



MARIN COUNTY GROUP

Protecting the Marin environment since 1968
scmaringroup@gmail.com

July 30, 2021

Honorable Mayor Kate Colin and City Council members
City of San Rafael

1400 Fifth Ave. Room 203

San Rafael, CA 94901

via email: barry.miller@cityofsanrafael.org and lindsay.lara@cityofsanrafael.org

RE: City Council consideration of the adequacy of the General Plan 2040 at the August 2, 2021, meeting

Honorable Mayor Kate Colin and City Council members:

The Marin Group Sierra Club, representing nearly 6000 members, strongly urges you to adopt a more ecologically based tree replacement policy and update the City's Tree Ordinance to address the preservation and maintenance of *all* trees within the City in accord with its designation as a "Tree City USA." While city trees have some protection, trees on private lands do not, which is neither in line with the city's Climate Change Action Plan nor the grim reality of Climate Change. Both the Tree Replacement Policy and the city's Tree Ordinance deserve improvement in order to be in line with the language of the 2040 General Plan and to meet the Climate Emergency challenges we are facing.

1. Tree Conservation/Tree Ordinance

The City of San Rafael website lists the many economic, environmental, social and public health benefits from trees¹. Healthy cities have healthy tree canopies and San Rafael has been designated Tree City USA² by the National Arbor Day Foundation in cooperation with the USDA Forest Service Urban and Community Forestry Program and the National Association of State Foresters.

To maintain this designation, *four standards must be met* that provide a systematic, continuous tree care program. Standard 2 requires a Tree Care Ordinance that reflects the values of the community. The City of San Rafael needs to prioritize the adoption of a comprehensive tree ordinance to maintain their Tree City USA designation, comply with other City environmental policies and programs, and reflect the values of the community.

¹ <https://www.cityofsanrafael.org/tree-city>

² <https://www.arborday.org/programs/treecityusa/treecities.cfm?chosenstate=California>



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Reference: General Plan 2040, Conservation and Climate Change Element:

Program C-1.17A: Tree Preservation. *Revise Chapter 11.12 of the Municipal Code (Trees) or add a new Code section that defines protected and heritage trees and establishes permit requirements and procedures for tree protection, removal, and replacement. The regulations should strongly support the protection of California redwoods (Sequoia sempervirens) and other native trees.*

We urge you to address the care of **all trees, publicly and privately owned**, in San Rafael by revising SRMC, Chapter 11.12 TREES. We specifically request that you revise the City's tree ordinance to be in line with the language in Program C-1.17A to define protected and heritage trees, establishing strict permit requirements and procedures for tree removal and protection. **We further ask that you define the official State Tree of California, the California Redwood (*Sequoia sempervirens*) as a protected species.** Redwoods are currently NOT a protected species, which should come as a surprise to us all. These trees, like other native trees, provide significant food and habitat for native wildlife and are adapted to this area. Redwood trees are naturally **fireproof**, cooling and shading the ground under them, and grow in groves that are restorative areas for people (see the practice of Forest Bathing)³. It is also worth noting that even non-native Eucalyptus, when mature in the landscape, functions in an ecological fashion, as witness the honeybees on the flowers, the monarch butterflies that roost in them, birds that nest there and the water they filter into the ground gathered by their leaves from fog banks. Protection of mature trees that are doing ecosystem services work requires our attention and protection.

2. Tree Replacement Policy

Current policy requires replacing every tree removed for new development with 3 new trees. Frequently this policy is not complied with and the advantages of keeping existing mature trees for carbon sequestration and other benefits are lost. This simple numeric formula also painfully ignores the multiple ecological functions a mature tree gives the landscape, as well as the *significant* water requirements and additional care a new tree takes to become established. Now and into the future, these new trees will generally have a harder time becoming established given the nature of Climate Chaos with rising temperatures and lessening rainfall.

³ <https://marinefm.org/event-4346962> and <https://www.thingstodomarin.com/main/2018/11/26/immerse-in-the-redwoods-forest-bathing-is-all-the-rage>



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It makes little ecological sense to presume that three saplings will make up for removal of a giant of the forest; a mother tree that protects soil and water; naturally sequesters and filters water which helps prevent fires, floods and drought; shades the land reducing the effects of climate change; sequesters massive amounts of carbon; infiltrates and stores rainwater deeply into the ground; and feeds wildlife. This numerical way of thinking is like replacing your parents with a broom because they sweep the floor, while ignoring all the other benefits and work they do for you. We can no longer allow this false narrative and inadequate numerical replacement ratio process to continue. A simple tree replacement policy of a 3:1 ratio does not restore ecological integrity or replace the environmental functioning that a large, established, native tree provides. Only when those new trees are 30 years old will they even begin to approach the habitat and ecological usefulness of a currently thriving well-established native tree.

If a native tree must be removed, ***the equivalent ecological function of that tree needs to be replaced***. That should be measured on a biomass biometric, not a simple numeric one, such that the amount of tree bulk that is removed is replaced by additional trees onsite or nearby. A skilled arborist or ecological biologist could calculate these metrics. It might be as simple as a 32-inch diameter oak needing to be replaced by 32 trees; or the ratio might be higher, based on a tree's significant limbs in number, length, and girth. This change in code would begin to address both the loss in native tree habitat due to past urban and suburban development, as well as to help protect future native trees by giving pause to careless or environmentally ignorant architects and owners who buy into a site with beautiful trees and then proceed to cut them down for home sites, home expansions or views, without understanding the multiple benefits those trees are providing them.

We urge you to revise the code to be in line with the City's commitment to strong environmental and climate change policies by adopting ecologically sound principles that consider the ecosystem services rendered by large, sound, mature trees in an undeveloped landscape. Every effort should be made to keep large, mature native trees rather than mitigate their removal. The language in the General Plan 2040 addresses this in general. Below we add more specific points for Municipal Code language adoption.

Reference: General Plan 2040, Conservation and Climate Change Element:

Program C-1.17C: Mitigation for Tree Removal.

Continue to implement mitigation requirements for tree removal in new development. When necessary, this could include planting of trees in locations other than the project site, planting native trees in lieu of non-natives, or reducing



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the footprint of proposed development. Tree replacement should be based on a value that is equal to or greater than the carbon footprint and ecological benefits of the trees being removed. Ecological benefits include water conservation, absorption of runoff, reduction of air pollution, energy reduction from shade and cooling effects, soil retention, slope stabilization, and wildlife support.

We encourage a thorough review of the total effects of tree removal, including:

- The topography of the surrounding land and the effects of tree removal on soil stability, erosion, and increased runoff;
- The potential for removal of a protected or heritage tree to cause a significant adverse effect on wildlife species listed as threatened or endangered by State or Federal resource agencies in compliance with the California Environmental Quality Act (CEQA);
- Whether there are alternatives that would allow for the preservation of the tree(s), such as relocating proposed improvements, use of retaining walls, use of pier and grade beam foundations, paving with a permeable substance, the use of tree care practices, etc.
- Consideration of the substantial impacts of the removal of trees to create additional impervious infrastructure on winter (flooding) and summer (drought) creek flows, the surrounding trees and habitat health, the protection of the creeks and the surrounding vegetation in riparian/watershed areas to stay productive as habitat and to be fire safe.
- Trees act to infiltrate groundwater, helping the soil stay cool and drought proof, reducing downstream flooding and erosion, and feeding the creek and downstream vegetation through the summer months. This water capture for groundwater replenishment, which trees do for free as they organically adapt to changing conditions, helps to protect both the property where the tree is sited and neighboring properties from the threat of drought, erosion, and fire.
- The ethnobotanical value of native trees is also needing to be addressed, as part of Native American heritage in this landscape.
- When homeowners request tree removal for fire safety, the tree(s) in question should be checked to see whether limbing up or other protective measures would solve the perceived problem and preserve the tree. Home hardening is known to be of greater importance than vegetation or tree removal, especially when the tree is healthy and green. Photos of homes burned to the ground in fires while nearby trees are still standing and slightly scorched might be helpful to educate fire concerned residents. See attachment.



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The language of the 2040 General Plan lays out good guidance for Ordinance language and Municipal Code changes. Please make these changes a priority to protect and preserve our native trees and keep San Rafael as a “Tree City USA.”

Thank you for your consideration,

Jinesse Reynolds
Chair, Sierra Club Marin Group

cc: *Cory Bytof, Sustainability Program Manager, cory.bytof@cityofsanrafael.org*



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Attachment: Are Trees the real problem in a fire?



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When you look at these photos, what do you notice????

Trees are still standing, some still with their needles and leaves—but nearly all the structures have burned to the ground!

Your home is the largest source of dead fuel on your property. Fire prevention starts with the home hardening first before vegetation management. Free your roof of dead leaves and debris. Clean out gutters. Cover vents with fire-preventing screens. Make sure there are no gaps where an ember can get in and start a house fire. **Trees help in fire prevention by promoting cooler temperatures, helping the soil retain water, and perhaps mitigating winds and drifting embers.**

Riparian areas are cool, safe havens for wildlife and people year-round. Trees in riparian areas (ephemeral, intermittent or perennial creek areas) should NEVER be cut! This is even more important on slopes to prevent winter soil erosion.