COAST ACTION GROUP
P.O. BOX 215
POINT ARENA, CA 95468

December 5, 2009

Ms. Leslie Markham
California Department of Forestry and Fire Protection
135 Ridgeway Ave.
Santa Rosa, CA 95401

Re: 1-08-NTMP009 MEN - Bower - Comments

Dear Ms. Markham:

These comments are submitted post- Second Review to address noted issues in the plan.

Concerns

Of major concern is planned operations on 18 acres of old growth. As noted in the plan the unit mostly comprised of late seral type is Site Class IV. This suggests the existing trees are much older than their size class would indicate. Given the history of logging in the general area (nearby Garcia and other Gualala River history), very little of old growth, late seral, has been left. In fact, these watersheds have been subject to the most intense logging episodes of any lands on the north coast - with resulting limited habitat types as just one of the cumulative impacts noted in the region.

Noting the above past land use, it is understandable why DFG (Review Team partner) has voiced specific concerns regarding the treatment of the unit containing late seral vestiges.

DFG has noted that the climate change analysis in the plan is not sufficient. (See Climate Change discussion - below). DFG has made recommendations to mitigate and make the plan consistent with DFG Code (and other State Resources Code). CDF, and/or the landowner, has not accepted all mitigations. Nor, have findings been presented by CDF to support conclusions that would allow exception to DFG recommendations.

DFG has pointed out error in growth and yield modeling. Review and correction of this modeling (and tables) must occur. (this is a substantial change of information in the plan requiring re-circulation).

Alternatives analysis in the plan does not address management of existing old growth.

The Plan Fails to Adequately Consider Alternatives

In response to criticism and review team agency (DFG) recommendations, the landowner made changes to the NTMP's section on alternatives. Changes made, to date, fail to address the fundamental flaws that were identified.

For the most part, the landowner simply altered inaccurate statements or phrases indicating that a particular alternative was more damaging, or did not meet project objectives, than the proposed project. The revised language adds information here and there explaining why various silviculture methods, most of them more damaging or infeasible, were not utilized. But, again, only by comparing feasible, less damaging alternatives with the project can the decision–maker and the public appreciate the environmental consequences of the latter.

The latest revision(s) still fail to consider the alternatives and recommendations proposed by DFG. The landowner refuses to do what CEQA requires and what DFG has requested. The revised NTMP also continues to fail to identify the legally-required environmentally superior alternative. This is not surprising since no superior alternative is discussed.

The NTMP Fails to Consider the Project's Greenhouse Gas (GHG) Impacts

The NTMP's consideration of GHG impacts does not begin to comply with CEQA. It fails to adequately identify or quantify GHG emissions or to establish a framework for evaluating their effects.
Logging produces GHG emissions in a variety of ways, and the removal of trees reduces carbon sequestration. The NTMP fails to demonstrate how logging and tree and vegetation removal effects are measured and mitigated. GHG effects can not be obviated merely because other unharvested trees are allowed to grow. Reasonable analysis must be provided.

It is settled that GHG emissions must be considered under the California Environmental Quality Act (CEQA) and the Forest Practice Act. (Pub. Res. Code, § 21083.05.) In considering GHG emissions under CEQA, the Attorney General's Office recently stated:

> Lead agencies should make a good-faith effort, based on available information, to calculate, model, or estimate the amount of CO2 and other GHG emissions from a project, including the emissions associated with vehicular traffic, energy consumption, water usage and construction activities. (Exh. A, California Attorney General's Office: *Climate Change, the California Environmental Quality Act, and General Plan Updates: Straightforward Answers to Some Frequently Asked Questions*, p. 2 [Rev. 3/06/09].)

> The question for the lead agency is whether the GHG emissions from the project . . . are considerable when viewed in connection with the GHG emissions from past projects, other current projects, and probable future projects. (Id. at p. 4.)
>
> Unlike more localized, ambient air pollutants which dissipate or break down over a relatively short period of time (hours, days or weeks), GHGs accumulate in the atmosphere, persisting for decades and in some cases millennia. The overwhelming scientific consensus is that in order to avoid disruptive and potentially catastrophic climate change, then it's not enough simply to stabilize our annual GHG emissions. *The science tells us that we must immediately and substantially reduce these emissions*. (Id. at p. 3, emphasis added.)
>
> The decisions that we make today do matter. Putting off the problem will only increase the costs of any solution. Moreover, delay may put a solution out of reach at any price. The experts tell us that the later we put off taking real action to reduce our GHG emissions, the less likely we will be able to stabilize atmospheric concentrations at a level that will avoid dangerous climate change. (Ibid.)

Like CEQA, the Forest Practice Act mandates protection of the environment: "[T]he plain intent of the Legislature in enacting the [Forest Practice Act] was to require the Board to view the forests of the state as a complete working ecosystem, and not only as a producer of high quality timber, but also as forestlands valuable in their own right as a public resource." (Exh. M, Attorney General's Office, *Advice Regarding Board of Forestry's Regulatory Authority to Provide for the Restoration of Resources* at p. 4.)

Timber Harvesting Produces GHG Emissions

According to the California Climate Action Registry Forest Protocols Overview, the forest sector is the second-largest global source of anthropogenic GHG emissions, contributing roughly 23% of total emissions. The Climate Action Team Report to Governor Schwarzenegger and the Legislature estimates that the forest and agriculture sector contributes 8% of GHG emissions in California. (Exh. B.)

A forest can act as a sink for carbon dioxide as its biomass increases. If forests are allowed to flourish they can sequester significant amounts of carbon. Numerous studies make this point.

Logging and its many related activities, on the other hand, remove carbon from long-term storage, release it to the atmosphere and contribute to climate change. In short, logging reduces the benefit of carbon sequestration and thereby adversely affects the environment.

> Timber harvest, clear cutting in particular, removes more carbon from the forest than any other disturbance (including fire). The result is that harvesting forests generally reduces carbon stores and results in a net release of carbon to the atmosphere.

(Exh. C, Harmon (2007) Letter to California Air Resources Board. *Comment on Forest Protocols*.)

The forest sector produces GHG emissions in a variety of ways. When trees are cut down, they become a source of CO2 emissions. Although wood products may store carbon for a time, large quantities of GHG emissions are also released to the atmosphere "immediately through the disturbance of forest soils, and over time through the decomposition of leaves, branches, and other detritus of timber production." (Exh. D, *Recognizing Forest's Role in Climate Change*, Union of Concerned Scientists; http://www.ucsusa.org/global_warming/solutions/ forest_solutions/recognizing-forests-role-in.html#20.)

Forests store enormous amounts of carbon in their soils that are released when disturbed by timber harvests. Research estimates that of the carbon stored in forests in the coterminous United States half of that is in the soil, one-third in trees, ten percent in woody debris, six percent in the forest floor, and one percent in the understory. (Exh. E, Turner et al. (1995).) The carbon contained in soil can be greatly reduced by logging. (Exh. F, Jandl et al. (2007).)

Nor can it be argued that logging stores more carbon in forest products than it releases. Research shows that from 1910 to 1990 in the United States seventy-four percent of the carbon harvested was released into the atmosphere while the remainder was stored in wood products and added to landfills. (Exh. G, Skog and Nicholson (2000).) Thus, only a small percentage of carbon logged is stored in stable forest products after logging: "[D]espite the large mass of carbon (1,692 Tg) harvested in Oregon and Washington, only a small fraction (23%) is currently stored in forest products." (Exh. H, Harmon et al. (1996).) Most is left to decompose, burned on site, or transported to a mill for fuel.

What is more, forest products decay over time, releasing carbon into the atmosphere. Half of the carbon in lumber gets released in the first 100 years. (Exh. G, Skog and Nicholson (2000).) Forest products like pallets and paper decay far more quickly. (Exh. G, Skog and Nicholson (2000).) Thus there is no comparison between a forest product and a living conifer. The latter stores carbon indefinitely, far longer than forest products, and it continuously removes carbon from the atmosphere.

Besides release of GHG emissions from logging itself, there is another major source of emissions, namely equipment operations and facilities management.

The NTMP Fails to Identify and Quantify the Project's Production of GHG Emissions

Before the NTMP can assess the individual and cumulative impacts of GHG emissions, it must first identify and quantify them. Logging causes release of CO2 in numerous ways. So-called green carbon is released from the removal of living trees and plants (live

biomass), disruption to the soil, and removal of dead biomass. (Mackey et al. 2008, http://epress.anu.edu.au/green_carbon/pdf/ whole_book.pdf.)

So-called gray carbon is released as a result of the burning of fossil fuels to accomplish logging operations and processing forest products. Gray carbon is produced by a wide range of activities, including road construction and maintenance, harvesting, transportation of logs, and manufacturing. (Mackey et al. 2008.) Then there are the energy inputs sourced from fossil fuels that are required to regenerate the forest after logging, e.g., the planting of seedlings, site preparation, and ongoing maintenance. (Ibid.)

In the present case, the NTMP fails to adequately (under CEQA) "calculate, model, or estimate the amount of CO2 and other GHG emissions from the project, including the emissions associated with [logging and related activities.]" (Exh. J, Governor's Office of Planning and Research Technical Advisory (2008), *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act Review*.) There is no attempt to measure green or gray carbon. There is no measurement of carbon emissions from the cutting of trees, biomass decomposition, and soil disturbance. Nor is there measurement of emissions from myriad logging-related activities, such as transportation, equipment operation, milling, site preparation, road maintenance, site regeneration, and the like. And there is no comparison between those measurements and the baseline set by the historical pattern of logging, or the even lower baseline required by AB 32.

The California Air Pollution Control Officers Association (CAPCOA) recently set forth methodologies for analyzing greenhouse gas pollution. *(CEQA & Climate Change, Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act* (Jan. 2008), http://www. capcoa.org/CEQA/CAPCOA%20White%20Paper.pdf.)

The CAPCOA white paper mostly addresses gray carbon. As for green carbon, a number of studies provide guidance. (E.g., Exh. K, Hamburg (2000); Exh. L, Harmon and Marks (2002).)

In a presentation to the Board of Forestry, the California Resources Agency addressed GHG emissions from logging and made clear that the following must be considered:

- Type of Forest Management (Clear Cutting or other types of logging management)
- Age of forest at issue, tree type
- Store of Carbon in Bio Mass, Soil, and Old Growth
- Rate new growth sequesters carbon
- Changes to system overall

- Reduction of carbon stores v. rate of carbon uptake
- Increases and Decreases in Carbon to Environmental Setting
- Cumulative Impacts

(Exh. Q, PowerPoint Presentation of Resource Agency (presented at February, 2009, Board of Forestry meeting.) None of these variables was considered here.

Since the NTMP fails to adequately identify and quantify the project's GHG emissions, it cannot begin to assess their impacts and mitigate them. This oversight is especially alarming in the context of CO2 emissions and climate change, since any new emissions must be considered significant. This argument is consistent with the "zero emission threshold" identified by CAPCOA. (CEQA & Climate Change, Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act (Jan. 2008), http://www. capcoa.org/CEQA/CAPCOA%20White%20Paper.pdf.) Recent scientific studies point to the need to reduce existing emissions levels, even beyond AB 32 targets. (Exh. O, Matthews et al. (2008); Exh. P, Hansen et al.)

The NTMP Fails to Assess the Individual and Cumulative Impacts from the Project's Production of GHG Emissions

An NTMP must analyze the significant adverse impacts of all timber harvesting activities and must impose mitigations to eliminate or reduce them to a level of insignificance. (Pub. Res. Code, § 21080.5, subd. (d)(2)(A), (d)(3)(A); e.g., *Sierra Club v. Board of Forestry* (1994) 7 Cal.4th 1215, 1230.)

The NTMP must also consider the project's cumulative effects. (*Environmental Protection Information Center, Inc. v. Johnson* (1985) 170 Cal. App. 3d 604, 624-625.) "'Cumulative impacts' refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts .... Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time." (CEQA Guidelines, Cal. Code Reg., Tit. 14, § 15355, subd. (b) [emphasis added]; accord EPIC, supra, 170 Cal. App. 3d at 625.) "[A]n agency may not ... [treat] a project as an isolated 'single shot' venture in the face of persuasive evidence that it is but one of several substantially similar operations.... To ignore the prospective cumulative harm under such circumstances could be to risk ecological disaster." (Whitman v. Board of Supervisors (1979) 88 Cal. App. 3d 397, 408.)

A THP's GHG emissions are a quintessential cumulative impact. The present project will increase the amount of CO2 in the atmosphere even as California struggles to reduce it under AB 32's mandate:

> [W]e cannot afford to ignore even modest contributions to global warming. If global warming is the result of the cumulative contributions of myriad sources, any one

> modest in itself, is there not a danger of losing the forest by closing our eyes to the felling of the individual trees?

(*Center for Biological Diversity v. Nat'l Highway Traffic Safety Admin*. (9th Cir. 2008) 538 F.3d 1172, 1221 ["the impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct."].)

The Office of Planning and Research recently underscored the importance of a thorough analysis of a project's cumulative impacts regarding GHG emissions:

> When assessing whether a Project's effects on climate change are cumulatively considerable, even though its GHG contribution may be individually limited, the lead agency must consider the impact of the project when viewed in connection with the effects of past, current, and probable future projects . . . . Lead agencies should not dismiss a proposed project's direct and/or indirect climate change impacts without careful consideration, supported by substantial evidence. Documentation of available information and analysis should be provided for any project that may significantly contribute new GHG emissions, either individually or cumulatively, directly or indirectly (e.g., transportation impacts).

(Exh. I, Office of Planning and Research Technical Advisory (2008), *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act Review*.)

The failure to consider cumulative GHG impacts in this case would set a terrible precedent. Research shows that more carbon will be produced as the century progresses while increased logging is expected to decrease the amount of forest available as a carbon sink. (Exh. E, Turner et al. (1995); Exh. N, Turner et al. (1995b).)

The NTMP Fails to Analyze The Effect of Climate Change on the Project

Climate change is already being blamed for an increase in mortality in conifers in the western United States, including California. (Exh. R.) It is predicted that redwoods will be forced to migrate north to cooler regions. (Exh. R, "California's native plant species are so vulnerable to global climate change that two-thirds of them could suffer 80 percent reduction in their geographic range by the end of the 21st century.")

Since climate change is forecast to impact the project, that change must be analyzed in conjunction with the GHG impacts of the project.

The NTMP Fails to implement new Threatened and Impaired Rules

New Threatened and Impaired Rules have been adopted by the Board of Forestry. These rules were approved and the basis of protecting water quality values and beneficial uses.

These rules suggest use of a standard of protection above the basline of the existing Forest Practice Rules. Implementation of these new T & I Rules in the NTMP would extend some additional protection to, both, forestry and beneficial use protections.

This NTMP should not be approved if not found to be consistent with new and pending rules approved by the Board of Forestry and any new and pending rules approved by the Regional Board (private timberland WDRs and or Related Waiver) for the protection of beneficial uses.

Sincerely

Alan Levine, for Coast Action Group

Alan Levine
Coast Action Group
P.O. Box 215
Point Arena, CA 95468

Phone: Week Days 707 542-4408
Weekends 707 882-2484