



# Forest Communiqué

The Voice of Forest Unlimited

Fall 2015

## Sonoma County's Local Coastal Plan

Coastal watersheds and forests are some of the natural features that are to be protected and enhanced pursuant to a state law called the California Coastal Act (CCA). The Act is the result of tremendous foresight and organizing. Although the Sonoma Coast has special protections, there are persistent efforts to develop the remaining unique and relatively natural areas. As part of the CCA, the county was required to develop a local coastal plan (LCP). And now Sonoma County's plan is due for an update.

There have been at least three meetings held for community input. The meetings have been standing room only. Community members that have attended are very concerned that the County's attempt to update the LCP could allow development to move in. Special concern is with vineyard/wineries that have been allowed in all other regions of Sonoma County without proper planning for the conservation of water resources, traffic impacts, and other impacts that have adverse consequences to



*Sonoma County coastal view*

the public, the public trust values like fisheries, and residential neighbors. No matter what Permit and Resource Management Department is supposed to stand for, it has not properly managed resources in non-coastal areas of Sonoma County. Our participation and involvement in the process is critical to make sure our coast

stays protected in as natural a state as possible.

Forest Unlimited is following this process and has already commented on draft of the LCP. There will be other opportunities for public participation. We encourage members to attend and comment because larger numbers do make a difference. Those who are on our Listserv will get announcements of future meetings and updates on the LCP as it moves through the process.

## Tree Protection Anxiously Awaited

As reported last newsletter, the County passed a Comprehensive Work Plan for July 2015 through July 2017. This work plan, thanks to many Forest Unlimited supporters, includes funding to update the County's antiquated Tree Ordinance. Staff will turn to the Ordinance in January and all eyes will be needed to insure a meaningful process and to achieve meaningful protections. One such protection desperately needed is the removal of the exemption for big Ag. which does not currently have to abide by the Ordinance.

Email [larryjhanson@comcast.net](mailto:larryjhanson@comcast.net) if you want to be updated as the process evolves. Also, please feel free to call the Supervisors, 565-2241, to request a tree cutting moratorium until the ordinance update is complete.

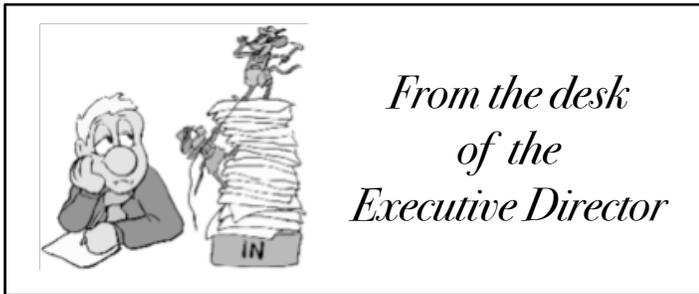
## Well Ordinance Revision

### More Unregulated Groundwater Extraction Approved in Sonoma County

Despite an aggressive full court press to get the County to use its recent update of the Well Construction Standards Ordinance to finally protect residents' wells, sustained groundwater supplies, and salmon, the County stubbornly refused to do so. This is especially astonishing in light of the recent acknowledgement of the connection between groundwater pumping and water flow in creeks and rivers and between private wells.

The County maintains that a state law (SGMA) that will take decades to implement and only addresses the Santa Rosa plain, Alexander

*Cont'd to P. 3*



## Why California Burns

We have just witnessed a horrendous fire season. While the media focuses on the spectacle of the fire and the anguish of those who lost loved ones, homes and businesses, little is said about why all this happened and how it was predicted by scientists. Just what caused these fires to be so devastating?

Like most events in life, there are many causes. There is the proximate cause and the less obvious causes, the conditions that must be present to facilitate that spark. The proximate causes may include lightning, an unattended campfire, a careless smoker or a mentally ill pyromaniac. These are difficult to control and predict.

### Environmental and Human Actions

But the environmental and the human actions that lead to the conditions for catastrophic fire are both predictable and preventable.

### Climate Change and Excess Logging

We know from history that California has suffered many droughts yet we develop as though there were no limit to available water. The lack of rainfall has left our forests, wild lands and creeks dry. The unsustainable pumping of water from already stressed aquifers has lowered the water table below the root zone of many trees and has drained the creeks. The death of trees by drought and other human caused stressed adds fuel to the forest floor.

Human induced climate change has made the drought worse and disrupted the rainfall patterns and increased sudden windstorms, just as scientists predicted. This increases the likelihood of fire and its intensity where fire starts. Unfortunately, the prodigious amounts of carbon dioxide released when the forest burns will only accelerate more global climate change. Climate change has also allowed bark beetles to survive over the mild winters leading to infestation.

Excess logging has also played a roll. I could not help but notice that the areas of the Valley Fire near Cobb and the geysers were ones heavily logged in the late '70s. When

the large conifers are removed, the shade canopy declines. Slash, the limbs cut from the logged trees and damaged vegetation, remain on the forest floor providing more fuel. The cut area dries out. The understory's shade-loving plants die. The humidity drops due to the lack of trees and bushes not able to transpire moisture, trap water vapor and cool the forest. Fog is not captured. A few years after the logging, fire-loving brush species like tan oak and bay laurel recolonize the area. Grasses move in to expose areas becoming dry tinder in the summer sun.

Both climate change and excess logging are social problems born of short-term thinking, greed and lack of community. We should remember the wisdom of conserving. A stitch in time still saves nine. An ounce of prevention is still worth a pound of cure. We still should not kill the goose that laid the golden egg.

Solving these problems will require informed, active and persistent citizens who vote for courageous candidates that solve problems, not pander to moneyed interests. Some of the required changes will include campaign finance reform, corporate reform, and an acceptance of personal responsibility coupled with community action. Some will be unpopular but necessary. But these are problems that can be solved.



[www.forestunlimited.org](http://www.forestunlimited.org)

Forest Unlimited is a 501 (c)(3) organization whose purpose is to protect, enhance, and restore the forests and watersheds of Sonoma County. Forest Unlimited educates the public about logging plan review, forestry law, and regulation.

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# The Water Footprint of Wine

It takes lots of water to make wine. The water footprint is a measure of how much pressure wine puts on our water resources.

The water footprint of wine is expressed as a ratio or gallons per glass. It depends on locale, grape variety, wine making process, soil, elevation, exposure and water recycling. The published wine water footprint based on hard data is from 800–1000, meaning it takes 800–1000 glasses of water to make one glass of wine. This is an average, some producers use less water and some use more.



## ***31 gallons of water needed for 1 glass of wine***

Water is used directly or indirectly by the wine industry for irrigation, production, frost protection, power, delivery and transport, dilution of wine waste going into our streams and wine tourism. Not all the water used is local, not all is potable and some may be recycled. Not all these water uses are unique to the wine industry, but their sum is the total amount of water used in wine production.

Waterfootprint.org finds it takes 120 liters of water to produce one glass (125 ml) of wine, or 174 gallons for a 750 ml bottle, a ratio of 880:1. If more than one person in 880 at a restaurant has an extra glass of wine, because water is not provided without asking, more water is used. Wine industry groups sometimes claim a much lower water footprint. Hard data to determine a more precise water footprint is not available because the California wine industry doesn't measure all water use.

In comparison, the Wall Street Journal says 20 gallons of water are needed for a pint of beer (160:1) and 132 gallons for a 2-liter bottle of soda (233:1).

How does the 174 gallons per bottle of wine compare to

the water used for common household activities?

- Low flush toilets use 1.5 gallons per flush. One bottle of wine equals 116 flushes or 43 flushes of a conventional toilet (4 gallons/flush).

- Reduced flow shower heads use 5 gal/min, the average shower is 10 minutes so 50 gallons are used. One bottle of wine equals 3.5 showers. Old shower heads use twice as much water.

- Energy Star washing machines use 13 gallons, so one bottle of wine equals more than 13 loads.

The water footprint of wine is much larger than these domestic uses. To conserve water, it is very important to either 1) drink less wine or 2) drink only wine from regions with lots of water or 3) drink sustainable dry farmed local wine. Curtailing household water use will not solve the drought if the wine industry continues practices that dry our streams and ruin our wells and we continue to drink wine without considering sustainability.

A more complete article with references is on the Forest Unlimited website at [www.forestunlimited.org](http://www.forestunlimited.org)

## **Well Ordinance** *(cont'd. from P. 1)*

Valley and likely the Petaluma plain, is going to fix the problem of pumping too much groundwater. This of course leaves out Sebastopol, upper Mark West Creek, the coastal streams, all the tributaries in the West County and much more. As a result of poor planning and stubborn insistence on maintaining the status quo, cutbacks were required by the state in four important Sonoma County streams this summer. The County of course shares responsibility for putting residents and wildlife in this position. Although Sonoma County declares itself progressive on many issues, the reality of the power of the development community, including big Ag, over local politics is blatant and still over shadows all claims of anything approaching sustainable policies.

Now and into the foreseeable future, the County well policy will be nothing but damaging. New wells will be indiscriminately approved over the counter with no analysis of neighbors' wells, creeks, water rights, or alternatives. Approval of big projects that need groundwater, projects in areas of water scarcity, and piecemeal development right before our eyes are continuing. While the public is volunteering on groundwater advisory boards, VESCO stakeholder groups and the like, land speculators are buying up and developing the coastal hills. Unfortunately, our political representatives need to do much better, and we call on them often to do more.

## Logging Update

The improvement in the economy experienced by some has lead to an increased demand for redwood logs in Sonoma County. There are more logging plans this year than in 2014. For more information about the status of these logging plans see the Forest Unlimited website.

### **Cazadero area: Kidd Creek NTMP**

On Sept. 4th, Forest Unlimited had the opportunity to visit the site of the future Kidd Creek Non-industrial Management Plan (NTMP) with the forester and members of the neighborhood. A logging plan will likely be submitted late this year. This site has been logged heavily in the past and the focus of this NTMP is a fire break and removal of tan oak in one unit and redwood logging in another. More details will follow when a plan is submitted.

### **Jenner area: 1-15-065SON**

This THP is proposed by the Wildlands Conservancy for the Jenner Headlands near the Russian Gulch to create a firebreak and thin trees using individual tree selection. This plan proposes glycofosphate use, a potential human carcinogen. Feasible logging alternatives are not considered and this plan cribs boilerplate language from other THPs that does not address the CO2 sequestration in violation of California statutes.

### **Gualala area: 1-15-033SON and 1-15-042SON**

**1-15-033SON (Apple)** 106 acres, 89 clear cut, 17 selection, 15 no cut

**1-15-042SON (Dogwood)** 402 acres, 320 acres selection, 12 Special Treatment, 70 no cut

These similar plans are both in the Gualala watershed, submitted by the same landowner (Gualala Redwoods Inc.), prepared by the same forester with the same issues.

The 033 plan is worse because it involves 89 acres of clear-cut, the most destructive logging technique.

Logging will introduce sediment into the Gualala River, a Class I stream with salmonids and is listed by the EPA as degraded for both sediment and temperature. Forest Unlimited has highlighted this in the comments submitted. Both plans violate Federal and State laws and the Forest Practice Rules. Both fail to analyze feasible alternatives, fail to address greenhouse gas emissions, fail to justify their claim of “no environmental impact” and fail to include critical information to permit public review, and it proposes to log in a way contrary to the Forest Practice Rules.

Forest Unlimited has teamed with California Native Plant Society, Madrone Audobon Society, Friends of the Gualala River (FoGr), and California River Watch to comment further on these plans.

### **Occidental area: 1-15NTMP-001SON**

The “Browder” plan 15NTMP-001SON is individual tree selection on 320 Acres 2.6 miles west of Occidental. Forest Unlimited worked closely with the Salmon Creek Watershed Alliance on this plan. Ultimately they decided to work with the landowner to improve the plan. The final plan was revised to draw no water from the creek and to do only individual tree selection in the first logging cycle.

### **Calistoga area: 1-13-126NAP**

Activity continues on 1-13-126NAP. This THP proposes logging for a subdivision, hotel and resort west of Calistoga. Extensive comments were submitted by the public and Forest Unlimited which we believe has led to a extensions of the public comment periods.

This proposed development uses a lot of water in a dry area and overloads the water treatment capacity of Calistoga. Calistoga is already in violation of water quality regulations that the Regional Waterboard is forcing them to address through legal action. It is poor planning for Cal Fire to allow permanent forest removal, especially in light of climate change.

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## Vineyard Rules Under Review

The County rules known as the Vineyard and Orchard Erosion Control Ordinance (VESCO) are quietly under review. This is a narrowly described rule package, and its title is misleading just like the Well Construction Standards Ordinance described in another article. VESCO is where vineyards of all sizes get approved with impacts that go far beyond the erosion issues associated with tractors ripping the ground 6-feet deep.

California Tiger Salamander habitat is destroyed, wells go in for new vines, reservoirs are dug on ridge tops, trees including majestic valley oaks are pushed over for vines and hay with no public notice, no cumulative impacts analysis conducted, no mitigation or avoidance considered, no green house gas analysis performed, etc.

VESCO is up for change and your supervisors need to know how you want to see it improved. Forest Unlimited seeks sustainability in county policies. The growth of vineyards, and the many high impacts activities associated with them, are not sustainable. Creeks and salmon along side vineyards are virtually dead. Trees, essentially irreplaceable in our

## Summer Solstice BBQ 2015

Forest Unlimited held its second annual Summer Solstice BBQ fundraiser on June 27th at Anderson Hall in Camp Meeker. It was in a scenic opening in a redwood forest that sits above salmon bearing Dutchbill Creek. We are happy to report, that because of our volunteers and supporters, it was a resounding success!

This year we featured an exciting talk about redwoods and water entitled, *Water and the World's Tallest Trees*, by Cameron Williams, UC Berkeley. (See the associated article on Cameron's talk below.) Environmental songs, some written for the event, were performed by Board President Larry Hanson and Brian Schuler, who played guitar and keyboard, respectively, and both sang. Out on the deck, our featured music was performed by Dya Tribal, an exotic blend of sounds and singing. This provided delightful listening music as well as danceable music. The grilled wild salmon, portobello mushrooms, veggie kabobs, various salads and deserts made this event a scrumptious and entertaining afternoon. Organic wines, local micro-beers and other natural drinks were offered.

We hope that you can join us next year for our **Third Summer Solstice BBQ in 2016**. Same place but next year will be on **Saturday, June 11**, the weekend before Father's Day and two weekends before the popular Kate Wolf Festival. Hope to see many of you there!

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### Vineyard Rules (from P. 4)

lifetimes, are still sacrificed for big Ag at a great loss to bats, and other pollinators, small cavity dwelling animals, and birds. Tree roots also help water penetrate the soils and refill the groundwater basins upon which people so heavily rely.

VESCO should require independent proof of water prior to commencement of any development activities, prohibit tree cutting for more vines, not let vines or tractors encroach on riparian vegetation that is or will provide canopy to the County's degraded and impaired water ways, and the public must be notified of any proposal that may contribute to the loss of significant grasslands, woodlands, forests, or other habitat.

## Water & World's Tallest Trees

At the Solstice BBQ, UC Berkeley's Cameron Williams gave a talk on redwoods and water that had special significance due to the current drought we are experiencing. Cameron with the assistance of his wife climbed to the top of the tallest redwood trees to investigate how these trees suck up and conserve water. While most other plants utilize similar ways of getting water from the soil, redwoods, due to their extreme heights, they utilize a different system. They determined that water travels hundreds of feet, from roots to tree tops, utilizing the stickiness of individual water molecules in channels. The channels are miniscule, only the diameter of molecules, that reach from root to tippy top. When one molecule gets pulled out from a pore of a redwood needle, the stickiness is great enough to pull the whole line of molecules with it all the way from the roots.

In addition, we all know about fog drip that is captured by redwoods due to their height and location near the coast and fog belt, but Cameron found that redwood stems swelled and shrank with water availability. He described redwoods as virtual reservoirs of water. This helps explain the role of tall trees in how water conservation is naturally managed in a redwood forest (most likely all forests).

We know that forests retain water in the ground and that it gets released slowly via springs and streams. The roots, stems, understory, and overstory foliage as well as the myriad types of ground cover all contribute to water conservation. Conversely, water that is actually trapped behind dams in reservoirs are subject to significant evaporation.

Forests that are heavily logged impact the natural water conservation cycle. Bad logging practices not only remove too many trees, they undermine the integrity of forests to retain water (and conserving soil and providing wildlife habitat). The silver lining of a drought is a heightened understanding of the value of water and could be an impetus to implement the principles of good water conservation.

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### Come to Roseland's Neighborhood Make a Difference Day

As a part of Forest Unlimited's Urban Forestry project, we are promoting better forest areas in urban/suburban environments. On Saturday October 24, come to help create a better environment for the Roseland Neighborhood's natural park area next to Roseland Creek.

Beginning at 10 am until noon, meet at the Roseland Creek school at 1683 Burbank Avenue in Santa Rosa. Tools provided. Delicious snacks provided as well.

Contact: Duane Dewitt, [dewittplanner@yahoo.com](mailto:dewittplanner@yahoo.com)

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## Come to Forest Unlimited's Tree Planting Event, Jan. 8-9, 2016

**Sign up for eScripts!** at Olivers and Fircrest Markets. Ask them to direct donations to Forest Unlimited.

Come to Roseland's Neighborwood **Make a Difference Day, Saurday, October 24, 10 am**  
Roseland Creek School, 1683 Burbank Ave, Santa Rosa. Conact: dewittplanner@yahoo.com

***Clip and mail back with your check in the envelope provided. Thank you!***

### **Become a Member of Forest Unlimited**

Your tax-deductable contribution will help fund forestry education programs and forest preservation, protection, and enhancement projects. Members receive newsletters and notification about special events, workshops and logging in their watersheds.

**YES! I would like to join Forest Unlimited to further your work!** (Dues are tax-deductible as permitted)

\_\_ \$200    \_\_ \$100    \_\_ \$50    \_\_ \$35    Other \$ \_\_

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Your watershed \_\_\_\_\_

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