



## *GREENVALE TREE COMPANY*

### **Arborist Report – August 14, 2017**

For: Chris Mathys  
Oro Financial

Site: 3300 Panorama,  
Morro Bay

Task: In preparation for pipe removal or slurry, review tree health and structural integrity of Monterey Cypress (*Cupressus macrocarpa*) along the ESHA area near the western containment berm.

Background: These Monterey Cypress were planted when the original tank farm was constructed. Though these trees are California natives they are not considered native to the California coastal riparian environment. However, they are an established grove of trees and have much value to the neighborhood and the city. They provide buffers to noise, prevent erosion and create a pleasant environment for the neighborhood. These trees also provide habitat for birds and other animals. The city would like these trees preserved for the value they add to the city.

Observations: Specifics to each tree can be found in the tree matrix. In general, these trees have been neglected for many years and most recently with many years of drought the trees have suffered. A few things that would be common to all the trees:

Diseases are common on neglected Monterey Cypress on the Central Coast. I found oozing, lesions and cankers on many of the trees. These seem to indicate a complex called Cypress Decline. Caused by one or up to three canker diseases common to the coast. This amplifies in drought or neglect.

Heavy branch weight. Monterey Cypress tend to have very heavy branches. If the branch attachments are poor this can cause limbs to “tear out” (a branch that snaps and tears at the junction of a trunk/large branch and a limb). It also can cause “windthrow” (all, or portion of a tree that breaks off during a wind/storm event).

“Flagging” (dieback of tips of branches or limbs, usually with the needles attached long after the portion turns brown) is prevalent in almost all trees. I dissected several branch tips and found the tunnels of tip borers. Cypress are often infected by Tip Moth larvae. Some could also be caused by disease.

Wood and bark borers were found on about one third of the trees. When sap flow is low, such as during the drought, borers can penetrate the trees defense and can cause damage. Exit holes were

particularly prevalent on the most declined or dead trees. On top of disease or other stresses borers can kill a tree.

Poor structure can be found in most Monterey Cypress. This can include poorly attached branches, crowded branches, double leaders and heavy limbs. Deadwood is common to all as the bottom and interior limbs senesce naturally.

**Pipe Options:** The pipe that runs between the back of the property to the manifold/valve area must be removed or made not operational in a way that will not collapse. The pipe is located roughly between the eastern edge of the ESHA and the western containment area. This entire area is overlapped by the canopies of the Monterey Cypress.

As per the original plan the entire length of the pipeline was to be excavated, the pipe cut and removed in sections. This means that roots will be cut the entire length of the grove.

A second option of Pot-holing in a few places and pumping slurry into the pipe would be far less invasive. This is the least invasive and damaging to the trees and possibly may result in no injury.

**Conclusion:** Per the matrix, seven trees that are dead or damaged are to be removed. Also, one stem of a multi-stem tree is to be removed. These trees are trees that will be considered as part of the cleanup of the area near ESHA.

The trees in the grove are in fair to good condition except those trees that are to be removed. If there is little to no damage to roots or breakage of limbs these trees should be in the same shape once the work is complete.

Follow the tree protection plan while doing construction to ensure minimal impact. Trees that are to be removed should be removed before any other construction begins. Trees can be chipped on site and chips can be spread out on the path east of the ESHA or spread out on the containment berm. Check with the city of Morro Bay to verify that these trees can be removed and to meet their criteria.

Damage by any excavation, equipment etc in the construction process will have to be evaluated after the project is completed. Any damage done may be subject to mitigation as determined by the city.

Replacement mitigation for those trees that were removed prior to this should be discussed with city planning. As an arborist, I am either strongly in favor of deferring the replacement until the property is developed or do an "in lieu" planting somewhere else per city guidance. Planting at the current location when future development has not been planned may mean removing the trees that were planted once again. Also planting trees on unoccupied land often means failure if irrigation doesn't work or the lack of monitoring does not catch problems.

Sincerely,  
Chris Stier,  
ISA Certified Arborist, #9262

\*Diagnosis was made with observation, history and sound arboricultural and horticultural knowledge. It is always possible that other, or different problems exist that may contribute to the decline and death of plants. Further evaluation may be warranted if the steps above do not work. Pathology tests and other lab analysis are available.