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ENVIR. APPEALS BOARD

PRO SE – Petitioner Marily Woodhouse

BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

In Re:

Sierra Pacific Industries, Anderson, CA

PSD Permit Modification No.SAC 12-01
PSD 94-PO-18
Modification PSD 94-VP-18b
Modification PSD 94-VP-18d

SUPPLEMENTAL PETITION WITH ATTACHMENT

Respondents: EPA Region 9 (Region 9), Shasta County Air Quality Management District (SCAQMD)

Petitioner Marily Woodhouse respectfully requests permission from the Board to submit her SUPPLEMENTAL PETITION WITH ATTACHMENT

I hereby certify that this petition submitted by this statement of compliance and the attached certificate of service contains an estimate of 1,300 words.

JURISDICTION

Petitioner Marily Woodhouse may seek redress of grievances from the Board because she submitted comments on Prevention of Significant Deterioration ("PSD") permit SAC 12-01 before the deadline, as given by Region.

The Board has jurisdiction to review this petition because it concerns a matter within the scope of 40 C.F.R. § 124.19.

40 C.F.R. § 124.19 states

"(2) *Who may file?* Any person who filed comments on the draft permit or participated in a public hearing on the draft permit may file a petition for review as provided in this section. Additionally, any person who failed to file comments or failed to participate in the public hearing on the draft permit may petition for administrative review of any permit conditions set forth in the final permit decision, but only to the extent that those final permit conditions reflect changes from the proposed draft permit."

Petitioner provided comments in a timely fashion, as required for appellate purposes, in accordance with Region's November 22, 2013 *Public Notice of Extension of Public Comment*

Period for the Proposed Clean Air Act Prevention of Significant Deterioration Permit for Sierra Pacific Industries - Anderson Division (SAC 12-01) which states: "We are extending the public comment period for this proposed permit, and all comments on the proposed permit must be received by email or postmarked by January 10, 2014. "

Petitioner Marily Woodhouse respectfully includes her original comments to Region 9, submitted as Attachment A.

This Petition concerns the same proposed facility as a previous proceeding before the Board, *In re Sierra Pacific Industries*, CAA Appeal Nos. 13-01 through 13-04, slip op. (July 18, 2013). That matter concerned a PSD permit that EPA had issued in February 2013. The Board remanded the permit in part to EPA, and instructed EPA to hold a public hearing on the permit on the grounds that there was a "significant degree of public interest," in the permit within the meaning of 40 C.F.R. §124.12(a)(1).

HISTORY

On December 10, 2013 Region 9 held a public hearing. Petitioner and other concerned citizens were not able to attend due to inhospitable weather conditions. Many roads in Shasta County were impassable. An historic snowstorm had just hit San Francisco, so Region 9 was aware of how dangerous it would be for many members of the public to attend. .

Petitioner contends that Region 9 failed in their duty to comply with the Board's ruling to hold an authentic public hearing.

Petitioner also contends that Region violated the intent of the Clean Air Act and 40 C.F.R. §124.12 by not following the proper PSD permitting procedure.

PERMIT WITHDRAWAL

40 C.F.R. § 124.19 states:

"(j) *Withdrawal of permit or portions of permit by Regional Administrator.* The Regional Administrator, at any time prior to 30 days after the Regional Administrator files its response to the petition for review under paragraph (b) of this section, may, upon notification to the Environmental Appeals Board and any interested parties, withdraw the permit and prepare a new draft permit under §124.6 addressing the portions so withdrawn. The new draft permit must proceed through the same process of public comment and opportunity for a public hearing as would apply to any other draft permit subject to this part. Any portions of the permit that are not withdrawn and that are not stayed under §124.16(a) continue to apply. If the Environmental Appeals Board has held oral argument, the Regional Administrator may not unilaterally withdraw the permit, but instead must request that the Environmental Appeals Board grant a voluntary remand of the permit or any portion thereof."

Previous withdrawal of fatally flawed permits is not unknown to Region 9.

In 2009, the Center for Biological Diversity submitted a petition before the Board,
In re: Desert Rock Energy Company, LLC (PSD Permit Number AZP 04).

The Center for Biological Diversity's PETITION FOR REVIEW states on pages 6-7:

"...In an attempt to address this legal violation, EPA included a "condition" in the recently-issued final Permit, which was not included in the draft Permit, see final PSD Permit With Changes Shown (AR 120.1), that prohibits construction under the Permit until EPA notifies the Permittee that it has satisfied its ESA Section 7(a)(2) consultation obligations. That condition states in full:

II. Commencement of Construction and Startup

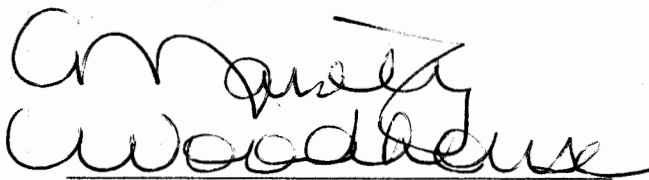
A. Construction under this permit may not commence until EPA notifies the Permittee that it has satisfied any consultation obligations under Section 7(a)(2) of the Endangered Species Act with respect to the issuance of the permit. EPA shall have the power to reopen and amend the permit, or request that the Permittee amend its permit application, to address any alternatives, conservation measures, reasonable and prudent measures, or terms and conditions deemed by EPA to be appropriate as a result of the ESA consultation process. (See *id.* at 2.) As demonstrated below, this condition ("Condition II(A)") is clearly erroneous, 40 C.F.R. § 124.19(a), because it is based on the incorrect and unlawful position that EPA can somehow transfer its duty to satisfy section 7(a)(2) of the ESA to another agency. Here, EPA points to the Bureau of Indian Affairs' ("BIA's") review and approval of a business land lease for the Desert Rock Energy Project and a proposed coal mine expansion on adjacent Navajo Land. **However, EPA cannot reasonably claim that its duties will be met by another agency's consultation on its separate and distinct action...**"

In the case now before the Board, Region 9 is attempting a similar strategy, one that is also clearly erroneous and contrary to the letter and intent of the Clean Air Act. SCAQMD, as the non-permitting, non-lead agency cannot conduct a valid environmental review for Region 9, thereby allowing Region 9 to come to the table at the last minute and issue a PSD permit for SAC 12-01.

CONCLUSION

Petitioner suggests that Region 9 voluntarily withdraw PSD permit SAC 12-01, due to its inherent and fatal flaws. The Clean Air Act provides no authority for Region 9 to have another (non-permitting) agency conduct Region 9's environmental review. Region 9 revoked all PSD permitting authority that SCAQMD possessed in 2003. Therefore, Region 9 cannot use any of SCAQMD's environmental review documents to fulfill their own statutory and regulatory obligations.

Respectfully,



(Marily Woodhouse)

5/19/2014

(date)

Marily Woodhouse
Battle Creek Alliance
P.O. Box 225
Montgomery Creek, CA 96065
(530) 474-5803

Battle Creek Alliance
CERTIFICATE OF SERVICE

I hereby certify, under penalty of perjury, that copies of the foregoing in the matter of Sierra Pacific Industries PSD Permit modification SAC 12-01 were sent to the following Respondents in the manner indicated:

Service by mail with back-up copies sent by email

Clerk of the Board,
Environmental Appeals Board
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
mail code 1103M
Washington, DC 20460-0001
Clerk_EAB@epa.gov

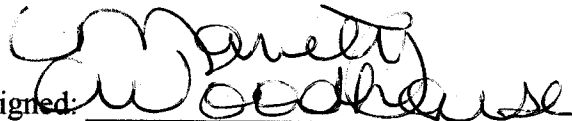
Deborah Jordan, Director
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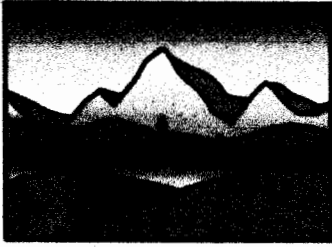
Rick Simon, Air Pollution Control Officer

Shasta County Air Quality Mgmt District
1855 Placer St., Suite 101
Redding, CA 96001
bwalker@co.shasta.ca.us

Patti Pomerantz, Assistant to William M. Sloan
MORRISON | FOERSTER
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San Francisco | California | 94105-2482
Email: ppomerantz@mofo.com

Signed:  Executed on: 5/19/2014
Marily Woodhouse (date)

Attachment A



Battle Creek Alliance

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(530) 474-5803

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Jan. 7, 2014

Deborah Jordan, Region 9, EPA Air Director
Shaheerah Kelly
EPA Region 9
75 Hawthorne St.
San Francisco, CA 94105-3901
R9airpermits@epa.gov

RE: Official comment on Permit No. SAC 12-01/Modification of Permit #94-VP-18b

I am writing to submit comments on the expansion of the biomass plant owned by Sierra Pacific Industries (SPI) in Anderson, California. Battle Creek Alliance is a non-profit 501 (c)(3) which works on forest and watershed issues mainly in Shasta and Tehama counties, although we also work in partnership with many other environmental groups throughout the state. I was not able to attend the public hearing due to the distance that would have to have been traveled on icy roads.

I contacted Ross Bell, the Shasta Quality Air District Manager, in December 2013 to determine what the emissions are currently from the 4 megawatt plant. He didn't know. When asked if there were any monitoring documents he said there might be some in the files somewhere. This lack of knowledge on the part of a regulating agency is troubling, particularly in light of the large increase in emissions and other effects that will occur if the biomass plant is enlarged to a 31 megawatt plant. If one of the main regulatory agencies is unable to monitor the effects of a 4 megawatt plant, how will they be able to monitor and analyze the additional direct and indirect effects of a plant that has increased its size, effects, and emissions by 87%?

Due to the lack of information available from the regulatory agency, we found figures regarding biomass facility emissions from the Partnership for Policy Integrity. Using their figures for typical emissions from a 50 megawatt plant (based on rates from biomass facility permits issued) we compared a 4 megawatt plant to a 31 megawatt plant to determine its CO₂ emissions, number of gallons of water used for cooling, number of tons of wood used, number of gallons of diesel fuel used to cut and transport the wood, and tons of waste ash produced per year: ¹

	4 MW	31 MW
CO₂ emissions/tons per year	52,800	409,200
# gallons water/cooling/per day	72,000	558,000
# gallons water/cooling/per year	26,280,000	203,670,000
# of tons wood used/per year	52,000	403,000
# of gallons of diesel fuel used	109,200	846,300
# of pounds of ash/per year	525,600	16,293,600

As can be seen above, there are huge increases in significant effects from a larger facility. Yet, your agency wants to modify the existing permit without any substantive analysis of these significant effects.

Biomass energy emits huge amounts of CO₂

Cutting and burning forests for energy has been portrayed by the timber industry as “carbon neutral” by using different manipulative formulas. SPI released a white paper entitled “Carbon Sequestration in Californian Forests; Two Case Studies in Managed Watersheds” in 2007 that was reviewed by Peter Miller in 2008.² From Miller’s review:

As detailed below, the SPI study raises numerous methodological and policy issues that call into question both the quantitative conclusions and the value of those conclusions for the development of climate policy. A critical review of this study demonstrates that, contrary to the report’s conclusions, replacing existing diverse forests with uniform tree plantations is unlikely to produce significant carbon benefits and will instead increase the risk of catastrophic fire and threaten the extensive range of benefits provided by existing forest ecosystems. This memo provides an overview of methodological problems with the analysis, offers revised estimates of the carbon savings from each of the three scenarios, and concludes with a discussion of the key policy issues raised by the SPI study

Methodological problems with the SPI study include the following:

- The SPI analysis is based on a non-peer-reviewed, unvalidated statistical model. While the authors acknowledge that their model violates normal statistical conditions, they reject alternative, unbiased approaches because they would be “tedious.” (p. 43-45)
- GHG emissions from logging, transport, and landfills are ignored or assumed to be zero even though the Intensive management approach is likely to have significantly increased emissions in all of these categories compared to less intensive management approaches. (p. 26-30)
- The SPI analysis assumes that soil carbon levels remain constant across management scenarios, despite the significant soil disturbance proposed under the Intensive scenario. In the Intensive scenario, forest soils would be mechanically ripped to three feet deep after existing stands were cleared, likely resulting in a significant loss of soil carbon. (p. 48)

The expansion of this plant would mean 356,400 more tons of CO₂ would be added to the atmosphere each year, from just one point source at the biomass plant. As Miller points

out, this does not include emissions from logging, transport, landfills, and soil carbon releases. Where is the EPA's analysis regarding what impacts would occur to climate and air quality from an 87% increase at the point source, much less the other uncalculated tons of CO₂ released from the associated activities?

Biomass plants use huge amounts of water

The expansion of this plant could require approximately 177,390,000 more gallons of water per year to be used for cooling than are currently being used. Is it not the EPA's responsibility to safeguard the public trust resource of water? "The California Constitution stipulates that water is owned by the people and must not be wasted or put to an unreasonable use by those that have water rights" (Carle, 2004).³

Excess water usage is an even greater concern than it has been in the past. Redding had the lowest amount of rainfall in 2013 in recorded history.⁴ The eastern part of Shasta County in which Battle Creek Alliance works shows an ongoing trend of less water and higher temperatures than in the past. The USDA Soil Conservation Service and Forest Service "Soil Survey of Shasta County Area, California" that is dated 1974, lists the area as having an average annual temperature of 50° and annual precipitation of 35 to 60 inches.⁵ The Shingletown weather station for the area shows these measurements since it was put into service in 2009:⁶

<u>Year</u>	<u>Average temperature</u>	<u>Hi temperature</u>	<u>Precipitation</u>
2009	56.4	105.8	29.00"
2010	54.8	104.4	47.33"
2011	54.6	99.6	28.93"
2012	55.5	105.7	35.56"
2013	56.6	106.5	15.38"

In a scientific paper regarding carbon issues and drought between 2000 and 2004, Schwalm et al. (2012)⁷ wrote:

"We further document a pronounced drying of the terrestrial biosphere during this period, together with a reduction in river discharge and a loss of cropland productivity...

...the cumulative effect over five consecutive drought years led to a clear reduction in water availability as indicated by decreased runoff in all major water basins of the western United States...

...This impending drydown of western North America is consistent with present trends in snowpack decline as well as expected increases in aridity and extreme climate events, including drought, and is driven by anthropogenically forced increases in temperature with coincident increases in evapotranspiration and decreases in soil moisture...

...Decreases in crop productivity, primary production, latent heat flux, large basin runoff and CO₂ uptake by the land surface associated with the turn of the century drought could become permanent conditions before the end of the century, consistent with a twenty-first century megadrought.”

Does it fulfill the EPA’s mandate to protect the public, and the environment that sustains them, to modify a permit that allows over 177 million more gallons of water per year to be used for a privately owned, for-profit biomass plant?

Biomass burning requires more forests to be cut for fuel

Some sources refer to forests as “renewable energy”. While it is true that forests can re-grow, even under the best temperature and rainfall conditions the time it takes for an individual tree or a forest or a complex ecosystem to develop is at least a century. These slow moving processes cannot be sped up, and we disregard the time factor at the risk of changing the near and far future irreparably.

The AB 1492 Report which was issued in 2013 by the California Natural Resources Agency and Environmental Protection Agency includes an Appendix which lists the timber harvest plans approved in the 10 year period of 2003 to 2012.⁸ Shasta County is listed as having 832,702 acres of non-federal timberland, or 33.8% of the county’s acres. Plans have been approved to cut 25% of the non-federal timberland (207,818.2 acres) in the past 10 years alone. The expansion of this plant will require 351,000 more tons of wood per year on an ongoing basis, year after year. The land has finite limits of what it can produce, even in more optimal conditions than are occurring presently. Where is all of the fuel for an 87% larger single biomass plant supposed to come from year after year?

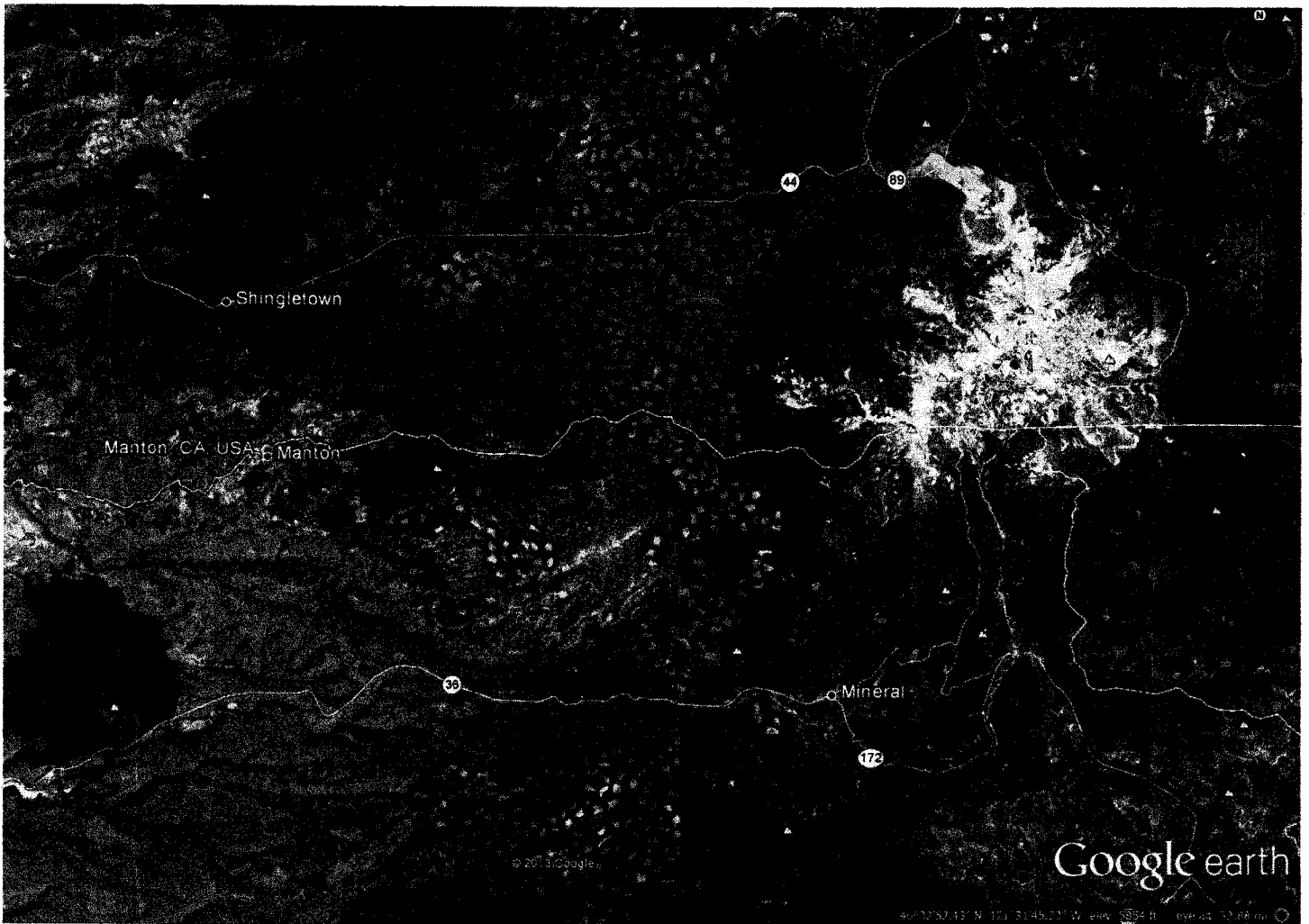
Diversity is one of the cornerstones of life. If the EPA approves a modification of this permit to enlarge the biomass plant, it will increase the amount of logging of grown forests to replace them with tree plantations that lack diversity. Replacing grown, existing forests with tree plantations simplifies plant and animal communities because it reduces habitat. A forest is made up of different kinds and sizes of trees that provide what is termed “structure” by ecologists, and has an “understory” of many kinds of shrubs and other plants. In turn, the structure and understory provide food, resting and denning habitat for all the other forms of wildlife, from microorganisms to bugs to birds to mammals.

“Large-scale clear-cutting of forests should be avoided because it reduces biomass and biological diversity. Further, the loss of vegetation results in the rapid loss of nutrients from the soil, which eventually reduces the productivity of the entire ecosystem. Both biomass production and biological diversity decline as a result.” (Pimentel et al. 1992)⁹

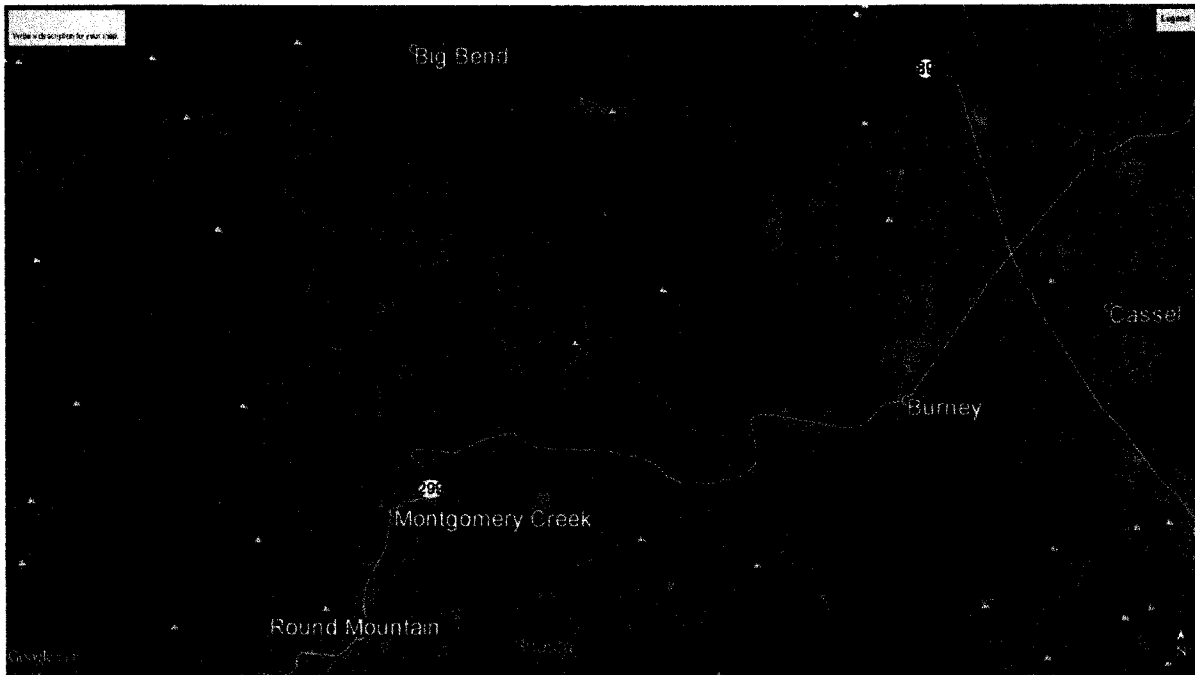
The following images from Google Earth are from just a few of the mountain areas around Redding and Anderson. Each of the thousands of regularly spaced brown holes are clearcuts, with an average size of 20 acres, or 4 city blocks.



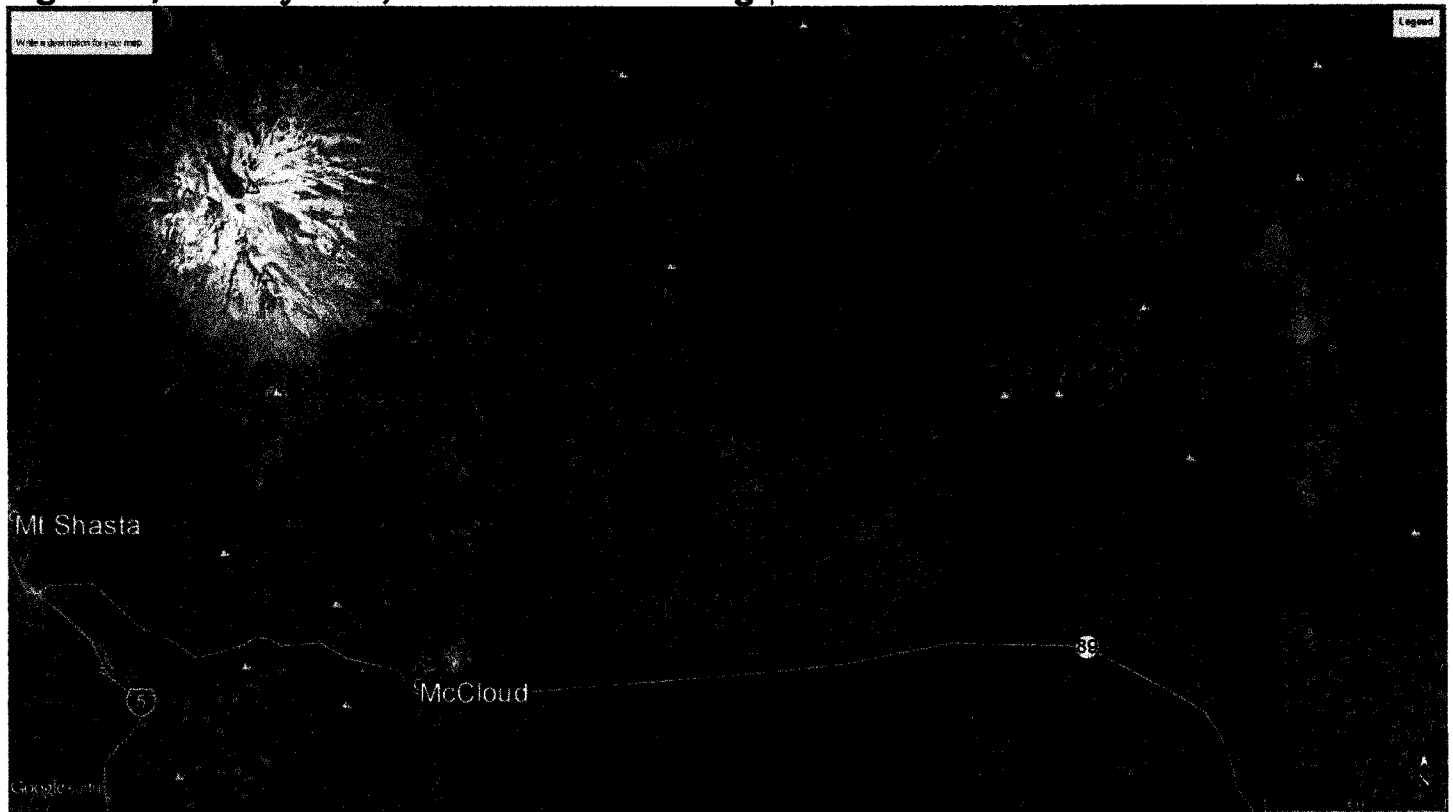
← One clearcut up close



Shingletown/Manton area, east of Redding ↑

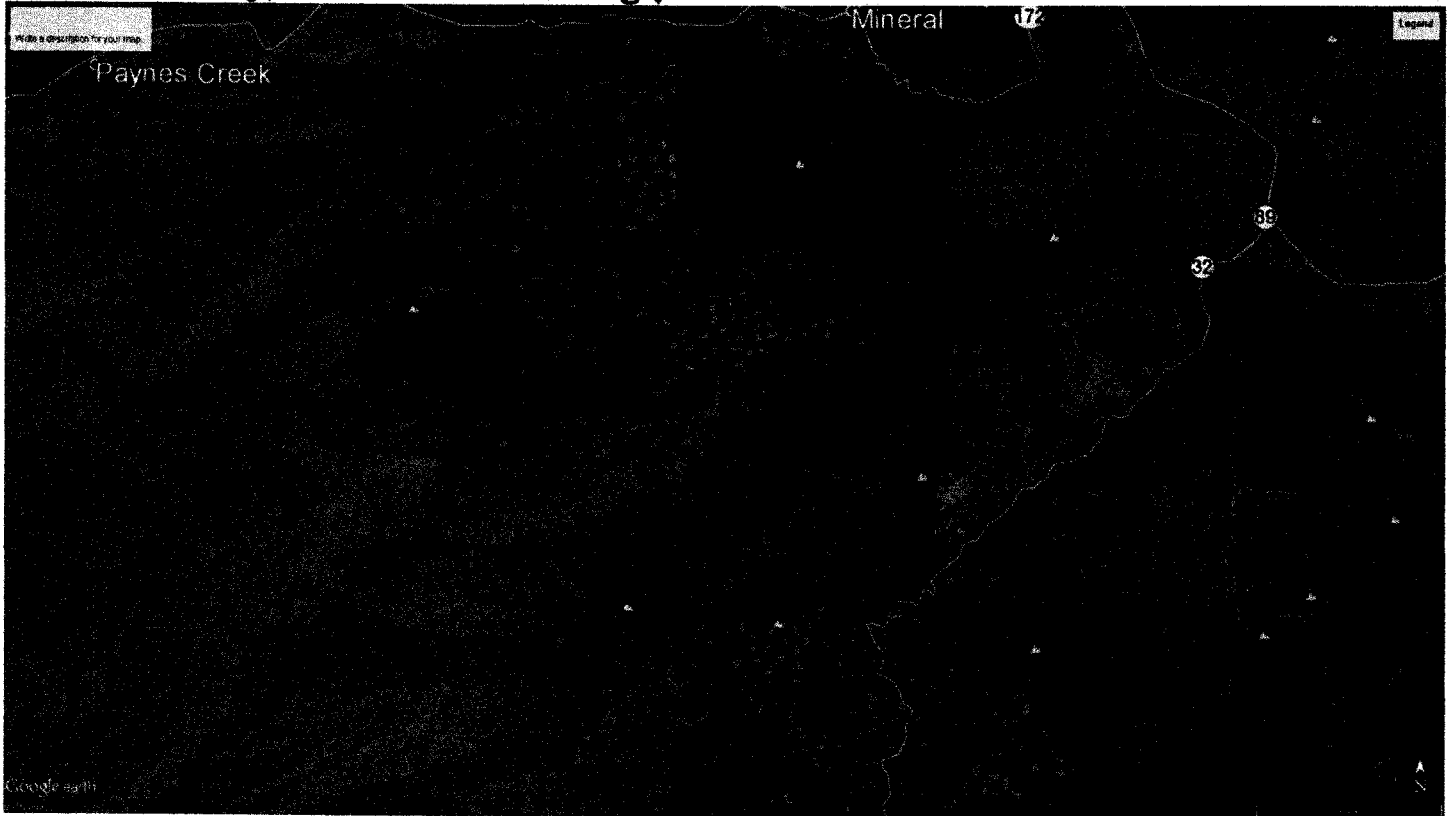


Big Bend/ Burney area, northeast of Redding ↑



Mt. Shasta area, north of Redding ↑

Tehama County, southeast of Redding ↓



↑This is part of a replanted clearcut unit from a plan that was filed in 1998, as the unit was in 2009. A timber harvest plan consists of ~40 separate units within a thousand or so acres. The surrounding grown forest next to the plantation in this photo has since been cut as part of another plan.



↑ This is a replanted plantation after 21 years. Note the lack of forest structure (i.e. different sizes of trees), the lack of different plant and brush species, and the lack of decomposing organic matter on top of the soil that acts to protect and enrich it.



↑ Note the difference in an unlogged area. These areas will be gone if the pace of logging continues at the present speed, or moves even faster due to the higher demands from the biomass plant.

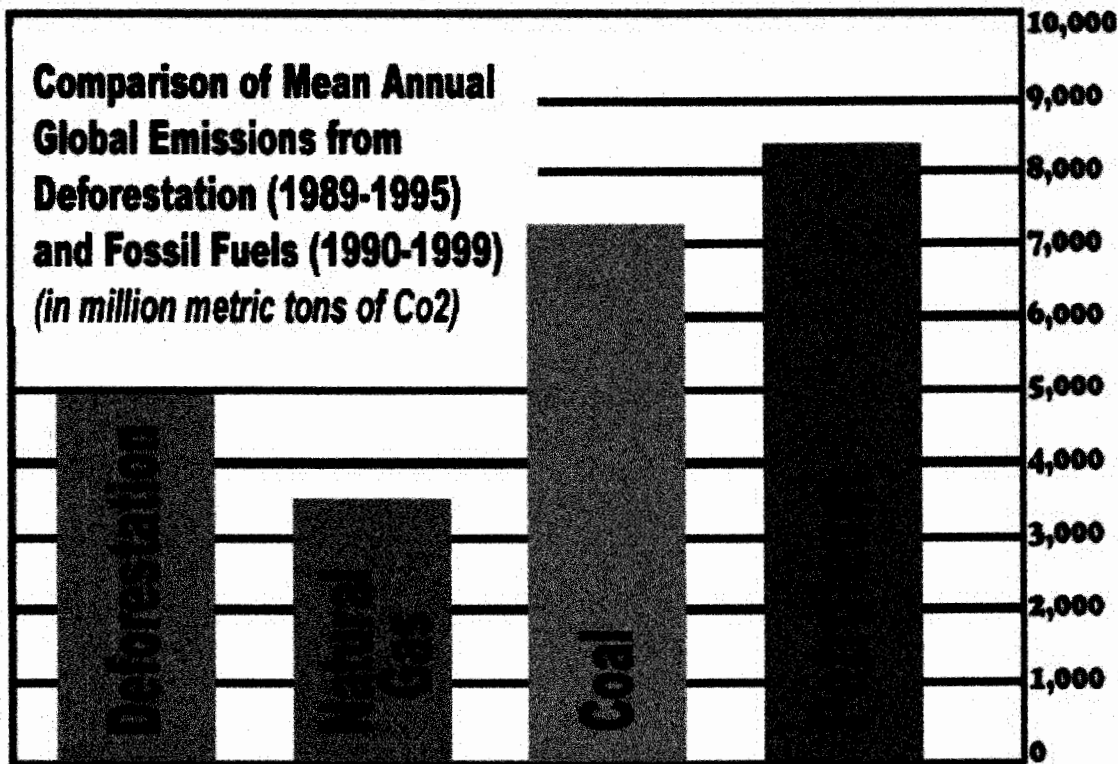
Biomass burning creates tons of ash that requires disposal

An increase in ash production from the amount of 525,600 pounds per year to 16,293,600 pounds per year will require a great deal more transportation (increasing fuel usage and coincident air quality impacts) and more landfill space. The ash is mixed with water for disposal. Some ash may also have high concentrations of heavy metals, depending on what is being burned.¹⁰

Biomass energy requires additional usage of diesel fuel for cutting and transportation

Fueling this plant will cause an increase in fuel consumption for transportation that will use many more hundreds of thousands of gallons of diesel. This is another cumulative impact that is being ignored.

This chart is from the Intergovernmental Panel on Climate Change:



The American Lung Association "does not support biomass combustion for electricity production".¹⁰ Emissions from vehicles and wood burning are known to increase particulates in the air and cause respiratory problems. Biomass plants have been found to operate at ~ 24% efficiency.¹¹ Enlarging this inefficient and polluting plant will combine with other increasing emissions to cause more cumulative effects to the health and well being of the greater Shasta County area, and its surrounding counties.

Conclusion

SPI, and their proponents, have made a point of talking about the handful of jobs that the expanded plant could provide. Shasta County has a population of 177,223 people; Tehama County has 63,463 people.¹² The other surrounding counties number additional tens of

thousands more people. All of these people will be impacted by reduced air quality, water loss, and loss of forest cover. The EPA is a public agency that should be acting in the best interests of the majority of the population. This permit must not be modified to allow huge increases in cumulative impacts.

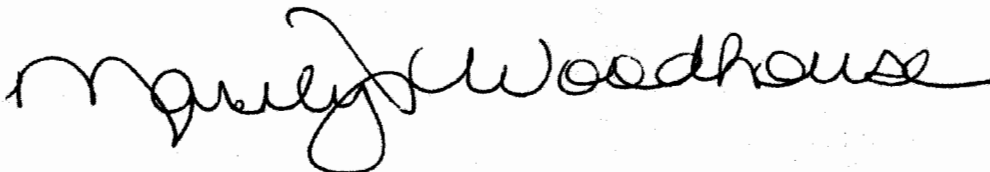
Barnosky et al. published a scientific paper in 2012 that examined the potential of biological systems to change suddenly at all scales, from local to global.¹³ They wrote:

"Localized ecological systems are known to shift abruptly and irreversibly from one state to another when they are forced across critical thresholds...

...It is now well documented that biological systems on many scales can shift rapidly from an existing state to a radically different state. Biological states are neither steady nor in equilibrium... The shift from one state to another can be caused by either a 'threshold' or a 'sledgehammer' effect. State shifts resulting from threshold effects can be difficult to anticipate, because the critical threshold is reached as incremental changes accumulate and the threshold value generally is not known in advance. By contrast, a state shift caused by a sledgehammer effect--for example the clearing of a forest using a bulldozer--comes as no surprise. In both cases, the state shift is relatively abrupt and leads to new mean conditions outside the range of fluctuation evident in the previous state...

...Humans have already changed the biosphere substantially...the biological resources we take for granted at present may be subject to rapid and unpredictable transformations within a few human generations."

We call upon the EPA to act with foresight and knowledge to protect the future. The corollary significant effects that enlarging this biomass plant would contribute to must be acknowledged, not ignored.



Marily Woodhouse, Director

Notes/Sources

¹ Partnership for Policy Integrity, www.pfpi.net, Biomass power cuts forests, pollutes the air, drains rivers, and worsens global warming--While costing taxpayers billions as "renewable" energy. Figures derived from: 50 MW plant produces 13,200 tons of CO₂ per MW per year; uses 14,000-18,000 gallons water per MW per day; uses 13,000 tons of wood per MW per year; produces 60 pounds of ash per MW per hour; logging and transportation of 1 ton of woodchips uses 2.1 gallons of diesel fuel= 27,300 gallons per MW per year

² Miller, Peter. 2008. A Review of SPI's study: "Carbon Sequestration in Californian Forests; Two Case Studies in Managed Watersheds". 7 pp.

³ Carle, David. 2004. *Introduction to Water in California*. University of California Press, Berkeley, CA. 261 pp.

⁴ <http://www.redding.com/news/2013/dec/31/california-marks-2013-historically-dry-year/>
<http://www.redding.com/news/2013/dec/31/dry-weather-wont-let-up-on-a-thirsty-north-state/>

⁵ USDA Soil Conservation Service. 1974. *Soil Survey of Shasta County Area, California*. 176 pages. U.S. Government Printing Office, Washington, D.C.

⁶ <http://www.wunderground.com/weatherstation/WXDailyHistory.asp?ID=KCASHING10>

⁷ Schwalm, Christopher R., Christopher A. Williams, Kevin Schaefer, Dennis Baldocchi, T. Andrew Black, Allen H. Goldstein, Beverly E. Law, Walter C. Oechel, Kyaw Tha Paw U, Russel L. Scott. 2012. Reduction in carbon uptake during turn of the century drought in western North America. *Nature Geoscience*, DOI: [10.1038/NGEO1529](https://doi.org/10.1038/NGEO1529)

⁸ California Natural Resources Agency and California Environmental Protection Agency. 2013. AB 1492 Report. 18 pp.

⁹ Pimentel, D., U. Stachow, D.A. Takacs, H.W. Brubaker, A.R. Dumas, J.J. Meaney, J.A.S. O'Neil, D.E. Onsi, D.B. Corzilius. 1992. Conserving biological diversity in agricultural/forestry systems. *Bioscience* 42: 354-362.

¹⁰ American Lung Association. Public Policy Position on Energy. Approved June 11, 2011.

¹¹ Partnership for Policy Integrity, www.pfpi.net, Carbon emissions from burning biomass for energy.

¹² http://en.wikipedia.org/wiki/Shasta_County,_California

¹³ Barnosky, Anthony D., Elizabeth A. Hadly, Jordi Bascompte, Eric L. Berlow, James H. Brown, Mikael Fortelius, Wayne M. Getz, JohnHarte, Alan Hastings, Pablo A. Marquet, Neo D. Martinez, Arne Mooer, Peter Roopnarine, Geerat Vermeij, John W. William, Rosemary Gillespie, Justin Kitzes, Charles Marshall, Nicholas Matzke, David P. Mindell, Eloy Revilla & Adam B. Smith. 2012. Approaching a state shift in Earth's biosphere. *Nature*, Vol 486, pp. 52-58. doi:10.1038/nature11018