SCCA

Sonoma County Conservation Action

Forest Unlimited

FOGR

Friends of Gualala River

JOHN MUIR PROJECT

COAST ACTION GROUP

RRWPC

Friends of Lafferty Park

Community Clean Water Institute

River Watch

CRW 290 S. Main St. #817 Sebastopol CA 95472 www.CRiverwatch.org

June 14, 2022

To: Mayors and Councilmembers Legislative Committee

Dear Mayors and Councilmembers

We respectfully request that at your June 17 meeting, you consider and take the following actions:

AB 2878: oppose

SB 1109: oppose

AB 2649: oppose unless amended

AB 2878 (Aguiar-Curry), the Forest Biomass Waste Utilization Program[1], develops "an implementation plan for using biomass waste, including requiring the California Public Utilities Commission (CPUC) to adopt measures to use biomass waste to support rural microgrids, to plan to require substation upgrades to support biomass integration, to adopt pipeline biogas standards, to provide incentives for electricity and pipeline interconnection for forest biomass projects, and to extend the date and consider increasing the megawatt (MW) cap of the Bioenergy Market Adjusting Tariff (BioMAT)."

SB 1109 (Caballero), California Renewables Portfolio Standard Program: bioenergy projects[2], "increases, extends, and expands requirements on electric utilities to procure energy from biomass generating electric facilities. This bill expands by 100 megawatts (MW) to 225 MW and extends from December 31, 2016 to December 31, 2023, and financial commitments from five years to 15 years. This bill also makes changes to the compensation provided to the biomass facilities to allow for expansion of the types of fuel sources. "

We are alarmed at the prospect of promoting and increasing the scale of the use of forest woody biomass as feedstock for bioenergy projects.

Biomass energy, at any scale, is not clean, renewable, or carbon neutral.

Burning wood for energy produces more greenhouse gas emissions per unit of energy than coal. [3]Bioenergy is highly polluting, releasing powerful carcinogens and other toxins, often disproportionately impacting low income, communities of color and indigenous communities.

It is not renewable because even if a new tree is planted to replace one that is cut down, it takes decades or even centuries– time we do not have to fight the climate crisis - to grow to the size of the one that it was supposed to replace.

Bioenergy is not carbon neutral, because carbon is released when the tree is cut down, and again when it is burned, and its ability to store carbon is destroyed. Scientific analysis shows that logging is now "the

[1] https://legiscan.com/CA/text/AB2878/id/2556865
[2] https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB1109
[3] https://biologicaldiversity.org/campaigns/debunking_the_biomass_myth/pdfs/Forest-Bioenergy-Briefing-Book-March-2021.pdf

single largest driver of carbon emissions from US forests, six times greater than from fires, land-use change, insects, drought, and wind damage combined." [4]

California forests are being targeted for "treatment"– including logging, mastication, herbicides, and grazing–at the rate of 1 million acres per year, although empirical data clearly show that these treatments have failed to stop wildfire or to reduce its intensity at small and large scales. Extracted wood products are increasingly being used for bioenergy, processing trees and other woody materials and turning them into electricity, wood pellets, or even into liquid fuels for aviation. These actions are touted as the solution to the forest "waste." .

Most of the fires that have been destructive to homes and communities in recent years are wind-driven, caused by flying embers. Research based on over 2,000 case studies shows that protecting homes and communities from fire by home hardening and the maintenance of defensible space within 100 feet of structures is far more effective than "treating" forests far from homes.[5] Thinning, logging, and other vegetation management projects do not stop wildland fires. In fact, they often increase the speed and intensity of wildfires, opening up new areas for winds to blow through and opportunities for flammable vegetation to take hold.[6]

Model-based data for carbon emissions claim that 50-80% of forest biomass is burned during a wildfire – and use those numbers to defend burning wood for biomass energy, calling it renewable/carbon neutral. However, empirical studies show that the average rate of combustion of trees by wildfire is actually less than 2%, over an order of magnitude lower than the model-based numbers. [7] Stenzel et al. (2019) highlighted California as an example of a state government making land management decisions intended to mitigate climate change based on incorrect overestimates of wildfire emissions.[8]

Over 7 million tons of wood pellets are shipped from the southeast USA to Europe annually as fuel for power plants, and some of these businesses are now being brought to the American West, although Europe is beginning to rethink this policy, recognizing that "incentivizing the burning of forests in the name of renewable energy, has to stop." [9]

In addition to exacerbating wildfires, logging forests with heavy equipment and machinery compacts soil, causing erosion, siltation into creeks, damaging watersheds and impacting the capacity of the forest soil to store carbon and water. It destroys wildlife habitat including for endangered species. Wildlife cannot hunt or nest or den in the clearcuts. As well as the climate crisis, we are in the midst of the sixth extinction crisis; every species and ecosystem lost contributes to the great unraveling.[10]

[4] https://www.earthisland.org/journal/index.php/articles/entry/logging-carbon-emissions-us-forests
[5]https://www.researchgate.net/publication/267028232_The_Role_of_Defensible_Space_for_Residential_Structure_Protection_During_Wildfires
[6] https://www.latimes.com/projects/wildfire-california-fuel-breaks-newsom-paradise/
[7] https://www.mdpi.com/1999-4907/13/3/391
[8] https://ww3.arb.ca.gov/cc/inventory/pubs/sb901_biodiv_jmp_comments.pdf
[9] https://www.nytimes.com/2022/05/17/climate/eu-burning-wood-electricity.html
[10] http://sixtinction.net/

Dr.Bill Moomaw, chief IPCC scientist, and hundreds of other scientists, have stated repeatedly that the best way to fight the climate crisis is to store and sequester carbon by leaving it in place in existing forest ecosystems[11]; to protect forests, not to log them and not to burn them for energy.[12]

In short, bioenergy projects monetize forests at the expense of their life-sustaining properties and will only exacerbate the climate crisis and other environmental problems.

Biomass energy is also a bad deal for tax- and ratepayers. It requires heavy subsidies and costly infrastructure to compete with cheaper wind, solar, and natural gas. Unfortunately, biomass energy diverts capital from alternative renewable energy sources. [13]The additional costs are unfair and burdensome to ratepayers at a time when they are experiencing cumulative effects of increasing electricity costs.

We hope that you will consider opposing AB 2878 and SB 1109.

AB 2649 (Garcia) Natural Carbon Sequestration and Resilience Act[14], by contrast, sounds on the face of it very promising, using language such as "carbon sequestration", "nature-based solutions", "restoration", and "nature-based carbon sequestration." It aims to "achieve a goal of removing at least 60,000,000 metric tons of carbon dioxide equivalent annually on or before December 31, 2030, and 75,000,000 metric tons of carbon dioxide equivalent annually on or before December 31, 2035, through the implementation of natural carbon sequestration actions and programs on natural, working, and urban lands." Some of the practices specified we would support, including cover crops, hedgerows, and urban forestry.

However, we are concerned that management actions conducted in forest lands will not achieve the desired sequestration goals – and are instead likely to result in massive carbon emissions.

It is not only what the bill says but what it does not say that is significant. The bill does not tell us where the vast amounts of material to create new compost will come from, yet we know that 1 million acres/year are being targeted for treatment across California, resulting in a lot of green "waste" (sic) that will need to be disposed of. Compost should not be sourced from forests; and the resultant carbon emissions would lower the net carbon sequestration numbers. Stipulations need to be included as to the source of the compost, whether, where and how it will be heat-processed to avoid the spread of pathogens, and how and where it will be applied, and emissions related to transportation should be included in any calculations. The bill as it stands opens up the possibility of vast acreages of land being cleared of trees to create the compost. An assessment of the water needed to produce compost at large scale is also needed.

Similarly, the bill does not explain that for "restoration" tree planting to be done at scale, vast acreages of land may be cleared of trees first, to open up the space for trees to be planted. There is no accounting being done to ensure that carbon emissions from pre-requisite tree removals will not outweigh carbon

[11] https://www.pfpi.net/wp-content/uploads/2018/04/UPDATE-800-signatures_Scientist-Letter-on-EU-Forest-Biomass.pdf
[12] https://e360.yale.edu/features/why-keeping-mature-forests-intact-is-key-to-the-climate-fight
[13] https://biologicaldiversity.org/campaigns/debunking_the_biomass_myth/pdfs/Forest-Bioenergy-Briefing-Book-March-2021.pdf
[14] https://legiscan.com/CA/research/AB2649/2021

sequestration from planting. The impacts to and loss of soil, mycorrhizae, biodiversity and water quality and storage capacity are unquantified.

Scientists have estimated that forest management and restoration actions end up causing more carbon loss than wildfire. [15]

Climate scientists at the Center for Biological Diversity (CBD) have expressed concern that AB2649 makes way for logging and thinning projects that will cause net emissions rather than net carbon sequestration. They indicated: "the bill defines sequestration in a way that would promote forest logging/thinning projects with no benefits related to climate, fire, or ecological function. Because of the vast acreage of forest thinning that CALFIRE is already planning, forest thinning projects under the false guise of "sequestration" would be the primary result of the bill."

Large mature trees are currently being removed. Far more carbon is stored in large, mature trees than in newly planted seedlings[16], yet for many of these restoration projects, tree removals are pre-requisite.

There will surely be future bills that propose the same measures for extraction to support forest-based biomass energy, so we will need to stay alert for these too.

The photographs below illustrate some of the practices that are integral to most "forest management and restoration" projects:

Clearcutting of living trees before restoration, Sonoma County

[15] https://ww3.arb.ca.gov/cc/inventory/pubs/sb901_biodiv_jmp_comments.pdf
[16] https://ww3.arb.ca.gov/cc/inventory/pubs/sb901_biodiv_jmp_comments.pdf

Living redwood trees (see green epicormic branching) being cut as part of salvage logging activities to be followed by restoration, Sonoma County.

Slash piles prepared for pile burning before restoration, Stanislaus National Forest.

Workers applying roundup to cleared forests to prepare for restoration activities. Preparing for “restoration” plantings often involves spraying with roundup beforehand to kill native chaparral and invasive weeds. From the photographs, you can see these workers have little facial and hand protection while spraying – which causes human health impacts that are never mentioned.

Scientists worldwide have explained that the best way to store and sequester carbon is by protecting existing forest ecosystems, not by cutting them down.

We urge you to oppose AB2649 unless amended to include:

- clear carbon accounting, using scientifically recognized methods, to include emissions associated with forest management and pre-restoration activities; hauling, processing, distribution and energy emissions from compost production and byproducts of forest management, as well as sequestration;
- language to protect existing forest ecosystems, bearing in mind their multiple ecological functions and the likelihood of fire severity to increase with increased commercial thinning and other logging that routinely remove the largest trees.

That you for your time and consideration.

Sincerely

Your signature added here

Jenny Blaker

Maya Khosla

Tom Conlon

Janis Watkins

Dr. Brenda Flyswithhawks

Brenda Adelman

Irene Ammar

Dinah Bachrach

Henri Bensussen

Christopher Bowers

Julie Chasen

Douglas Fisher

Karl W. Frederick, Sebastopol, CA

Debora Hammond, PhD, Professor Emerita, Sonoma State University

Jean Hegland

Judy Helfand, Kenwood

Ann Hernday

Elizabeth Herron, Graton

Lakin Khan, Writer, Petaluma

Lucy Kenyon

Natalie Korman, Sonoma County resident

Alan Levine, Director, Coast Action Group

Dr. Michael Lipelt, Stillpoint Health Care, Santa Rosa

Matt Maguire, Former Petaluma City Councilman

Kamran Nayeri, Ph.D. Editor, Our Place in the World: A Journal of Ecosocialism.

Gwynn O'Gara

Linda Sartor

Richard J. Senghas, Professor & Chair, Department of Anthropology, Sonoma State University

Dave Seeter, Writer, Petaluma

Teri Shore, Environmentalist, Sonoma, CA

Mico Sorrel

Leny Mendoza Strobel, Santa Rosa

Patti Trimble, Writer, Petaluma

Sally Weare, Artist, Santa Rosa

Kathleen Winter