by the City of Marina (City) and the University Villages Specific Plan (UVSP)—within the project site on December 5, 2020. The tree inventory was conducted in accordance with the City-approved UVSP Existing Tree Removal, Relocation, and Replacement Standards (UVSP Tree Standards; approved on May 31, 2005), the project’s Final Environmental Impact Report (FEIR; SCH. NO.2004091167) and Resolution, the project’s Mitigation Monitoring and Reporting Program (MMRP), and 2005 Marina Municipal Code (MMC) Chapter 12.04 (Tree Removal, Preservation, and Protection).¹

MMC Chapter 12.04 requires a tree removal permit from the City to remove, relocate, or damage protected trees within City limits. Based on current design plans for the project and the results of the field survey of protected trees, 28² trees are proposed for removal as part of updated grading and fill activities to complete the project (**Figures 2; Appendices B and C**³). 22 trees were inadvertently removed during the initial grading of Evaluation Area 3 and shall be mitigated in accordance with MMC Section 12.040.100 Restitution for Violations. Additional tree removal and, therefore, additional tree removal permits, may be required during future excavations or construction. This report satisfies the requirements of MMC Section 12.04.060 and includes the tree survey results; recommended actions to mitigate potential and preceding impacts to trees which are proposed for removal or have previously been removed, to adjacent trees, and to other sensitive biological resources; and a completed tree removal permit application to remove 28 trees.

¹ To remain in compliance with the approved MMRP and FEIR (see Impact BR-2.2), the 2005 MMC 12.04 was used rather than the current tree protection ordinance (MMC 17.51).

² Please note that, in addition to these 28 trees, six acacia trees which are proposed for removal were only mapped and not recorded, per UVSP Development Regulations, Page 118: “*Acacia trees will not be recorded in table, but locations will be noted on map*”.

³ Please note that trees 555, 556, and 557 were removed prior to data collection; consequently, they do not have DBH or photos presented in Appendices B and C.

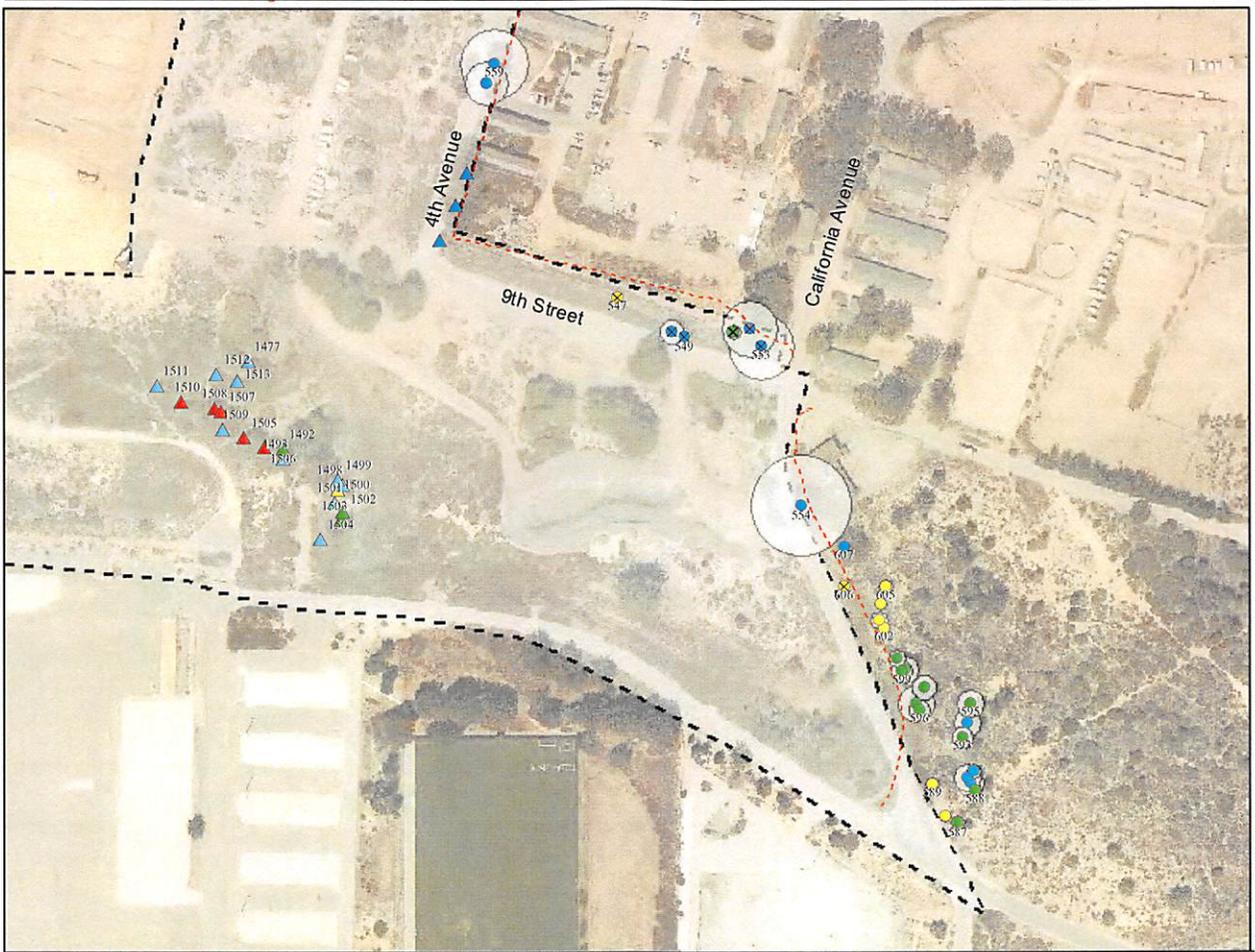
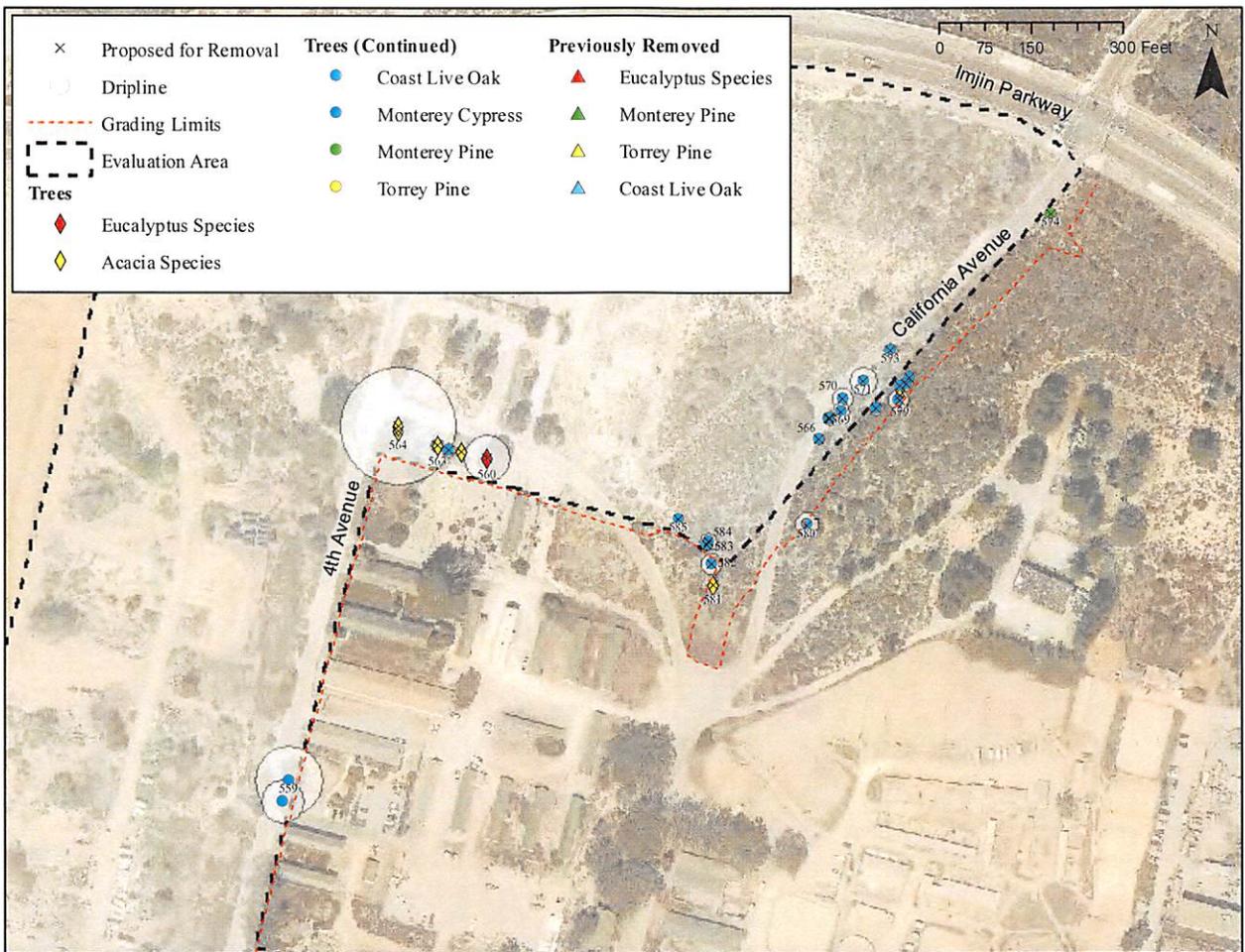


Denise Duffy & Associates, Inc.
 Planning and Environmental Consulting

**The Dunes on Monterey Bay Project — Phase 2
 Project Location Map**

Date
 3/17/2020
 Scale
 1 in = 700 ft

Figure
1



METHODS

Limitations

At the direction of SH, this assessment is based exclusively on the UVSP Tree Standards. It is not the intent of this report to provide a monetary valuation of the trees or provide risk assessment for any tree on this parcel, as any tree can fail at any time. No clinical diagnosis was performed on any pest or pathogen that may or may not be present within the site. In addition to an inspection of the property, DD&A relied on information provided by SH (such as survey data, property boundaries, and property ownership information) to prepare this report, and must reasonably rely on the accuracy of the information provided. DD&A shall not be responsible for another's means, methods, techniques, schedules, or procedures, or for contractor safety or any other related programs, or for another's failure to complete the work in accordance with approved plans and specifications.

Regulatory Framework

City of Marina Municipal Code

The City's 2005 MMC Chapter 12.04 requires a tree removal permit to remove, damage, or relocate, or cause to be removed, damaged, or relocated any tree on any property within City limits, unless exempted by MMC Sections 12.04.040 or 12.04.050. MMC Section 12.04.030 also prohibits construction activities within the dripline of any tree, unless these activities are conducted in compliance with tree protection guidelines adopted by resolution of the planning commission. MMC Section 12.04.100 provides the framework for mitigation required to unauthorized tree removals and states that *"the planting of replacement trees on site or the payment to the city to fund the purchase, planting and maintenance of off-site tree plantings should be in accordance with the tree replacement formula found in Section 12.04.060C (2:1) multiplied by three (6:1) for each tree removed in violation of this chapter."*

MMC defines "tree" as any living woody perennial plant having a single stem of six inches or more measured at four and one-half feet above the ground while standing on the high side of the tree, also referred to as diameter at breast height (DBH), or a multi-stemmed plant having an aggregate diameter of ten inches or more measured at DBH, and any living woody perennial plant which was planted in accordance with requirements of an approved compensation plan or was planted as part of a landscaping plan approved by the city. MMC defines "dripline" as the greater of the outermost edge of the tree's canopy, or fifteen times DBH measured from the center point of the tree.

UVSP Tree Standards

UVSP Tree Standards call for the preservation of as many healthy Monterey cypress trees and oak trees as practicable. In accordance with the UVSP Tree Standards, Monterey cypress trees and oak trees that are in good or fair condition must be protected during construction and preserved wherever practicable. If relocation is possible, Monterey cypress and oak trees shall be removed by machinery, be immediately replanted at a new site, and be watered and fertilized. Existing healthy trees determined to be in good or fair condition and that are removed shall be replaced on-site at a ratio of two replacement trees for every one tree removed (2:1). UVSP classifies tree health based on the following definitions:

- *Good.* Tree is healthy and vigorous as indicated by color of foliage and density, has no apparent signs of insect, disease, structural defects or mechanical injury. Tree has good form and structure.

- *Fair*. Tree is in average condition and vigor for the area, but may show minor insect, disease, or physiological problems. Trees rated as Fair/Poor may be improved with correctional pruning.
- *Poor*. Tree that is in a general state of decline and may show severe structural or mechanical defects which may lead to failure, may have insect or disease damage, but is not dead.
- *Dead/Snags*. Dead standing trees.

Survey Methods

DD&A biologists, led by ISA Certified Arborist Patric Krabacher, conducted tree surveys of the project site on October 4, 9, 10, 11, 14, 16, and 17, 2019 for trees with tag identification numbers ranging from 1477 to 1513⁴, and on December 5 and 7, 2020 for trees with tag identification numbers ranging from 547 to 607. The survey area encompassed the project's construction limits and the modified grading limits on the eastern side of Evaluation Area 3 (Figure 2)⁵. Protected trees (trees that require a tree removal permit from the City and/or are considered protected in the UVSP) were inventoried in accordance with FEIR and MMRP Mitigation Measure (MM) BR-2.2, as follows:

Any tree removal that occurs during the construction phase of the project shall be subject to the conditions in the City of Marina Municipal Code Chapter 12.04 (Tree Removal and Protection) or the UVSP tree standards and shall be mitigated accordingly.

Trees within the survey area were inventoried in accordance with the following protocol, which was designed to meet the requirements of both MMC Chapter 12.04 and the USVP Tree Standards:

- All trees (including dead snags) 6" DBH or greater were tagged with a GPS location and a numbered aluminum marker (on the most feasible/visible location possible).
- Tree diameter was recorded at breast height (4.5 feet above ground) or (for multi-stemmed trees) at the most representable location.
- Multi-stemmed trees were recorded as one tree if the root crown (the point where the trunk meets natural grade) was contiguous. Multi-stemmed tree DBH was calculated by taking the square root of the squared sum of all stems measured ($\sqrt{\text{Stem 1 DBH}^2 + \text{Stem 2 DBH}^2 + \text{Stem 3 DBH}^2 \dots}$). This equation returns the diameter at the base of the tree (Chojnacky, 1999).
- Species, size, and health class were recorded for each tree.

Tree health was based on the UVSP classification system and was evaluated by visually inspecting each tree from its root crown to its foliar canopy for signs of decay, disease, or insect infestations.

GPS data were collected using a Trimble® TDC600 GPS and were then digitized using Trimble® TerraFlex and ESRI® ArcGIS 10.4. GPS data were collected using geographic coordinate system Universal

⁴ These trees were surveyed previously as part of Phase 2 of the UVSP. Trees that have been previously approved for removal are not referenced in this report; only those that were previously identified for retainment and are now proposed for removal are included in this report.

⁵ Some trees outside the survey area were inventoried because part of their canopy fell within the survey area and could potentially be impacted by construction activities.

Transverse Mercator (UTM) Zone 10 North and the World Geodetic System 1984 (WGS84) datum. The Trimble® TDC600 GPS has a GNSS accuracy of 1.5 meters.

RESULTS

All 22 trees that have been previously removed have been assumed to be in fair condition. Of the 28 trees inventoried in December 2020, approximately 92 percent are in fair condition, seven (7) percent are in good condition, and two percent are in poor condition. No dead snags were observed during the survey efforts (**Figure 2; Appendix B**).

TREES PROPOSED FOR REMOVAL

As a result of the grading and fill required in large portions of tree driplines, 28 trees (excluding six acacia trees per UVSP Standards) are proposed for removal in the project site (**Figures 2; Appendices B and C**). These include:

- Two (2) Torrey pine trees (*Pinus torreyana*) both measuring at from 6" DBH,
- Four (4) Monterey cypress trees (*Hesperocyparis macrocarpa*, syn. *Cupressus macrocarpa*) ranging from 6" to 42" DBH,
- Three (3) Monterey pine trees (*Pinus radiata*) ranging from 6" to 27" DBH,
- 18 coast live oak trees (*Quercus agrifolia*) ranging from 6" to 22" DBH, and
- One (1) eucalyptus species (*Eucalyptus* sp.), 30" DBH.

Per UVSP Tree Standards, Page 118, eucalyptus health was not recorded. Of the remaining 27 trees planned for removal in the project, two (2) are in good condition, 25 are in fair condition, and no trees proposed for removal are in poor condition (**Appendix B**). Trees in fair condition are in average vigor for the area, but are showing signs of decay, disease, and/or insect infestations, including California oakworm, pitch canker, oak branch canker, foamy bark canker, oak ambrosia beetles, bark beetles, coryneum canker fungus (also known as cypress canker), and *Phytophthora* root, crown rot, and root rot fungus (*Armillaria* sp.).

TREES PREVIOUSLY REMOVED

22 trees were inadvertently removed during the initial grading of Evaluation Area 3. These trees were not scheduled for removal nor did they have an existing tree removal permit; however, all but three (tree 555, 556, and 557) were surveyed in accordance with MMC and UVSP standards during the initial October 2019 survey effort (**Figures 2; Appendices B and C**). The area where the trees were removed was proposed to be a neighborhood park and aimed to capture the natural native landscape. Trees removed inadvertently include:

- One (1) Torrey pine tree, 6" DBH,
- Three (3) Monterey cypress trees, these trees were removed prior to data collection and are referenced in this report as trees 555, 556, and 557,
- Three (3) Monterey pine trees, ranging from 6" to 17" DBH,
- 10 coast live oak, ranging from 6" to 21" DBH, and

- Five (5) eucalyptus species, ranging from 10 to 16” DBH.

All trees that were removed without an existing tree removal permit are assumed to have been in fair condition and shall be mitigated in accordance with MMC Section 12.040.100, which requires replacement of trees which were removed in violation of the code at a 6:1 ratio.

DISCUSSION

Project design plans must incorporate the mitigation measures and regulatory requirements of MMC, the FEIR, the MMRP, and the UVSP Tree Standards, as follows:

- Existing trees in good or fair condition which are removed shall be replaced on site at a ratio of two replacement trees for each tree removed (2:1). Trees that were removed without a tree removal permit shall be replaced on site at a ratio of six replacement trees for each tree removed (6:1).
- The minimum size of tree selection is 15-gallon. For trees that will be planted in areas of special interest, such as focal points and neighborhood entries, the minimum size of tree selection is 24” boxed trees.
- Pre-construction surveys for active nests shall be conducted by a qualified biologist within 250 feet of proposed construction activities no more than 30 days prior to construction. If active nests are found and the biologist determines that construction activities would adversely affect the nest or cause nest abandonment, then those activities shall be avoided in these areas until the young have fledged, as determined by the qualified biologist. Once the young have fledged, construction activities may resume in the vicinity and no further mitigation measures shall be required.
- Prior to the removal of large trees, a qualified biologist shall survey the trees for presence of roosting bats. If special-status bat species are determined to be present, the following measures shall be implemented.
 - a. Tree removal should not occur if maternity bat roosts are present (between April 15 and August 1) in the trees to be removed.
 - b. No tree removal should occur within 300 feet of the maternity roost until all young bats have fledged, as determined by a qualified biologist.
 - c. If special-status bats are present but there is not an active maternity roost, a Memorandum of Understanding (MOU) with the California Department of Fish and Wildlife (CDFW) should be obtained in order to remove the animals prior to tree removal. Alternate habitat may need to be provided if bats are to be excluded from maternity roosts. A roost with comparable spatial and thermal characteristics should be constructed as directed by a qualified biologist. In the event that adult bats need to be handled and relocated, a qualified biologist shall prepare and implement a relocation plan subject to approval by CDFW that includes relocating all bats found on-site to an alternate suitable habitat. A Mitigation and Monitoring Plan that mitigates for loss of bat roosting habitat should be prepared by a qualified biologist and approved by CDFW prior to tree removal.

CONCLUSION

Removal and replacement is recommended for trees 547–553, 561–578, 580, 582–585, and 606 (**Figure 2; Appendices B and C**). Removal is also recommended for eucalyptus tree 560; however, per UVSP Tree Standards, the condition for eucalyptus was not recorded and, therefore, this tree is not required to be replaced. Of the trees for which condition was recorded, 27 are in good or fair condition. Replacement is required for all trees that have already been removed without an existing tree removal permit, including trees 555–557, 1477, 1492, 1493, and 1498–513. Therefore, per UVSP Tree Standards, 54 replacement plantings are required to mitigate for the removal of healthy trees, and, per MMC, 132 replacement plantings are required to mitigate for trees which were removed without an existing permit. In total, 186 on-site replacement plantings are required. A tree removal permit from the City is required for all trees. Best management practices while working around trees are included in **Appendix D**.

If you have any comments or questions regarding this report, please contact Patric Krabacher at pkrabacher@ddaplanning.com or at (831) 373–4341 ext. 29.

REFERENCES

David C. Chojnacky, 1999. Converting Tree Diameter Measured at Root Collar to Diameter at Breast Height.

APPENDIX A

Site Plan

APPENDIX B
Tree Table

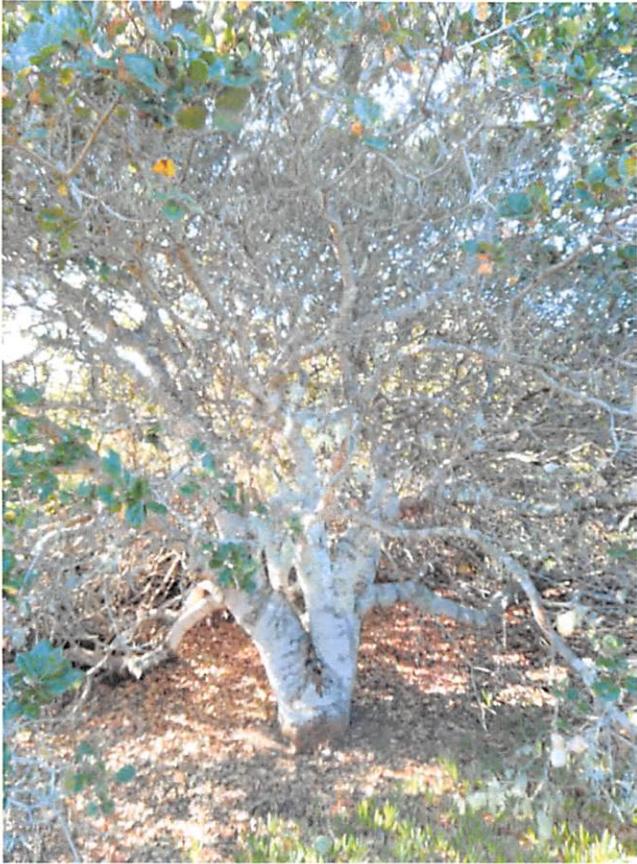
The Dunes on Monterey Bay Project, Phase 2 — Evaluation Area 3 East Supplemental Tree Inventory

Previously Removed														
Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)						Total DBH (in)	Dripline (ft)	Health	Status	Comments	
1477	<i>Quercus agrifolia</i>	Coast Live Oak	9	11					14	17.8	Fair	Removed		
1492	<i>Pinus radiata</i>	Monterey Pine	16	7					17	21.8	Fair	Removed		
1493	<i>Quercus agrifolia</i>	Coast Live Oak	6	6					8	10.6	Fair	Removed		
1498	<i>Quercus agrifolia</i>	Coast Live Oak	12	9					15	18.8	Fair	Removed		
1499	<i>Quercus agrifolia</i>	Coast Live Oak	6						6	7.5	Fair	Removed		
1500	<i>Pinus torreyana</i>	Torrey Pine	6						6	7.5	Fair	Removed		
1501	<i>Quercus agrifolia</i>	Coast Live Oak	6						6	7.5	Fair	Removed	Potential bird nest	
1502	<i>Pinus radiata</i>	Monterey Pine	6						6	7.5	Fair	Removed		
1503	<i>Pinus radiata</i>	Monterey Pine	11						11	13.8	Fair	Removed		
1504	<i>Quercus agrifolia</i>	Coast Live Oak	8	6	9	10	6	6	8	6	21	26.6	Fair	Removed
1505	<i>Eucalyptus sp.</i>	Eucalyptus	16						16	20.0	Fair	Removed		
1506	<i>Eucalyptus sp.</i>	Eucalyptus	11	7	8	12			19	24.3	Fair	Removed		
1507	<i>Eucalyptus sp.</i>	Eucalyptus	27						27	33.8	Fair	Removed		
1508	<i>Eucalyptus sp.</i>	Eucalyptus	24	10					26	32.5	Fair	Removed		
1509	<i>Quercus agrifolia</i>	Coast Live Oak	6	6	8				12	14.6	Fair	Removed		
1510	<i>Eucalyptus sp.</i>	Eucalyptus	8	6					10	12.5	Fair	Removed		
1511	<i>Quercus agrifolia</i>	Coast Live Oak	8	6					10	12.5	Fair	Removed		
1512	<i>Quercus agrifolia</i>	Coast Live Oak	6						6	7.5	Fair	Removed		
1513	<i>Quercus agrifolia</i>	Coast Live Oak	12						12	15.0	Fair	Removed		
555	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress									Fair	Removed	No data gathered prior to removal	
556	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress									Fair	Removed	No data gathered prior to removal	
557	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	50						50	62.5	Fair	Removed		
Additional Proposed Removals														
Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)						Total DBH (in)	Dripline (ft)	Health	Recommendation	Comments	
547	<i>Pinus torreyana</i>	Torrey Pine	6						6	7.5	Good	Remove	Within grading limits	
548	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6	6	8	10	6	7	18	21.1	Fair	Remove	Within grading limits	
549	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	6						6	7.5	Fair	Remove	Within grading limits	
550	<i>Pinus radiata</i>	Monterey Pine	9						9	11.3	Fair	Remove	Within grading limits	
551	<i>Pinus radiata</i>	Monterey Pine	6						6	7.5	Fair	Remove	Within grading limits	
552	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	37						37	46.3	Fair	Remove	Within grading limits	
553	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	42						42	52.5	Fair	Remove	Within grading limits	
554	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	65						65	81.3	Fair	Retain	Preserve and protect	
558	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	29						29	36.3	Fair	Retain	Preserve and protect	

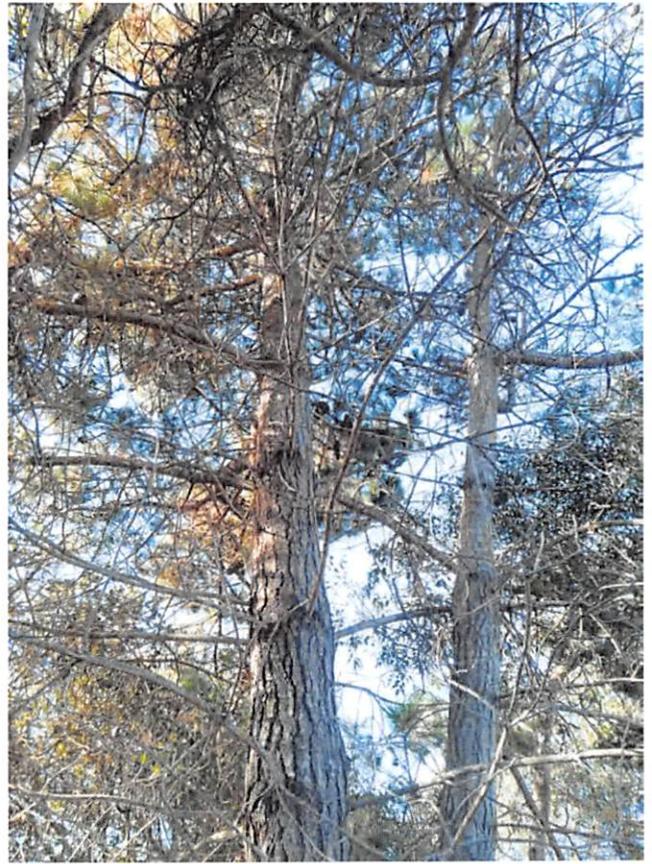
Tree ID	Scientific Name	Common Name	Additional Proposed Removals							Total DBH (in)	Dripline	Health	Recommendation	Comments
			Individual Stem DBH (in)											
559	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	45						45	56.3	Fair	Retain	Preserve and protect	
560	<i>Eucalyptus sp.</i>	Eucalyptus Species	52	20	16	7	7	10	8	60	75		Remove	Within grading limits
562	<i>Quercus agrifolia</i>	Coast Live Oak	9						9	11.3	Fair	Remove	Within grading limits	
566	<i>Quercus agrifolia</i>	Coast Live Oak	11	7					7	8.8	Fair	Remove	Within grading limits	
567	<i>Quercus agrifolia</i>	Coast Live Oak	8						8	10.0	Fair	Remove	Within grading limits	
568	<i>Quercus agrifolia</i>	Coast Live Oak	8	7	6				9	11.5	Fair	Remove	Within grading limits	
569	<i>Quercus agrifolia</i>	Coast Live Oak	12						12	15.0	Fair	Remove	Within grading limits	
570	<i>Quercus agrifolia</i>	Coast Live Oak	18	13					13	16.3	Fair	Remove	Within grading limits	
571	<i>Quercus agrifolia</i>	Coast Live Oak	18						18	22.5	Fair	Remove	Within grading limits	
572	<i>Quercus agrifolia</i>	Coast Live Oak	10						10	12.5	Fair	Remove	Within grading limits	
573	<i>Quercus agrifolia</i>	Coast Live Oak	9						9	11.3	Fair	Remove	Within grading limits	
574	<i>Pinus radiata</i>	Monterey Pine	6						6	7.5	Good	Remove	Within grading limits	
575	<i>Quercus agrifolia</i>	Coast Live Oak	6						6	7.5	Fair	Remove	Within grading limits	
576	<i>Quercus agrifolia</i>	Coast Live Oak	10	8	6				10	12.5	Fair	Remove	Within grading limits	
577	<i>Quercus agrifolia</i>	Coast Live Oak	8						8	10.0	Fair	Remove	Within grading limits	
578	<i>Quercus agrifolia</i>	Coast Live Oak	13						13	16.3	Fair	Remove	Within grading limits	
580	<i>Quercus agrifolia</i>	Coast Live Oak	8	8	6	6	6	6	6	18	19.5	Fair	Remove	Within grading limits
582	<i>Quercus agrifolia</i>	Coast Live Oak	14						14	17.5	Fair	Remove	Within grading limits	
583	<i>Quercus agrifolia</i>	Coast Live Oak	11						11	13.8	Fair	Remove	Within grading limits	
584	<i>Quercus agrifolia</i>	Coast Live Oak	7						7	8.8	Fair	Remove	Within grading limits	
585	<i>Quercus agrifolia</i>	Coast Live Oak	7	6					6	7.5	Fair	Remove	Within grading limits	
586	<i>Pinus torreyana</i>	Torrey Pine	7						7	8.8	Good	Retain	Preserve and protect	
587	<i>Pinus radiata</i>	Monterey Pine	10						10	12.5	Fair	Retain	Preserve and protect	
588	<i>Pinus radiata</i>	Monterey Pine	9						9	11.3	Fair	Retain	Preserve and protect	
589	<i>Pinus torreyana</i>	Torrey Pine	10						10	12.5	Fair	Retain	Preserve and protect	
590	<i>Quercus agrifolia</i>	Coast Live Oak	6	6	6				10	10.6	Fair	Retain	Preserve and protect	
591	<i>Quercus agrifolia</i>	Coast Live Oak	10	8					13	10.0	Fair	Retain	Preserve and protect	
592	<i>Quercus agrifolia</i>	Coast Live Oak	10						10	12.5	Fair	Retain	Preserve and protect	
593	<i>Pinus radiata</i>	Monterey Pine	15						15	18.8	Fair	Retain	Preserve and protect	
594	<i>Quercus agrifolia</i>	Coast Live Oak	21						21	26.3	Fair	Retain	Preserve and protect	
595	<i>Pinus radiata</i>	Monterey Pine	20						20	25.0	Fair	Retain	Preserve and protect	

Additional Proposed Removals								
Tree ID	Scientific Name	Common Name	Individual Stem DBH (in)	Total DBH (in)	Dripline	Health	Recommendation	Comments
596	<i>Pinus radiata</i>	Monterey Pine	15	15	18.8	Fair	Retain	Preserve and protect
597	<i>Pinus radiata</i>	Monterey Pine	27	27	33.8	Fair	Retain	Preserve and protect
598	<i>Pinus radiata</i>	Monterey Pine	16	16	20.0	Fair	Retain	Preserve and protect
599	<i>Pinus radiata</i>	Monterey Pine	14	14	17.5	Fair	Retain	Preserve and protect
600	<i>Pinus radiata</i>	Monterey Pine	21	21	26.3	Fair	Retain	Preserve and protect
601	<i>Pinus radiata</i>	Monterey Pine	12	12	15.0	Poor	Retain	Preserve and protect
602	<i>Pinus torreyana</i>	Torrey Pine	6	6	7.5	Good	Retain	Preserve and protect
603	<i>Pinus torreyana</i>	Torrey Pine	12	12	15.0	Fair	Retain	Preserve and protect
604	<i>Pinus torreyana</i>	Torrey Pine	9	9	11.3	Fair	Retain	Preserve and protect
605	<i>Pinus torreyana</i>	Torrey Pine	10	10	12.5	Good	Retain	Preserve and protect
606	<i>Pinus torreyana</i>	Torrey Pine	6	6	7.5	Fair	Remove	Within grading limits
607	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	35	35	43.8	Fair	Retain	Preserve and protect

APPENDIX C
Photo Log



Tree 1477. Coast Live Oak



Tree 1492. Monterey Pine



Tree 1493. Coast Live Oak



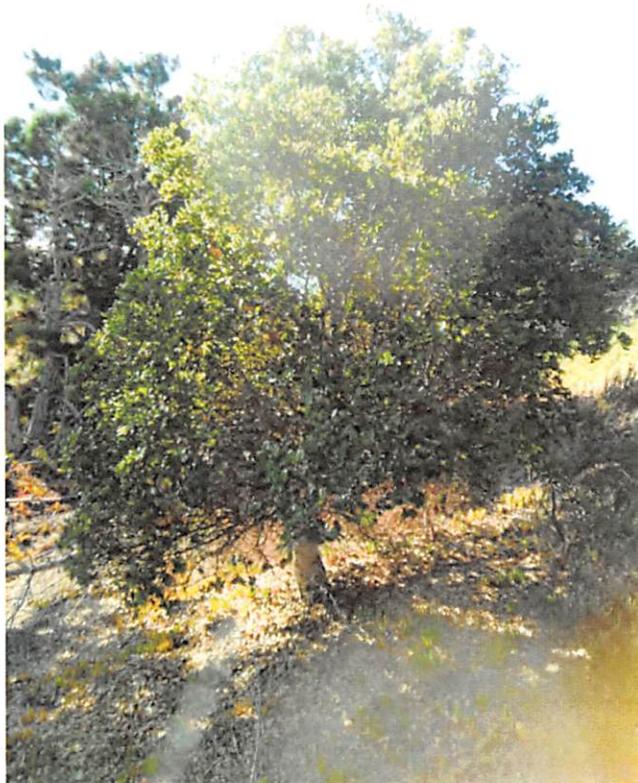
Tree 1498. Coast Live Oak



Tree 1499. Coast Live Oak



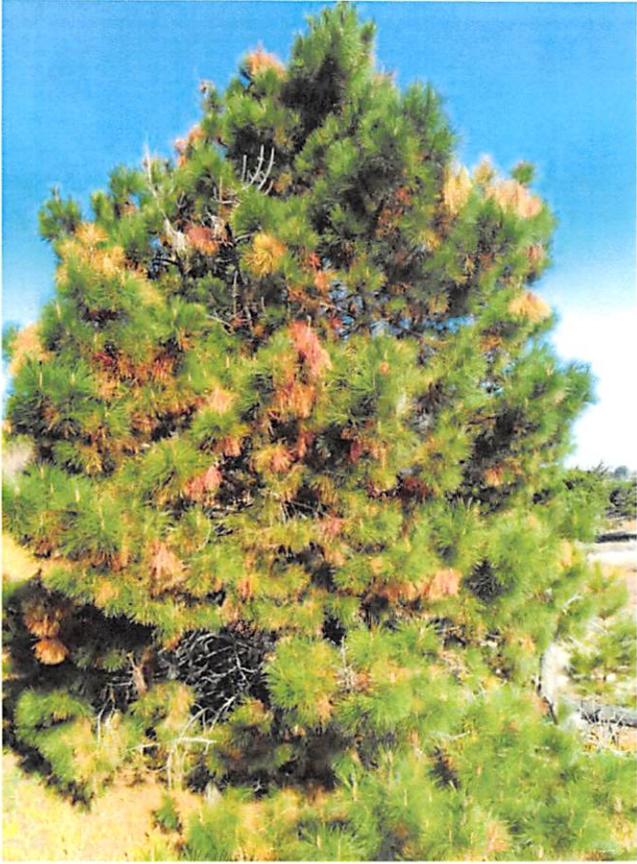
Tree 1500. Torrey Pine



Tree 1501. Coast Live Oak



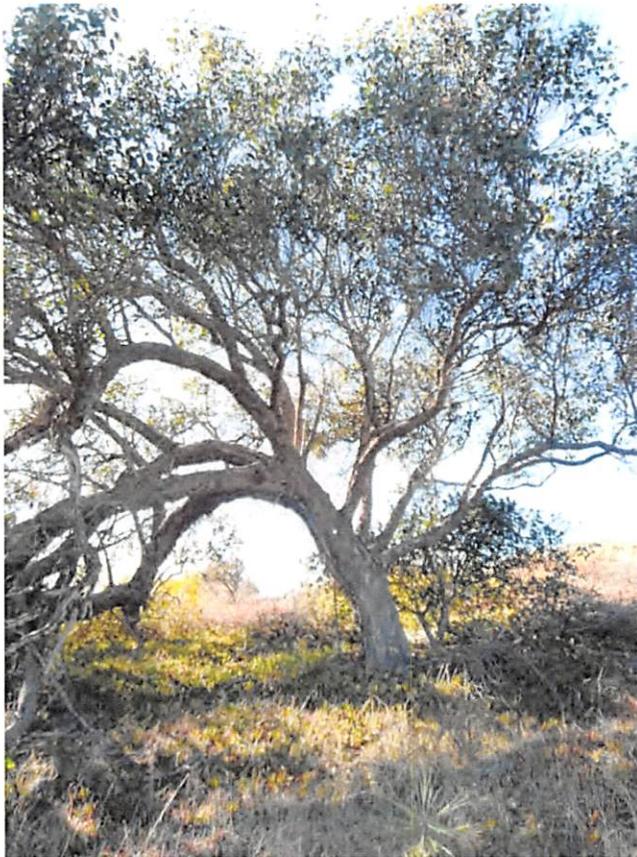
Tree 1502. Monterey Pine



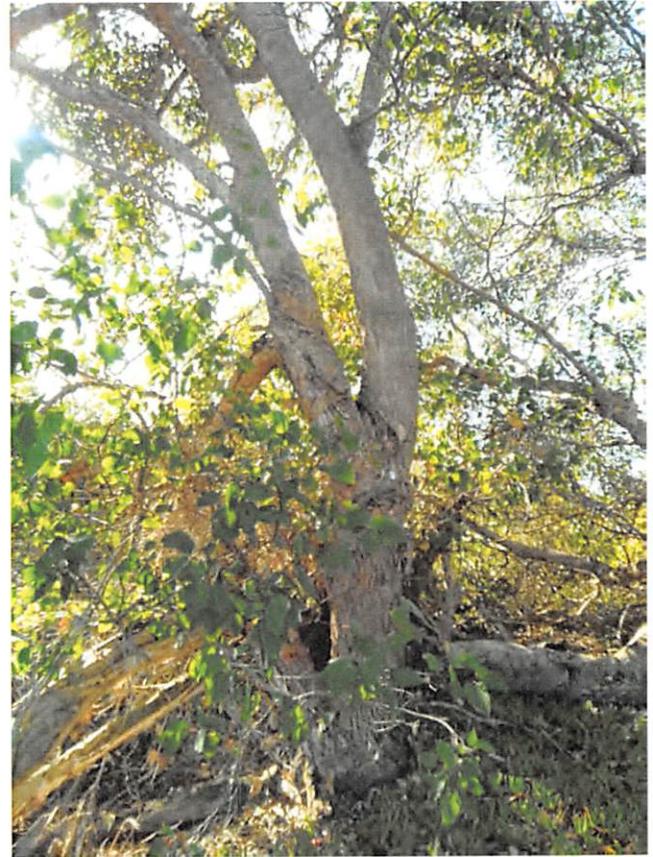
Tree 1503. Monterey Pine



Tree 1504. Coast Live Oak



Tree 1505. Eucalyptus



Tree 1506. Eucalyptus



Tree 1507. Eucalyptus



Tree 1508. Eucalyptus



Tree 1509. Coast Live Oak



Tree 1510. Eucalyptus



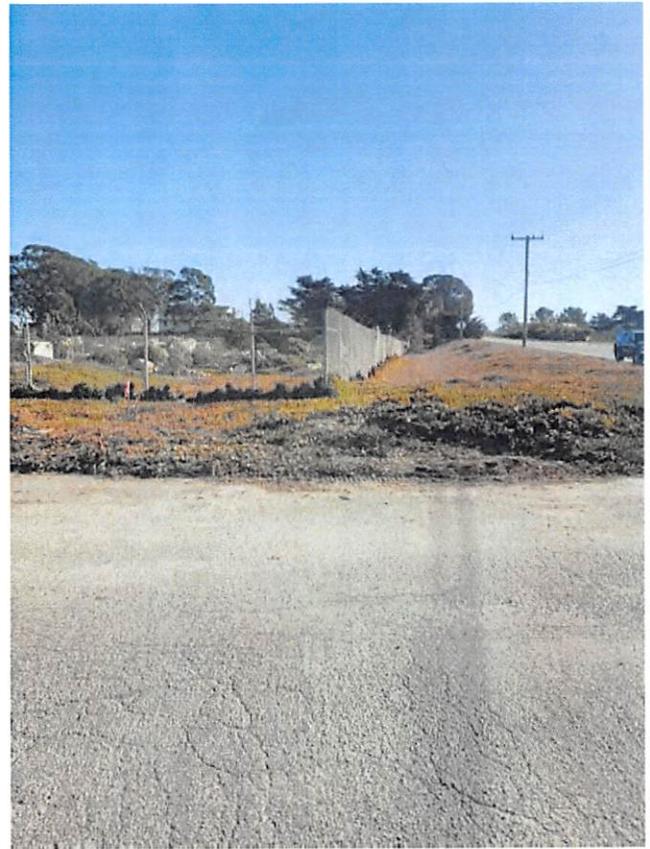
Tree 1511. Coast Live Oak



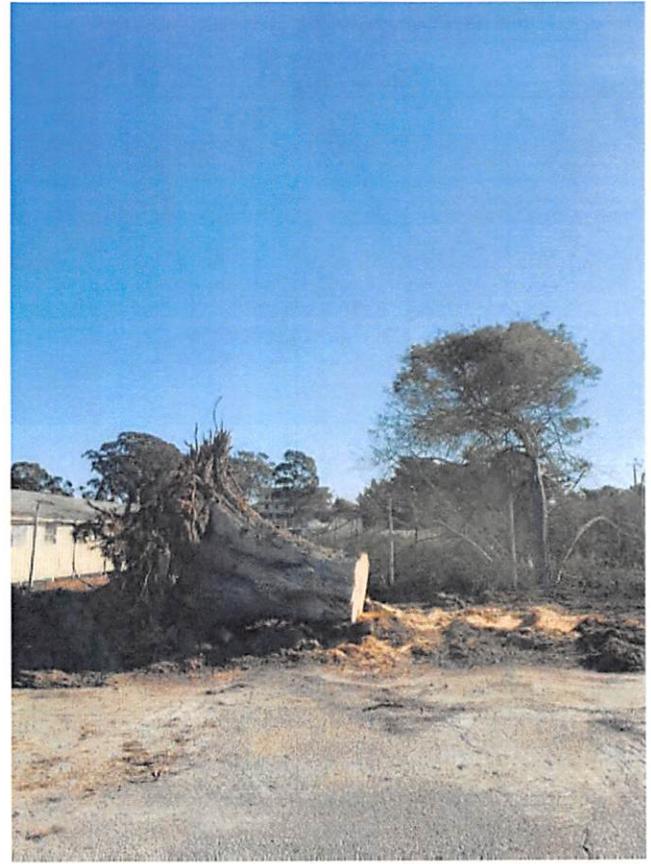
Tree 1512. Coast Live Oak



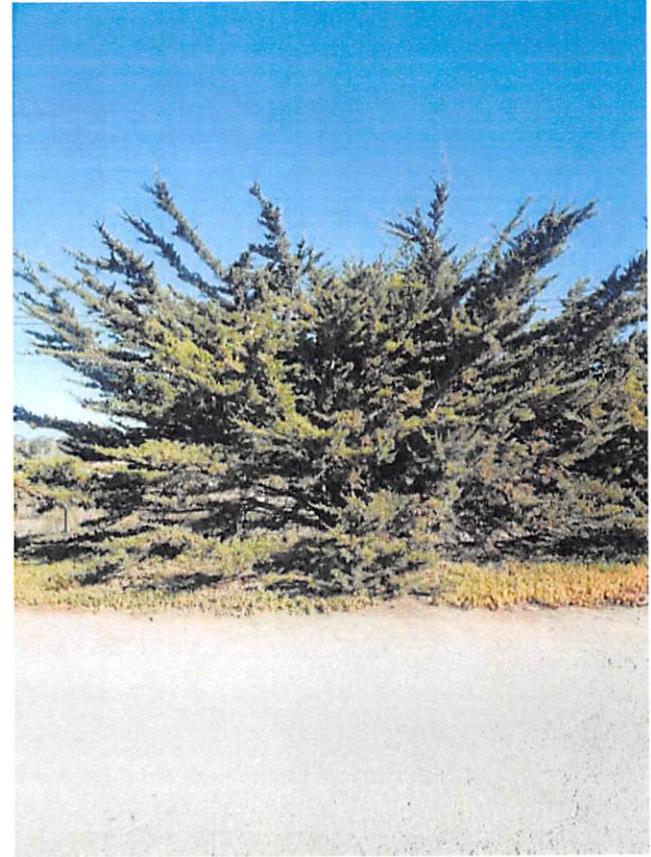
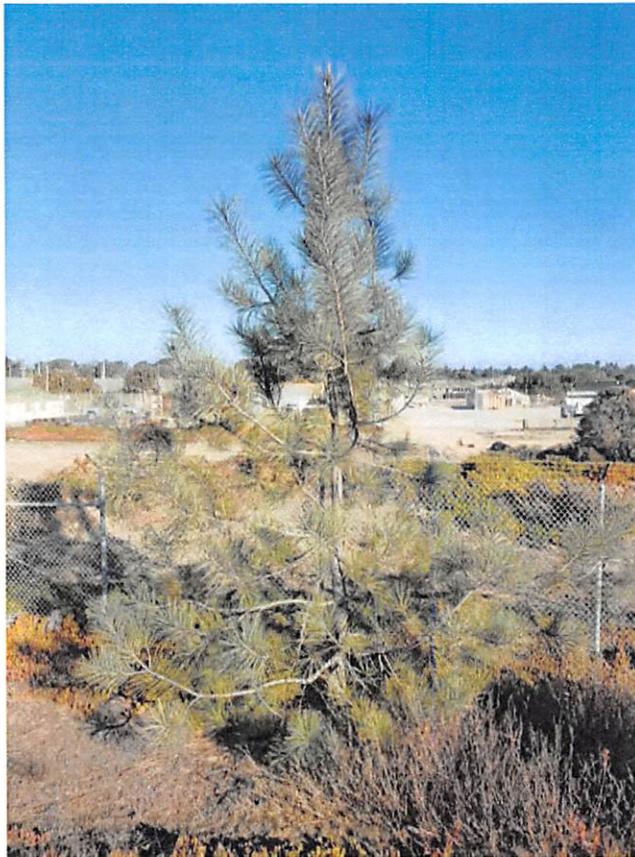
Tree 1513 Coast Live Oak



Tree 555. Monterey Cypress (removed prior to data collection)

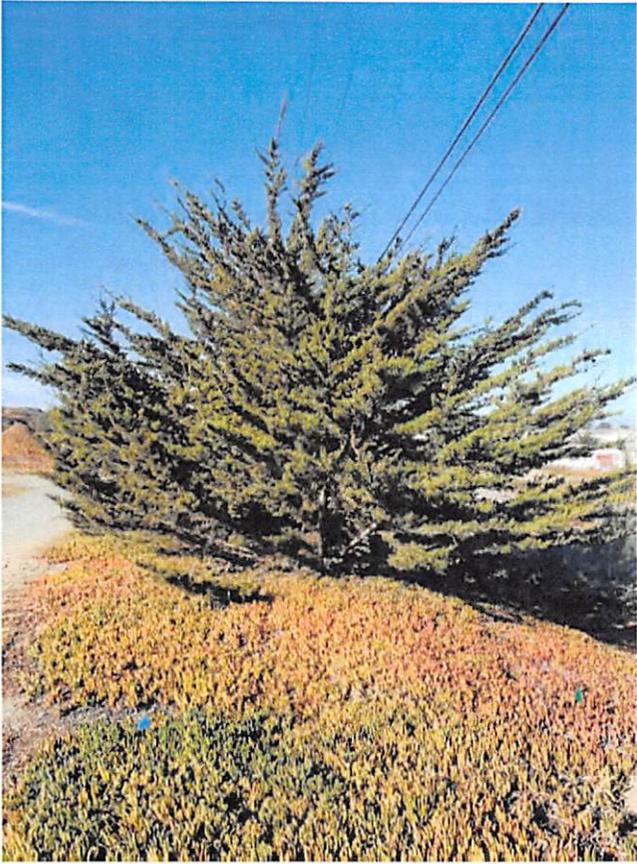


Tree 556. Monterey Cypress (removed prior to data collection) Tree 557. Monterey Cypress (removed prior to data collection)

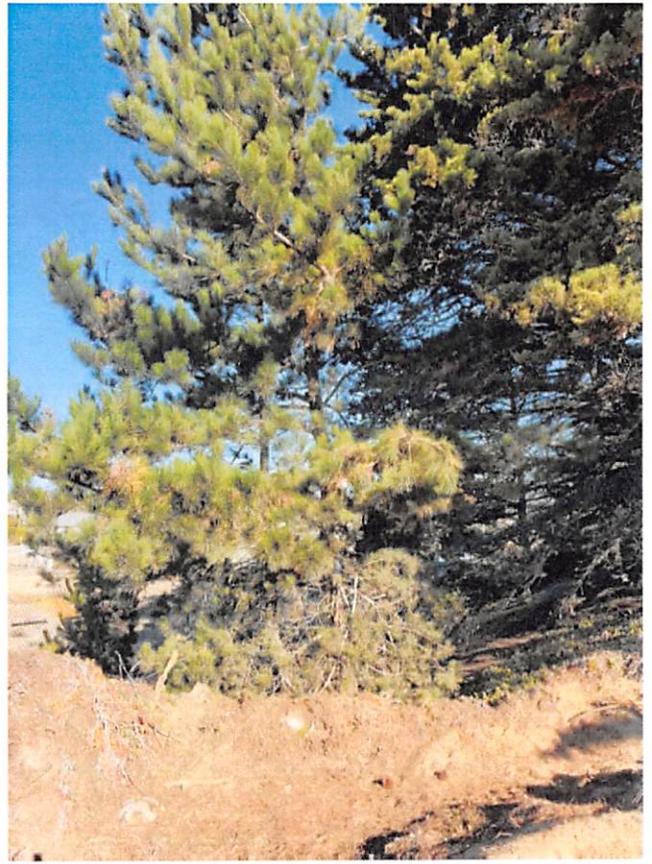


Tree 547. Torrey Pine

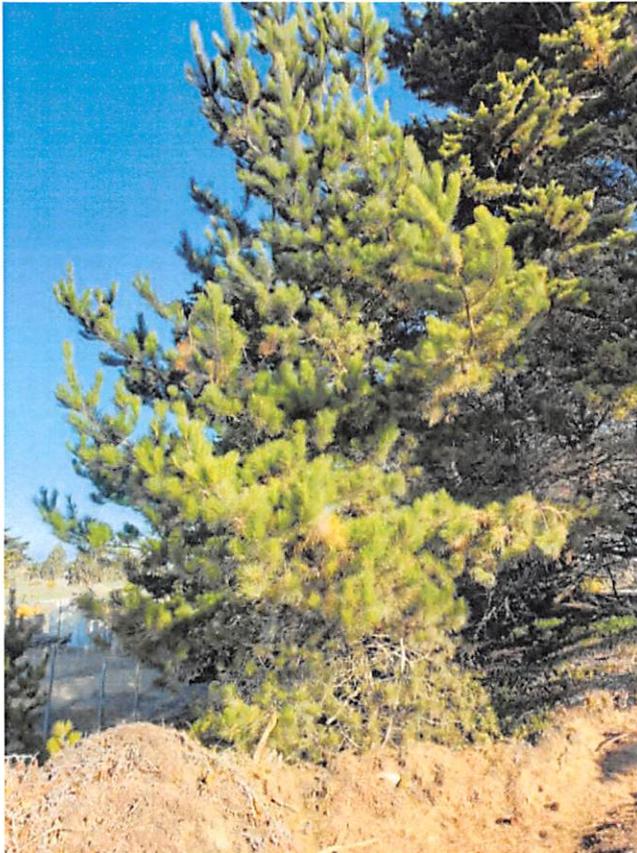
Tree 548. Monterey Cypress



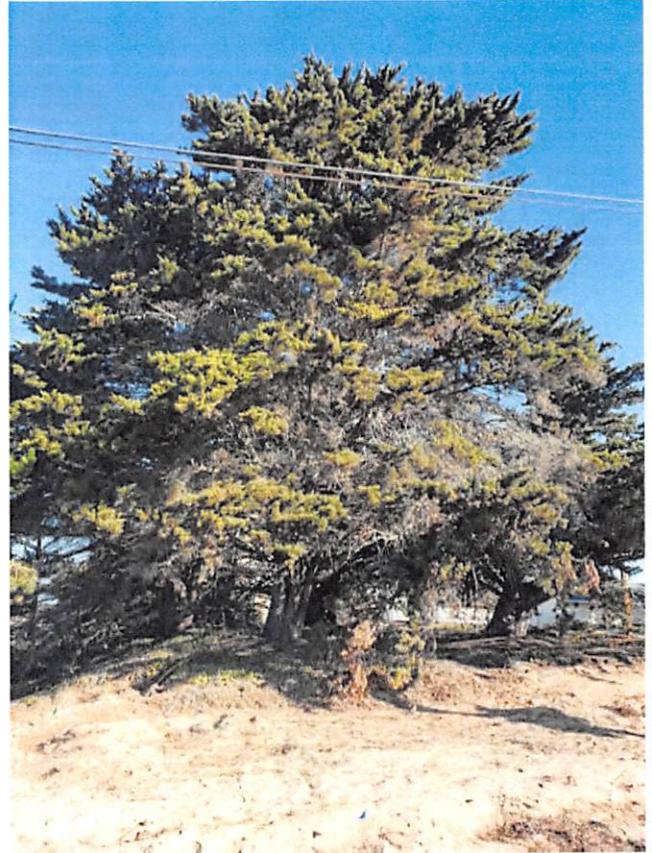
Tree 549. Monterey Cypress



Tree 550. Monterey Pine



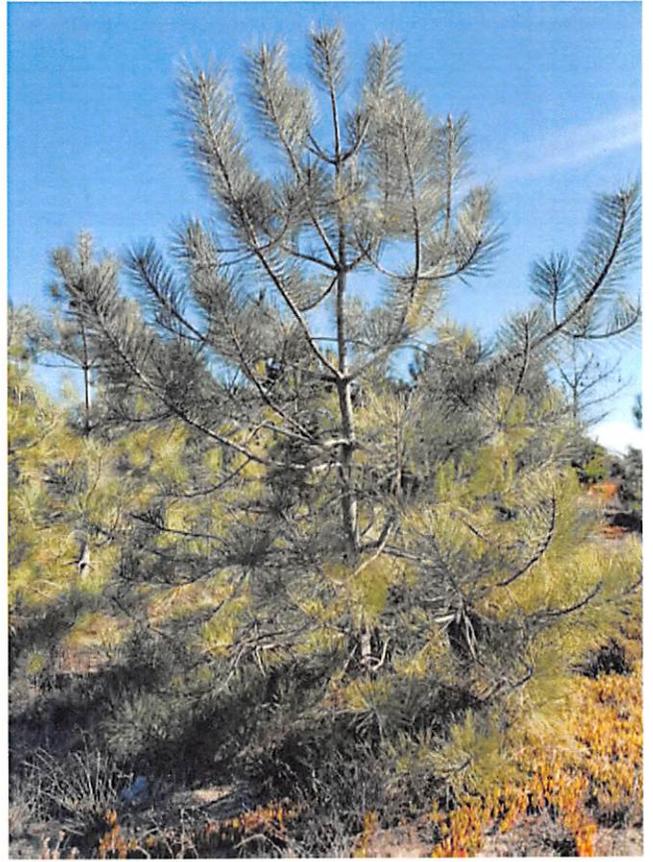
Tree 551. Monterey Pine



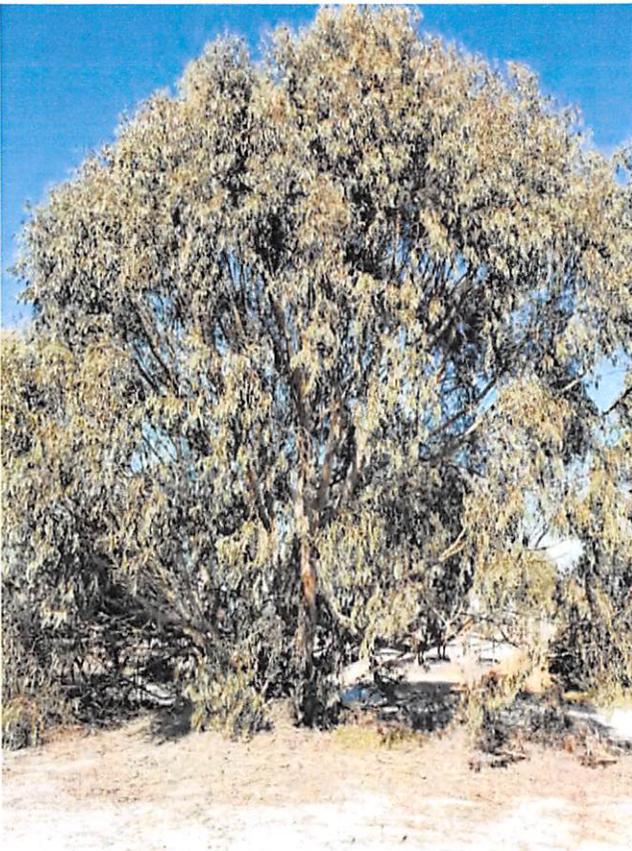
Tree 552. Monterey Cypress



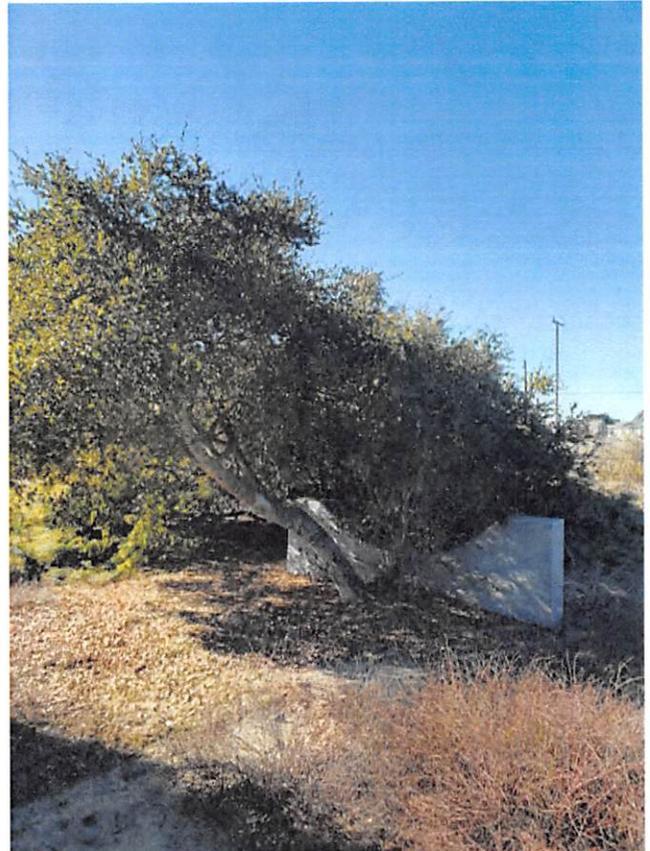
Tree 553. Monterey Cypress



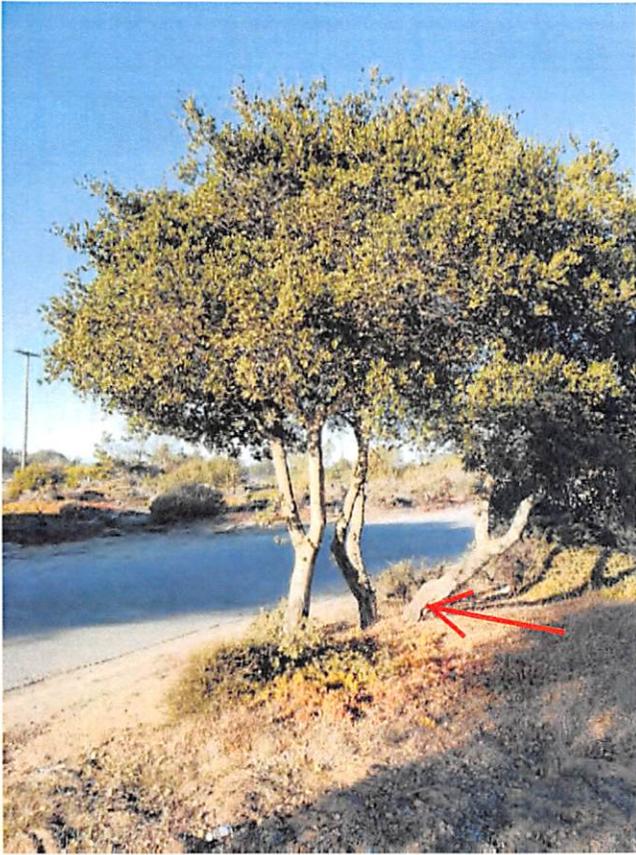
Tree 606. Torrey Pine



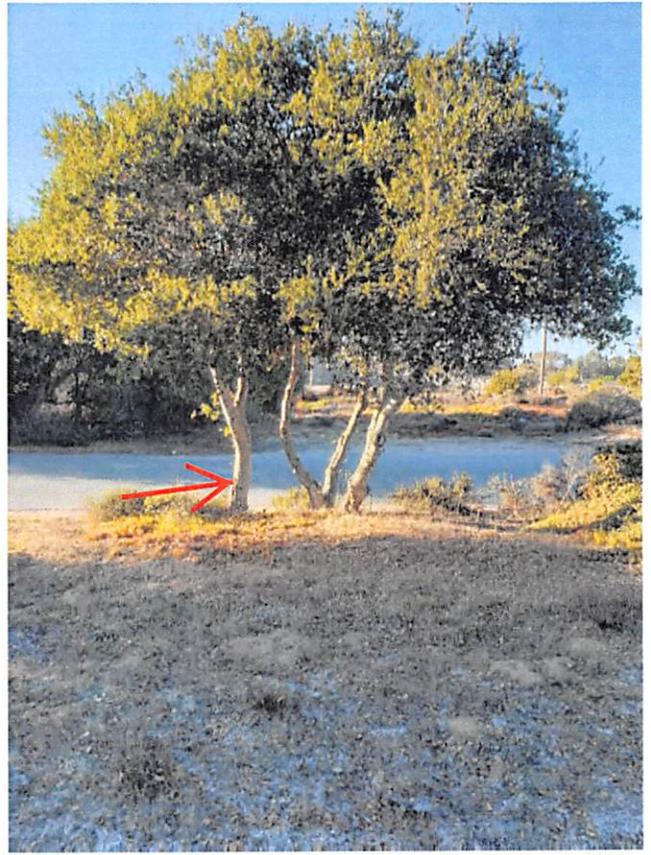
Tree 560. Eucalyptus



Tree 562. Coast Live Oak



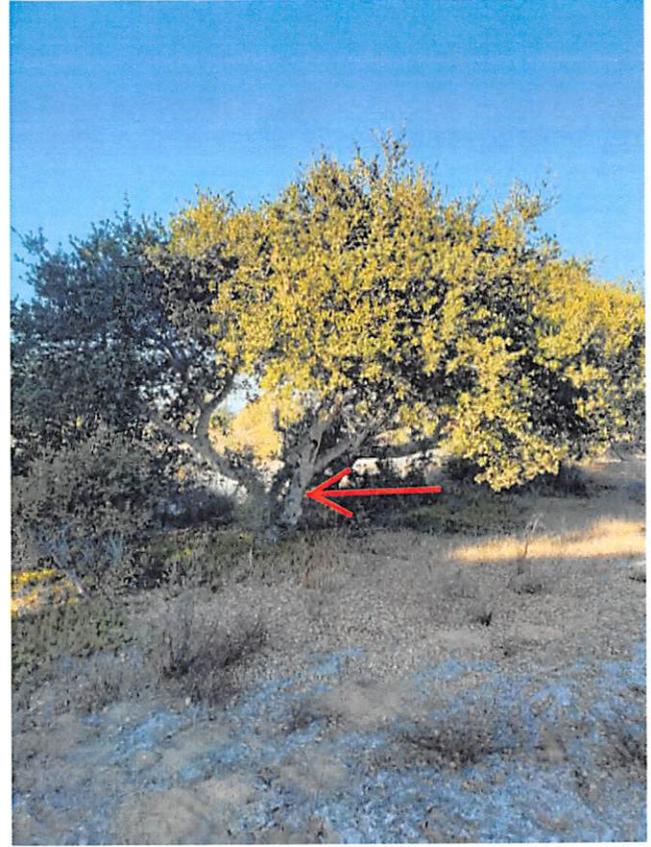
Tree 566. Coast Live Oak



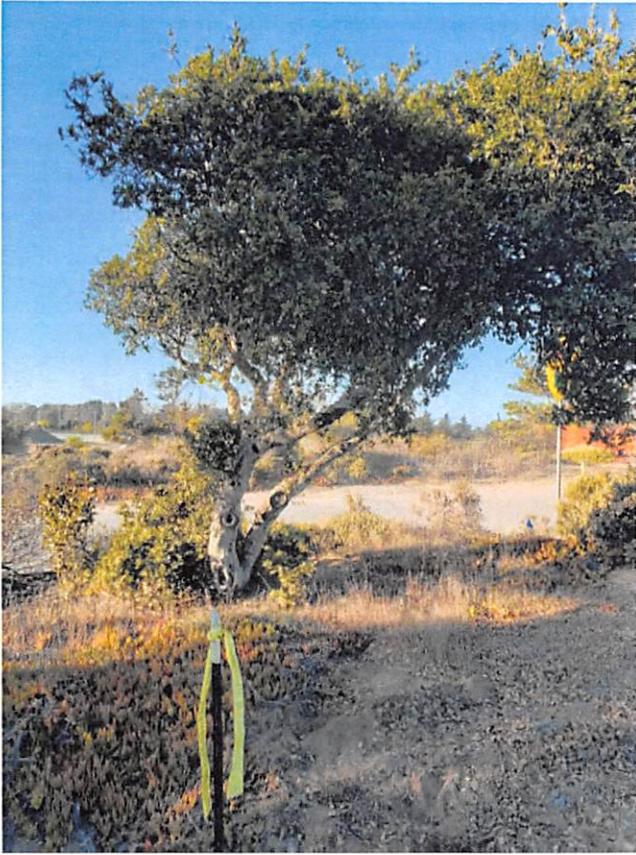
Tree 567. Coast Live Oak



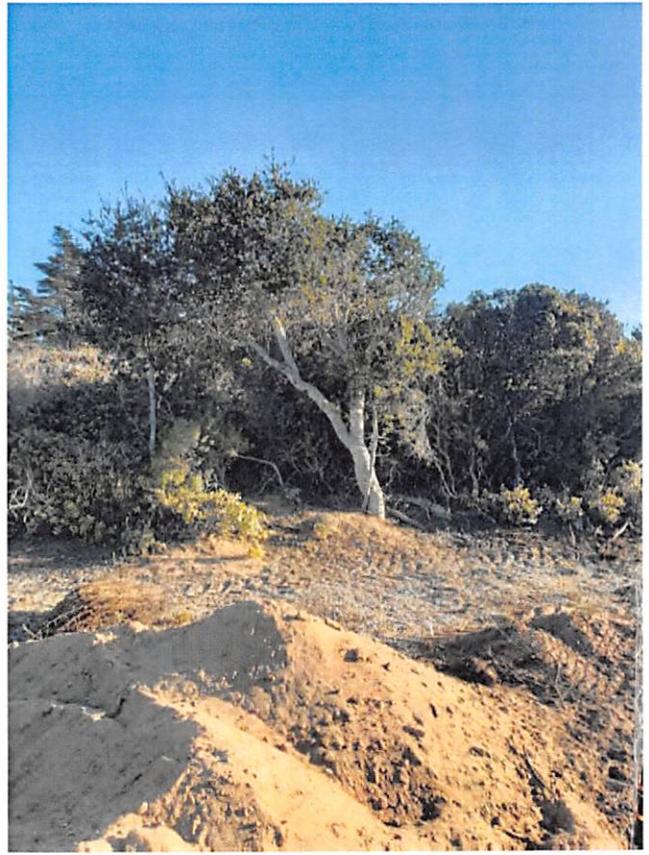
Tree 568. Coast Live Oak



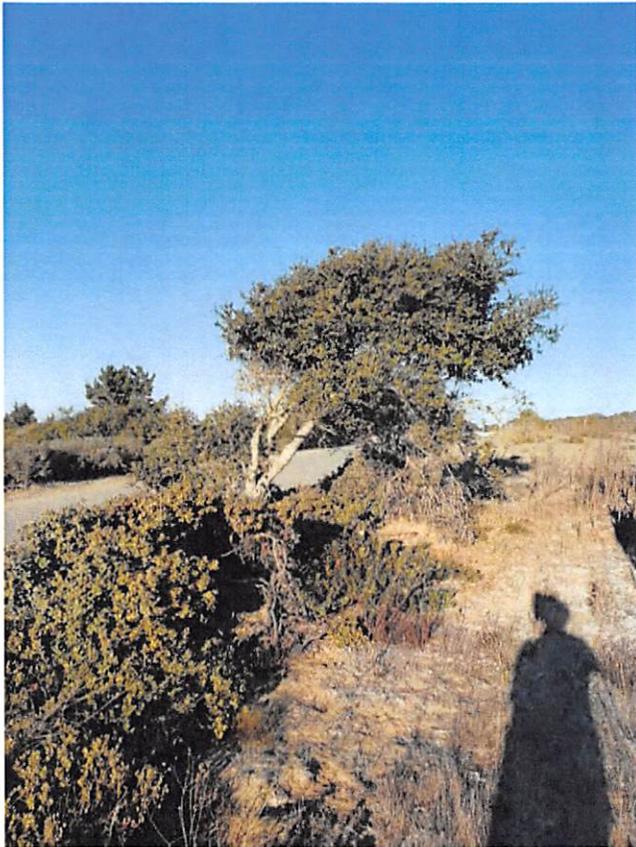
Tree 569. Coast Live Oak



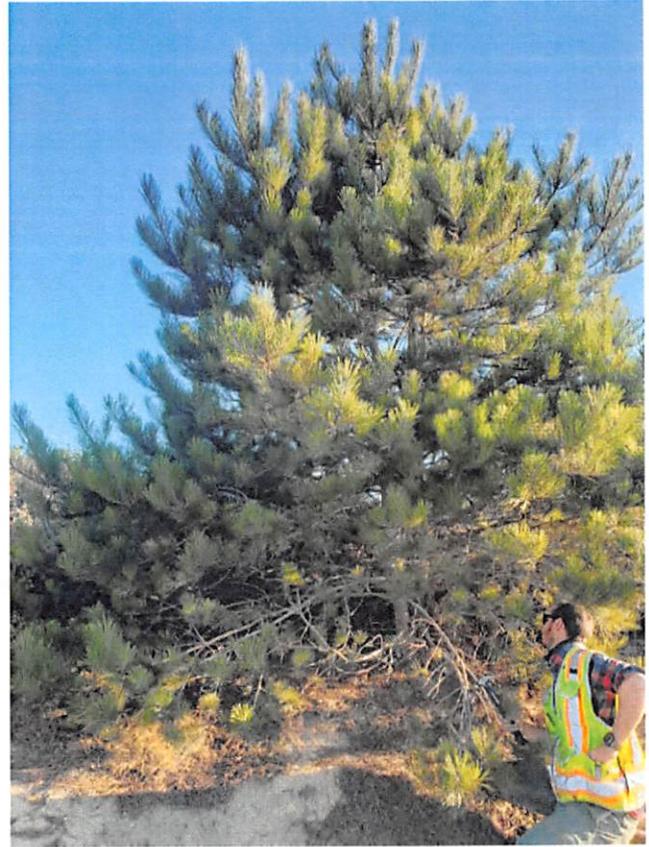
Tree 571. Coast Live Oak



Tree 572. Coast Live Oak



Tree 573. Coast Live Oak



Tree 574. Monterey Pine



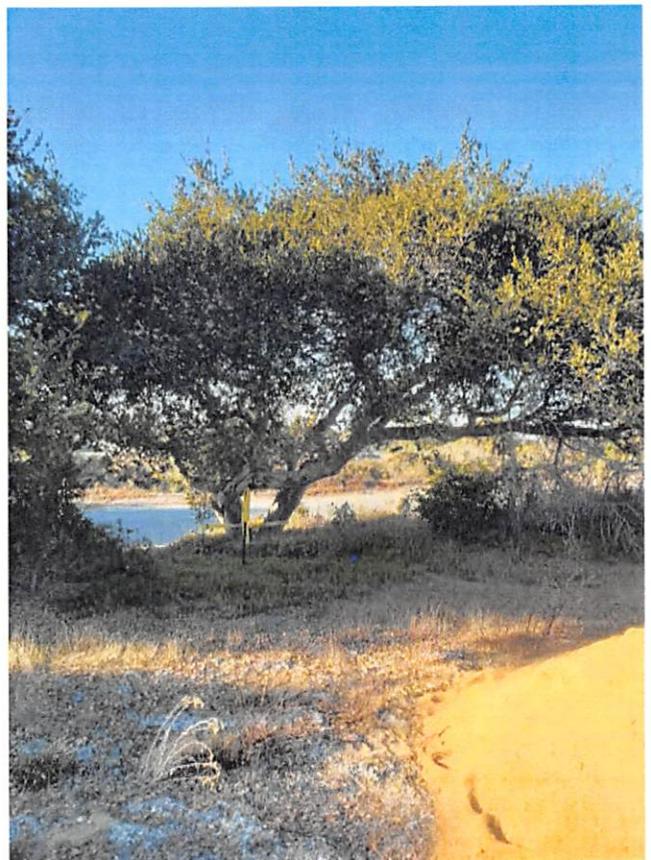
Tree 575. Coast Live Oak



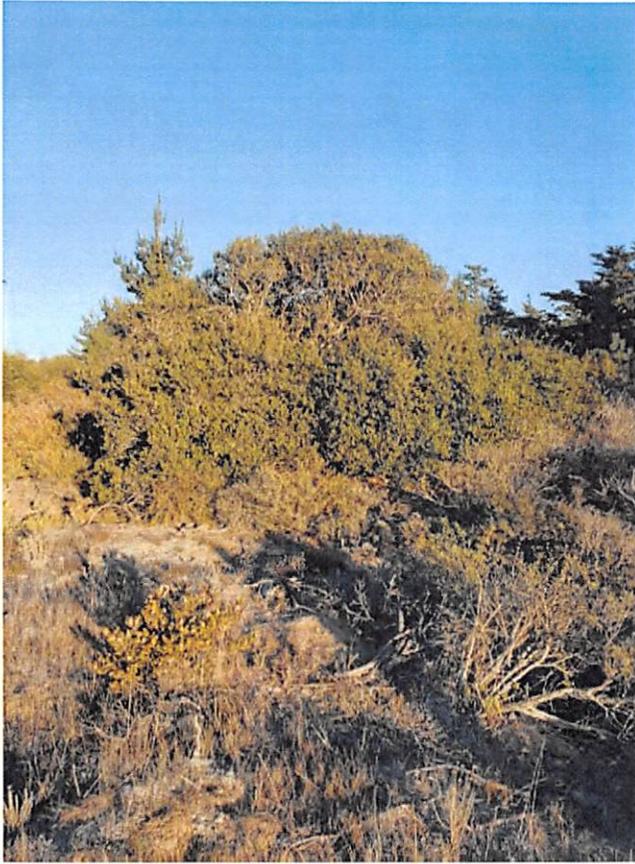
Tree 576. Coast Live Oak



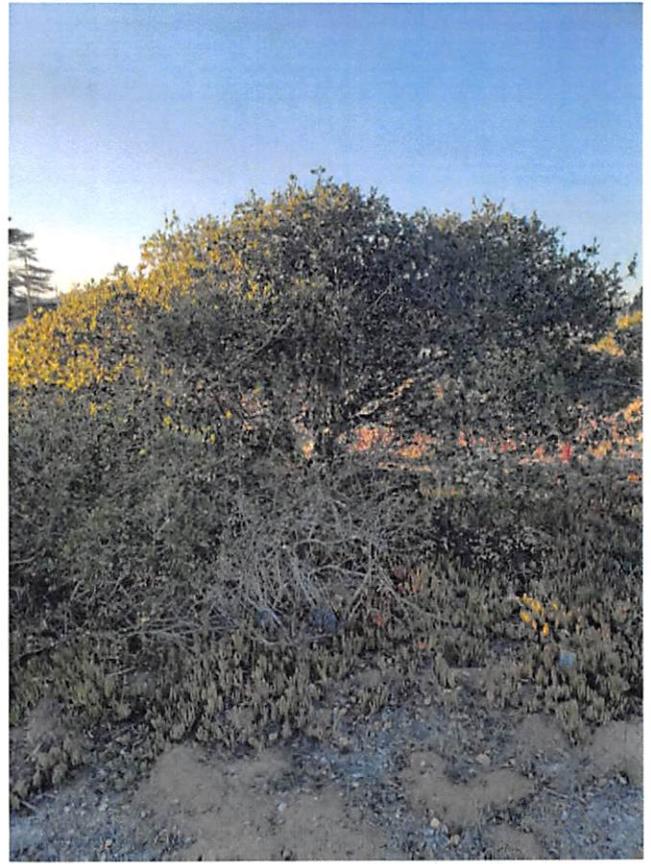
Tree 577. Coast Live Oak



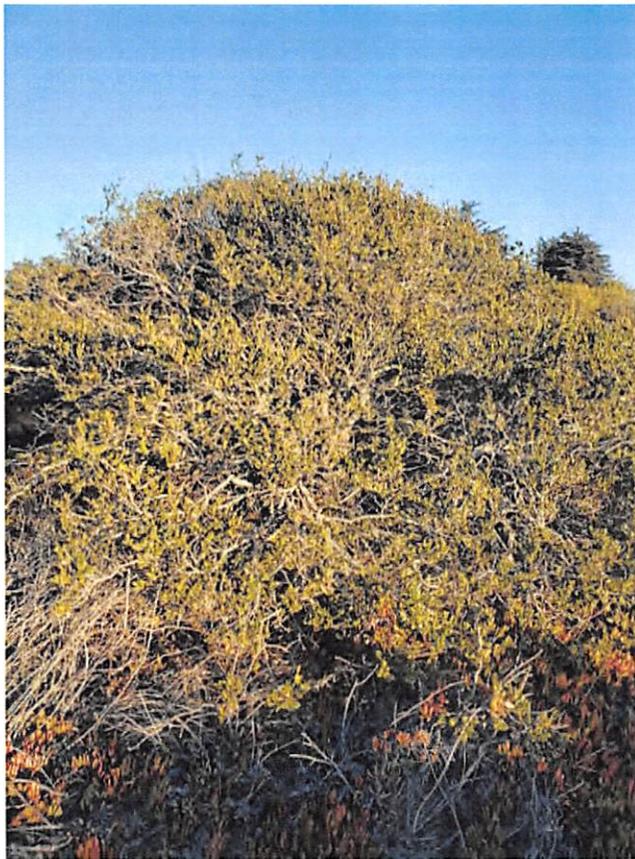
Tree 570. Torrey Pine



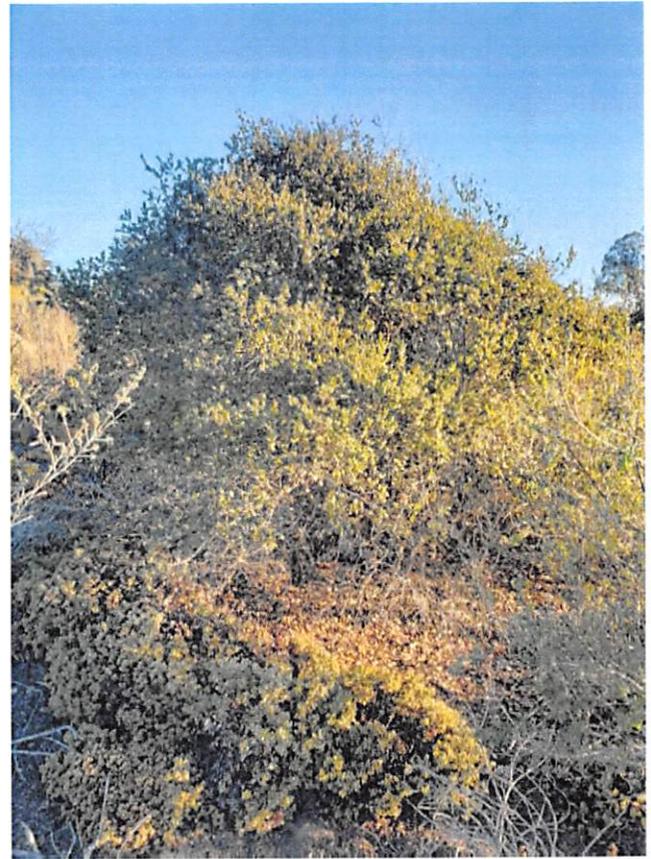
Tree 578. Coast Live Oak



Tree 580. Coast Live Oak



Tree 582. Coast Live Oak



Tree 583. Coast Live Oak



Tree 584. Coast Live Oak



Tree 585. Coast Live Oak

APPENDIX D
Recommended Best Management Practices

Fencing and Barricades

All trees in the project area which are scheduled for preservation shall be temporarily fenced prior to all project-related activities. Fencing shall be installed at the edge of the root zone (the area located within 15 times the trunk diameter in all directions) or located at the edge of pavement furthest from the trunk (whichever comes first). Fencing shall consist of chain link or plastic link fence which is maintained at a minimum height of four feet above grade during all phases of construction.

Fenced areas shall not be used for material stockpile, storage, or vehicle parking. Dumping of materials, chemicals, or garbage shall be prohibited within fenced areas. Fenced areas shall be maintained in natural condition at natural or existing grade and shall not be compacted.

All approved construction within the root zone shall include construction barricades. Barricades shall be upright and be constructed from two-inch by four-inch planks standing a minimum of eight feet vertically, conforming to the tree, and shall be tied with wire or rope forming a maximum of one-inch space between the planks. If the tree's configuration or site conditions do not lend themselves to the installation of this type barricade, a certified arborist or City Forester shall designate alternate tree protection methods. Under certain conditions where soil compaction is probable, fences may also be required around a tree or grouping of trees. The use of recycled lumber, synthetic lumber, or similar materials approved by a certified arborist or City Forester is encouraged.

Tree Pruning

Tree pruning shall be minimal but, when necessary, shall be performed in accordance with American National Safety Institute (ANSI) A300 Pruning Standards. Pruning may include the larger canopied trees that have deadwood or are exhibiting some minor structural defect or minor disease that must be compensated. Should the health and vigor of any tree decline, it shall be treated as appropriately recommended by a certified arborist or qualified forester. In general, trees shall be assessed then pruned first for safety (e.g., broken and cracked limbs shall be removed in high-traffic areas of concern), next for health, and finally for aesthetics. No more than 25% of the overall tree crown shall be pruned in one season.

Tree pruning may include crown thinning, crown raising, crown reduction, or crown restoration, as described below.

Crown Thinning

Crown thinning is the cleaning out of or removal of dead, diseased, weakly attached, or low vigor branches from a tree crown. Crown thinning shall be conducted as follows:

- All trees shall be pre-assessed on how the tree will be pruned from the top down.
- Tree trimmers shall favor branches with strong, U-shaped angles of attachment and, where possible, remove branches with weak, V-shaped angles of attachment and/or included bark.
- Lateral branches shall be evenly spaced on the main stem of young trees and areas of fine pruning.
- Branches that rub or cross another branch shall be removed where possible.
- Lateral branches shall be no more than one-half to three-quarters of the diameter of the stem to discourage the development of co-dominant stems where feasible.
- In most cases, trimmers shall not remove more than one-quarter of the living crown of a tree at one time. If it is necessary to remove more, it shall be done over successive years.

Crown Raising

Crown raising removes the lower branches of a tree to provide clearance for buildings, vehicles, pedestrians, and vistas. Crown raising shall be conducted as follows:

- Live branches on at least two-thirds of a tree's total height shall be maintained wherever possible. The removal of too many lower branches would hinder the development of a strong stem.
- All basal sprouts and vigorous epicormic sprouts shall be removed where feasible.

Crown Reduction

Crown reduction is used to reduce the height and/or spread of trees and is used for maintaining the structural integrity and natural form of a tree. Crown reduction shall be conducted only when absolutely necessary, as follows:

- Pruning cuts shall be at a lateral branch that is at least one-third the diameter of the stem to be removed wherever possible.
- When it is necessary to remove more than half of the foliage from a branch, it may be necessary remove the entire branch.

Crown Restoration

Crown restoration is used to improve the structure and appearance of trees that have been topped or severely pruned using heading cuts. One of three sprouts on main branch stubs should be selected to reform a natural appearing crown. Selected vigorous sprouts may need to be thinned to ensure adequate attachment for the size of the sprout. Restoration may require several years of pruning.

Root Pruning

Where alternative routes are not available, any subsurface construction related activities for the project shall avoid cutting major roots with a diameter of greater than or equal to two inches, unless necessary. All approved construction within the root zone shall conform to the following construction practices:

- Hand trenching at point or line of grade cuts closest to the trunk to expose major roots two inches or more in diameter.
- In cases where rock or unusually dense soil prevents hand trenching, mechanical trenching may be permitted provided that work inside the dripline is closely supervised to prevent tearing or other damage to major roots (greater than or equal to two inches).
- Exposed major roots shall be cut with a saw to form a smooth surface and avoid tearing or jagged edges.
- Absorbent tarp or heavy cloth fabric shall be placed over grade cuts where roots are exposed and secured with stakes and two to four inches of compost or wood chips spread over the tarp to prevent moisture loss. Care shall be taken that moisture levels beneath tarped areas remain comparable to surrounding areas until backfilling occurs. Some watering of these areas may be necessary to maintain moisture levels, and such measures shall remain in effect through all phases of construction, including all delays and other periods of inactivity.

ATTACHMENT 5

April 9, 2021

Item No. **11b**

Honorable Mayor and Members
of the Marina City Council

City Council Meeting
of April 20, 2021

CITY COUNCIL TO CONSIDER ADOPTING RESOLUTION NO. 2021-, RECEIVING A PRESENTATION AND APPROVING THE CONCEPT PLAN FOR HILLTOP PARK AT THE DUNES

REQUEST:

It is requested that the City Council adopt Resolution No. 2021-, receiving a presentation and approving the concept plan for Hilltop Park at The Dunes.

BACKGROUND:

At the regular meeting of May 19, 2020, the City Council adopted Resolution No. 2020-53, approving the amendment to the University Village (now The Dunes on Monterey Bay) Phase 2 Tentative Map. The amendment included conceptual layouts of the City Park within Phase 2 known as Hilltop Park.

The Dunes Specific Plan Community Design Strategy for the Park System Design Concept of Hilltop Park is defined as follows:

This site has significant topography which yields beautiful panoramas from the top of the plateau. This park is proposed to be a passive park with an emphasis on native planting, dunes, sheltered overlooks and seating areas, picnic and barbecue facilities, and a dog park. Trails should follow the site contours to provide access from Eighth and Ninth streets.

ANALYSIS:

The preliminary park plan will serve as a basis for final park design. Final design will move forward once Council input has been considered and addressed. All the improvements at this park location will be fully funded by Marina Community Partners (MCP). The basic programming and elements of the parks will remain as close as possible to what was approved by the amended tentative map and Specific Plan.

The preliminary design also coincides with the Fort Ord Recreation Trail & Greenway (FORTAG) trail alignment and goals due to close coordination with project representatives. Staff met with FORTAG representatives on site and reviewed the concept plans with them and the MCP design team. Changes identified to be incorporated in the final design are the inclusion of a vegetation restoration plan that emphasized native species and the routing of the hilltop access path from 9th Street to minimize the steepness of the grades for improved accessibility.

Whereas the basic programming and elements of the parks will remain as close to what is approved as possible, the COVID-19 pandemic may affect certain congregating elements of the Park.

FISCAL IMPACT:

As stated above, MCP will fully fund construction of the Park once the designs are approved by the City. Per Conditions #11 and #20 of the Tentative Map Conditions of Approval, Hilltop Park will then be owned and maintained by the City.

CONCLUSION:

This request is submitted for City Council consideration.

Brian McMinn, P.E., P.L.S.
Public Works Director/City Engineer
City of Marina

REVIEWED/CONCUR:

Layne P. Long
City Manager
City of Marina

RESOLUTION NO. 2021-36

A RESOLUTION BY THE CITY COUNCIL OF THE CITY OF MARINA
RECEIVING A PRESENTATION AND APPROVING THE CONCEPT
PLAN FOR HILLTOP PARK AT THE DUNES

WHEREAS, at the regular meeting of May 19, 2020, the City Council adopted Resolution No. 2020-53, approving the amendment to the University Village (now The Dunes on Monterey Bay) Phase 2 Tentative Map. The amendment included conceptual layouts of the City Park within Phase 2 known as Hilltop Park, and;

WHEREAS, the Dunes Specific Plan Community Design Strategy for the Park System Design Concept of Hilltop Park is defined as follows: This site has significant topography which yields beautiful panoramas from the top of the plateau. This park is proposed to be a passive park with an emphasis on native planting, dunes, sheltered overlooks and seating areas, picnic and barbecue facilities, and a dog park. Trails should follow the site contours to provide access from Eighth and Ninth streets, and;

WHEREAS, the preliminary park plan will serve as a basis for final park design. Final design will move forward once Council input has been considered and addressed. All the improvements at this park location will be fully funded by Marina Community Partners (MCP). The basic programming and elements of the parks will remain as close as possible to what was approved by the amended tentative map and Specific Plan, and;

WHEREAS, the preliminary design also coincides with the Fort Ord Recreation Trail & Greenway (FORTAG) trail alignment and goals due to close coordination with project representatives. Staff met with FORTAG representatives on site and reviewed the concept plans with them and the MCP design team. Changes identified to be incorporated in the final design are the inclusion of a vegetation restoration plan that emphasized native species and the routing of the hilltop access path from 9th Street to minimize the steepness of the grades for improved accessibility, and;

WHEREAS the basic programming and elements of the parks will remain as close to what is approved as possible, the COVID-19 pandemic may affect certain congregating elements of the Park, and;

WHEREAS, as stated above, MCP will fully fund construction of the Park once the designs are approved by the City. Per Conditions #11 and #20 of the Tentative Map Conditions of Approval, Hilltop Park will then be owned and maintained by the City.

NOW, THEREFORE BE IT RESOLVED by the City Council of the City of Marina that does hereby receive a presentation and approve the concept plan for Hilltop Park at The Dunes.

PASSED AND ADOPTED by the City Council of the City of Marina at a regular meeting duly held on the 20th day of April 2021, by the following vote:

AYES: COUNCIL MEMBERS: Burnett, Berkley, Biala, Delgado

NOES: COUNCIL MEMBERS: Medina Dirksen

ABSTAIN: COUNCIL MEMBERS: None

ABSENT: COUNCIL MEMBER: None

Bruce C. Delgado, Mayor

ATTEST:

Anita Sharp, Deputy City Clerk

COASTAL SAGE SCRUB - SLOPE RESTORATION MIX

LB/AC	PLANT
1.0	ADONIS OLIVEY OGDENNESS (CN)
1.0	ANTENNARIA CALIFORNICA-CALIFORNIA SANDVERBENA (CN)
4.0	ELYSIUM OLIVACEUM (COASTAL BLUE WILDFLOWER) (CN)
4.0	ERIKONIA LATIFOLIA (COAST BUCKWHEAT) (CN)
1.0	ERIOGYNUM CONFERTUM (GOLDEN YARROW) (CN)
2.0	ESCHSCHOLZIA CALIFORNICA VAR. MARTINA (COAST CALIFORNIA POPPY) (CN)
6.0	FESTUCA MICROSTACHYS (SMALL FESCUE) (CN)
6.0	FESTUCA RUBRA MOLATE (NATIVE RED FESCUE) (CN)
1.0	LASTHENIA CALIFORNICA (DWARF GOLDFIELD) (CN)
1.0	LUPULUS SUCCULENTUS (LAMB'S EARS) (CN)
4.0	MIRABILIS AURANTIACA (TROPIC MONKEYFLOWER - ORANGE) (CN)
2.0	SALVA MELLIFERA (BLACK BASIL) (CN)
2.0	SEYRINCHUM BELLUM (BLUE-EYED GRASS) (CN)
2.0	STIPA PULCHRA (PURPLE NEEDLEGRASS) (CN)

SEEDING RATE: 51 LBS PER ACRE
HEIGHT RANGE: 13-24 INCHES
(CN)-CALIFORNIA NATIVE

COASTAL SAGE SCRUB - BLUFF AREA HYDROSEED MIX

LB/AC	PLANT
2.5	ADONIS LATIFOLIA (COASTAL SAND VERBENA) (CN)
1.0	ADONIS POLYMERUS (PURSHING LOTUS) (CN)
1.0	CAMISSONOPUS CHERIANTHIFOLIA (BEACH EVENING PRIMROSE) (CN)
2.0	COLLEMA HETEROPHYLLA (CHINESE HOUSELE) (CN)
4.0	DESCAMPSIA CESPITOSA (HOLDFORMS) (COASTAL HAIRGRASS) (CN)
2.5	ESCHSCHOLZIA CALIFORNICA VAR. MARTINA (COAST CALIFORNIA POPPY) (CN)
6.0	FESTUCA MICROSTACHYS (SMALL FESCUE) (CN)
6.0	FESTUCA RUBRA MOLATE (NATIVE RED FESCUE) (CN)
1.0	LASTHENIA CALIFORNICA (DWARF GOLDFIELD) (CN)
4.0	LUPULUS NANUS (LITTLE LUPINE) (CN)
4.0	KOHLERIA MACRANTHA (LARKSPUR) (CN)
2.5	MELICA IMPERFECTA (COASTAL ORION GRASS) (CN)
2.5	SEYRINCHUM BELLUM (BLUE-EYED GRASS) (CN)
2.5	STIPA PULCHRA (PURPLE NEEDLEGRASS) (CN)

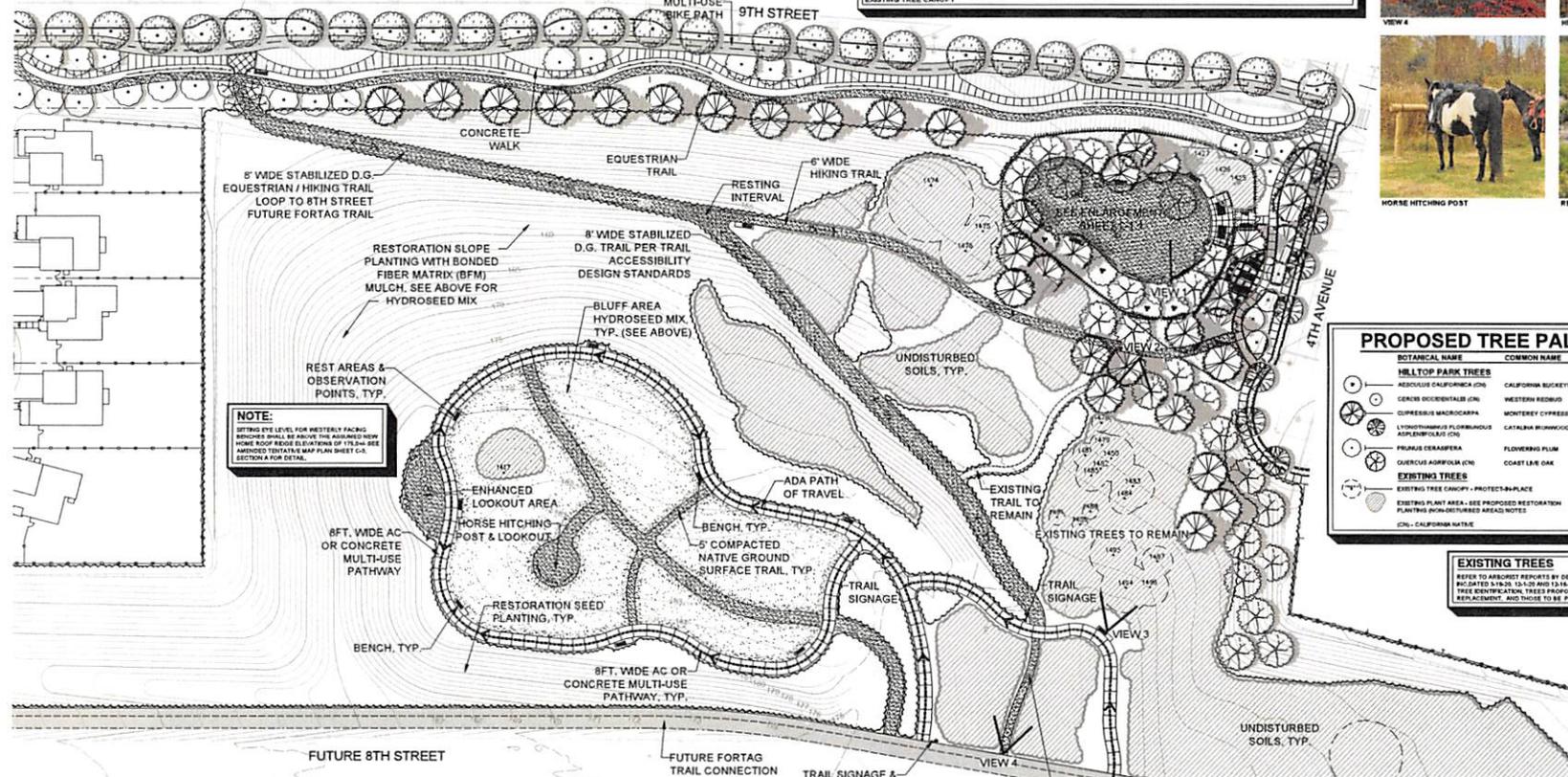
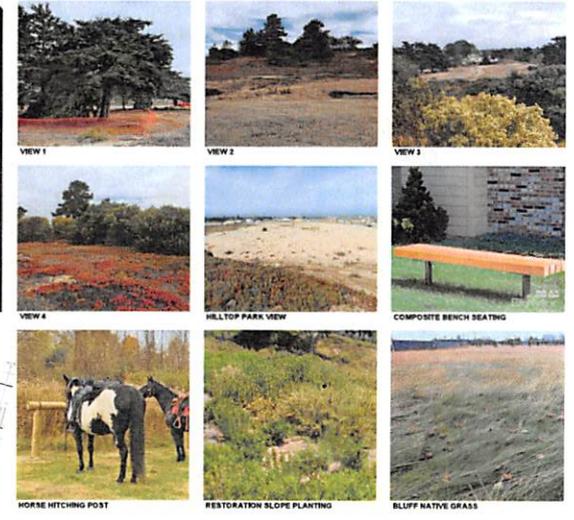
SEEDING RATE: 51 LBS PER ACRE
HEIGHT RANGE: 10-18 INCHES
(CN)-CALIFORNIA NATIVE

PROPOSED RESTORATION PLANTING (DISTURBED AREAS)

BLUFF AREA HYDROSEED
COASTAL SAGE SCRUB MIX BY PACIFIC COAST SEED. SEEDS ARE AS A NON-BRANDED MIX. HEIGHT RANGE 10-18 INCHES. SEE BLUFF AREA HYDROSEED MIX DESCRIPTION, THIS SHEET.

SLOPE RESTORATION PLANTING
COASTAL SAGE SCRUB MIX BY PACIFIC COAST SEED. MIXTURE HYDROSEEDS GRASS, FLOWER AND SHRUB RESTORATION MIX WITH MULCH. MULCHER AND SOIL STABILIZER. OBSERVED AS A NON-BRANDED MIX. HEIGHT RANGE 13-24 INCHES. SEE SLOPE RESTORATION MIX DESCRIPTION, THIS SHEET.

RESTORATION SPECIFICATION AND MAINTENANCE PLAN TO BE INCLUDED WITH CONSTRUCTION DOCUMENTS.



PROPOSED TREE PALETTE

BOTANICAL NAME	COMMON NAME	WUCOLS	MIXL SIZE
HILLTOP PARK TREES			
ADONIS CALIFORNICA (CN)	CALIFORNIA BUCKEYE	V. LOW	15 GAL
ADONIS OCCIDENTALIS (CN)	WESTERN REDBUD	V. LOW	24 BOX
CUPRESSUS MACROCARPA	MONTEREY CYPRESS	MOD.	15 GAL
LYONOTHAMNUS FLOREBUNDUS	CATALINA PINEWOOD	LOW	15 GAL
ADONIS POLYMERUS (CN)	PURSHING LOTUS	LOW	15 GAL
FRAXINUS OREGANA	FLORNSHAW PLUM	LOW	15 GAL
QUERCUS AEMULONIA (CN)	COAST LIVE OAK	V. LOW	15 GAL
EXISTING TREES			
EXISTING TREE CANOPY - PROTECT-IN-PLACE			
EXISTING PLANT AREA: SEE PROPOSED RESTORATION PLANTING (NON-DISTURBED AREAS) NOTES (CN)-CALIFORNIA NATIVE			

PROPOSED RESTORATION PLANTING (NON-DISTURBED AREAS)

A PROPOSED LONG-TERM MAINTENANCE, RESTORATION & BUREAU SPECIES REMOVAL IS RECOMMENDED FOR THE REMAINDER OF THE PARK BY ALL DISTURBED AREAS.

BUREAU SPECIES REMOVAL AND RESTORATION PLANTING SHALL BE PHASED AS TO NOT DISTURB ANY ESTABLISHED POCKETS OF IDENTIFIED BUREAU NATIVE PLANT COMMUNITIES WITHIN THE PARK.

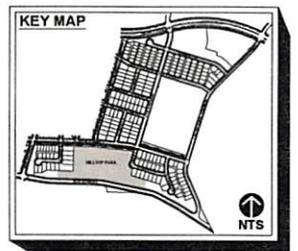
PHASED LONG TERM MAINTENANCE, EDUCATIONAL INFORMATION, PLANT IDENTIFICATION AND NATIVE PLANT RESTORATION SHALL BE PROVIDED FOR AND MONITORED BY THE PARK DEPARTMENT.

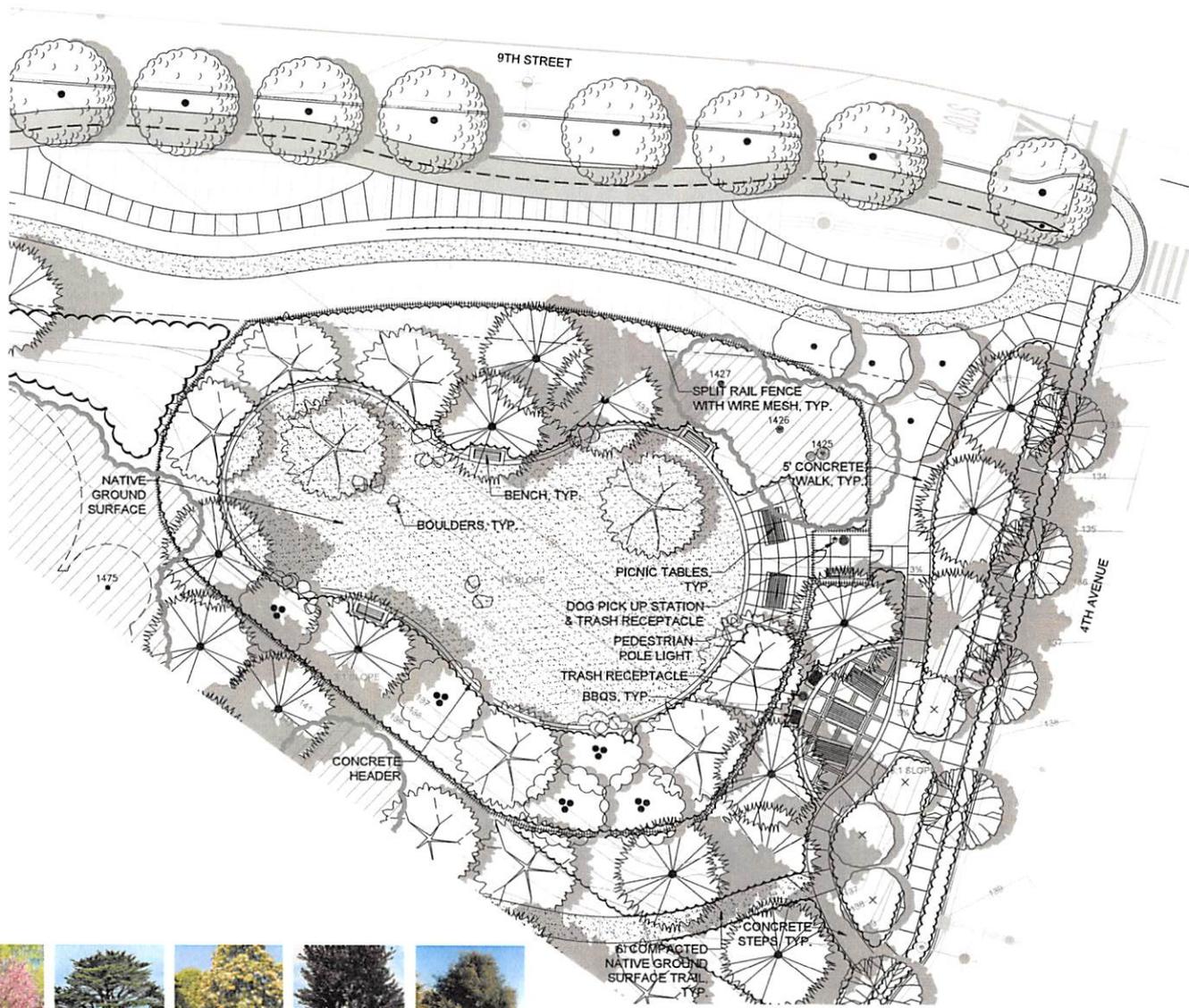
CALIF. BUREAU SPECIES OBSERVED BY FRED WATSON, PhD & BATED PER CALIF.

ACACIA SPP. - CONIFEROUS - STREET GOLDEN HATLE
PARROTULUS (SPP.) - STINK BEAN
LEPTOPHYLLUM (SPP.) - ACTUAL BUREAU TREE
GENETIA SPP. - BROOM
CYPRESSUS SPP. - LIVE OAKS OR PINEAS GRASS
CARBOBRITUS SPP. - KEE PLANT

EXISTING TREES

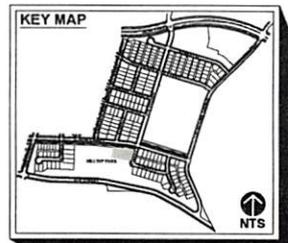
REFER TO ARBORIST REPORTS BY DENISE DUFFY & ASSOCIATES, INDICATED 3-1/2", 5-1/2" AND 13-1/2" FOR EXISTING PARK TREE IDENTIFICATION, TREES PROPOSED FOR REMOVAL & RE-PLACEMENT, AND THOSE TO BE PROTECTED IN PLACE.





PROPOSED TREE PALETTE			
BOTANICAL NAME	COMMON NAME	WUCOLS	MIN. SIZE
HILLTOP PARK TREES			
	AESCULUS CALIFORNICA (CN)	CALIFORNIA HICKKEY	V. LOW 15 DAL
	CERCIS OCCIDENTALIS (CN)	WESTERN REDBUD	V. LOW 34 BOB
	CUPRESSUS MACROCARPA	MONTEREY CYPRESS	MOD. 15 DAL
	LYNDONBARKUS FLORIBUNDUS	CATALINA BIRCHWOOD	LOW 15 DAL
	ARAUCARIOXIPHUS BIDWILLII	FLORERING PALM	LOW 15 DAL
	PRUNUS CERASIFERA	COAST LIME ORN.	V. LOW 15 DAL
	QUERCUS AGRIFOLIA (CN)	CALIFORNIA OAK	V. LOW 15 DAL
EXISTING TREES			
	EXISTING TREE CANOPY - PROTECT-IN-PLACE		
	EXISTING PLANT AREA - SEE PROPOSED RESTORATION PLANTING IN-OUTLINED AREAS NOTES		
	(CN) - CALIFORNIA NATIVE		

TREES



DOG PARK AREA
14,553 SF (0.33 ACRES) FENCE ENCLOSED AREA

City of Marina
211 HILLCREST AVENUE
MARINA, CALIFORNIA 93933
(931) 864-1278

DUNES PHASE 2 EAST
Marina, California

HILLTOP PARK ENLARGEMENT
CONCEPTUAL LANDSCAPE PLAN
MARCH 8, 2021



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