CONTRA COSTA COUNTY

2018 FEB -5 P 12: 19

DEPARTMENT OF CONSERVATION AND DEVELOPMENT

TP17-0033

Sophia & Lomit Patel
1597 Hillgrade Avenue
Alamo, CA 94507

February 3, 2018

Community Development Division
Board of Supervisors
30 Muir Road
Martinez, CA 94553

Re: County File #TP17-0033 (Appeal from Planning Commission Decision dated January 24, 2017)

Dear Board of Supervisors:

This is an appeal from a Planning Commission decision made on January 24, 2017 denying an appeal brought by Sophia and Lomit Patel ("Appellants") at 1597 Hillgrade Avenue in Alamo, CA to overturn the approval of an application by the property owners Gil and Carla Gibson (applicants") at 1593 Hillgrade Avenue to remove three remaining large code protected Redwoods. The Planning Commission's deliberations ended in a three-to-three tie with staff's recommendations breaking the tie. The appeal is brought on the following grounds:

- We believe the Conservation and Development Department staff ("staff") recommendations did not apply or consider the requirements of the tree protection ordinance for state protected Redwoods. The applicants state that Redwoods are not native to Contra Costa County. However, according to the Save the Redwoods League, the Redwood and Giant Sequoia Forests extend well into Contra Costa and Napa Counties (see corresponding map of Protected Redwoods Lands and Historic Range of Redwoods). The Redwoods and Giant Sequoias are the tallest and largest trees on the planet. They represent the original face of nature, embodying a beauty millions of years in the making. These trees store more carbon from the atmosphere than any other forest ecosystem, and they support communities of life found nowhere else on Earth. But the redwood parks and private lands that California has protected over the last century still need help. The primeval forests today resemble islands of disconnected old-growth stands — pinched at the edges by development and construction. **The County has a moral and legal obligation to protect these large state protected Redwoods located at 1593 Hillgrade Avenue.**

- Furthermore, the observations and reports from highly qualified certified master arborists and horticulturists state the trees are in fair condition with lots of new growth and can be easily rehabilitated within a few months with the proper care and pruning.

- Based on arborist reports and soil reports, these Redwood trees provide protection from soil erosion and mudslides between our properties. In the last couple years, we have experienced flooding on our site as it is based in a canyon between two hillsides. **Removal of the Redwoods and the roots that are helping to retain soil and moisture will exacerbate flooding on our properties and result in property loss and significant drainage work.**

- Our lots of 1593 and 1597 are very much a shared site sharing drainage, landscaping, and a shared driveway. After 1593 Hillgrade was subdivided from our property in 2016, five state protected Redwoods have already been removed unlawfully without any repercussions to the owners. Now they are trying to remove the last and largest remaining three Redwoods. Both us and the O'Dell neighbors have offered on three separate occasions to split the costs to rehabilitate the remaining Redwoods, but the Gibsons have declined each time despite the

fact these state protected Redwoods can be regenerated. The majority of these Redwoods fall on the border of our property line, which were stated as healthy according to a 2014 arborist report and guaranteed to remain when we purchased our home April 2016 (just 8 months before the Gibsons filed a permit for the Redwoods removal) and were part of our contract contingency.

- Most importantly, we believe the staff failed to properly consider and evaluate the submitted expert reports between 2014 and 2017 in light of the County's Tree Protection and Preservation Ordinance. The staff admitted that the decision to approve the removal of the trees was based on the fact that the applicant had submitted two arborist reports while the appellants had submitted only one. One of the reports was undated, unsigned and without letterhead. The staff did not provide any evaluation of the relative quality of the reports, nor the qualifications of the arborists who wrote them. In fact, they mischaracterized the report prepared by the appellants' expert as being in agreement with those of the applicant. Nor was it observed that the applicant's arborists presented a conflict of interest due to previous working relationships.

- Because the decision to allow the removal of the code protected Redwoods was simply based on the number of arborist reports vs. quality of the reports and did not fully rely on the County's Tree Protection and Preservation Ordinance, **we are hereby submitting a second report by a Certified Master Arborist and horticulturist, Judy Thomas, who recently evaluated the trees.** While affirming that the trees in question are healthy and should be protected, she also emphasizes the function the trees provide in preventing soil erosion, controlling floods, and mud flow on the hillsides directly above all our homes.

- We are requesting the permit be denied due to the fact that it violates the County's Tree Protection and Preservation Ordinance and state guidelines for the protection of California Redwoods due to:
    1. Environmental impact on flood control and soil erosion of our homes/site;
    2. Owners of 1593 Hillgrade have already unlawfully removed 5 state protected Redwoods and attempted to remove the three remaining attested Redwoods on October 18, 2017 without permit;
    3. The three remaining state protected Redwoods can be rehabilitated according to independent, expert opinion; and
    4. Staff did not fully evaluate independent expert reports and opinions between 2014 and 2017

The unincorporated city of Alamo prides itself on the nature and beauty of its giant Redwood and Oak trees. The removal of these state protected Redwood trees goes against our community's beautification standards and expectations for nature, privacy, and flood control.

As three Commissioners noted at the Planning Commission hearing, there is simply no logic or reason presented by the applicants or the staff as to why the trees must be removed. Chairman Steele particularly noted that the trees are in a watershed where they will get plenty of water and will recover from construction damage. Commissioner Van Buskirk actually drove by and looked at the trees and did not "see them as anything that needed to be removed." Commissioner Clark noted staff had failed to provide any analysis of which arborists' reports had been more accurate. The Commissioners all mentioned their personal experience that Redwoods are able to survive almost anything. In fact, they strongly recommended appellants O'Dells and Patels appeal the case to the Board of Supervisors for further review.

As members of the Save the Redwoods League, the value these trees provide both in soil preservation and environment are irreplaceable in our or our children's lifetime. Redwood trees are protected because they are part of a complex community of living things interacting with their environment. Our community's ecosystem depends on Redwoods and they should be protected by the County and Department of Conservation and Development. This permit should be denied.

WHY PROTECT REDWOODS?

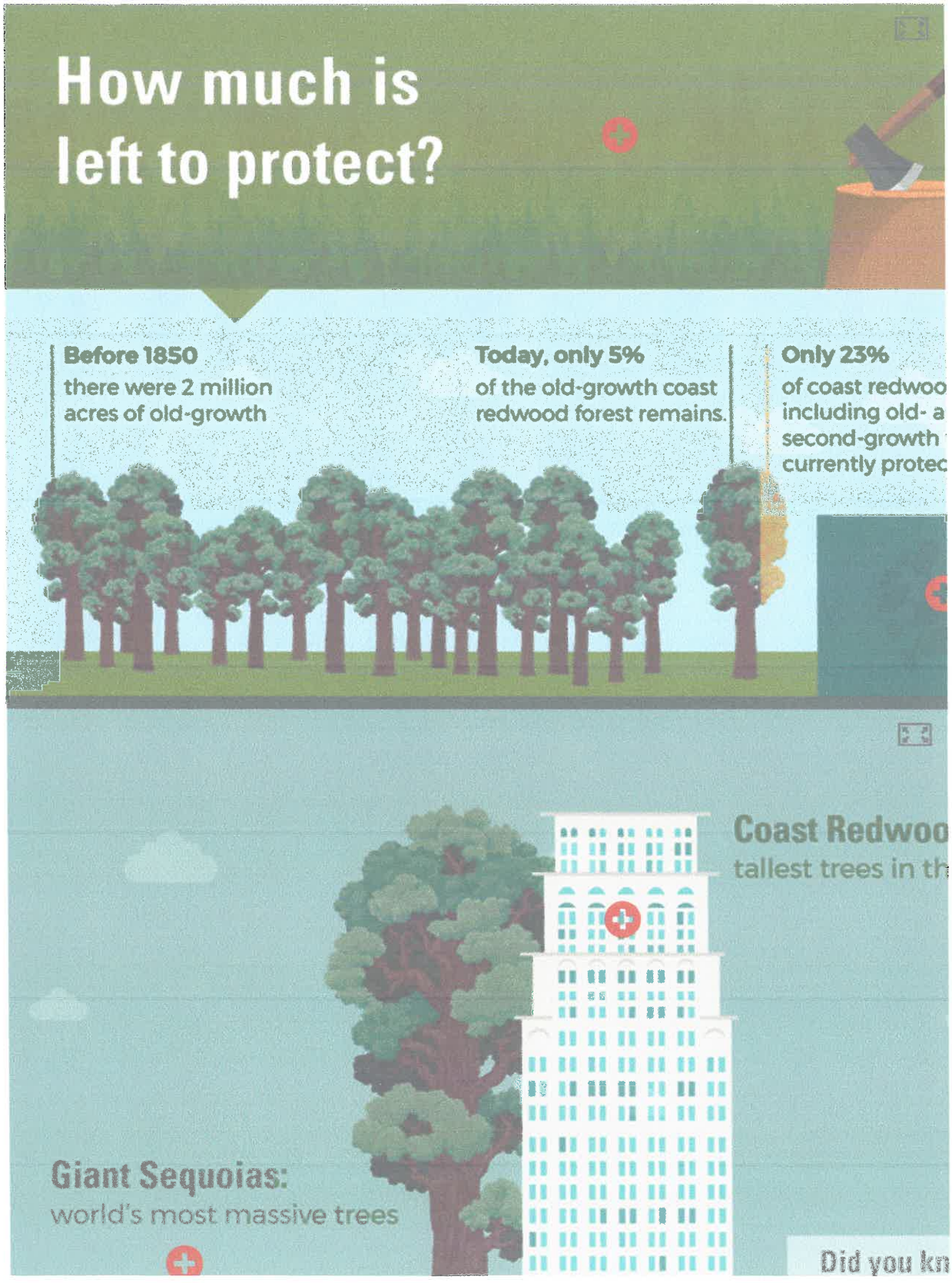
Photo by Jane Rix / Shutterstock

The coast redwood (https://www.savetheredwoods.org/redwoods/coast-redwoods/) and giant sequoia (https://www.savetheredwoods.org/redwoods/giant-sequoias/) forests are home to the **tallest and largest trees on the planet**. They represent the original face of nature, embodying a beauty **millions of years** in the making. These forests **store more carbon** from the atmosphere than any other forest ecosystem, and they **support communities of life** found nowhere else on Earth.

The redwood forests are the greatest forests on Earth.

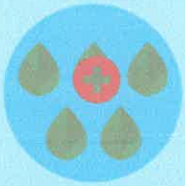
But the redwood parks and private lands we have protected over the last century **still need help**. The primeval forests today resemble islands of disconnected old-growth stands — pinched at the edges by clear-cuts, development and agriculture. They depend on streams choked by sediment, and they are cared for by parks organizations that are under-funded and under-resourced.

Explore the **interactive infographic** below to learn more about why we need to protect the redwood forest.



Redwood trees: life support for people and wildlife

A weapon against climate change



A safe haven for endangered birds

Marbled murrelets

Northern spotted owl

A home for imperiled wildlife

Black bears

Healthy trees, healthy people

Spending time in nature has tangible benefits to personal health and well-being.

Clean water for people and fish

Redwoods filter and shade our rivers and streams, helping to provide clean drinking water for people and clear, cool water that fish like salmon require.

Coho salmon

Press & News (https://www.savetheredwoods.org/about-us/newsroom/)
Leadership (https://www.savetheredwoods.org/about-us/governance/)
Partners (https://www.savetheredwoods.org/what-we-do/our-work/partner/)
Financials (https://www.savetheredwoods.org/about-us/financial-info/)

PROGRAMS

Land Protection (https://www.savetheredwoods.org/what-we-do/our-work/protect/land-projects/)
Redwood Genome Project (https://www.savetheredwoods.org/project/redwood-genome-project/)
Redwoods Rising (https://www.savetheredwoods.org/project/redwoods-rising/)
Redwoods and Climate Change (https://www.savetheredwoods.org/what-we-do/our-work/study/understanding-climate-change/)
Redwood Education Program (https://www.savetheredwoods.org/what-we-do/our-work/connect/supporting-education/)
Science and Research Programs (https://www.savetheredwoods.org/what-we-do/our-work/study/)
Explore Redwoods (https://www.savetheredwoods.org/get-involved/visit/)

GET INVOLVED

Support State Parks (https://www.savetheredwoods.org/what-we-do/our-work/connect/support-california-state-parks/)
Volunteer (/get-involved/take-action/volunteer)
Sign A Pledge (https://www.savetheredwoods.org/learning-center/act/redwoods-pledge/)
Send Ecards (https://www.savetheredwoods.org/get-involved/take-action/redwoods-ecards/)
View | Submit Redwood Art (https://www.savetheredwoods.org/get-involved/take-action/redwoods-art/)
Join Our Online Communities

(https://www.facebook.com/SaveTheRedwoodsLeague)
(http://twitter.com/savetheredwoods/)
(http://www.linkedin.com/company/save-the-redwoods-league)
(https://plus.google.com/+SavetheredwoodsOrg1918/posts)
(http://www.youtube.com/savetheredwoods)

(http://instagram.com/savetheredwoods/)
(http://www.pinterest.com/saveredwoods/)

RESOURCES

Giant Thoughts Blog (https://www.savetheredwoods.org/category/blog/)
FAQs (https://www.savetheredwoods.org/about-us/faqs/)
Publications (https://www.savetheredwoods.org/about-us/publications/)
Redwoods Learning Center (https://www.savetheredwoods.org/learning-center/)
Live Redwoods Webcam (https://www.savetheredwoods.org/get-involved/visit/virtual-redwoods/)
Privacy Policy (https://www.savetheredwoods.org/privacy-policy/)

CONTACT US

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Directions (/about-us/contact/)

Save the Redwoods League is a 501(C)(3) nonprofit organization.
Gifts are tax deductible to the fullest extent of the law. Our tax identification number is 94-0843915.

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2/2/18

Summary

On 1/29/18, I examined the redwood trees belonging to your neighbors that used to grow on your property at 1597 Hillgrade Ave., Alamo CA 94507, before the property was subdivided. The trees now grow at 1593 Hillgrade Ave. You asked me to form my own opinions about your situation, and to write this letter for you to present to the City of Alamo's Planning Commission and the City Counsel regarding their condition and whether or not they should be removed. You, Sophia and Lomit Patel, and your neighbors, Gabriela Odell and Bruce Tarter, at 1591 Hillgrade Ave., have appealed the decision of the Planning Commission, because you don't want these trees to be removed.

I have reviewed the reports from the other arborists, a soil report on water coming down the canyon, and the current conclusion of the Planning Commission. These items are listed and discussed below.

As described in detail below, it is my opinion and conclusion that the redwoods are regenerating themselves from both drought and construction damage, and have seen the new growth that is now visible from offshoots at the base of the trunks and from the *epicormic shoots*[1] growing throughout the lower canopies. With some pruning, possible cabling, and irrigation recommended by both Torrey Young and me, these trees will recover. Torrey Young and I are both Board Certified Master Arborists and are Tree Risk Assessment Qualified with the International Society of Arboriculture, and can speak to the issues not brought up by Tim Hendricks and Gil Gibson. And I recommend that the Planning Commission rescind their recommendation for removal of the trees and follow the Alamo Tree Protection Ordinance.

Introduction

Background and History

On 1/25/18, you called me regarding your concerns about your neighbor's redwood trees, located at 1593 Hillgrade Ave, Alamo CA, that they want to remove. You told me that you had been told that your neighbors had produced two arborist reports, and you had produced only one; and you asked me for a second opinion. We arranged for me to visit your home to see the situation. On 1/29/18 I made the site visit, and met your neighbor, Gabriela Odell, and you in front of your home, to view the trees and to discuss the situation.

[1] Please refer to the Glossary of Terms as needed.

We did not enter the property at 1593 Hillgrade Ave., and I did not perform any advanced investigative work except to take images, but I reviewed the reports listed above, and am basing my opinions on my extensive knowledge of coast redwoods and how they grow and respond to their environment and construction impacts.

While performing my visual assessment of the trees, I observed considerable dieback of branches, but I also saw healthy trunks and lower branches that are re-sprouting new growth from both branches and trunks, and new offshoot second growth trees growing from the base of the larger trees – as is typical for coast redwoods. I also saw no evidence of insect damage or disease. My observations are consistent with those made by Torrey Young, in his report written to your neighbor Gabriela Odell - who wants the trees retained. Young's report indicates that the Google Earth images show the trees in better health in the past.

Assignment

On 1/29/18, during my site visit, you and your neighbor, Gabriela Odell, asked me to review some material that you sent me, and to form my own opinions of the situation regarding the redwoods, and whether or not they should be removed. You also asked me to prepare this letter detailing my conclusions regarding the other arborist reports and their opinions.

Limits of the Assignment

My report is based on my observations, my images of the trees taken on 1/29/18, and the information and images sent to you in the other reports listed. Some of my images are included in Appendix A, with comments on each image.

I have no personal interest in or bias with respect to the subject matter of this evaluation report or the parties involved. I have inspected the subject trees and, according to my knowledge and belief, all statements and information in this report are true and correct and are based on my education and experience.

Purpose and Use of the Report

The purpose of this report is to document my site visit, to identify the plants and the property in question, and to describe my observations and conclusions regarding your situation.

This report can be used by you, as you see fit.

Observations

First, I determined that the subject *trees*[2] on your neighbors' property are a group of *Sequoia sempervirens* (coast redwoods,) that are native to the Pacific coast of northern California. According to you, the three trees had once been part of your property before the lot was subdivided and the home at 1593 Hillgrade Ave. was built.

You told me that, in the past, there had been other redwoods on the property at 1593 Hillgrade Ave. that had been removed without permission by your neighbors, and that you are now concerned about losing the visual screen between you and the neighbors' new home with the redwoods that remain. You also told me about soil and drainage issues you've had in recent years, with water intruding into your home. And Gabriela Odell expressed concern about the water that would flood her property as well, if the trees are removed.

I saw the trees and the current *dieback*[3] issues with them, but also told you about how coast redwoods grow and recover from damage. I saw both the presence of new offshoot trees, or suckers, growing from the base of the

[2] Please refer to the Glossary of Terms as needed.

[3] Please refer to the Glossary of Terms as needed.

trunks; and I saw the presence of epicormic shoots, or new growth, coming from the branches and trunks throughout the canopies of the trees. These shoots emerge from latent lateral buds buried beneath the bark, and are the trees' backup system - in case the major branches die back or are lost.

Finally, I saw the area above your home, where water drains down the canyon, and onto your property and onto the properties below.

Analysis or Testing:

I took some images that illustrate my conclusions, and confirmed the descriptions of the trees and their issues from the Young report - as they are accurate. I also read all of the reports listed above, and noted the experience or lack of experience of the arborists who wrote those reports.

I then reviewed the following items at your request:

1. A report from Waraner Tree Experts to Steven McKee, entitled *Tree Assessment at 1597 (sic) Hillgrade Ave., Alamo CA 94507*, signed by Dustin Waraner and dated 1/27/14. Specifications for protecting the trees during construction are included.
2. A Soil Report from Engineered Soil Repairs, Inc. to Sophia Patel, 1597 Hillgrade Ave., Alamo CA 94507, dated 4/25/16, that describes the amount of water coming down the drainage and erosion problems on the site.
3. A letter/report from Tim Hendricks, untitled, unsigned, and undated, citing an inspection of 4/8/17, where he concludes that the trees are unlikely to survive due to the drought.
4. A letter from Brightview to Gil Gibson, regarding 1953 Hillgrade Ave, signed by Bob Peralta and dated 10/12/17.
5. A letter from Torrey Young of Dryad LLC to Gabriela Odell of 1591 Hillgrade Ave., Alamo CA 94507, regarding the evaluation of trees relative to a tree permit appeal. His conclusion is that the trees have been most likely damaged by the combination of construction damage and drought at 1591 Hillgrade Ave., but can recover with corrective pruning, some cabling, and time.
6. A Staff Report from the County Planning Commission, listing the appeal of the Gibson tree permit. The reason given for their removal is listed as being because the trees have been determined to be in poor health. The appeal has been filed by Sophia and Lomit Patel and Gabriela Odell and Bruce Tarter.

Discussion and Conclusions:

I have done extensive work with coast redwoods during my thirty years of teaching at Merritt College in the Landscape Horticulture and Environmental Sciences departments. I have taken students on field trips to see coast redwoods in many places, and taught courses on CA Native Plants, Redwood Ecology, Forest Ecology, and Forestry at Merritt College. And I've done naturalist work with the Sierra Club in the past to visit coast redwood groves. Since 1992 I've also had a great many consulting jobs dealing with coast redwoods and their issues. From this experience, I know that coast redwoods are native to the fog belt of CA from just above the Oregon border down to the Santa Lucia Mountains, where they are found in the bottoms of canyons where there is enough water. They die out up north with winter snow, but can grow successfully outside their native range all over California in temperate areas by simply giving them enough water.

Some other information about coast redwoods that may be of interest is that their roots can extend out two to three times their height, although they tend to be shallow in clay soils or where there is shallow bedrock. So they can hold steep and flooded soils well. Coast redwoods naturally provide mulch to the soil in the form of dead leaves and branches; and their trunks and branches contain systems of latent lateral buds just beneath the bark that can re-sprout whenever branches are lost. After the Oakland hills fire, I watched a large group of redwoods recover in the hills over a period of several years. They had lost every single branch - leaving only blackened trunks. Over several years, the lateral buds re-sprouted to form new branch systems on all of the trees. Similar images are also included in Torrey Young's report.

I have also seen thousands of healthy redwoods in the central valley and in inland areas where they are irrigated as needed. I have seen them recover from extensive construction damage, due to the formation of new root systems and suckers from buds in the lower trunks. They are famous for recovering from both fire and flood. In addition, because they have an indirect vascular connection between their roots and their branches, if some roots are lost, the others can still provide water to the branches that survive; and then new branches form – even if there has been dieback during the process. In addition, coast redwoods sucker, and produce offsets from the base. This can be observed in the large redwood groves at Henry Cowell Redwood State Park in Felton, where old trees and their offshoots form huge "family groups." These offshoots are also forming on the specimens seen here. If the old trees are cut down, the offsets will form new trees again on the existing roots. Redwoods are extremely hard to kill. If they are cut down, the offset trees at the base of the plants simply replace the parent trees as second growth redwoods, as happened all over California when the first growth redwoods were logged off. The second growth trees then grow from the base of the old stumps.

Since coast redwoods naturally have an *excurrent* growth form[4], sometimes with one or more central leaders, they should be always be pruned to have single central leaders, that are always in control. The side branches on each leader should be pruned to be subordinate to the leader. And, if there is more than one central leader on a tree, some cabling can reinforce the connection between them as needed in urban areas.

The Tim Hendrick's report states that testing of the main stems or the roots of the trees was not done; yet he recommends their removal, probably without the knowledge of how redwoods grow and regenerate, and with no mention of the healthy growth emerging from the branches and trunks, and the basal growth that is now occurring. He says nothing of the importance of the roots for flood control.

In the Brightview report to Gil Gibson, Bob Peralta expresses concern about the decay in the trees, and about possible tree failure. Yet he's not a Qualified Tree Risk Assessor, and seems unaware that it takes many years for redwoods to decay - even if they die back. He also seems unaware that, with crown reduction, pruning, cabling and irrigation, these trees can be restored. Both Torrey Young and I are Tree Risk Assessment Qualified with the International Society of Arboriculture. Gibson also fails to mention the importance of the roots for flood control.

The soil report discusses the amount of water that flows down the canyon to your home and the areas below. So there will be plenty of water available to these trees in the future, as they recover from the construction damage done to them. The report states that, where bedrock is near the surface of the soil, the water will flow there. And that's exactly where the redwood roots are growing. Roots grow where there is both water and oxygen; and the roots will regenerate.

In the *Species Classification And Group Assignment* book, written by the Western Chapter of the ISA, listed in the bibliography, coast redwoods are listed as Class 1 trees in coastal California and Class 2 trees in inland valley areas, due to their water requirements. However there are other trees protected by the City of Alamo that are far less valuable than this species. These trees are an important asset to the area, and cannot be quickly replaced – even with large boxed specimens that can take years to establish. In fact, the larger the boxed specimen is, the slower it will root and establish in the environment.

The report written by Waraner Tree Experts to Steven McKee, entitled *Tree Assessment at 1597 (sic) Hillgrade Ave., Alamo CA 94507*, signed by Dustin Waraner and dated 1/27/14, includes clear specifications for protecting the trees during construction, before the property was subdivided. The new homeowners at 1593 Hillgrade Ave. clearly ignored this advice, as can be seen in some of the images of construction damage below, where soil and roots were removed and a patio has been installed. In some of the images, cut roots are clearly visible; and they haven't been protected.

[4] Please refer to the Glossary of Terms as needed.

Recommendations

I recommend that you ask the Planning Commission to re-read the reports submitted by all arborists, including mine, along with the recommendations made by Waraner Tree Experts in 2014, so that they can reconsider their recommendation. These redwoods are not dying, but have simply died back and lost some branches for now, mainly due to the construction damage. All they require is pruning and possibly some cabling, as recommended by Torrey Young in his report, along with continued irrigation. The trees will regenerate the lost growth if allowed to do so. The Commission should also examine the qualifications of the arborists who submitted their reports, and learn that, while Certified Arborists have knowledge of pruning and safety considerations, Board Certified Master Arborists have attained the highest certificate possible with the International Society of Arboriculture. Both Torrey Young and I are Board Certified Master Arborists.

When these trees are pruned, I recommend that the dead wood first be removed, retaining as much of the live wood and epicormic shoots as possible, and then they then be lightly reduced in height to retain their excurrent form. Torrey Young's report contains good information. A qualified certified arborist should perform the work; and tree companies can be found by area code on the International Society of Arboriculture's website.

I recommend that the Planning Commission look up information on the growth of coast redwoods, to learn just how resilient these plants can be.

I recommend that the Planning Commission follow the tree ordinance for the City of Alamo, and not make an exception to it for political reasons. If these trees are cut down, the new growth at the base of each trunk will simply produce new redwoods.

Please let me know if any of you have any additional questions. I can be reached at (510) 568-2960.

Glossary:

decurrent	Referring to crowns that are made up of a system of co-dominant scaffold branches; lacking a central leader. Contrast with excurrent.
dieback	A reduction in the mass of a tree as twigs and branches die. Progressive death of twigs and small branches, generally from tip to base.
epicormic shoots	Shoots that arise from latent or adventitious buds that occur on stems and branches and on suckers produced from the base of trees.
excurrent	Crown form in which a strong central leader is present to the top of the tree. Contrast with decurrent.
tree	A woody perennial, usually having one dominant vertical trunk and a height greater than 5 m (15 ft).

Bibliography:

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Organizations and Forms:

American Society of Consulting Arborists, 5130 W. 101st Circle, Westminster, CO 80030, (303) 466-2722. ASCA members are skilled in tree and other plant identification, evaluation diagnosis and repair.

International Society of Arboriculture, P.O. Box GG, 6 Dunlap Ct., Savoy, IL 61874-9902, (217) 355-9411 Fax (217) 355-9516.

Arborists are tree specialists who use their education, knowledge, training and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed.

Treatment, pruning and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information you provide.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.

I, Judy Thomas, certify that:

I have personally inspected the *Sequoia sempervirens* (redwood) specimens and the property referred to in this report and have stated my findings accurately.

I have no current or prospective interest in the vegetation or the property that is the subject of this report and have no personal interest or bias with respect to the parties involved.

The analysis, opinions and conclusions stated herein are my own and are based on current scientific procedures and facts.

My analysis, opinions and conclusions were developed and this report prepared according to commonly accepted arboricultural practices.

No one provided significant professional assistance to me.

My compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any subsequent events.

I further certify that I am a member in good standing of the American Society of Consulting Arborists and the International Society of Arboriculture. I have been involved in the field of Arboriculture since 1977.

Respectfully submitted,

Judith Thomas

Judy (Judith) Thomas
Bay Area Plant Consultants
February 2, 2018

Appendix A – Tree and Damage Images Taken

Photo 1

This image, taken by me on 1/29/18 from the street shows the construction damage done to the roots of the redwood trees at 1593 Hillgrade Ave. The owners of this property clearly didn't follow the recommendations of the Waraner Tree Experts Report, written for the development of this property in 2014. Masses of cut roots are visible at the base of the slope, particularly toward the bottom right of the image. In spite of this damage, however, the trees will recover if the recommendations in the Torrey Young report and this one are followed.

Photo 2

This image, taken by me on 1/29/18 from the street at 1593 Hillgrade Ave, shows all of the trees, most of the construction damage done to the roots of the redwood trees, the regeneration of new offsets at the base of the tree trunks, and the new growth on the lower branches of these trees. The large trees, or the first growth trunks, are putting on new growth from both the trunks and the branches. And even if the large trees are cut down, which I don't recommend, the new offset trees growing at the base of the trunk will replace whatever is lost as secondary growth.

Photo 3

This image, taken by me on 1/29/18 from the street, shows some of the construction damage done to the roots of the redwood trees farthest from the street at 1593 Hillgrade Ave, along with some dead branches. However, the trunks of these trees appear healthy; and the new offset trees at the base of the plants clearly illustrate the recuperative capacity of coast redwoods. New growth is also visible on the lower branches of these trees. Even if the large trees were cut down, which I don't recommend, the new offset trees growing at the base of the trunk will replace whatever is lost.

Photo 4

This image, taken by me on 1/29/18 from the street, shows the construction damage done to the roots of the redwood tree closest to the street at 1593 Hillgrade Ave. The trunk of the tree appears healthy; and the new offset trees at the base of the plant clearly illustrate the recuperative capacity of coast redwoods. New growth is also visible on the lower branches of this tree. This image also illustrates the vast network of redwood roots in the soil that are receiving water from the canyon above.

Photo 5

This image, taken by me on 1/29/18 from the street at 1593 Hillgrade Ave, is a closeup of the base of the trunk of the redwood closest to the street, with many new offset trees growing at the base of the trunk. Both offsets and epicormic shoots from the branches and trunks will replace whatever growth has been lost.

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SERVICES OFFERED

PLANT CONSULTATIONS

- Identification of Trees, Shrubs, Groundcovers, Vines and Turf Types
- Landscape Design and Plant Selection for New Landscapes with Consideration for Drought, Fire, Freeze and Ease of Maintenance
- Modification of Existing Landscape Designs
- Replacement Plant Selection for Established Gardens
- Specifications for Planting, Pruning and Long Term Care
- Specifications for Establishment of New Turf Areas
- Pre- and Post-Construction Site Preservation Measures
- Casualty Loss Assessments for Landscapes Damaged by Fire, Flood, Drought or Negligence
- Value Appraisal of Landscape Plants
- Arbitration of Tree Disputes

LANDSCAPE MANAGEMENT

- Landscape Appraisal, Evaluation and Inventory
- Tree Hazard Evaluation
- Tree and Landscape Problem Identification
- Recommendations for Long Term Care of Plants
- Assessment of Plant Health and Site Restrictions for Plant Growth
- Tree Preservation for Construction Sites
- Tree Care Supervision

RESUMÉ

- Board Certified Master Arborist WE-0113B and Tree Risk Assessment Qualified with the International Society of Arboriculture; Registered Consulting Arborist #484 with The American Society of Consulting Arborists; Aesthetic Pruning Certificate from Merritt College, 1998; Certified Aesthetic Pruner with the Aesthetic Pruners Assoc., 2011.

- Retired 5/26/07 as a Full-time Landscape Horticulture Instructor, Merritt College, Oakland CA (1977-2007); taught courses in Arboriculture, Forestry, Plant Diseases, Turf Management, General Horticulture, Ecology, Plant Terminology and identification courses in Trees, Shrubs, CA Native Plants, Groundcovers & Vines and Herbaceous Plants. Past President of the Northern CA Turf & Landscape Council (NCTLC), and editor of their quarterly online newsletter. Serves on the N CA Advisory and Executive committees of the Mediterranean Garden Society.

- Member of the American Society of Consulting Arborists, the California Arborist's Association, Inc., the International Society of Arboriculture, the Aesthetic Pruners Association, the CA Horticultural Society, the CA Native Plant Society, and the Diablo Firesafe Council.

- Holds a Master's degree in Biology from San Jose State University and a Master's Degree in Education from Stanford University; has a Bachelor's degree in Biology from Stanford University. Received the 1985 Education Award from the Northern CA Turf and Landscape Council.

- Serves as a featured speaker for the East Bay Master Gardener Program, the International Society of Arboriculture, the NCTLC, the Diablo Firesafe Council, the Nevada Shade Tree Conference, the N CA Landscape Expo. and numerous garden clubs and civic groups. Has been an education chair for the I.S.A., an editor for the Ortho book *Gardening Techniques* and was a 1985 Horticultural Delegate to China. Her garden was photographed for two Sunset books and was one of those featured on the Park Day School tour in 1989. Her new garden has been described in the MGS Journal No. 57 in July 2009.

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COAST REDWOODS