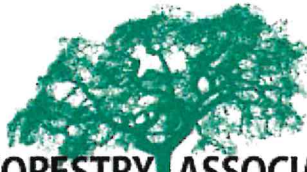


Greg Nelson



URBAN FORESTRY ASSOCIATES, INC.

8 Willow Street San Rafael, CA 94901
(415) 454-4212 info@urbanforestryassociates.com

ARBORIST REPORT

For

College of Marin

Indian Valley Campus

Amphitheater Project

PURPOSE

Urban Forestry Associates (UFA) was hired by the College of Marin, Indian Valley Campus, to perform a tree survey of the main creek channel running through the middle of campus and its tributaries. The data collection was performed by Ben Anderson, Zach Vought, and Charlie Schneider between May 3 and June 27, 2017.

SCOPE OF WORK AND LIMITATIONS

Urban Forestry Associates has no personal or monetary interest in the outcome of this investigation. All observations regarding trees in this report were made by UFA, independently, based on our education and experience. All determinations of health condition, structural condition, or hazard potential of a tree or trees at issue are based on our best professional judgment. The health and hazard assessments in this report are limited by the visual nature of the assessment. Defects may be obscured by soil, brush, vines, aerial foliage, branches, multiple trunks or other trees. Even structurally sound, healthy trees can fail during severe storms. Consequently, a conclusion that a tree does not require corrective surgery or removal is not a guarantee of no risk, hazard, or sound health.

This is a tree survey of species, size, health and structural condition, no risk assessments or evaluation of the potential effects of any proposed development were performed. The tree survey was limited to the trees within approximately 40 feet of the centerline of the creek channel and to the areas shown on the survey maps provided by CSW Engineering. It should be noted, the main tributary extended far beyond the area shown on the CSW maps.

OBSERVATION

- A full tree-by-tree inventory can be found on the Arborist's Map that is to accompany this report. This map includes tree species, diameter at breast height (4.5' above grade) of the three largest stems of each tree, a general health rating (dead, poor, fair or good), a general structural rating and a comments section for issues such as leans, specific disease symptoms or signs of wildlife habitation.
- There appeared to be a considerable difference between the surveyed topographic data from 2008, indicating significant erosion activity. This activity appears to have led to the failure of many trees along the creek and many more are severely undercut and structurally unstable although few appear to have high value targets.
- All the subject trees were tagged with blue, numbered tree tags low on the main stem. The numbers correspond to the map and inventory. Several trees still had tags from a previous survey but many did not. When noticed, these tags were noted in the inventory and placed behind the new tag on the same nail.

- The species found during the survey included *Quercus agrifolia*, *Umbellularia californica* and *Aesculus californica*, *Sambucus nigra*, *Heteromeles arbutifolia*, *Quercus lobata*, *Salix sp.* and *Arbutus menziesii* (coast live oak, California bay, California buckeye, elderberry, toyon, valley oak, willow and madrone, respectively).
- The coast live oak trees appear to be recovering well from the drought and generally produced a very healthy flush of new foliage this spring.
- Of 108 coast live oak trees in the study, cankers consistent with a *Phytophthora* infection were observed on 16 trees. The majority of these did not display old, dried cankers, suggesting the infections occurred during the winter and spring of this year, 2017. Of these infections, several are on large trees that are extremely unlikely to recover and will require removal.
- The California bay trees all exhibit significant dieback in the upper portion of their canopies, likely the result of the extended drought. The wet spring favored the development of a fungal pathogen on the leaves of many of the bay trees in Marin, leading to extensive defoliation. It is possible this also contributed to the bare branches. These symptoms are not likely to affect the long-term survivability of the trees but certainly affect their aesthetic value.
- There was a heavy presence of poison oak in the survey area at the time of the field work. This prevented the diameter measurement of several trees and so a visual estimate was made. These are indicated on the inventory.



Benjamin Anderson, Urban Forester
ISA Certified Arborist & TRAQ
WE:10160A