



**Assessing 1 Redwood in the front of
6750 Jefferson Street
In Yountville, CA 94599**

Prepared for:
Brad Raulston, Town Manager/ John Ferons, Director DPW
braulston@yville.com and jferons@yville.com
Yountville, CA

Submitted by Tony Wayne Wolcott Consulting
Registered Consulting Arborist #685
ISA Board Certified Master Arborist WE3284 B
959 Cheyenne Drive,
Walnut Creek, CA, 94598

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Summary Report -- 02/24/2024

As part of my On-Call Arborist responsibilities with Yountville, I review trees at the request of Yountville Staff. John Ferons and Brad Raulston, Town Manager and Department of Public Works Director, contacted me about a significant Redwood Tree fronting 6750 Jefferson Street, Yountville, California. I inspected the tree and site on February 20, 2024. This tree is a large Redwood specimen.



Photo #1 shows the south side of the tree looking north along Jefferson Street.

This Redwood Tree has all the markings of a Heritage Tree: a significant size in good health, excellent structure, and ideal Form. Like all trees, this Redwood comes with risk due to its size and various nearby targets. My Assignment was to observe, inspect, measure, and analyze the tree risk factors, utilizing my Tree Risk Assessment Qualification with the ISA. This Arborist Report chronicles my findings and opinions about this Jefferson Street Redwood Tree.

Conclusions

- The tree risk factors, whole tree failure, and significant branch failure over five years produce a low-risk rating for both failure types.
- Some mitigation actions can lower the risk further.
- The one option that eliminates the Redwood's risk is to remove the tree.
- As a Consulting Arborist, I can provide information and opinions on tree risks and present them to the Town of Yountville. Still, the town decides the acceptable risk level and decides on this *Sequoia sempervirens*, the Jefferson Street Coast Redwood.

Observations and Discussions

The Redwood's location seems unfortunate with the asphalt road, gravel-covered walkways, and proximity to nearby houses. One hundred years ago, when this tree was in its youth, the site was open soil, maybe a trail going by, and a few homes in the area. The quick growth of this Redwood in an area with hot, dry summers may seem unlikely.

“Valley floor soils tend to be deeper and more fertile and produce vigorous growth so the crop must be tightly managed to produce concentrated grapes.”
(https://napavintners.com/napa_valley/soils_and_geology.asp)

The alluvial fan soil is prime for growing plants. However, Redwoods require water and fog. The water is not always readily available in Napa County, and the coastal fog is far away. But in my hour-and-a-half inspection, every five minutes, a sump pump here and there disgorged water from this home and then that home. Water is near the surface, groundwater or underground streams, and natural drainage patterns.

Table 1-A Tree Measurements and Assessments

Diameter measured at 4.5 feet above grade: 71.5 inches

Height measured with a RangeFinder: 128 feet

Live Crown Ratio: 65% *This Redwood was recently limbed up to balance the look over the existing wires.

Canopy spread: 15 to 20 feet in all directions



Phoro #2 The south side of the Coast Redwood's trunk

I looked through the Heritage Tree List, and this Redwood is not on the list. There are 500 trees on that list, including many Coast Redwoods, the largest ones with 25 to 30 inches diameters. This tree on Jefferson Street has more than twice the diameter and is in excellent health, an excellent example of the species.

Tree Physical Condition Rating

Tree condition results from evaluating the Tree’s Form, Health, and Structure. The Form refers to the species’ shape or look; the ideal Form of a Coast Redwood is in the eye of the beholder, and the situation here is a solitary tree in a residential area. This Redwood Tree stands out with its height and girth. Tree Health relates to vigor and vitality, a functioning root system supporting a green canopy. A tree structure means supporting the tree with strong roots, solid trunks, and suitable branch attachments. I adjust the importance of each condition rating—Physical condition- 40% Structure- 40% Form- 20%

Table 2A Tree Physical Condition Components

Rating Category	Percent Rating	Health	Structure	Form
Excellent	81% to 100%	High vigor, actively growing	Ideal architecture for a privacy screen	Tree fits nicely into the hedge structure
Good	61% to 80%	Usual vigor, no significant damage or disease	Well-developed structure, insignificant defects	Primarily consistent with the intended use
Fair	41% to 60%	Reduced vigor, insect, and disease signs	A single defect of significance or many minor defects	Deviations from intended use, poor aesthetics
Poor	21% to 40%	Unhealthy and declining, poor vigor	Observed structural problems, failures possible	Abnormal to hedge function
Very Poor	6% to 20%	Poor vigor, dying	Severe defects	Visually unappealing
Dead	0% to 5%			

The Jefferson Street Redwood has Excellent Health- 96%, Excellent Structure- 83%, and Excellent Form – 92%

Overall, the Redwood Tree is in Excellent condition, with a rating of 90%.

There has been some pruning on this Redwood Tree to lift the branches clear of the wires and some reduction pruning to lessen the sail on the tree and for aesthetic reasons. A redwood this size drops a considerable amount of organic debris, including branches. Ideally, the tree would benefit from its natural mulch on the surface surrounding the tree. There is a slight lean towards the street, but the trunk has corrected that lean as it grows, making for a balanced tree.



Photo #4 The Redwood leans slightly to the right and corrects that lean with upward growth on the upper canopy.



Photo #5

The Town of Yountville hired Cinquini & Passarino, INC-- Land Surveyors to assess any movement of the Coast Redwood tree. The Baseline Measurements were taken on 3/2/2022. Three red prisms were attached to the tree trunk at calculated points related to three control points near the Redwood Tree. The company recorded four measurements on 3/28/2022, 6/3/2022, 9/1/2022, 3/7/2023, and another one in February of 2024. The minuscule movement amounted to 6/1000 of a foot, a change in elevation that is negligible within tree growth and equipment accuracy rates.

Tree Risk Assessment

“Risk is the combination of the likelihood of an event and the severity of the potential consequences.” Tree Risk Assessment Manual, Second Edition.

In tree risk assessment, we define the specific risk first; tree failures of one type or another are the tree risks. There is often more than one type of tree failure to look at. The

Coast Redwood Tree in front of 6750 Jefferson Street has two tree failure types of concern—whole tree failure and significant branch failure.

In Tree Risk Analysis, there are targets to identify. Power lines are close to the Redwood. There are homes surrounding the tree and Jefferson and Adams streets. There are also parked and moving cars, pedestrians, and occupants in the nearby homes. Some targets, such as the homes, cannot be reasonably moved away from the tree. Other targets have frequent to infrequent occupancy rates.

Tree Risk always has a time frame attached to the specific risk. For this Assignment, the period is five years. Annual inspections and inspections after extreme weather conditions are necessary.

The likelihood of failure is ranked Improbable, Possible, Probable, and Imminent.

The likelihood of impacting the target: Very Low, Low, Medium, High

The likelihood of failure and impacting the target: Unlikely, Somewhat Likely, Likely, Very Likely

Type of Failure: Significant Branch (over 3-inch diameter) Over Five Years

Tree Part	Target	Failure	Impact	Failure & Impact
>3-inch branch	Cable Wires and power lines	Possible	Medium	Unlikely
>3-inch branch	Homes	Possible	Low	Unlikely
>3-inch branch	Cars & People	Possible	Low	Unlikely

Type of Failure: Whole Tree or Root Ball Failure Over Five Years

Tree Part	Target	Failure	Impact	Failure & Impact
Whole Tree	Cable Wires and power lines	Improbable	Medium	Unlikely
Whole Tree	Homes	Improbable	High	Unlikely
Whole Tree	Cars & People	Improbable	Low	Unlikely
Whole Tree	People in Homes	Improbable	Low	Unlikely

If we look at the Risk Rating Matrix, the likelihood of Impact is ‘Unlikely,’ then the Consequences of Failure are Low.

The Risk Ratings for the two tree failure types with wires, streets, people, homes, and cars as targets are ‘Low.’

Mitigating the Tree Risk—There are several actions to lessen the risk rating of this Coast Redwood.

1. Pruning dead and poorly attached branches reduces the risk of falling branches. The annual inspections must include pruning specifications for this Redwood Tree.
2. Although the Tree Risk for the Redwood Tree is Low, removing the Jefferson Street Redwood Tree eliminates any tree risk.

Final Comments

In my assessment of this Redwood, I did a Level 2 Basic Tree Risk Assessment. I used a small shovel, RangeFinder, binoculars, hand lens, hand microscope, tree diameter tape, measuring tape, and a sounding hammer. It is possible to have a Level 3 Advanced Tree Risk Assessment done. This inspection may involve an aerial lift truck or a qualified tree climber inspection. Advanced Assessment tools may include a tomograph, resistograph, radar root inspection, or a drone.

As the Tree Risk Assessor, I can only give you the factual information and my derived opinions from those facts. The Town of Yountville must consider its risk tolerance and make the decision.

In my opinion, this *Sequoia sempervirens* ought to be a Heritage Tree. That classification does not change whatever the future holds for this tree, but the tree is what it is—a fine example of the species, our state tree.

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Web sites as resources:

<https://www.google.com>

<https://selecttree.calpoly.edu/>

Appendix A

Certificate of Performance

I, Tony Wayne Wolcott, certify that:

- My compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party or upon the assessment results, the attainment of stipulated outcomes, or the occurrence of any subsequent events.

I further certify that I am a member of good standing of the American Society of Consulting Arborists and the International Society of Arboriculture. I have been involved in the field of Arboriculture and the care and study of trees for over 33 years.

Signed: *Tony Wayne Wolcott*

Date: February 24, 2024