



**FILE:** ORD21-0001  
**DATE:** August 18, 2022  
**TIME:** TBD  
**STAFF:** Doug Bush  
Robert Aguero

### **SUMMARY**

**Supervisory District(s):** All  
**Location:** Countywide Excluding Coastal Zone  
**Description:** Public Workshop to discuss policy options for oak woodlands protections within the unincorporated county.  
**CEQA Review:** **Not Applicable.** This item is informational only at this time and no specific action is under consideration.

### **RECOMMENDATION**

Hold a public workshop, review the policy discussion contained herein, hear public comment, and provide recommendations for the consideration of the Board of Supervisors at a future public hearing, tentatively set for October 18, 2022.

### **BACKGROUND**

Sonoma County is home to a diverse variety of trees, including over 50 native species distributed throughout the county's urban and rural lands. Forests and woodlands make up around 513,000 acres, or approximately 50% of the total land area of the county. These resources support critical habitat for threatened and endangered species, including the northern spotted-owl, steelhead, coho and Chinook salmon, and support habitat for the majority of local wildlife species. Trees and forested lands in particular, provide a variety of benefits for the community and play a significant role in local ecosystem functions including: beautification, carbon sequestration, air purification, habitat, water quality, soil retention, climate regulation, noise reduction, timber, fuel, spiritual and cultural value, tourism and recreation, and sense of place.

The benefits of trees and forested lands can also be often described as "green infrastructure" or "ecosystem services." A 2016 ecosystem services study for Sonoma County estimated that trees, and other natural resources in Sonoma County provide between \$2.2 and \$6.8 billion in benefits each year<sup>1</sup>. These values indicate that greater protections of trees and associated natural resources can provide

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<sup>1</sup> Schmidt, R., Batker, D., 2016. Nature's Value in Sonoma County. Earth Economics, Tacoma, WA & Sonoma County Agricultural Preservation and Open Space District, Santa Rosa.

significant, long-term benefits when such resources are conserved or enhanced and that conversely, the loss or deterioration of these resources can result in significant costs to the community.

On November 4, 2021, staff presented information to the Planning Commission regarding the value of oak woodlands in the county, current pressures on oaks, and identifying gaps between general plan policy and implementing code. The Planning Commission asked that staff develop an ordinance to provide greater protection of trees, including oak woodlands.

### **WORKSHOPS**

On May 18, 2021, the Sonoma County Board of Supervisors held a public meeting where staff presented an overview of existing general plan policies addressing trees, current tree regulations and a brief overview of potential issues that could be addressed by the project. Feedback from the Board included the following:

- Trees are an essential part of our natural landscape, provide important habitat for wildlife and contribute to the scenic quality of the county
- Trees are threatened by climate, fires, drought and development and should be protected
- Many in the community are working hard to recover from wildfire and pandemic impacts, and it is important that the project doesn't create undue burden on the community
- The project should support both natural resources and fire hazard mitigation
- The County should create an effective process that can be understood and followed by the public, reviewed and processed in a timely fashion, and enforced
- There are loopholes in current protections that should be addressed

During this meeting the Board provided staff the following direction:

- Define the problem: create an existing inventory and baseline
- Create performance measures to track loss of inventory
- Avoid conflict between hazard mitigation and conservation efforts
- Report on number of permits for tree removal
- Review local tree protection measures enacted by Napa and Marin counties
- Engage with the public to review existing and develop new tree protections
- Review potential for a moratorium

On November 4, 2021, the Planning Commission held a workshop where staff presented a general scope of work including future improvements to existing county code to improve protections of all trees, as identified above; and development of a new ordinance to enhance tree protections. The Planning Commission hosted a public workshop and informational meeting addressing these items and though no formal decision was under consideration, the Planning Commission and participating members of the public provided their support for the proposed scope of work.

During this meeting the Planning Commission provided the following direction:



- Explore methods to address Sonoma County's climate commitments
- Define hardwood systems more broadly
- Address discrepancies between where valley oaks occur and designated Valley Oak Habitat areas.
- Explore other avenues of review for discretionary tree removal projects

## **OUTREACH**

For several years prior to the initiation of this multi-phase project, local organizations including Sonoma County Climate Action and Forests Unlimited had requested that the County take action to improve protection of forest resources. Their feedback has included requests for a tree-cutting moratorium to prevent further destruction of forest resources while the county develops a longer term solution. Ultimately, moratoriums are the purview of the Board of Supervisors and staff has not been directed to pursue a moratorium. Staff has continued to meet with members of these and other groups throughout the course of this project. Outreach has included meetings with:

- Laguna de Santa Rosa Foundation
- Pepperwood Foundation
- Forests Unlimited
- Sonoma County Conservation Action
- Department of Agriculture, Weights and Measures
- Sonoma Water Agency
- Sonoma Ecology Center
- Sonoma County Farm Bureau
- Sonoma County Agricultural Preservation and Open Space District
- Russian River Keeper
- Professional foresters
- Airport Business Center

Through the course of this outreach staff identified several dominant themes in the feedback of participants:

- Current regulations are not effective because: 1) most projects are exempt from tree protection ordinances, 2) even when applicable, the regulations don't prevent removal of trees, 3) mitigations often allow paying fees which are too low and make "feeing out" too easy, 4) regulations don't consider cumulative effects of removals
- Ordinances should emphasize retaining existing trees, not mitigation
- Tree preservation and wildfire hazard mitigation are compatible

- New policies or changes to existing policies should not get in the way of wildfire hazard mitigation
- Incentive based mechanisms should be considered where available, to encourage private ownership land management
- Tree protection is necessary to meet carbon sequestration and climate adaptation goals

### **GENERAL PLAN DIRECTION**

The Open Space and Resource Conservation Element of the Sonoma County General Plan 2020 (OSRC) identifies the following types of forest woodlands as *Sensitive Natural Communities: riparian, valley oak, Oregon white oak, black oak, buckeye, Sargent cypress and pygmy cypress*. Recognizing the value of trees to public health, vital community infrastructure functions, the economy and natural environment, the General Plan calls for the protection and enhancement of the County's natural habitats and diverse plant and animal communities (Goal OSRC-7) and the establishment of standards and programs to protect native trees and plant communities (Objective OSRC-7.6). Proper management of tree resources is necessary for implementation of the General Plan and is essential to achieving Permit Sonoma's mission to balance environmental protection with development.

### **COUNTY CLIMATE POLICY**

On September 17, 2019, the Sonoma County Board of Supervisors signed a climate resolution<sup>2</sup>, finding that "the current pace and scale of national climate action is not sufficient to avert substantial damage to the economy, environment, and human health," and that "in order to avoid irreversible, catastrophic climate change impacts... must also dramatically increase and enable meaningful carbon sequestration." In 2022, the Board made climate resiliency a pillar of its five-year strategic plan<sup>3</sup> and identified forest health as a primary component in achieving county climate goals.

### **POLICY CONTEXT**

The General Plan contains numerous policies and programs supporting the protection and enhancement of trees and forest resources, many of which are implemented through the existing County Code. Riparian forests are primarily protected through the Riparian Corridor Ordinance as well as through state and federal protections. Coniferous forests in the County are protected from permanent conversion through timberland conversion ordinances, and timber harvesting<sup>4</sup> is regulated through California Forest Practice Rules. The County's coastal forests are protected through various provisions of the Local Coastal Plan and Coastal Act.

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<sup>2</sup> Sonoma County Climate Emergency Resolution, approved September 17, 2019. <https://sonoma-county.legistar.com/LegislationDetail.aspx?ID=4137034&GUID=1E9C7843-0044-4785-85AC-12AA6F607462>

<sup>3</sup> Sonoma County Five Year Strategic Plan, adopted March 3, 2021. <https://sonoma-county.legistar.com/LegislationDetail.aspx?ID=4806176&GUID=FB32D563-DD86-415E-AED4-F65BCB56F8E8>

<sup>4</sup> Timber harvest describes the removal of commercial timber species which do not include oaks.

Not all tree protection policies and programs identified in the General Plan have been fully implemented however. Most notably, certain oak species and oak woodlands are not addressed by existing code, despite General Plan policies calling for their protection (Goal OSRC-7, Policy OSRC-7I and OSRC-7m, Objective OSRC-7.6, Program 18). With 10 different species and extensive hybridization, there is more diversity among oak species than any other trees in the county. Many of these are considered keystone species – those that serve as the essential backbone of their respective ecosystems. More than 300 birds, mammals and other vertebrate animals, 2,000 plant species, and 4,000 insect species inhabit oak woodlands during all or part of their lives.<sup>5</sup> Their role as keystone species means that the future of many of Sonoma County’s native animals and plants depends largely on how oak woodlands are managed in the face of increasing pressure from climate, development and other factors.

Many oak species like valley oak, Oregon white oak, coast-live oak and blue oak reside in valleys and foothills proximate to urban development and agriculture which means that they often face significant conversion pressure. Slow reproductive rates of oaks, and pressures that reduce their regeneration make them particularly susceptible to climate and development impacts. Oaks are not explicitly prohibited from removal except where they reside within a designated riparian corridor, and impacts to oaks or oak woodlands are considered only when they are associated with discretionary development projects like conditional use permits. One specific species of oak, the valley oak, is addressed through the Valley Oak Combining District which applies to both ministerial and discretionary projects. Like the other tree protection ordinances, this ordinance does not prohibit the removal of trees. Up to 50% of existing trees may be removed before mitigation is required (County Code §26-67-030). In addition, new data shows that more than 80%<sup>6</sup> of valley oaks are located outside the Combining District and thus are not addressed or protected by the district.

In those limited cases where the mitigation is required to address impacts to oaks or oak woodlands, mitigation options include paying a fee to support county-led replanting, or replanting on-site by an applicant. This reliance on replanting can be problematic however. Sapling survivability varies based on numerous factors, such as fire, which can kill young trees but may spare the more resilient and fire adapted, mature trees that they are intended to replace. Of those saplings that do survive, it often takes decades to replace the habitat value and other benefits lost due to the removal of the mature trees that came before them<sup>7</sup>. In the past, these same replanting strategies were relied upon by many jurisdictions as a viable means of insuring oak sustainability. Today however,

*“...most ecologists now recognize that replacing a century-old tree with 1,3, or 10 one-year-old seedlings does not adequately replace the lost habitat value of large trees. It has become evident that simply focusing on mitigation plantings based on a tree to seedling ratio is not a sufficient*

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<sup>5</sup> Marianchild, K., & Maglinte, A. M. (2018). *Secrets of the Oak Woodlands plants and animals among California's oaks*. Heyday.

<sup>6</sup> Sonoma County Vegetation Mapping and Lidar Program. (2013). *Quercus lobata alliances*. County of Sonoma.

<sup>7</sup> Barry, S., Giusti, G. A., McCreary, D. D., & Standiford, R. B. (2005). *A Planner's guide for Oak Woodlands*. University of California Agriculture and Natural Resources.

*strategy to ensure the viability of oak woodlands. Although recruitment of young cohorts is still an important consideration, there is broad recognition that it is critical to conserve the inherent values that exist in mature oak forests wherever possible...” (A Planner’s Guide, 2005)*

It is for these reasons that staff presents the policy options discussed below.

## **DATA COLLECTION**

In the years since the Tree Protection Ordinance and the General Plan were adopted, forest and woodland resources and the benefits they provide to the community have been increasingly affected by a variety of factors including: urban and rural development, agricultural conversion, forestry practices, historical fire suppression, and climate related phenomena including drought, fire, pests and pathogens. Some of these factors were present at the time of general plan adoption, while others are newly emerging or have been significantly amplified since that time. For example, in Sonoma County from 2017 through 2020, around 233,000 acres, or almost ¼ of the county’s land area has been affected by fire.<sup>8</sup> These fires have occurred across multiple forest types and geographies.

While fire can have ecological benefits, especially for local fire adapted species, the intensity of recent wildfires has also resulted in the deaths of thousands of mature trees.<sup>9</sup> In terms of drought, it is estimated that from 2011 to 2019, drought alone killed an estimated 150 million trees throughout the State of California.<sup>10</sup> In terms of changes in local forest health, UCCE estimate that over 5,600 acres of forest outside of wildfire perimeters, and 69,000 acres of forest within wildfire perimeters have shown signs of disturbance (both natural and human caused) since 2013. Almost 27,000 acres of oaks (15% of county’s oaks) were killed or are in significant decline from factors including wildfire, development, and conversion of woodland to agricultural uses.

With the exception of the RC district, none of the existing county ordinances prohibit tree removal or consider ecosystem impacts, explicitly address methods of enforcement, or establish methods to track cumulative removal or habitat conversion over time. Because tree protection ordinances do not apply to a majority of permits, and because those that do apply do not typically require a permit or other tracking mechanism, data on tree removals is significantly limited. The lack of current data on tree removal makes it difficult to evaluate efficacy and learn from local practice. To help inform this and future forest management work, and address this gap in data, UCCE staff used remote sensing data to track forest cover changes since 2013. Their help identified the location and nature of current trends most affecting our forest and tree resources, which habitat types are affected and what uses have caused the impact. Data was collected from county VESCO data, and CalTREES, the online timber harvest

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<sup>8</sup> CAL FIRE Wildfire Perimeters and Prescribed Burns. <https://gis.data.ca.gov/datasets/CALFIRE-Forestry::california-fire-perimeters-all/about>. California Department of Forestry and Fire Protection, May, 2021.

<sup>9</sup> Ackerly, David D., Kozanitas, Melina, Oldfather, Meagan, Papper, Prahlad, & Clark, Matthew.. *Mortality and Resprouting in California Oak Woodlands Following Mixed-Severity Wildfire*. *International oaks*, 30 (). Retrieved from <https://par.nsf.gov/biblio/10209458>. <https://doi.org/10.6084/m9.figshare.13554701>

<sup>10</sup> M, L. G. & R, C. B. (2019). California forest die-off linked to multi-year deep soil drying in 2012–2015 drought. *Nature Geoscience*, 12(8), 632–637. <https://doi.org/10.1038/s41561-019-0388-5>



permitting system maintained by Cal Fire. Data from 2013 to 2021 was assessed for forest impacts under different regulatory mechanisms and in which forested habitat type the impacts occurred.

This analysis found that, within fire footprints from 2013-2021, over one-third of the forest habitat impacted was oak woodlands. Analysis of this data found that, between 2013-2021, approximately 78 percent of forested acres impacted from VESCO permits occurred on oak woodlands. Outside of wildfire footprints, approximately 14 percent of disturbed forested lands were oak species types. Therefore, additional protection of existing woodlands to preserve those woodlands that remain intact and limit further decline from pressures that are within the County's purview is needed.

### **PUBLIC COMMENT**

Public comment received as of 8/11/22 is included in Attachment 2. Comments received are in support of additional tree protections countywide.

### **POLICY OPTIONS FOR ADDITIONAL DIRECTION**

The following policy options are provided for consideration by the Planning Commission.

#### **Amend Provisions of Chapter 26**

Current tree protections in code include the following ordinances: The Tree Protection Ordinance (Section 26-88-010 (m)), The Valley Oak Habitat (VOH) Zoning District (Article 67), The Riparian Corridor Combining Zone (Article 65); and, Minor Timberland Conversions (Section 26-88-140) and Major Timberland Conversions (Section 26-88-160). A summary of these ordinances is provided in Attachment 3. The following policy options could be reviewed to amend the existing ordinances listed above.

1. Expand existing protections to apply to oak woodlands to implement OSRC-7I.
2. Review the Valley Oak Habitat combining district to update application of the zoning overlay to include areas identified by current data collection methods, including Sonoma Veg Map data.
3. Review agricultural exemptions provided by existing ordinances.
4. Review tree removal mitigation fees.
5. Expand Valley Oak Habitat combining district to include additional protected oak species/trees (align with OSRC Sensitive Natural Communities).
6. Expansion of existing Valley Oak Habitat combining district to apply to applicable parcels in their entirety.
7. Explore existing mitigation measures and expand to include common measures and best practices for tree removal.



### Adopt a New Oak Woodland Ordinance to Chapter 26

Conservation of remaining oak woodlands is essential to maintain and enhance their many essential roles in the County and to meet regional and statewide climate adaptation and carbon sequestration goals. Adoption of a new Oak Woodland Ordinance could include the following:

1. Maintenance of oak woodlands, including trees at all stages of maturity, is essential to the conservation of oaks because it supports the regeneration and recruitment of young trees necessary to conserve and enhance the resource and the plant, animal and human communities that depend on it.
2. Support perpetuity of oak woodlands and their associated benefits for the health, safety and general welfare of the region.
3. Applicable to all parcels in the unincorporated county and to all oak woodlands meeting the definition specified herein, except parcels which lie within the coastal zone.
4. Standards for both ministerial and discretionary projects that propose the removal of individual trees or impact existing oak woodland habitat.
5. Provisions for the removal of trees for vegetation management purposes and for the removal of dead and/or dying trees.

### Review Existing General Plan Policies

The following recommendations for additional tree protection measures have been identified to be considered during the planned update to Sonoma County General Plan 2020:

1. Updates to design guidelines or standards to encourage or require the use of native trees where appropriate in new development projects.
2. Identify opportunities for incentive-based voluntary carbon sequestration for forest landowners.
3. Identifying or creating grant opportunities to support conservation on private lands.
4. Encouraging voluntary conservation of resources through education programs for private landowners.
5. Purchasing land or conservation easements to protect existing woodlands, or secure sites where woodlands could be supported and serve as sites for off-site mitigations.
6. Explore options for the tracking of tree removal.

### STAFF RECOMMENDATION





Staff asks that the Planning Commission provide direction on any specific areas of focus which should be considered through the development of an ordinance and whether staff should pursue any additional actions beyond ordinance development.

Attachments:

Attachment 1: UCCE Report

Attachment 2: Public Comment

Attachment 3: Existing Ordinances