IV.7 Individual DEIR Mailed Comments P-151 to P-182

This section presents responses to individual public comments (i.e., not form letter or form letter based) received the U.S. mail or other non-electronic delivery services. The responses immediately follow each letter and are organized in the same order as the comments in each letter. Several of the letters included attachments. Attachments were not included herein if our response did not directly reference the attachment.

Mailed comment submissions with multiple copies of a single letter format will be addressed in one sample from each type of form letter. Those with additional comments added will be addressed individually if the comment is substantive and thus warrants a separate response.

There will not be comment letters for every number within the series because some letters dropped if they were duplicates or if they were found to be form letters. Form letters are responded to in their own section of the FEIR

P-158

RECEIVED
FEB 21
BOARD OF FORE
AND FIRE PROTEC

Heidi Knott
P.O. Box 589
Philo, CA 95466

Mr. George D. Gentry
Board of Forestry & Fire Protection
P.O. Box 94246
Sacramento, CA 94224-2460

Feb. 16, 2006

Re: Jackson Demonstration State Forest – Environmental Impact Report Draft plan

Dear Sir,

1 As a citizen of Mendocino county who has followed the struggle over JDSF among CDF, logging businesses, and environmentalists, I urge you to end the animosity by supporting Alternative D of the current EIR Draft plan. This is the one alternative that all sides can agree on. As you are aware, the Citizen's Advisory Committee many years ago outlined the recommendations in this plan, and they were a group of people from very diverse backgrounds. Please don't miss the opportunity to enact these suggestions and end the stalemate that has kept the forest closed for the last five years.

Sincerely,

Heidi Knott

Mailed Letter P-158

Response to Comment
Support for Alternative D noted. Alternative G was developed by blending the elements and management strategies of several Alternatives, including Alternative D. This includes accelerated implementation of the Road Management Plan, a reduction in the use of even-age management and clearcutting, a reduction in the planned timber harvest level, an increase in the area dedicated to development of late-seral forest conditions, an increase in resource protection and restoration measures, such as snag retention and LWD placement, and a management emphasis on research, demonstration and education.

The scope of public comments received indicate that there is no alternative that “all sides can agree on”. The Board has developed an alternative that remains consistent with the legislative mandate and Board policy for the State forest system, while also incorporating public comment.

P-161

RECEIVED BY
FEB 17 2005
BOARD OF FORESTRY
AND FIRE PROTECTION

1. Kingston Way
Cotati, CA 94931
February 8, 2005

Mr. George D. Gentry
exec. director
Board of Forestry & Fire Protection
P.O. Box 944246
Sacramento, CA 94244-2460

Dear Mr. Gentry,

Its come to my attention that the recent 1500 pp. EIR has a very rushed deadline for public comment. Please extend it so experts of all kinds have time to analyze it and offer suggestions.

I implore you to reject the business as usual ~~approach~~ approach to our forests and consider alternate approaches for sustainable diverse and earlth forests.

Thank you.

Sincerely,
Adrienne
Adrienne Lauby

Mailed Letter P-161

Response to Comment
Please see General Response 4 and 5.

P-164

STATE OF CALIFORNIA—THE RESOURCES AGENCY

ARNOLD SCHWARZENEGGER, *Governor*

BOARD OF FORESTRY AND FIRE PROTECTION

P.O. Box 944246
SACRAMENTO, CA 94244-2460
Website: www.bof.fire.ca.gov
(916) 653-8007

RECEIVED BY
FEB 23 2006
BOARD OF FORESTRY AND FIRE PROTECTION

MEMO

Date: February 10, 2006

From: George "YG" Gentry, Executive Officer

To: Interested Parties

Subject: Comment Period for the Jackson State Demonstration Forest Management Plan Draft Environmental Impact Report **(SCH # 2004022025)**

You previously received a Notice of Availability for the above named document. The close of comment period in that notice was February 14, 2006, at 5:00 p.m.

Close of comment has been extended to **March 1, 2006, at 5:00 p.m.**

Comments must be submitted, in writing, by the close of the **comment period, ending on March 1, 2006, at 5P.M.** to: Board of Forestry and Fire Protection, P.O. Box 944246, Sacramento, CA 94244-2460; or Fax (916) 653-0989; or emailed to: board.public.comments@fire.ca.gov

Not having examined the above EIR, I will repeat only what I said in a letter years ago related to my long experience doing work for public agencies: I urge that control of so-called "invasive species" be given top priority using every appropriate scientifically approved method.

DICK VAN ALSTYNE
1430 CEDAR ST
FORT BRAGG CA 94105

R. W. Van Alstyne

(See over)

Spring-Summer '98

P 104, page 2

VOLUNTEER SPOTLIGHT

Dick Van Alstyne

Dick Van Alstyne is truly *A Man for All Seasons.* For five years now whether it is summer, spring, winter or fall nearly everyday you can find Dick in the Gardens doing the jobs most of us avoid. He has single-handedly waged a war on our most invasive weeds. Without a thought as to how large the job was, he thoroughly removed and has kept under control the Himalayan Blackberry on the entire 47 acres of the garden. In the new North Forest area he spent hundreds of hours clearing brush, burning slash and cutting wood. After working with Dick a few times, many court referrals ask to work in another part of the Garden, complaining "that old guy works too hard, I can't keep up".

Born and raised in Chico, Dick is a retired alfalfa farmer from Live Oak in the Sacramento Valley. He and Florence, his wife of over 48 years, have raised two sons. After retirement in 1990 he started doing volunteer work for the Nature Conservancy, National Forest Service and California State Parks. When he moved to the Mendocino coast for a change of climate he came to work at the Gardens (to our great benefit).

Dick was presented with his Lifetime Membership award at the volunteer party last December.

500 hours of volunteer time is needed for a lifetime membership. No-one has recorded exactly how many hours Dick has accumulated, but he has worked more than 500 hours each year he has worked at the Gardens. Without all his hard work the Mendocino Coast Botanical Gardens would not be the beautiful place we all know and love. Thank you Dick, for being our *Man for All Seasons.*

Ed Rose

NEW VOLUNTEER PROGRAMS

This coming year two new volunteer opportunities will be available at the Gardens. The first is a roving docent program. Docents will roam the gardens answering questions and talking with the guests in an informal manner. This will require a minimal amount of training, and handbooks with general information and commonly asked questions will be provided. The Roving Docents are not expected to be botanical experts, just informed volunteers who like to talk with the visitors in the Gardens.

The other program is a newsletter staff. We will be looking for people who have experience with editing, proofreading, formatting, and publishing newsletters *(or would like to learn). Other jobs that* are less demanding are helping with labeling and bulk mailings. There will also be chances to gather photographs and artwork for many of the articles. The staff will be putting out two newsletters a year. With the right group of people this should be a fun and rewarding job.

Both of these new programs are designed to be enjoyable with the least amount of stress possible. If you are interested or would like more information please contact the Volunteer Coordinator at (707) 964-4352 or stop in and say "hi" the next time you visit the Gardens.

Ed Rose

Mailed Letter P-164

Response to Comment
A desire for increased emphasis on the control invasive species using every appropriate “scientifically approved method” is noted. The ADFFMP places a high priority on controlling invasive species and provides the flexibility needed for managers to address this issue. The Management Plan includes as part of Goal 2 the objective to minimize the influence of invasive exotic plants and animals.

P-166

RECEIVED BY
FEB 23 2006
BOARD OF FORESTRY
AND FIRE PROTECTION

2-2-06

Dear Mr. Gentry:

Thank you for contacting me regarding the Comment Period for the Jackson Demonstration Forest Management Plan Draft EIR (SCH #2004022025)

I will keep my comment very simple.

1.) Please preserve as much of the forest as you can to safeguard watersheds, prevent damaging erosion, and

Hemp / Recycled Blend. U.S. Milled.

encourage healthy habitat for fish, birds and mammals.

2.) If logging is allowed in part of the forest please make sure it is logged sustainably.

Thank you very much for listening!

Elinor Taylor

Elinor Taylor
1311 Herbazal St.
Sonoma, CA 95476

Mailed Letter P-166

Response to Comment 1
Desire for a preservation oriented management approach noted. Please see General Response 2, 11 and 12. A detailed discussion of landslides and erosion, including management goals, proposed management actions, potential impacts, and mitigation measures, can be found in section VII.7 of the DEIR. As part of the management plan special concern areas were identified, including those areas at high risk of slope failure. Implementation of a Road Management Plan (see General Response 13) and Hillslope Management to provide for slope stability, including input from a Certified Engineering Geologist, will be utilized to reduce the risk of management related adverse impacts associated with landslides and surface erosion.

Response to Comment 2
All timberland properties greater than 50,000 acres, including Jackson Demonstration State Forest, are required to develop a 100 year sustained yield plan in order to harvest timber. CAL FIRE has consistently harvested well below growth, resulting in an ever increasing inventory on the Forest. The Board supports a balanced, multiple use concept that provides high levels of resource protection and sustained production of high quality timber products. The ADFFMP has placed greater emphasis on protection and restoration, with the goal of improving resource values over time in comparison to existing conditions.

P-167

R. Edward Burton

EBC COMPANY
"POLLUTION INTO PRODUCTS"

707-459-6219
Fax: 707-459-6210

February 21, 2006

Board of Forestry & Fire Protection
George Gentry, Executive Officer
P.O. Box 944246
Sacramento, Ca.94244-2460

RECEIVED BY
FEB 23 2006
BOARD OF FORESTRY
AND FIRE PROTECTION

Dear Mr. Gentry,

Professor Fritz was working to create Jackson State Forest while I was studying under him for my MS in Forestry in 1949-50.

Since then I have carried on several research-demonstrations projects, like the one described by my paper in Biomass Energy Development (Plenam Press 1986) enclosed.

Also enclosed is my current Willits News column on Ethanol and Cellulostic E85. My next column will describe how small villages (30 homes, 100 people) can live along the railroad. They can Telecommute while quietly harvesting Smallwood (brush, limbs and crowded small trees) using electric vehicles with Inverters to power electric chainsaws.

The bundled Smallwood will be brought to the railroad over four-foot wide roads like the one we built near Parlin Forest on JSF and described in my paper.

I have not read all of the plans bit it does not appear to me that I could again carry out a similar research program, without an expensive and time consuming review and THP.

The cost of oil dropped to $10./ barrel in the 1990's, today it is around $60./barrel and the end of oil awfully close.

Wood, wind and PV Solar will soon be the cheapest most reliable energy available in our region and state.

Sincerely,

R. Edward Burton
EBC Company

cc: Phillip Lowell, RPF , Santa Rosa

222 Franklin Avenue • Willits, California 95490

Mailed Letter P-167

Response to Comment
Comments do not relate directly to the EIR. The California Forest Practice Rules determine the need for a THP.

The finalized plan will emphasize the research and demonstration mission of the state forest. There may be opportunities for future demonstrations to be conducted supported by the appropriate environmental analysis. The Board supports a balanced, multiple use concept that provides high levels of resource protection and sustained production of high quality timber products.

February 16, 2006 P-168

STATE BOARD OF FORESTRY AND FIRE PROTECTION
P.O. BOX 944246
SACRAMENTO, CA 94244-2460

Stan L. Dixon, Chair
Mark Bosetti
Kirk Marckwald, Vice Chair
David Nawi
Gary Rynearson
Ron Nehring
Pam Giacomini
James Ostrowski
Bruce Saito

RECEIVED BY
FEB 24 2006
BOARD OF FORESTRY
AND FIRE PROTECTION

1 The California Board of Forestry want to issue a permit to allow logging in Jackson State Forest. The State's argument seems to be that this area is previously logged second growth, therefore it isn't worth restoring. To me (I live in Oakland) this is like saying we should log Redwood Regional Park (a previously logged second growth area located in Oakland). If that were proposed, damn near the whole population of Alameda County would turn out against it. I want to see Jackson State Forest be turned into a state park and be allowed to grow into a redwood forest that my grandchildren can enjoy- I want them to be able to say my grandpa helped save this park.

FL 2 I strongly oppose the proposed management plan for Jackson State Forest. I oppose the plan's clearcutting, large-scale commercial logging, cutting of the oldest second-growth stands, inadequate stream protection, herbicide use, and lack of a plan to expand recreation. I personally want Jackson State restored to an old growth redwood forest for habitat, recreation, education and research.

I oppose approval of the draft environmental document (Draft EIR). It fails to consider the restoration alternative that I favor. The closest alternative, Alternative E, promotes restoration of old growth, but it fails to commit funds to repair or decommission the hundreds of miles of road that are pouring sediment into salmon streams, nor does it provide for actively restoring salmon habit or expanding recreation opportunities.

Paul Tumolo
408 Taurus Ave.
Oakland, CA

Mailed Letter P-168

Response to Comment 1
Please see General Comment 2. CAL FIRE has been actively managing this forest for approximately 60 years under the Legislative mandate for the "purpose of demonstrating economical forest management". Part of that management included restoring the forest from a largely cut-over industrial property to a well stocked young forest.

JDSF is not a park. The legislative mandate precludes the conversion of any of the state forests into parks. As demonstrated by the previous 60 years, active forest management, including the harvest of timber, can result in improved resource values over time. Many comments have noted the beauty of present-day JDSF.

Please see also response to Form Letter 2.

P-169

2-22-06

TO WHOM IT MAY CONCERN

I LIVE IN CLEONE AND OWN 15 ACRES OF REDWOOD FOREST. I HAVE LOGGED MY PROPERTY 3 TIMES. YOU COULD NOT TELL THAT I LOGGED IT THOUGH. I BELIEVE THAT THE JACKSON STATE FOREST SHOULD HAVE AN ACTIVE TIMBER HARVEST. WHEN WE LOGGED OUR PROPERTY THE SECOND TIME, WE HAD BYRON FALES COME WITH HIS HUGE SLASH FOREST MACHINE. IT DID A BEAUTIFUL JOB TURNING THE SLASH INTO A MULCH. PLEASE CONTINUE TO LOG AND MAINTAIN THE JACKSON STATE FOREST. THE STATE NEEDS THE MONEY. THE WOOD PRODUCTS SHOULD ALSO BE MILLED AT PARLIN FORKS AND CHAMBERLAIN CREEK CAMPS.

RECEIVED BY
FEB 24 2006
BOARD OF FORESTRY AND FIRE PROTECTION

THANK YOU

KEVIN BERG
32010 QBAYLEY DRIVE
FORT BRAGG, CA

Kevin Berg

K. BERG

Mailed Letter P-169

Response to Comment
Desire to retain logging and maintenance of JDSF noted. The finalized plan will emphasize the research and demonstration mission of the state forest. The Board supports a balanced, multiple use concept that provides high levels of resource protection and sustained production of high quality timber products.

Parlin Fork and Chamberlain Creek camp do not have the capacity to mill all of the wood products developed from JDSF. They will continue to provide limited production of primary and secondary wood products.

Mr Heinz Dullinger
PO Box 94
Redwood Vly, Ca 95470-0094

P-170

Feb. 21. 06

RECEIVED BY
FEB 24 2006
BOARD OF FORESTRY
AND FIRE PROTECTION

To the Board of Forestry
Att. George Gentry
Regarding Jackson State Forest.

Dear Sir

Here in Mendocino County we love the Jackson State Forest and we stops in on our way to the Coast.

1 We feel strongly opposed to a 30 % clear cut
2 within a management plan to subsidize the
3,4 timber industry. Old growth and second growth Redwood stands are a national inherid treasure.
5 They provide habitat, recreation, education and resurch for the public on their land.
6 Modern fireproof buildings are build with steel, glas, concrete, cable and tile.
7 In the past this forest had to indure much destruction land slides, errosion and bad blood in the community

Please help planning for a sustainable future

Thank you

Ike Heinz Dullinger

Mailed Letter P-170

Response to Comment 1
Please see General Response 10. The finalized plan will include reduction in the use of even-age management and clearcutting, a reduction in the planned timber harvest level, an increase in the area dedicated to development of late-seral forest conditions, and a management emphasis on research, demonstration and education.

Response to Comment 2
The comment provides no supporting information on the claim that harvesting on JDSF provides a subsidy for the timber industry. All sales greater than 100,000 board feet and/or $10,000 in value are required to be sold through a bid process to ensure that the State receives fair market value. The sale of timber will result in both direct and indirect timber related employment.

Response to Comment 3
See General Response 8.

Response to Comment 4
See General Response 9.

Response to Comment 5
See General Response 2, 11, 12, and 14.

Response to Comment 6
The comment does not relate directly to the EIR. The alternative building materials listed are not without environmental impacts (see page DEIR.VII.16-3).

Response to Comment 7
A detailed discussion of landslides and erosion, including management goals, proposed management actions, potential impacts, and mitigation measures, can be found in section VII.7 of the DEIR. As part of the management plan special concern areas were identified, including those areas at high risk of slope failure. Implementation of a Road Management Plan (see General Response 13) and Hillslope Management to provide for slope stability, including input from a Certified Engineering Geologist, will be utilized to reduce the risk of management related adverse impacts associated with landslides and surface erosion.

P171

PAUL V. CARROLL
Attorney at Law
5 Manor Place
Menlo Park, California 94025
telephone (650) 322-5652
facsimile (same)

RECEIVED BY
MAR 1 - 2006
BOARD OF FORESTRY
AND FIRE PROTECTION

February 28, 2006

George Gentry, Executive Director
California Board of Forestry
1416 9th Street
Sacramento, CA 95814

Re: Draft EIR for Jackson Demonstration State Forest Draft Management Plan

Dear Mr. Gentry and Members of the Board:

I write on behalf of Dharma Cloud Charitable Trust Foundation, The Campaign to Restore Jackson Redwood State Forest, and the public they represent regarding the Jackson Demonstration State Forest Management Plan and its draft EIR.

The Draft EIR Fails to Consider a Range of Feasible Alternatives

1 A draft EIR is required to consider a range of reasonable alternatives. A reasonable alternative has two requirements: it must be (1) feasible and (2) less damaging than the project as proposed. (CEQA Guidelines, § 15126.6, subds. (a), (f).) The draft EIR fails to consider a range of feasible alternatives.

2 The draft purports to consider seven alternatives. Alternative A is the no project alternative. It is required in every EIR. It is not considered part of the range of reasonable alternatives because it cannot satisfy the basic objectives of the project proponent. Instead, it is used as a baseline for measuring impacts. Alternative B

3 is management under the 1983 management plan. This alternative is not feasible because CDF and the Board entered into a settlement agreeing not to manage JDSF under the 1983 management plan. Alternative C is the present project,

4 management under the 2002 management plan. It is not an alternative.

5 Alternative C2 is a variation on C1 and is purportedly feasible. Alternative D is management towards an all–age forest and is purportedly feasible. Alternative E is deemed infeasible by the draft EIR because it is not consistent with the Public Resources Code or Board policy. Alternative F is deemed infeasible by the EIR, because it too is not consistent with the Public Resources Code or Board policy. (1:7-9; VI:8-13.)

Thus, not including the project itself and the no-project alternative, only two feasible alternatives are considered, C2 and D. Two alternatives do not constitute a "range" no matter how broadly that term is construed. This is particularly the case for a project of this size and scope.

5 The EIR purports to rationalize this violation by contending that elements of alternatives E and F, even though infeasible, "are useful for how they offer potential ways to mitigate forest management impacts." (VI:12.) But this is true of many infeasible alternatives, including the no-project alternative. They can embody ways or mitigations to avoid a project's impacts. CEQA, however, requires that alternatives be feasible, because only a feasible alternative provides the decisionmaker and the public with a *real* alternative to the proposed project. Only a feasible alternative satisfies CEQA's goals of informed decisionmaking and public participation.

Under CEQA, an EIR must identify the environmentally superior alternative. Here, the EIR picks alternative E, which is not feasible. This too violates CEQA.
6 A non-feasible superior alternative thwarts the goals of informed decisionmaking and public participation.

Finally, the draft EIR states that the no project alternative "is not required for
7 analysis since it does not meet the project goals and objectives." (VI-9.) This is incorrect as a matter law. CEQA in fact requires an in-depth analysis of the no project alternative. (CEQA Guidelines, § 15126.6, subd. (e)(1)-(2).)

8 In short, the EIR's failures to consider a range of feasible alternatives, to identify a feasible superior alternative, and to analyze the no project alternative are fundamental violations of CEQA.

The Draft EIR Fails to Recognize that an Effect that Delays Recovery Is a Cumulative Impact

The draft EIR appears to take the position that any incremental impact from ongoing timber operations will be offset by various restoration measures, such as the road management plan. Take for example cumulative watershed effects from
9 sedimentation. The draft EIR does not assert that logging under the modern Forest Practice Rules altogether eliminates sedimentation in streams and waterways. Indeed, even the various Casper Creek studies on which the draft EIR so often relies make clear that logging has impacts, albeit some that are lessened under the modern Forest Practice Rules. (E.g., Lewis, 1998; Reid, 1998.) Instead, the draft EIR appears to reason that sediment delivery from future timber operations will be offset by other measures like road restoration that are designed to eliminate ongoing sources of sedimentation. When everything is added up, so the reasoning

goes, the amount of sediment that is eliminated through restoration will exceed the amount that future timber operations produce. Thus, the draft EIR concludes that timber operations will not have a cumulative impact. (E.g., VIII:58.) (This same reasoning is applied to a variety of cumulative effects, including water temperature (VIII:45) and fisheries habitat. (VIII:82.))

There is a major flaw in this reasoning, because it ignores that ongoing timber operations will necessarily *delay* recovery. Assuming the draft EIR is correct—that restoration projects will reduce sedimentation by more than that produced by timber harvests—timber harvesting, because it still produces sedimentation, will delay recovery. Under CEQA, a project that delays recovery has a significant adverse impact, or at least a cumulative one, because it continues past environmental harm longer than necessary.

9

By way of illustration, imagine that someone has had a heart attack. His doctor advises him that if he does not smoke his recovery will take one year. If he smokes one-half pack a day, his recovery will take two years; a pack a day, three years; a pack and one-half, four years; and so on. No one would deny that smoking will have an adverse impact by delaying his recovery.

This same holds true here. Timber operations, because they will have some sedimentation (and other) effects even with the mitigations required by the Forest Practice Rules, will delay recovery. The draft EIR fails to acknowledge that a delay in recovery caused by timber operations is a significant cumulative impact. The draft EIR's conclusion that the project will not have cumulative impacts is therefore incorrect both as a matter of fact and law.

The Road Management Plan and Other Mitigations

The road management plan is an essential mitigation for the project. It is discussed throughout the draft EIR as a mitigation for a wide range of project impacts relating to hydrology, water quality, fisheries, sedimentation, landslides, and soils. (E.g., VII:6:1:92-94; VII:10:18-19; VII:7:31-32.)

10

At the same time, it is not clear from the EIR or the JDSF management plan whether the road plan is contingent on the availability of funding, or staff, or contractors, or a combination thereof. (See VII:6:1-97.) Please clarify and explain whether the road management plan and any other mitigations are contingent on funding or other factors that may not materialize. If so, they do not constitute valid, feasible mitigations.

11 **The Draft EIR's Conclusion that The FPRs Will Mitigate All Cumulative Impacts Is Not Supported by Scientific Evidence**

12 The draft EIR assumes that the Forest Practice Rules are adequate to protect the environment. In numerous places, it states that the FPRs will mitigate significant impacts of the project. It also implies as much when it contends that the FPRs plus additional mitigations like the road management plan will combine to have a beneficial effect on the environment.

13 The problem with this reasoning is that the draft EIR does not provide scientific evidence that the FPRs are reducing impacts to a level of insignificance, especially cumulative impacts. The draft EIR frequently cites to the Casper Creek studies, but those studies do not show that the modern FPRs reduce impacts to a level of insignificance. Far from it. Although the Casper Creek studies show that many impacts are lessened by the modern FPRs, they do not suggest, let alone conclude, that the modern FPRs eliminate *all* impacts. (E.g., Lewis, 1998; Reid, 1998.)

14 On the other hand, there have been at least three recent, comprehensive studies by independent scientific panels that have concluded that the modern Forest Practice Rules fail to prevent cumulative impacts, especially regarding water quality and fisheries, namely *Report of the Scientific Review Panel on California Forest Practice Rules and Salmonid Habitat* (Ligon et al., 1999); *A Scientific Basis for the Prediction of Cumulative Watershed Effects* (Dunne et al., 2001); *Final Report and Phase II Report on Sediment Impairment and Effects on Beneficial Uses of the Elk River and Stitz, Bear, Jordan and Freshwater Creeks* (Collison et al., 2002-2003). The three reports were all commissioned by California agencies, namely the California Resources Agency (Ligon et al., 1999), CDF (Dunne et al., 2001), and the North Coast Regional Water Quality Control Board (Collison et al., 2002-2003). The first two of these studies were relied on by the California Senate Office of Research in its 2002 report, *Forest Practice Rules Fail to Adequately Address Water Quality and Endangered Species.* These studies and report are attached.

15 These studies constitute substantial evidence that the FPRs fail to prevent cumulative impacts. In short, they contradict one of the basic premises of the draft EIR. More importantly, the EIR does not address the studies, nor does it offer comparable evidence to counter them. It does not, for example, provide any scientific studies, measurements, or quantitative analyses that show that the FPRs alone or in combination with additional mitigations eliminate potential significant and cumulative impacts. The EIR's conclusions appear based on assumptions rather than scientific evidence.

In short, the draft EIR does not provide concrete evidence to support its claim that the FPRs alone or in combination with other mitigations will *totally eliminate* the

15 adverse effects of logging in JDSF. This lack of evidence is especially troubling in light of the fact that every major, independent study of the FPRs has found them inadequate to control cumulative impacts.

16 Please respond to this concern, including the conclusions of Ligon, Dunne, and Collison. Please also describe the actual, scientific evidence that supports the draft EIR's conclusion that logging in JDSF will not have a single cumulative or other adverse impact.

Very truly yours,

Paul V. Carroll

5

Mailed Letter P-171

Response to Comment 1
In February 2004, the Board distributed a Notice of Preparation (NOP) for the Draft Forest Management Plan (DFMP). The NOP described the proposed project as well as six alternatives to the project, including two "no project" alternatives. These alternatives (with the addition of Alternative F) were nearly identical to the alternatives that were analyzed in the Final EIR certified by CAL FIRE in 2002. It is the Board's belief that the alternatives, as described, are feasible and cover a broad range of possible management scenarios. However, some elements of some alternatives may require a change in statutes, regulations, or Board policy before they could be implemented. In response to comments received on the DEIR and DFMP, the Board later developed Alternative G and released a Recirculated Draft EIR (RDEIR) that assessed that alternative's potential environmental impacts. The Board later directed that the Department use Alternative G as the basis for the development of the Administrative Draft Final Forest Management Plan (ADFFMP).

Response to Comment 2
Alternative A is the traditional "no project" scenario required by CEQA where the project is not approved (the Plan is not adopted) and no further environmental changes occur [CCR 15126.6(e)(3)(B)]. While curtailing active forest management does not meet the Board's objectives, Alternative A is entirely feasible and discloses the environmental consequences of no management. Alternative A could become reality through further delay in approval of a final management plan, lack of funding for continued operations, or through changes in management direction resulting from legislation or litigation.

Response to Comment 3
The 1983 Management Plan ***is*** the plan under which management has continued to occur in the absence of a new Plan. Management of JDSF under the 1983 Plan will continue until a new plan is adopted by the Board. Thus, it is a feasible though less desirable alternative to meet management goals.

The CEQA Guidelines [CCR 15126.6(e)(3)(A)] require an EIR to consider a "no project" alternative which discloses the impacts of continued management under an existing plan. While the alternative is "infeasible" in the sense that it is precluded by Board policy and the settlement agreement, it is still an alternative to the Plan that is useful in disclosing the environmental consequences of continuing current management practices. The only element of the 1983 Plan which is not implemented at present is commercial timber harvest.

Response to Comment 4
Comment Noted – The Board concurs that the Proposed Project is not an alternative.

Response to Comment 5
The Board's intent in stating that these alternatives were not feasible was full disclosure; making it clear that in order for these alternatives to become a reality changes would be required in Board policy and/or legislation (Draft Environmental Impact Report (DEIR) wording was, "Thus absent changes to those legal mandates, it is not a [wholly] feasible alternative"; page VI-12 and 13). Changes in policy and legislation are not so remote or speculative as to make these alternatives infeasible for CEQA alternatives analysis purposes. In fact, changes in Board policy relating to updating State Forest management plans occurred as recently as 2001. And, the management described under Alternative F is in large part the direct result of legislation that was put forth under SB1648 (Chesbro) in 2003-2004 to change the management direction of JDSF. In addition, only portions of these alternatives could not be implemented immediately. It is the Board's opinion that, were either of these alternatives adopted, the alternative could be successfully implemented with the necessary changes in state law and Board policy.

The Board agrees that the terminology “not a [wholly] feasible alternative”, for alternatives that were not immediately implementable without changes in Board policies or legislation was imprecise. This language was modified in the Recirculated Draft Environmental Impact Report.

Response to Comment 6
It is the Board’s opinion that alternative E is feasible and therefore appropriate for identification as the environmentally superior alternative as required by CEQA [CCR §15126.6(e)(2)]. See also the response to Comment 5.

Response to Comment 7
This was an unfortunate misinterpretation of the statement in the DEIR in regard to Alternative A (no project). The Board interprets CCR §15126.6(e)(3) to allow two variations of the “no project” alternative: one being the Board not adopting a Plan and all forest operations ceasing (no management); the second being the continuation of forest operations under the existing Plan (maintaining the status quo). It is the Board’s belief that the second variant is most applicable in the current situation where the Board is considering the adoption of an update to the 1983 Plan and considered the impacts associated with management continuing under the old Plan. However, the Board also recognized that some members of the public were interested in an analysis that considered the impacts of “no management” occurring and therefore analyzed a second “no project” alternative. It is the second “no project” alternative, Alternative A, that the Board stated was “not required” because “no management” at JDSF did not meet any of the Plan’s goals or objectives. It believed that the analysis of Alternative B was sufficient for CEQA purposes but included Alternative A nevertheless. The Board fully recognizes the requirement to analyze a no project alternative and has, for the purpose of full disclosure, chosen to analyze both.

Response to Comment 8
See responses to the above comments.

Response to Comment 9
The commenter states that a project that delays the recovery of a resource (e.g., water temperature, sediment, and habitat) is a cumulative impact. In fact, this comment really opines that recovery is not fast enough, but provides no guidance as to what an acceptable rate of recovery would be. However, the commenter does not provide any measure as to what degree of delay leads to a cumulative impact; only that **any** delay is a cumulative impact. CEQA does not require or provide any guideline to address “delay of recovery.” The Board does not believe that the DEIR, DFMP, RDEIR, or ADFFMP delay recovery of any resource to any significant degree and, in fact, implementation of certain measures actually enhances recovery (e.g., the Accelerated Road Management Plan, management of Class I/II WLPZs for late seral conditions, providing for large woody debris recruitment and placement, provisions for management of one-third of the Forest for the development of older forest conditions). The decision as to what rate of recovery is legally sufficient must be based upon substantial evidence in the record, evidence upon which the Board has relied in determining what mitigation measures and management practices to implement.

In addition, the commenter suggests that CEQA requires that a project cannot have any potential significant effects. However, where those potential impacts have been mitigated, CEQA allows the decision maker to determine, based upon substantial evidence, that the potential impacts have been mitigated to a level of insignificance. Lead agencies approve projects that may potentially contribute to an environmental effect by adopting mitigation that limits, reduces or compensates that effect to a level of insignificance. Mitigation may be implemented at a later time or in a different location from the significant effect and may even include measures that are unrelated to the original activity causing the effect. The suggestion that one area of the Board’s Plan (i.e., timber harvesting) cannot have any effect on resource recovery, despite the Plan containing numerous elements that promote recovery (e.g., the Road Management Plan) which overwhelmingly mitigate the effect, is clearly contrary to the fundamentals of CEQA (see Response to Comment 15, below). The project must be viewed as a whole.

The DEIR demonstrates that implementation of the DFMP, as mitigated, will have a less than significant impact. In some cases a project may create beneficial effects on the environment as compared with the "no project" alternatives. In other words, the net effect of carrying out the activities proposed under the Plan (e.g., research and demonstration, timber management, recreation) in combination with implementing various restoration measures (e.g., the accelerated Road Management Plan) will not create a significant adverse impact greater than the baseline condition. Where the proposed project (Alternative C1) has a less than significant effect after mitigation as compared with the no project alternative (in this case two no project alternatives) the lead agency has complied with CEQA.

The commenter argues that any logging authorized under an adopted Plan will produce sediment that will, in part, negate the benefits of any restoration projects (e.g., the Accelerated Road Management Plan), thereby delaying recovery. He may be correct that restoration without timber harvests might accelerate recovery. However, restoration activities are statutorily funded through approved timber operations. Alternative A (the no logging alternative) does not include the restoration proposed in some of the other alternatives. The Board has not analyzed an alternative that includes restoration alone; in fact, alternatives similar to this were rejected by the Board as being infeasible (since there would be no funding to support restoration without some commercial logging) and for not meeting the project's basic goals and objectives, as well as not meeting the statutory obligation to sustainably harvest (DEIR page VI-3). CEQA does not require a lead agency to analyze or adopt a project alternative that is infeasible or does not meet any of the project proponent's basic objectives (CCR §15126.6). In other words, the commenter's suggestion that restoration measures should be carried out while timber management is prohibited would be a project alternative that failed the CEQA requirement that it be both feasible and achieve the desired objectives.

Response to Comment 10

Because it is a State program, all activities on Jackson Demonstration State Forest (JDSF) are subject to the annual budgets provided for its management through the legislative budget process. In the budget cycle for the 2006/07 fiscal year, the legislature sent several signals that it is supportive of increased management activities, such as the Road Management Plan, on JDSF, as well as the other Demonstration State Forests. These legislative signals include:

- Permanent shifting of a number of CAL FIRE programs (State Nurseries and Seedbank, Forestry Assistance, Pest Management, Urban Forestry, and the Fire and Resource Assessment Program) from the Forest Resources Improvement Fund (FRIF--the repository for state forest timber revenues) to the General Fund. Only the Demonstration State Forests remain under FRIF funding. This step will ensure that higher revenue levels are available to support JDSF, as well as the other Demonstration State Forests.
- Increasing, at the request of CAL FIRE, the level of the authorized Demonstration State Forests budget level from $3.2 million in fiscal year 2005/06 to $7.1 million in fiscal year 2006/07. This level of budget authorization continues in the current, 2007/08 fiscal year.

CAL FIRE's fiscal year 2006/07 $7.1 million budget authority included an increase in funding to JDSF to $3.5 million, a $2 million increase from the 2005/06 funding level. Included in this $3.5 million budget authority was $640,000 for initial implementation of the Road Management Program. The increased budget authority also included the addition of a senior wildlife biologist to the JDSF staff, and this staff person is now in place. A second heavy equipment operator also has recently been added to the JDSF staff, providing an additional staff resource for the implementation of the Road Management Plan.

These actions indicate that both the legislature and CAL FIRE are committed to ensuring that JDSF has the resources it needs to move forward with the implementation of the program elements called for in the DFMP, the Additional Management Measures identified in the DEIR, the mitigations required in the DEIR, and the further management direction provided by the RDEIR and ADFFMP.

Additionally, we note that for JDSF to be able to operate at the level of funding discussed above, revenues from timber harvesting on JDSF must be generated.

Response to Comment 11
The DEIR makes no conclusion that the Forest Practice Rules "will mitigate all cumulative impacts." The DFMP includes a number of management measures that exceed the Forest Practice Rules requirements to provide additional environmental protection (e.g., the Road Management Plan, management of Class I and II watercourse and lake protection zones for late successional forest). Additional management measures and mitigation measures to enhance environmental protection were included in the DEIR. Alternative G and the ADFFMP provide a greater range yet of measures beyond the Forest Practice Rules to protect and enhance environmental conditions (e.g., designating one-third of the Forest for the development of older forest conditions).

The cumulative impacts assessment in the Draft EIR and DFMP relied upon the results of two approaches widely accepted as being the best available techniques for addressing cumulative effects. Watershed analysis has been used as a defensible methodology for assessing cumulative watershed effects (CWEs) — particularly when landscape level assessments are being completed. For example, Berg and others (1996) concluded that watershed analysis is the best approach to address CWEs in the Sierra Nevada Mountains. The results of watershed analysis are used to identify the locations of high-risk areas and develop appropriate prescriptions for those areas on a watershed-wide basis. Rapid sediment budgets have come to the forefront of CWE assessment in the past decade. Sediment budgeting is a valuable tool for evaluating sediment sources and transport that can be used in CWE analysis (Reid and Dunne 1996). If roads, landings, and crossings are found to be a significant and ongoing sediment source, a road and crossing inventory can be completed, and a program can be developed to reduce the number of high risk sites on a watershed-wide basis in an acceptable time frame to prevent or mitigate cumulative effects (Weaver 1997).

The JDSF watershed analysis was completed for a subset of the current JDSF EIR assessment area as part of the Draft HCP/SYP completed by Stillwater Sciences for CAL FIRE in 1999. Included within the watershed analysis was a rapid sediment budget, quantifying sediment sources within the assessment area. The sediment budget included estimates of hillslope erosion, sediment yield to channels, and changes in sediment storage within channels. Results from the surface erosion and mass wasting modules completed for the watershed analysis were used for this work. The results of the watershed analysis and rapid sediment budget work revealed that road-related erosion (surface and mass wasting) accounted for 72% of the total hillslope erosion. The remaining 28% of the hillslope erosion was associated with natural and management related sources (e.g., in-unit landslides) on hillslopes and inner gorges.

Cumulative sediment impacts from multiple land management activities can be controlled by regulating practices to reduce overall on-site impacts, by repairing existing problems to off-set the impacts of new projects, and by limiting the rate at which new, sediment producing activities are introduced into a watershed relative to recovery from earlier activities. The JDSF Draft Management Plan and DEIR use the results of the watershed analysis work to reduce cumulative impacts to a level of less than significant. Specifically, on-site impacts from individual and multiple projects will be reduced by a combination of the FPRs, added measures in the DFMP and DEIR, and site-specific measures added from Review Team agency plan review, as well as from pre-plan consultation with qualified experts. Repair of existing problems will be accomplished through the accelerated use of the Road Management Plan.

The rate of sediment production from new activities (i.e., from roads and harvest units) described in the DFMP is not expected to inhibit watershed recovery. The total amount of harvest-related sediment and the proportion of sediment production between harvest areas and roads varies depending on logging systems and road location, type, design, and use and with differences in planning watershed sensitivity. In general, there should be near recovery to original or new baseline sediment conditions within approximately 10-20 years following harvest. The hazard of sediment

production from permanent roads can be considered as constant after about 10 years, although actual amounts will vary by road type and storm size–with less frequent, episodic inputs associated with large storms. Higher rates of surface erosion and failures due to poor design or execution are most likely during the first few years following construction.

Data provided in Table VIII.10 of the DEIR shows that the intensity of future harvesting on JDSF in the next 10 years will be less than has been tested in the North Fork of Caspar Creek, where approximately 45% of the watershed was clearcut harvested in three years. Research conducted in the North Fork of Caspar Creek watershed beginning in 1985 directly addressed cumulative watershed effects. Most of the logged units were cable yarded and new roads were built along the ridge lines. Nested watersheds with individual gaging stations measured sediment routing. None of the statistical tests performed on the sediment data revealed significant positive interactions that would indicate disproportionate disturbance effects at downstream gaging stations (Lewis 1998). In both pre and post-treatment, main stem gaging stations had higher unit area sediment loads than in the tributaries, which could reflect the greater availability of sediment stored in lower gradient reaches. The intensive level of timber management in the North Fork of Caspar Creek watershed also did not cause large changes in watershed physical or biological variables in this moderately stable geologic formation (Ziemer 1998, Lewis 1998, Cafferata and Spittler 1998, Nakamoto 1998, Bottorff and Knight 1996). The Caspar Creek results show that downstream water quality impacts of hydrologic changes resulting from timber operations can be prevented by the application of mitigation measures contained in the California Forest Practice Rules.

Finally, it is important to remember that cumulative sediment impacts are further addressed in the DFMP and DEIR with monitoring. Both detailed hillslope and instream monitoring activities are required, as described in the DFMP. Monitoring will provide a feedback loop on impacts and needed changes in practices. Hillslope monitoring of completed THPs will be used to determine the on-the-ground implementation and effectiveness of prescriptions and mitigation measures. Modification of practices or harvest rates in planning watersheds will be based on monitoring results.

Response to Comment 12

Also see response to comment 11. As explained in Section II-6.1 of the DEIR, this is a programmatic EIR that analyzes the potential impacts of the general management direction taken in the DFMP. There are a wide variety of activities that may be carried out under this Plan and not all of them are subject to the Forest Practice Rules. However, discretionary projects will be subject to CEQA as well as other environmental regulations. Subsequent, site specific projects will undergo additional environmental review to determine which laws or regulations are applicable and what additional measures are required in order to mitigate project-specific impacts to a level of less than significant (see Table II.1; page II-13).

Where future timber harvesting occurs neither the EIR nor the Board “assume” that the FPRs alone will mitigate impacts to a level of less than significant. The THP process is not a simple application of the FPRs but rather a multidisciplinary review, including participation by agency experts and the public thereby ensuring all site specific timber harvesting impacts will be identified and mitigation developed. This is a level of site specific review that cannot occur at the programmatic level.

The DEIR does not conclude that use of the standard FPRs alone will mitigate all cumulative impacts. In addition to the standard FPRs, mitigation for cumulative impacts is provided by requirements included in the Draft Management Plan and the Road Management Plan, that will be implemented both as stand-alone projects and as part of future THPs, and by site specific requirements identified as part of the THP review process.

In addition, the DEIR has identified particular practices and sensitive resources where impacts may occur that are not addressed by the standard application of the FPRs. The DEIR requires additional mitigation to lessen those impacts. For example, the DEIR identifies a potential for impacts to snag and LWD dependant species as a result of implementing the DFMP. As such, mitigation is required, that is in addition to the standard FPRs, which mitigates this impact (Page VII.6.6-131). Even where

no potential impacts are identified, the DEIR requires additional Management Measures in certain instances to ensure protection of sensitive resources (i.e., Section VII.6.2.7, Additional Management Measures for Botanical Resources).

Response to Comment 13
See also responses to comments 11 and 12.

The DEIR does not pretend to analyze the efficacy of the FPRs. The efficacy of the FPRs is addressed in the Board's rule making process. FPRs that are found to be ineffective or inadequate in protecting resources may be amended by the Board. The Board, in analyzing potential timber harvesting that may occur under the DFMP, concludes that the FPRs and the THP review process will mitigate timber harvesting impacts, including cumulative impacts, in most cases. In site-specific cases where application of the standard FPRs is not sufficient to reduce certain impacts to a level of less than significant the RPF may propose and the THP review team may require additional measures. In addition, the Board has found that there are several site-specific instances where mitigation above that required by FPRs is warranted.

Response to Comment 14
The conclusions reported in the three listed independent scientific panels must be considered in proper context with the practices that will occur with implementation of the DFMP and DEIR. Specific comments on these reports are outlined below. As noted in responses to comments above, the DEIR does not conclude that the Forest Practice Rules alone are adequate to prevent cumulative impacts related to the proposed project.

<u>Scientific Review Panel Report (1999)</u>

While the report of the Scientific Review Panel (SRP) (Ligon and others 1999) concluded that the FPRs did not ensure protection of anadromous salmonid populations in 1999, the current rules in effect for JDSF have been considerably expanded with the passage of the July 2000 Threatened and Impaired Watersheds Rule Package. The Threatened and Impaired Watersheds Rule Package was developed partly in response to the Scientific Review Panel Report findings. These rules require extensive 150-foot Class I WLPZs (i.e., buffer strips), with little harvest permitted within the first 75 feet, where a high percentage of large wood is recruited to stream channels. Road and crossing measures also were improved, such as requiring crossings to accommodate 100-year flood flows, along with sediment and debris passage.

Additionally, numerous resource protection practices beyond those required by the Threatened and Impaired Rule Package are specified in the DFMP and DEIR. Further measures are applied under Alternative G and the ADFFMP. Therefore, it is not possible to conclude, based on the SRP report, that significant cumulative watershed impacts will occur as a result of the implementation of the DFMP or ADFFMP.

Furthermore, the Threatened and Impaired Rule Package provides a tangible mechanism to address cumulative watershed effects, since they require that the beneficial uses of water, aquatic species, and beneficial functions of riparian zones be restored where they are impaired (in so far as this is feasible). Both the Big and Noyo River watersheds are listed as impaired by the North Coast Regional Water Quality Control Board. Also, in a recent independent review of assessment of cumulative watershed effects within the timber harvest planning process, Gerstein and Harris (2003) stated that, regarding the Threatened and Impaired Rule Package, "…it is an indication that CAL FIRE recognizes that additional measures may be required to avoid cumulative watershed effects in some watersheds."

We note also that Ligon and others (1999, Executive Summary, p. 1) conclude that "The primary deficiency of the FPRs is the lack of a watershed analysis approach capable of assessing cumulative effects attributable to timber harvesting and other non-forestry activities on a watershed scale." In fact, the DEIR, and the data and materials it relies on, provide just such a watershed analysis

approach. Thus, the DEIR addresses the very defect that Ligon and others found most problematic with the FPRs.

A further element called for by Ligon and others (1999) is the development of a program to introduce LWD into streams. JDSF has already conducted several projects to introduce LWD to streams. Further, the DEIR provides for an Additional Management Measure for the Survey, Recruitment, and Placement of Large Woody Debris. This measure, along with all of the various streamside protection measures provided in the FPRs and DFMP, plus the DFMP direction to develop late successional forest in all of the Class I and II WLPZs on JDSF, will ensure that large woody debris loadings on JDSF are increased to at least the levels recommended in the literature by Bilby and Ward (1989).

In addition, Ligon and others (1999) recommended that geologists be used to conduct a broad review of properties and to review proposed activities for potential slope stability problems. Since the release of the SRP report, maps of existing landslide features and of relative landslide potential have been created by the California Geological Survey. Information from these CGS products are incorporated into the DEIR. Further, the DFMP calls for a certified engineering geologist to be involved in the review of all proposed land use projects on JDSF. The SRP report also called for the kinds of analysis and upgrades of roads and crossing that will be carried out under the Road Management Plan called for in the DFMP.

Finally, it is important to note that Ligon and others (1999) reported that a reasonable “red flag” percentage value for concern over rate of harvest would likely range from 30% to 50% per decade, but would depend on numerous factors including geology, harvest prescriptions, past disturbance, etc. The Panel suggested that a blue ribbon panel be formed to investigate this issue further, however this step has not yet been taken. The 30% to 50% rate of harvest per decade is what occurred in the North Fork of Caspar Creek Study, as described above, without large changes in watershed physical or biological variables. Perhaps more important, Ligon et al. indicated that watershed analysis, which has been included in the DEIR, provides a superior analytical approach to percent-of-area-harvested approaches.

Dunne and others Report (2001)

While the report of Dunn and others (2001) provides considerable commentary on perceived limitations with cumulative effect analysis included as part of THPs in the late 1990s, it suggests requirements to deal with cumulative watershed impacts that would require additional budgetary and regulatory authorities. Additionally, comprehensive computer models suggested for addressing cumulative watershed effects prediction were not, and have not yet, been developed for this type of work. In particular, adequate models do not yet exist for robust risk-based analysis that includes the simulation of stochastic events, as called for by Dunne and others.

At the same time, the DEIR makes use of a number of the cumulative assessment tools recommended by Dunne and others. These include:

- Utilization of SHALSTAB and similar landscape-level slope stability modeling, including the California Geological Survey’s map series on relative slope stability;
- Utilization of SEDMODL2 to predict production of sediment related to roads;
- Utilization of the Delta-Q peak flow model to predict stream flow responses to timber harvesting;
- Compiling comprehensive information on past land use activities at the planning watershed level, including potentially disturbing activities such as timber harvesting, as well as restoration activities such as road or stream habitat improvements;
- Utilization of a cumulative effects assessment area based on entire river basins (i.e., the Noyo and Big Rivers);
- Utilization of the California Wildlife Habitat Relationships system and the FRAGSTATS model for modeling potential wildlife impacts.

Collison and others (2003)

Conclusions included in the Collison and others (2003) report were made with the Panel apparently unaware of provisions in the Forest Practice Act and Rules that give CAL FIRE the ability to require and enforce practices that protect water quality. This report also includes criticism of Forest Practice Rule sections that are restatements of legislative intent in the Forest Practice Act and misconceptions about the THP review process, which indicates that the Panel did not have an adequate understanding of the legal framework for the preparation, review, and approval of THPs. Therefore, many of the criticisms found in Collison and others (2003) are already addressed in the existing THP process.

Response to Comment 15
The DEIR does not "claim" that the adverse effects of logging will be totally eliminated; nor does CEQA require such a standard. Lead agencies are required to identify feasible mitigations and/or project alternatives that would **substantially lessen** the potentially significant effects of a project on the environment (PRC §21002). The measure of whether an impact is significant is based upon a comparison of the project's direct and indirect physical changes, as mitigated, with the "baseline" conditions established in the environmental setting (CCR 15125). The DEIR Environmental Setting (Section V; and each Resource Specific Analysis section) describes an environment that has been significantly affected by past land use activities. Where adoption of the DFMP was found to have the potential to cause significant adverse impacts to the environment, the DEIR requires the implementation of various measures that mitigate those effects to less than significant levels, but does not necessarily eliminate the effect altogether. In some instances a residual, less than significant effect may remain; in others, the implementation of the project and/or mitigation would have a net beneficial effect on the environment.

In addition, not all mitigation prescribed under CEQA must prevent an effect altogether; rather, CEQA allows for mitigation that compensates for the effect (CCR §15370). In other words, the primary effect may occur but the net effect may be lessened or eliminated through the requirement that the project proponent take additional actions that compensate for, or offset, the effect (i.e., wetland mitigation banking model compensating for the loss of wetlands). For example, the DFMP and DEIR require the implementation of the Road Management Plan to reduce road impacts to water quality thereby, compensating for some of the minor residual unmitigated impacts associated with timber harvesting.

Response to Comment 16
See the responses to the above comments. The DEIR does not conclude that "logging in JDSF will not have a single cumulative or other adverse impact." The DEIR does conclude that the proposed project, as mitigated by the DEIR, will not have any **significant adverse** impacts. The DEIR provides substantial evidence to support this conclusion.

References

Berg, N.H., K.B. Roby, and B.J. McGurk. 1996. Cumulative watershed effects: Applicability of available methodologies to the Sierra Nevada. Pgs 39-78 in Vol III, Assessments, Commissioned Reports, and Background Information, Sierra Nevada Ecosystem Project, Final Report to Congress. Centers for Water and Wildland Resources, University of California, Davis CA.

Bilby, R.E.; Ward, J.W. 1989. Changes in characteristics and function of woody debris with increasing size of streams in western Washington. Transactions of the American Fisheries Society. 118: 368-378.

Bottorff, R.L.; Knight, A.W. 1996. The effects of clearcut logging on stream biology of the North Fork of Caspar Creek, Jackson Demonstration State Forest, Fort Bragg, CA -- 1986 to 1994. Unpubl. Final

Rept. prepared for the California Department of Forestry and Fire Protection, Contract No. 8CA63802. May 1996. Sacramento, CA. 177 p.

Cafferata, P.H. and T.E. Spittler. 1998. Logging impacts of the 1970's vs. the 1990's in the Caspar Creek watershed. In: Ziemer, R.R., technical coordinator. Proceedings from the Conference on Coastal Watersheds: the Caspar Creek Story, May 6, 1998, Ukiah, CA. General Tech. Rep. PSW GTR–168. Albany, CA: Pacific Southwest Research Station, Forest Service, U.S. Department of Agriculture. P. 103-115. http://www.rsl.psw.fs.fed.us/projects/water/caspar

Collison, A., W. Emmingham, F. Everest, W. Hanneberg, R. Martston, D. Tarboton, R. Twiss. 2003. Phase II Report: Independent Scientific Review Panel on Sediment Impairment and Effects on Beneficial Uses of the Elk River and Stitz, Bear, Jordan and Freshwater Creeks. Independent Science Review Panel performed analysis on retainer to the North Coast Regional water Quality Control Board, Santa Rosa, CA.

Dunne, T., J. Agee, S. Beissinger, W. Dietrich, D. Gray, M. Power, V. Resh, and K. Rodrigues. 2001. A scientific basis for the prediction of cumulative watershed effects. The University of California Committee on Cumulative Watershed Effects. University of California Wildland Resource Center Report No. 46. June 2001. 107 pp.

Gerstein, J. and R. Harris. 2003. Improving the assessment of cumulative watershed effects within the timber harvest planning process. Unpublished Final Report prepared for the California Department of Forestry and Fire Protection. Center for Forestry, University of California, Berkeley. 47 p.

Nakamoto, R. 1998. Effects of timber harvest on aquatic vertebrates and habitat in the North Fork Caspar Creek. *In:* Ziemer, Robert R., technical coordinator. Proceedings of the conference on coastal watersheds: the Caspar Creek story, 1998 May 6; Ukiah, CA. General Tech. Rep. PSW GTR-168. Albany, CA: Pacific Southwest Research Station, Forest Service, U.S. Department of Agriculture; 87-95.

Lewis, J. 1998. Evaluating the impacts of logging activities on erosion and sediment transport in the Caspar Creek watersheds. *In:* Ziemer, Robert R., technical coordinator. Proceedings of the conference on coastal watersheds: the Caspar Creek story, 1998 May 6; Ukiah, CA. General Tech. Rep. PSW GTR-168. Albany, CA: Pacific Southwest Research Station, Forest Service, U.S. Department of Agriculture; 55-69.

Ligon, F., A. Rich, G, Rynearson, D. Thornburgh, W. Trush. 1999. Report of the Scientific Review Panel on California Forest Practice Rules and Salmonid Habitat. Prepared for the Resources Agency of California and the National Marine Fisheries Service, Sacramento. 92 p. + 7 appendices.

Reid, L.M. and T. Dunne, 1996. Rapid Evaluation of Sediment Budgets. Reiskirchen: Germany, Catena Verlag (GeoEcology paperback), 164 p.

Weaver, W.E. 1997. Assessment and implementation techniques for controlling road related sediment sources. Unpublished Report prepared for the Second Watershed Academy, Santa Cruz, CA May 5-9, 1997. Pacific Watershed Associates, Arcata, CA. 29 p.

Ziemer, R.R. 1998. Flooding and stormflows. *In:* Ziemer, Robert R., technical coordinator. Proceedings of the conference on coastal watersheds: the Caspar Creek story, 1998 May 6; Ukiah, CA. General Tech. Rep. PSW GTR-168. Albany, CA: Pacific Southwest Research Station, Forest Service, U.S. Department of Agriculture; 15-24.

FROM :

FAX NO. :

Mar. 02 2006 07:26AM P1

P-172

March 2, 2006

To The Board of Forestry and Fire Protection,

I have been out of town and unable to review the Draft EIR (SCH ## 2004022025) and unaware of the March 1 comment deadline, so I understand if this note is not made part of the official response. But I must express my belief that clear cutting must stop, that the use of herbicides must stop, that we deserve to experience the life of a healthy forest. Sustainable management with mixed use is possible and wise.

Thank you for all your work.

Yours truly,

Sam Waldman
P.O. Box 49
Mendocino, Ca. 95460

RECEIVED BY

MAR 1 - 2006

BOARD OF FORESTRY
AND FIRE PROTECTION

Mailed Letter P-172

Response to Comment 1
Please see General Response 10.

Response to Comment 2
See General Response 7.

Response to Comment 3
See General Response 2. Sustainable, multiple use management of JDSF is the continuing goal of the Board and CAL FIRE.

P-173

State of California
CDF
re: Jackson State Forest
via 1-(916) 653-0989

RECEIVED BY
MAR 1 - 2006
BOARD OF FORESTRY
AND FIRE PROTECTION

March 1, 2006

Dear Sirs, Ms.,

1 If there was ever an opportunity to set an example of how to best follow the Intent Section of Z'Berg-Nejedly Forest Practices Act - this is it!!

2 Please support the decision of the Mendocino County Board of Supervisors.

Thank you —

Norman L. deVall
Mendocino County Board of Supervisors - Ret.
P.O. Box 3
Elk, California 95432

03/01/2006 16:25 7078952628 NORTH COUNTRY RE PAGE 01/01

Mailed Letter P-173

Response to Comment 1
The intent of the Z'berg-Nejedly Forest Practice Act is to create and maintain an effective and comprehensive system of regulation and use of all timberlands so as to assure that:
a) Where feasible, the productivity of the timberlands is restored, enhanced, and maintained.
b) The goal of maximum sustained production (MSP) of high quality timber products is achieved while giving consideration to values relating to recreation, watershed, wildlife, fisheries, regional economic vitality, employment, and aesthetic enjoyment.

The DEIR addresses each of the values listed above. One aspect of MSP is achieved in part by balancing growth and harvest over time. The ADFFMP calls for harvesting approximately 20 to 25 million board feet annually which is well below current growth. The goal of MSP has also been met by the extensive consideration given to recreation, watershed, wildlife, and fisheries resources.

Response to Comment 2
Support for the decision of the Mendocino County Board of Supervisors (Alternative D) noted. While the Board has carefully considered Alternative D and the wishes of the Mendocino County Supervisors, the management of JDSF is not based solely on their support. Alternative G was developed by blending the elements and management strategies of several Alternatives, including Alternative D. This alternative a reduction in the use of even-age management and clearcutting, a reduction in the planned timber harvest level, an increase in the area dedicated to development of late-seral forest conditions, an increase in resource protection and restoration measures, such as snag retention and LWD placement, and a management emphasis on research, demonstration and education. Please see also General Response 4.

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P-174

RECEIVED BY
MAR 1 - 2006
BOARD OF FORESTRY
AND FIRE PROTECTION

John Jay Ulloth
10609 COLUMBUS AVE, MISSION HILLS CA 91345-2009

February 28, 2006 03:52 PM

Members Board of Forestry
PO Box 944246
Sacramento, CA 94244-2460

Subject: Jackson State Forest

Dear Members Board of Forestry:

1 I very strongly oppose the ill-conceived, self-serving, lobbyist-generated proposed
2 management plan for Jackson State Forest. This forest has already been preserved but weasel-mouthed logging company shills have bribed their way in to getting the plan's clearcutting, large-scale commercial logging, cutting of the oldest second-growth stands, inadequate stream protection, herbicide use, and lack of a plan to expand recreation back onto the land-use agenda as a way to further bankrupt the public purse. Money has already been set aside for Jackson State
3 to be restored to an old growth redwood forest for habitat, recreation, education and research.

I also very strongly oppose approval of the draft environmental document (Draft EIR). Alternative E of the Draft EIR promotes restoration of old growth, but it fails to commit funds to
4 repair or decommission the hundreds of miles of road that are pouring sediment into salmon streams, nor does it provide for actively restoring salmon habit or expanding recreation opportunities. The Draft EIR is another example of the ill-conceived, self-serving, lobbyist-generated attack on the already preserved Jackson State Forest. The Draft EIR is more effluvia from weasel-mouthed logging company shills who have bribed their way in to getting the plan's
5 clearcutting, large-scale commercial logging, cutting of the oldest second-growth stands, inadequate stream protection, herbicide use, and lack of a plan to expand recreation back onto the land-use agenda as a way to further bankrupt the public purse.

Please carefully consider my specific comments immediately below:

SPECIAL NOTE ON ENDANGERED SPECIES AT JACKSON STATE FOREST

Marbled Murrelet activity near or in Jackson Demonstration State Forest ("JDSF") has
6 been noted by Cota and Papke (1994), Ralph et al. (1994), Georgia-Pacific SYP (G-P 1997), Camp Three THP (Jameson 1999), M. Jameson (pers. comm. 2002), & other interviews and reports.

AESTHETICS

7 The Proposed Alternative C1 would substantially degrade the existing visual character and quality of many sites at Jackson Demonstration State Forest ("JDSF"):

a. aesthetic mitigations under C1 are clearly inadequate -- not only is the 29% of the
8 forest planned for clearcutting / even-aged management clearly not mitigatable, but other widespread commercial logging including of mature stands cannot be mitigated.

Amazingly, on page VI-10, the Draft EIR has the nerve to say that in relation to Alt. C1, with limited exception, clearcutting is permitted only for research purposes. The Board must explain how razing a wildlife habitat to the ground could serve any legitimate scientific research.
9 This language is specific example of the ill-conceived, self-serving, lobbyist-generated attack on the already preserved Jackson State Forest. The people who created this language are weasel-mouthed logging company shills who have bribed their way in to getting the Draft EIR to get the plan's clearcutting ambitions onto the land-use agenda as a way to further bankrupt the public purse.

b. Page VII.2-12 "Thresholds of Concern" points out that the proposed project would have a significant impact on aesthetics if it "substantially degrades the existing visual character or quality of the site and its surroundings" -- and mentions that the guidance as to what
10 is considered significant is based on the California Environmental Quality Act (PRC Section 21001 and CEQA Guidelines).

c. a Registered Professional Forester must not be the point person in making
11 determinations as to whether a certain management activity has a significant impact on aesthetics.

d. the Draft Forest Management Plan for Jackson is correct on page VII.2-19 where it says that "Alternatives C2 through F contain more provisions than C1 for aesthetic
12 considerations. Alternatives D through F include little or no clearcutting or other imagined management and provide for greater levels of late seral forest development."

WESTERN PART of JACKSON FOREST

A. Despite the stupidity of having a special "clearcutting experiment" on the Caspar
13 Creek watershed in the latitudinal middle of the western portion of the Jackson forest (and the existence of a eucalyptus plantation in the area), still this portion of JDSF is quite important.

In the western portion, MANAGEMENT ACTIVITIES SHOULD BE MINIMIZED and recreation should not be encouraged because:

14 a. Rare plants at Jackson are concentrated here -- Special status plant species found in the western portion of JDSF include: Pygmy Manzanita, Bolander's Beach Pine, Swamp Harebell, California Sedge, Pygmy Cypress, Coast Lily, and Leafy-Stemmed Mitrewort. Though Appendix 7B-2 did not say where on the forests these occurred, since Running Pine likes moist micro sites and Long-Beard Lichen likes older second growth and old-growth, they could well

inhabit the western part of the Jackson forest (and perhaps mature or old-growth areas elsewhere on the forest). (Humboldt Milk-Vetch is also found at JDSF.)

b. Some mature forests exist here (plus some old-growth residuals are in the Russian
15 Gulch watershed in the state forest, besides more substantial old-growth groves in the state park further west);

16 c. The "special clearcutting" area at Caspar Creek has already caused enough damage in the west, and apparently this area cannot be guided by the management plan;

17 d. There should only be an increase in campgrounds in this area if some campgrounds at adjoining state park land are closed to try to avoid disturbing marbled murrelet nests nearby -- and if campgrounds are relocated, JDSF personnel should educate campers not to leave food scraps which attract corvids which eat murrelet chicks and eggs.

Management activities such as logging should be minimized in the western portion (as well as in Lower Big River, Brandon Gulch, West Chamberlain Creek watershed, east side of main stem of Chamberlain Creek, and other areas), while road-related activities should generally
18 pertain to decommissioning damaging and unneeded roads. Off-road vehicles must be halted from damaging riparian and other areas, plus should be controlled to stop the spread of invasive plants and so as not to run over and damage the aforementioned rare plant species which
19 especially favor the western part of the Jackson forest. And due to this area being adjacent to murrelet nesting habitat (while hopefully being allowed to mature further to accommodate some
20 murrelet nests in the future), hunting must be prohibited at least in this part of JDSF.

MATURE FORESTS

A. "Under "Scenic Attractiveness" on pages VII.2-3 and 2-4, it says that "Distinctive landscapes on JDSF with a high scenic attractiveness are:" -- the fifth bullet point is, "forested areas dominated by a high level of stocking of relatively large trees (The high levels of
21 forest stocking and higher percentages of relatively mature timber stands, as compared to commercial industrial forest ownerships within Mendocino County, provide aesthetic values for forest visitors who desire to recreate or travel within JDSF)." (This quote also pertains to the Aesthetics section above.)

B. Page VI-8 says that, "JDSF is not typical of other large forestland holdings in its maturing second-growth timber conditions, its ongoing research activities such as the Caspar
22 Creek Study, its old growth redwood and Douglas-fir groves, and its special facilities such as conservation camps."

C. In relation to relatively rare habitat types and a forested mosaic, page V-11 says, "Maintaining a forest mosaic that helps support the many species in the region is a goal for both
23 forest management and private forest demonstration. Habitat protection and restoration of

relatively rare habitat types is also an important element of forest management." Clearly, old-growth forests which are predominately redwood, some residual old-growth within a mature redwood forest, and almost mature redwood forests are all "relatively rare habitat types". That same page mentions that, "It can be assumed that most of the redwood forest in this region was once dominated by old-growth."

COAST REDWOOD ECOSYSTEM and MARBLED MURRELET RECOVERY

The draft documents try to downplay the role which Jackson Demonstration State Forest can play in recovering old-growth forest dependent species. This area is quite vital due to it being the largest contiguous publicly-owned land in coastal Mendocino County -- a county and part of the county devastated by corporate timberland clearcutting. Also, the 459 acres of old-growth groves are a start, and the 10,000 to 12,000 acres of mature forests are quite unique in the county and vital to recovery of watersheds and various species in this region.

Page V-12 of the Draft JDSF Mgt. Plan says, "JDSF and the surrounding forested area provides habitat for a number of listed and sensitive fish and wildlife species, including the Northern Spotted Owl, coho salmon, and steelhead. In addition, JDSF currently provides or may provide in the future, habitat for several listed or sensitive species that are not currently known to occur on the forest. These species include the Marbled Murrelet, Pacific fisher, and Humboldt marten. As such, the large block of publicly owned forestland that is JDSF, in conjunction with other parcels of public land in central Mendocino County, represents a valuable resource of potential reoccupancy and sustainability for at-risk wildlife species."

Finally, ending on a disturbing note which should be a bright-line red-flag to environmentalists, managers at JDSF and the BOF) to action is that the 5-Year Murrelet Status review (McShane et al. 2004) which assessed status and trends of Marbled Murrelet populations within each of U.S. Fish and Wildlife Service's 6 Recovery Zones. Page VII-6.6-74 says, "The Zone Model projected an extirpation probability of 100% within 40 years for Recovery Zones 5 and 6 with a 2% annual migration rate into the zone." That means that murrelets will be entirely gone from the Humboldt / Mendocino County line all the way down to the southern extent of their habitat in Monterey County by the year 2044!!!

We need the agency managing the largest publicly-owned contiguous block of land in coastal Mendocino County to step up big time and do all they can to provide extensive habitat for the Marbled Murrelet (and other old-growth forest dependent species)! So-called mitigations to help murrelet habitat under the plan are a sad joke when they plan to log the bulk of the mature trees in the next five to ten years on the forest. The federally-threatened and state-endangered murrelet needs our help immediately! We can start by rejecting the Draft EIR for the Draft Jackson Demonstration State Forest Management Plan for what it is:

The draft EIR rules out Alternative E as a feasible alternative, saying it is contrary to state law and Board of Forestry policy. This is another ill-conceived, self-serving, lobbyist-generated attack on the already preserved Jackson State Forest. The statement to rule out

Alternative E in the Draft EIR is more effluvia from weasel-mouthed logging company shills who have bribed their way in to getting the plan's clearcutting, large-scale commercial logging, cutting of the oldest second-growth stands, inadequate stream protection, herbicide use, and lack of a plan to expand recreation back onto the land-use agenda as a way to further bankrupt the public purse.

The Draft EIR concludes that the state's proposed massive logging plan (Alternative C) can be carried out with "less than significant environmental impacts." This call for state-sanctioned carnage to an already-preserved wildlife habitat should result in criminal indictments
28 for environmental crimes for the weasel-mouthed logging company shills and the bankrupt public-officials who take bribes, favors in exchange for influence in stealing from the public purse by getting the Draft EIR's clearcutting, large-scale commercial logging, cutting of the oldest second-growth stands, inadequate stream protection, herbicide use, and lack of a plan to expand recreation back onto the land-use agenda.

The Plan could not succeed on lobbying and bribery alone, so the bankrupt public-officials who take bribes, favors also have attempted to blur the issues by creating a draft EIR so huge and obscure that no single person could review it thoroughly. There are over 1500+ pages
29 of pure nonsense, and the electronic version is impossible to use, and the printed copies are too expensive to buy - over $200 per copy!

The Draft EIR fails to protect the public purse, public lands, taxpayer interests and amounts to a series of illegal act masking their intentions and actions in subverting the legal obligation to provide information and analysis I need to be able to make informed judgments on
30 the environmental effects of the proposed management plan relative to other alternatives. I urge you to strongly reject the Plan and the Draft EIR.

Sincerely,

John Jay Ulloth

cc: Senator Sheila Kuehl
Assembly Member Paul Koretz
Mendocino County Board of Supervisors
Governor Arnold Schwarzenegger

Mailed Letter P-174

An identical letter was received from Jack Neff. The following serves to respond to both letters.

Response to Comment 1
Opposition to the management plan is noted by the Board. The finalized plan includes accelerated implementation of the Road Management Plan, a reduction in the use of even-age management and clearcutting, a reduction in the planned timber harvest level, an increase in the area dedicated to development of late-seral forest conditions, an increase in resource protection and restoration measures, such as snag retention and LWD placement, and a management emphasis on research, demonstration and education.

Response to Comment 2
JDSF has been managed on a continual and sustainable basis since purchase by the State of California in 1947. The management plan provides for both stand management and stand preservation. Please see DEIR Chapters VII and VIII for an assessment of potential environmental effects. The comment concerning further bankruptcy of the public purse is unclear and not explained. A reasoned response is not possible. Significant impacts to the environment are not expected to occur.

Response to Comment 3
The statement by the writer that money has been set aside for JDSF to be restored to an old growth redwood forest for habitat, recreation, education and research is not explained by the writer. JDSF is supported by revenue, generated primarily by management activities from the various state forests, as well as limited and occasional funding by the General Fund when timber revenue is insufficient to support the state forest program.

Response to Comment 4
Opposition to approval of the Draft EIR is noted by the Board. The Board is free to combine elements from the various alternatives that were considered and assessed during the EIR process. Provisions are made within the scope of the alternatives considered and the approved management plan for road decommissioning, active restoration of aquatic habitat, and for expanding recreational opportunities. Significant impacts to these resources are not expected to occur.

Response to Comment 5
The writer's charges of bribery by logging companies is unfounded and not supported. Please see responses above.

Response to Comment 6
Marbled murrelet activity in the vicinity of JDSF is well known and considered within the DEIR. Please see Section VII.6.6 for the assessment of potential effects to the species.

Response to Comment 7
Significant impacts upon aesthetic resources are not expected to occur. Please see DEIR Section VII.2.

Response to Comment 8
Mitigation of aesthetic impacts as the result of clearcutting and other forms of even-aged management has been considered, as has the effect of logging of forest stands throughout JDSF. Significant impacts are not expected to occur. Please see Response 7 for reference to the assessment.

Response to Comment 9
The clearcutting silvicultural system is one of many potentially effective means to manage forest stands for timber production, when used and mitigated appropriately. Clearcutting is also capable of

creating habitat conditions favorable to many wildlife species. Please see Response 7 for reference to the assessment of potential effects upon wildlife. The reference to bankrupting the public purse is not explained by the writer.
A reasoned response is not possible.

Response to Comment 10
Comment noted.

Response to Comment 11
Comment noted. The registered professional forester is trained in making assessments of potential impacts to aesthetics. The Forest Practice Rules require this assessment by the RPF.

Response to Comment 12
Comment noted. The Board is free to select elements from the various alternatives that have been considered.

Response to Comment 13
The Board agrees that the western portion of JDSF is important, as is the remainder of the Forest.

Response to Comment 14
Many of the rare plant and lichen species can be found in the western portion of JDSF. These species will be protected during management activities. Please see DEIR Section VII.6.2 for the assessment of potential impacts to plant and lichen species. Significant impacts are not expected to occur.

Response to Comment 15
A substantial area of the Forest in the western portion will be managed to recruit late seral and older forest. In total, approximately one-third of the Forest area will be managed toward this form of older forest structure. The upper Russian Gulch area will be managed to promote late seral habitat for the marbled murrelet, and no impacts to old-growth groves within state parks are expected to occur. Please see DEIR Sections VII.6 for an assessment of potential impacts to biological resources associated with management activities.

Response to Comment 16
Future management within the Caspar Creek watershed area is guided by, and subject to, the management plan, including an assessment of potential environmental effects associated with management activities. Please see DEIR Section VII and REIR Section IV for assessments of potential cumulative effects. The writer has not specified the alleged damages associated with "special clearcutting" in Caspar Creek.

Response to Comment 17
Comment noted. The writer has generally identified "this area" in general terms as the "Western Part of Jackson Forest". There are no specific plans at this time to increase campgrounds, but some modest increase could occur in the future. Any plans to increase these facilities would be accompanied by a site specific and cumulative assessment of potential effects to wildlife species, including the marbled murrelet. All JDSF campsites are provided with covered garbage receptacles, to reduce access by wildlife, including bears and corvids. Please see DEIR Section VII.6.6 for the assessment of potential impacts upon wildlife.

Response to Comment 18
Request for minimization of logging activities in specific areas noted. Please see DEIR Sections VII and VIII for an assessment of potential impacts related to management activities.

Response to Comment 19
The ADFFMP does not propose to change off-road vehicle policies on the Forest; no adverse off-road vehicle impacts will result from the Plan. Public use of off-road vehicles is prohibited within the

Forest, but some illegal use occurs. Unit and Forest security staff patrol the Forest and help prevent this illegal activity. Further signs are posted in some locations and selected roads remain locked or otherwise blocked to help prevent illegal entry by motor vehicles. Significant impacts associated with illegal vehicle use are not expected to occur, due to patrol efforts and road closure. The vast majority illegal vehicle use occurs on roads and trails that are utilized by licensed motor vehicles, bicycles, and equestrians. The potential for damage to rare plants from illegal off-road use is extremely low and speculative. Known rare plant occurrences are protected. Please see DEIR Sections VII.6.2 and 6.10 for the assessment of potential impacts to watershed and botanical resources.

Response to Comment 20
Hunting within the Forest is regulated by the Department of Fish and Game, with the exception of closures established by other regulation or legislation. Patrol of JDSF by CAL FIRE staff helps to ensure compliance with hunting regulations. No change to hunting restrictions has been proposed in the management plan. The DEIR does not specifically assess the potential for hunting-related noise impacts or illegal hunting activity upon the marbled murrelet, which is somewhat speculative based upon the limited amount of hunting-related shooting that occurs within the forest, as well as the seasonality of hunting activity and the fact that numerous site-specific surveys for the marbled murrelet have thus far failed to detect the species within JDSF. If habitat occupied by the species were to be found, the species would be protected to avoid take, which could include site specific restrictions of many traditional activities within the Forest, including shooting.

Response to Comment 21
The Board agrees that stands with high stocking levels and large trees are generally considered to have high levels of scenic attractiveness. No specific concern is expressed by the writer. Please see DEIR Section VII.2 for the assessment of potential impacts to aesthetic resources.

Response to Comment 22
This is an apparent quote from the EIR. No specific concern is expressed.

Response to Comment 23
The Board is not aware of any official characterization of second-growth forest types within the assessment area as "rare". The term "mature forest" represents a broad range of generally mid-seral conditions in the literature, but is not specifically defined, though JDSF contains a substantial acreage of even-aged and uneven-aged young stands containing trees from 5 to over 500 years old, and a substantial area of stands with young trees greater than 50 to 80 years-of-age. The management plan includes provision to maintain and recruit older forest stands. Please see DEIR Section VII.6 for the assessment of potential impacts to biological resources. Please see the description of Alternative G in the RDEIR for the planned distribution of general forest age or seral classes. Also, please see DEIR Map Figure J for the distribution of vegetation habitat classes within the biological assessment area.

Response to Comment 24
Few species are known to be wholly dependent upon old-growth redwood forest. However, the marbled murrelet needs very large nesting platforms or branches, which occur most commonly in very large, old trees. The JDSF management plan will play an important role in the future development of late seral and older forest habitats within Mendocino County and the greater redwood region, as will the large acreage of young redwood forest under management by the Department of Parks and Recreation, and other forests dedicated to conservation and creation of older forest habitats, such as portions of ownerships currently under conservation easements or currently contemplating conservation easements (e.g. The Conservation Fund, Redwood Forest Foundation). Due to provisions of the management plan, an improvement in future habitat conditions for species normally associated with older forest will occur. The REIR finds that Alternative G provided a beneficial cumulative impact for marbled murrelet. The comment letter provides no basis for the premise that the county has been “devastated by corporate timberland clear cutting”.

Response to Comment 25
No specific concern is expressed in this statement and quotation.

Response to Comment 26
The future management of JDSF will provide a valuable contribution to the regional recovery efforts for the marbled murrelet. Please see DEIR Section VII.6.6 and VII for the assessment of potential impacts to the marbled murrelet. There is no plan to log the bulk of mature trees within the next five to ten years as the writer suggests. Regardless of how the writer defines the term "mature forest", the vast majority of the oldest age classes of trees and stands within JDSF will remain intact or be selectively managed during the term of the management plan. A significant acreage of these stands will be dedicated to the future development of late seral and older forest habitats.

The finalized plan includes measures from Alternative G that will benefit the marbled murrelet. The area devoted to late-seral forest habitat has been increased by 1,549 acres. The upper Russian Gulch and lower Big River areas will be managed to recruit habitat for the marbled murrelet and to provide linkages to State Parks. The Older Forest structure zone will link most old growth groves enhancing their value for this species.

Response to Comment 27
The Board has determined that some elements of Alternative E may not comply with existing state forest legislation and/or Board forest practice regulations. Alternative G was developed by blending the elements and management strategies of several Alternatives, including Alternative E. Alternative G includes a reduction in the use of even-age management and clearcutting, a reduction in the planned timber harvest level, an increase in the area dedicated to development of late-seral forest conditions, an increase in resource protection and restoration measures, such as snag retention and LWD placement, and a management emphasis on research, demonstration and education.

Response to Comment 28
The writer has incorrectly stated that management pursuant to Alternative C would represent "state-sanctioned carnage to an already-preserved wildlife habitat". The Board has adopted an alternative that incorporates elements of several alternatives. The extensive analysis in the DIER and REIR found no significant impact wildlife for Alternative C1 or G. The legislature established JDSF for the purposes of demonstrating forest management, not for the purposes of preservation alone. Please see DEIR Section VII.6.6 and VIII for the assessment of potential impacts upon wildlife.

Response to Comment 29
The Board has produced a comprehensive EIR, due to the complexity of the resources involved, and due to the degree of public and agency concern. A thorough and proper analysis necessarily requires a lengthy document. This is not a significant environmental issue.

Response to Comment 30
This comment represents unsubstantiated opinion on the part of the writer.

P-175

RECEIVED BY

MAR 1 - 2006

BOARD OF FORESTRY
AND FIRE PROTECTION

Richard Gienger
Box 283, Whitethorn
rgrocks@humboldt.net
California 95589
707-923-2931
Fax: 923-4210
1 March 2006

George Gentry, Executive Officer
California Board of Forestry and Fire Protection
P.O. Box 944246, Sacramento, CA 94244-2460
<board.public.comments@fire.ca.gov>

RE: EIR for the Management Plan for Jackson Demonstration State Forest

Dear George Gentry and Board:

1 The following comments are written on behalf of the Environmental Information Center as well as myself. The overall message is that the Board needs to combine the best aspects of several alternatives, notably C2, D, E, and F. The comments and perspectives submitted by Kathy Bailey are firmly endorsed.

2 The forest needs to be managed for late seral and old growth forest -- the old growth and a portion of the late seral areas for protection and for provision of the needs for such species as Coho Salmon and Marbled Murrelet, with the balance of the late seral and younger forest, outside the protected areas, included in the 'working forest'. The concept of managing the forest for late seral is in Alternative E, but the inclusion of large areas of late seral in the working forest is compatible with Alternatives C2, D, and F. It is important to generally include the older stands of second growth in the areas to be protected.

3 It is important for the final set of management practices selected to include a 'working forest' with longer rotations and greater size. The third paragraph on page VI-4, which discounts the value and mandate for larger older trees, is disingenuous at best. A high proportion of the working forest managed for larger older trees would not significantly limit JDSF's "ability to function as a demonstration forest". This type of management would not only "demonstrate management for optimum long-run timber production",
4 but would generally be more responsive to other essential resource values. There are many people interested in learning from this type of demonstration, and the economic benefit in years ahead from having and processing, for instance, 100 to 300 year old Redwoods will be immense. Lowering your standards of high-quality timber products to the debased current standards is an abnegation of your ethical and legal responsibilities.

1

5 Specific thought-out protected areas and connectivity must be part of the management plan, as proposed in Alternative F. The concerns and comments for EPIC by Lindsey Holm need to be carefully responded to in establishing the protected areas and connectivity.

6 The general and specific provisions in Alternative D need to be fully incorporated in the Management Plan. The support by the Mendocino County Supervisors and the unanimous support of the Fort Bragg City Council for Alternative D are extremely heartening show of support for JDSF management that responds to the needs of the people of Mendocino County and the State of California.

7 The mitigations in C2 are also important to include, but with more timely implementation of road, slope, and watercourse stabilization and improvement measures. C2 also emphasizes designation of marbled murrelet habitat, more retention and recruitment of large wood, and a higher "level of review, analysis, and mitigation" for proposed logging. These actions obviously need to be included in the approved Management Plan & EIR.

8 One significant concern for JDSF is that important 'big ticket' and large-scale issues such as fishery and wildlife recovery measures will often default to consideration on individual logging plans. Each Planning Watershed needs to have appropriate specific environmental constraints that individual THPs will comply with. And, of course, the standards of protection and conservation in the Planning Watersheds need to be compatible and enforceable.

9 The comments from the Salmon and Steelhead Recovery Coalition (SSRC) are also firmly endorsed. Recovery of watersheds, fisheries, wildlife and timberland productivity are paramount for Jackson Demonstration State
10 Forest. A Citizens Advisory Group and an Interagency Technical Advisory Team must be part of the future management as well.

Sincerely,

Richard Gienger

Mailed Letter P-175

Response to Comment 1
Please see General Response 2. Alternative G was developed by blending the elements and management strategies of several Alternatives. This includes accelerated implementation of the Road Management Plan, a reduction in the use of even-age management and clearcutting, a reduction in the planned timber harvest level, an increase in the area dedicated to development of late-seral forest conditions, an increase in resource protection and restoration measures, such as snag retention and LWD placement, and a management emphasis on research, demonstration and education. One example of the research and demonstration emphasis will be to test the cost and effectiveness of the riparian zone management approaches contained in Alternatives C1 and D-F. The results of these experiments will be utilized as part of the adaptive management process defined in Chapter 5 of the DFMP. Please see response to comment P-71 and P-188 for details relating to Kathy Bailey and the Sierra Club.

Response to Comment 2
See General Response 8, 9, 11, and 12.

Response to Comment 3
The expected average harvest under the ADFFMP is approximately 20 to 25 million board feet annually, which is well below current growth. The ADFFMP designates one-third of the Forest for late seral forest and older forest structure. The bulk of this area will be “working forest“ that receives uneven-aged treatments intended to foster the development the desired forest characteristics.

Response to Comment 4
The commenter provides no evidence that a significant portion of private landowners or the public would benefit from the demonstration of 100 to 300 year rotations on a high proportion of the forest. As stated in the same paragraph referenced in the comment, “few private landowners are growing large diameter logs for timber production anymore, and mills that can process large diameter logs are disappearing”. In order to remain relevant to the landowners of the region, significant portions of JDSF must demonstrate the potential effects of regional land management approaches, while avoiding significant effects. JDSF has a responsibility to, and the ADFFMP calls for, the demonstration of a variety of management regimes including short, medium, and long rotations/cutting cycles. This includes 33% of the forest being managed for late seral and older forest structure characteristics. The economic benefit of managing for 100-300 year old redwoods is unclear given the relatively slow rate of growth on some of these stands, along with the current lack of, and increasing loss of, infrastructure capable of processing large diameter logs.

The Board contends that JDSF has been managed in a manner that is consistent with current legislation and that our legal and ethical responsibilities to produce high quality timber products have not been renounced or debased.

Response to Comment 5
The ADFFMP includes “specific thought-out protected areas and connectivity” as part of the management plan. These include large blocks of late seral forest areas, connective Class I and II WLPZs managed for late seral forest development, and a contiguous 6,803-acre Older Forest Structure Zone. Please see response to comment P-176 for details relating to EPIC.

Response to Comment 6
See General Response 4. The Board has carefully considered Alternative D and the wishes of the Mendocino County Supervisors and the Fort Bragg City Council. Alternative G was developed by blending the elements and management strategies of several Alternatives, including Alternative D.

Response to Comment 7
See General Response 11, 12 and 13. The ADFFMP incorporates many of the management activities suggested in this comment (see response to comment 1). This includes accelerated implementation of the Road Management Plan. A detailed discussion of landslides and erosion, including management goals, proposed management actions, potential impacts, and mitigation measures, can be found in section VII.7 of the DEIR. As part of the management plan special concern areas were identified, including those areas at high risk of slope failure. A Hillslope Management plan to provide for slope stability, including input from a Certified Engineering Geologist, will be utilized to reduce the risk of management related adverse impacts associated with landslides and surface erosion.

The ADFFMP incorporates most of the Marbled Murrelet mitigation contained in Alternative C2. This allocates a large, contiguous block to be specifically managed for Marbled Murrelet habitat. Alternative G designates 1,549 acres in the area of upper Russian Gulch and lower Big River to late seral development prescriptions specifically intended to recruit habitat for the marbled murrelet (see RDEIR Map Figure 1).The plan also calls for increased emphasis on retention and recruitment of snags, LWD, and trees with late seral habitat values. Implementation of the ADFFMP is expected to have a positive impact on each of the concerns listed.

Response to Comment 8
Many measures for the protection and recovery of fisheries and wildlife are built into the ADFFMP programmatically and are applied (a) throughout the Forest or (b) over large areas of the forest without any particular connection to individual projects, such as THPs. One example (a) is the Accelerated Road Management Plan; an example of (b) is the Older Forest Structure Zone. Other programmatic measures for the protection of fisheries and wildlife come to bear more at the project level, such as a THP, but their application is not discretionary. An example of this is various restrictions for WLPZ management that exceed the Forest Practice Rules, or the Hillslope Management practices. In other cases, watershed-wide protections are provided by limiting certain watersheds to uneven-aged management only. Individual projects such as THPs will evaluate conditions within the cumulative effect analysis areas, typically sub-watersheds. These assessments can identify specific issues.

Response to Comment 9
See response to comment E-108.

Response to Comment 10
The second and third goals for the ADFFMP are:

> Goal #2 - FOREST RESTORATION: Work towards active restoration by managing the Forest to promote and enhance forest health and productivity.
>
> Goal #3 - WATERSHED AND ECOLOGICAL PROCESSES: Promote and maintain the health, sustainability, ecological processes, and biological diversity of the forest and watersheds during the conduct of all land management activities.

The ADFFMP contains provisions regarding the establishment of a JDSF advisory group.

P-176

March 1, 2006

TO:

George Gentry, Executive Officer
California Board of Forestry and Fire Protection
P.O. Box 944246, Sacramento, CA 94244-2460
<board.public.comments@fire.ca.gov>

EPIC

FROM:

Lindsey Holm
Environmental Protection Information Center
PO box 147
Eureka, California 95501

RE: **Public Comment on the Jackson State Demonstration Forest Draft Environmental Impact Report**

VIA FAX, EMAIL AND CERTIFIED MAIL

To Whom It May Concern,

The following comments are submitted on behalf of the Environmental Protection Information Center (EPIC). EPIC is a community-based, non-profit organization dedicated to the protection and restoration of the ecological integrity and natural ecosystems of Northwestern California. EPIC maintains offices in Garberville and Eureka, Humboldt County.

Late Seral Forest and the DMP/DEIR

Late Seral Forest (LSF) is defined in the DEIR as "having biological characteristics and functions similar to old growth forests."

1 The DEIR's definition of Late Seral Forest is vague and overbroad. The definition directs the reader to "see" the Forest Practice Rules (FPR) definition Late successional Forest Stands and FPR Technical Rule Addendum #2. It is unclear whether the DEIR incorporates--and will rely on--the FPR definitions. If the DEIR is defining LSF only as "…similar to oldgrowth" it casts too wide a net and is an insufficient definition.

The Environmental Protection Information Center – Industrial Forestry Program
P.O. Box 147 • Eureka, CA 95502 • 707.476.8340

1 If, on the other hand, the DEIR is defining LSF as "…similar to old growth" in addition to incorporating the FPR definitions of Late Successional and the FPR Addendum #2, then the criteria a forest stand must meet be defined as LSF need to be clarified. The three definitions are not clear by themselves and do not dovetail easily. This clarification is crucial to the reliability of the Draft Management Plan "having no significant adverse impact" on Marbled Murrelets, since the DMP protections rely almost entirely on current LSF and management to create LSF.

Late Successional Forest Stands

FPR defines Late Successional Forest Stands as:

> Late Succession Forest Stands means stands of dominant and predominant trees that meet the criteria of WHR class 5M, 5D, or 6 with an open, moderate or dense canopy closure classification, often with multiple canopy layers, and are at least 20 acres in size. Functional characteristics of late succession forests include large decadent trees, snags, and large down logs.

These stands are defined thus:

> WHR Class 5M is defined as tree dominated habitats with medium/large trees with DBH larger than 24 in (2 ft) and having moderate canopy closure between 40-59%
>
> WHR Class 5D is defined as tree dominated habitats with medium/large trees with DBH larger than 24 in (2 ft) and having dense canopy closure between 60% and 100%.
>
> WHR Class 6 is defined as tree dominated habitats with multi-layered trees with DBH larger than 24 in (2 ft) which are positioned *over* a distinct layer of size class 4 or 3 trees.
>
> Class 5D must have a dense canopy closure between 60% and 100%. [pg 16 of "introduction and scope" of CWHR from the DFG website]

2 If the FPR definition is incorporated, it contradicts the DFMP/DEIR definition of "…being similar to old growth" in the case of Redwood and Douglas fir forests that reach far beyond 24" DBH in their old growth stage. Since the DEIR relies heavily on the term Late Seral Forest in assessing the DFMP's impacts to Marbled Murrelet and the actions to be implemented to mitigate those impacts, the term "LSF" should actually relate to Marbled Murrelet habitat. The FPR Late Successional Forest definition is not adequate in the context of assessing murrelet habitat because for forests to meet this definition the trees only have to be a minimum of 24" DBH, and it is well established that murrelets nest in old growth trees >32" DBH in this zone. (Hamer and Nelson 1995a).

Late Seral Forest and FPR Technical Rule Addendum #2

The following is a patched together definition of Late Seral Forest from FPR Technical Rule Addendum #2:

> *LSF characteristics* are defined as "mature and over-mature forest stands…[with] structural characteristics…includ[ing] large trees as part of a multilayered canopy and the presence of large numbers of snags and downed logs that contribute to an increased level of stand decadence...." [FPR Technical Addendum #2 (C)(4)(f),(g) pg. 37-38]

3 The referenced FPR Addendum #2 is written within the context of cumulative impacts as instruction to those required to address the rule in their logging plans. The LSF part of this addendum only addresses characteristics and continuity of LSF. There is no express definition of LSF and it could only be construed to include a vague definition by way of the instructions. In addition, "Mature", "over-mature", and "decadence" are not defined anywhere in the FPR. This definition is too unclear to be sufficient for the purposes of the DEIR.

Suitable habitat

4 *Suitable habitat* is used frequently in the DEIR within the context of Marbled Murrelet habitat, but the term is never defined or explained. Without this foundational definition, the assessment of Marbled Murrelet habitat in and around Jackson State Demonstration Forest is incomprehensible, the analysis baseless and the conclusions valueless.

5 Page VII.6.6-36 should include old growth forest in the habitat association column. Tables VII.6.6.33e1 through VII.6.6.33f2 are useless in assessing the progression of murrelet habitat because the DEIR does not or explain the criteria used to determine the various levels of habitat suitability listed in the tables.

6 Given, first, that it is well established that murrelets nest in old growth forests, to the extent that old growth is the only forest type that can reasonably be defined as "fully suitable" habitat, and second, that there are currently 459 acres of old growth on JSDF, we found it impossible to believe that there are 15,286 acres of truly fully suitable habitat currently on JSDF as indicated in table VII.6.6.32.

7 The tables, explanations, narrations, assessments and conclusions of what is and isn't, and what will be and will not be, suitable habitat for Marbled Murrelet s on JSDF are all meaningless without clear definitions of the terms used. This is a common problem in assessing murrelet habitat as the methods of evaluation and the body of knowledge on the subject have changed over the years. This is all the more reason to be clear about what habitat exists now and how and when murrelet habitat will be created.

It is especially critical that the DEIR be very clear about murrelet habitat given the impending extinction of the Zone 5 murrelet population described on page VII.6.6-74 and the fact that JDSF has the potential to be the most effective player in recovering the Zone 5 population, if it articulates a clear plan for doing so.

"As such the large block of publicly owned forestland that is JDSF, in

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> conjunction with other parcels of public land in Mendocino County, represent a valuable resource of potential reoccupancy and sustainability for at-risk wildlife."

8 It is an uncontested fact that Marbled Murrelets nest primarily in old growth forests. If the DMP/DEIR defines LSF as 'similar to old growth forests' it needs to be explained *how* these categories are similar, and in what ways they are *not similar*. The DEIR needs to clearly lay out how the DMP will create stands "similar to old growth forests" and how these similar stands (LSF) will, or will not, serve the recovery of the Marbled Murrelet.

> *Recovery* is defined in the DEIR as "The point which the measures provided pursuant to the federal Endangered Species Act (FESA) are no longer necessary to conserve a listed species."

Impacts Assessment

9 The impacts to marbled murrelets described on page VII.6.6-261 are unclear.

10 For the DEIR to adequately address the impacts and mitigation of the projects impacts, the specific mitigation measures proposed under each alternative must be clearly stated. There is no other mention of a proposed increase to the area dedicated to development of late seral forest conditions and especially no current delineation of late seral forests dedicated to Murrelet habitat recruitment. Furthermore, murrelet habitat remains undefined so the proposed mitigation cannot be meaningfully assessed.

Contribution to Recovery of Marbled Murrelet Habitat Management Measure

> "CDF has identified four key areas for assessment of their suitability for current habitat and for future potential Murrelet habitat development and species recovery: Russian Gulch, Lower Big River, Mitchell/Jughandle Creek, and lower Hare Creek."

11 It is true that these areas have "the potential to develop…structural characteristics necessary to provide Murrelet habitat." But this will only become a reality if the stands are allowed to reach that point. The selection harvest allocation areas [covering the above areas] subject to "four to eight harvest entries" described in the "Long Term—100 year Term Project Projection of Future Forest Conditions" section would be unlikely to produce Murrelet habitat.

12 CDF proposal to "conduct an assessment of what areas offer the greatest potential for current and future Marbled Murrelet habitat" is on the right track except that this sort of assessment and analysis must be done in the EIR. Is seems apparent from this proposal that the JDSF staff are not currently prepared to make this assessment. The DFMP must include clear, science-based, substantive and enforceable measures to "contribute to providing additional suitable habitat that is intended to aid recovery of Marbled Murrelet populations".

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13 There must be CEQA review of this murrelet assessment as part of the DEIR. The impacts and alternatives that would protect/create more suitable nesting habitat must be assessed. The currently undefined and un-analyzed measures to "contribute to providing additional suitable habitat that is intended to aid recovery of Marbled Murrelet populations" are unclear and unsatisfactory.

14 In the DEIR's discussion of Late Seral/Successional Forests it notes that "The determination of site specific silvicultural applications to achieve these goals [development of LSF conditions] will occur during THP preparation". This is another example of the lack of clarity and apparent lack of commitment to pre-planning or defining the protection measures. Putting these decisions off until the THP stage is like not having a plan at all.

15 This assessment should be limited to areas within 11 miles of the ocean and should not include the old growth areas on the east side of the Forest where power lines and roads transect the groves. The assessment must be based on forest elements meaningful to Marbled Murrelet s and not just based on selectively logged, or to-be logged, late seral forest. The

16 areas must be large, contiguous blocks placed where the forest is already well advanced. Any logging in these Marbled Murrelet areas must be limited to "light" versions of intermediate silviculture, like pre-commercial thinning if the areas are shown to be overgrown.

Old Growth Groves

17 *Old Growth* is effectively defined in the DEIR as " any tree over than 145 years old". We consider the DEIR's definition of old growth a wise and practical one, but more need to be done to make the distinction between LSF and old growth.

The old growth areas described in the DEIR are very unlikely to be used by murrelets. Their preservation is necessary for other reasons, but they should not be considered a "protection measure" for the species. One exception to this rule is probably the old growth groves in the lower part of Brandon Gulch which is at the edge of the southern murrelet's 11 mile inland range.

JSDF land adjacent to State Park

18 In the discussion about JSDF land adjacent to State Park it is stated that "a buffer zone is designed to protect values associated with the purpose for which the park was created. Only a limited range of uneven-aged silviculture is allowed in these areas." This is yet another example of the un-quantified area to be committed to fulfilling this goal of protection and the lack of disclosure of the exact means by which JDSF intends achieve the protection.

Conclusion

19 This DEIR appears well researched and includes a detailed section on the biology and current research of the Marbled Murrelet that is easy to read and understand. However, site-specific

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19 descriptive data is often inadequate or entirely lacking. The DEIR jumps to conclusions which may not be adequately supported by its analysis and disclosure. This makes it extremely difficult for the reviewer to visualize the area in question and evaluate the appropriateness of the author's conclusions and recommendations. For example, there is no definition for "suitable murrelet habitat" and no description of where all this suitable habitat is, or will be located.

As presented, the lack of supporting site characterization makes the DEIR inadequate to justify the proposed DFMP. Please expand the physical description of the features of concern and their settings to allow for proper review.

Sincerely,

Lindsey Holm

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Mailed Letter P-176

Response to Comment 1
The shortcomings of the late-successional forest (late-seral forest) definition in the Forest Practice Rules relative to an assessment of Marbled Murrelet habitat condition and extent are clarified on DEIR page VII.6.6-19, DEIR page VII.6.6-78 to -79 (Habitat Extent) and Page VII.6.6-127. Old-growth stands are a subset of Late-Successional Forests that collectively include “mature”, “over-mature”, and “old-growth” labels of forest stand condition. Late seral (synonymous with Late Successional Forest) condition criteria for the near and long-term are summarized in Table VII.6.3.5 and Table VII.6.3.6.

Marbled Murrelets require tree and limb structure specific characteristics in order to nest successfully. It is presently not possible to determine what proportion of the late-successional forest conditions to be recruited will provide those characteristics but it is expected that the frequency of occurrence of those elements will increase over time.

Response to Comment 2
The Board agrees that the FPR Late Successional Forest definition is overly broad when applied to the habitat requirements of Marbled Murrelet. These issues are described in the referenced DEIR pages in the response to comment 1. Marbled murrelet habitat suitability is determined by a variety of stand, tree, and limb structure specific attributes that are not currently determinable with remotely sensed vegetation data. The late-successional forest definition in the FPR does however provide a starting point for habitat identification as well as a means to relatively evaluate alternatives and potential to recruit Marbled Murrelet habitat over time. Marked increase in the extent of late-successional forest conditions are expected to equate to an improvement in potential Marbled Murrelet habitat. See response to comment #1.

Response to Comment 3
Old-growth and late successional forest characteristics are defined in the DEIR subsection beginning on pages VII.6.3-24 to -26 and Table VII.6.3.5 and Table VII 6.3.6.

Response to Comment 4
Contrary to comment those forest conditions that define Murrelet habitat are described in detail beginning with the Section on Habitat Characteristics DEIR Page VII.6.6-75-83.

Response to Comment 5
Old growth forest is a subcategory of late seral forest, which is listed in the habitat association column. See also response to comment 1. Habitat suitability levels are defined on DEIR page VII.6.6-221 at the beginning of the Table series describing these measures.

Response to Comment 6
The observation by the commenter that Marbled Murrelets nest in old-growth forests and “fully suitable” habitat extent is therefore 459 acres on JDSF is an oversimplification of Marbled Murrelet habitat requirements. Specific limb structure, tree, and stand characteristics that provide suitable Marbled Murrelet habitat are described in DEIR pages VII.6.6-75 through -83. Reasons behind the discounting of current old-growth stand value as murrelet habitat are described on DEIR Page VII.6.6-78-79.

The DEIR recognizes that forest wide acreage estimates of Marbled Murrelet habitat are unlikely to be attained given site and tree specific requirements (DEIR pages VII.6.6-238 through -239.

Response to Comment 7
See response to comment 6 regarding Murrelet habitat requirement definitions. The intent of the DEIR analysis is to provide a relative comparison of possible Marbled Murrelet habitat futures across

alternatives. The degree of over-estimation is not relevant since the definition of possible murrelet habitat remained constant across all alternatives.

The Contribution to Recovery of Marbled Murrelet Habitat recognizes that site specific habitat conditions beyond tree size make an area potentially suitable for Marbled Murrelet. A site-specific evaluation that includes wildlife agencies and other interested parties is part of the management measure to be implemented during the first 18-24 months of DFMP implementation and prior to modification of any stands in the areas identified This effort will improve estimates of habitat extent and condition and potential for Marbled Murrelet habitat recruitment.

Response to Comment 8
The DEIR describes silvicultural prescriptions including no harvest where the objective is the development of late-successional forest conditions DEIR pages VII.6.3-33 through -38. Similarly, silvicultural methods in Special Concern Areas and elsewhere are summarized in DEIR Pages VII.6.3-7-17.

Specific silvicultural prescriptions for the development of Marbled Murrelet habitat have not been developed and are dependent on the findings and deliberations of the team formed to address that issue as described in the Contribution to Recovery of Marbled Murrelet Habitat management measure (DEIR Page VII6.6.118-119). This topic is also highly suitable as a subject for research on JDSF.

Response to Comment 9
Comment noted. See also the response to comment 10.

Response to Comment 10
The DEIR describes in detail those areas proposed for the development of habitat conditions suitable for Marbled Murrelet occupancy (DEIR Page VII.6.6-78-82 and DEIR Page VII.6.6-118-119). The recruitment of late successional forest conditions in general and outside the areas proposed for murrelet emphasis are also described on DEIR Page VII.6.6-121, and Section VII.6.3 Timber Resources (old-growth and late successional protection measures). Marbled Murrelet habitat characteristics are described on DEIR Page VII.6.6-75-78. The RDEIR for Alternative G and the ADFFMP designate a 1,549-acre area of Russian Gulch/Lower Big River for the development of late seral forest characteristics specifically to recruit potential Murrelet habitat over time.

Response to Comment 11
Silvicultural methods, if any, ultimately selected for these areas will be determined as described in the Contribution to Recovery of Marbled Murrelet Habitat management measure DEIR Page VII.6.6-118-119.

Response to Comment 12
Final identification of areas that will be managed for the benefit of Marbled Murrelets, silvicultural prescription to be applied, and other site specific considerations are beyond the scope of a programmatic EIR. For the purposes of alternative development and evaluation, the Board identified those areas most likely to be included in a murrelet habitat strategy based on the best available science and input from the US Fish and Wildlife Service, California Department of Fish and Game and other sources of murrelet expertise. This level of issue resolution is appropriate for a programmatic EIR. The subsequent actions, including development of implementation measures for the Contribution to Recovery of Marbled Murrelet Habitat management measure are subject to later CEQA analysis and public involvement.

Response to Comment 13
CEQA “review” of the murrelet assessment and Contribution to Recovery of Marbled Murrelet Habitat management measure is being conducted at two levels. The first is with the programmatic DEIR and the second as part of individual project planning and implementation. The impacts and alternatives that would protect/create additional habitat are assessed as part of the site-specific CEQA review for individual projects.

Response to Comment 14
The relationship of the programmatic DEIR to future projects is clearly described in DEIR Pages II-10 through -14. Development of site-specific prescriptions to treat stands to enhance development of late-successional conditions requires consideration of specific stand conditions at each site. Thus, they are best developed at the THP level.

Response to Comment 15
Comment noted.

Response to Comment 16
Forest stands considered “old-growth” or “mature” are frequently viewed as closely related points along a continuum of forest development and not a precise state with readily recognized features of development used to define and categorize. Late seral or late successional are terms that include old-growth and may extend to mature conditions. As used in the DEIR, late seral or late successional refers to areas that are being managed to recruit mature and old-growth conditions and that in some cases may have attained one or more of the necessary structural attributes. The differences between these closely related conditions of forest structure and ecological function are summarized on DEIR pages VII.6.3-24 to -26 and DEIR pages VII.6.3-33 to -38.

Response to Comment 17
Factors that discount the value of current old-growth stands on JDSF as suitable Marbled Murrelet habitat are described on DEIR pages VII.6.6-78 through -79.

Response to Comment 18
Disclosure and discussion of the “exact means” by which a buffer adjacent to State Park lands will be designed and implemented is beyond the scope of a programmatic EIR. A variety of management measures are available to achieve this goal that are influenced by site specific factors. These include stand configuration and state of development, levels of public use, topographic considerations etc. Buffer widths adjacent to State Park lands are a minimum of 200 feet as noted in the DEIR page VII.6.3-42 and Forest Practice Rule 913.1(a)(7) and 913.4(a).

Response to Comment 19
Site specific descriptive data as noted above is generally beyond the scope of a programmatic EIR. The purpose of the data and analysis reported in the DEIR is not to “justify the proposed DFMP” but to examine alternatives that would inform the public and decision makers considering the best course of management. The level of “supporting site characterization” considered necessary by the commenter is beyond the scope of the programmatic nature of the DEIR. The DEIR and RDEIR clearly describe the characteristics of suitable Murrelet habitat, areas that may provide suitable Marbled Murrelet habitat, and areas to be retained as old-growth and managed for late successional forest conditions to maintain and enhance Marbled Murrelet habitat over time. Forest characteristics that define Marbled Murrelet habitat suitability are described in detail in the Marbled Murrelet species account.

P-177

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Mr. George Gentry, Executive Officer
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February 28, 2006

SUBJECT: COMMENTS ON DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE JACKSON STATE DEMONSTRATION FOREST MANAGEMENT PLAN

1-9

Dear Mr. Gentry

Grassetti Environmental Consulting (GECo) was retained by the Dharma Cloud Foundation to conduct a peer review of the Jackson State Demonstration Forest Management Plan Draft Environmental Impact Report (DEIR). These comments represent my independent evaluation of the DEIR. I have over 22 years of experience writing and reviewing environmental impact assessments, have worked on over 200 CEQA documents, and have taught impact assessment at Cal State university, East Bay (formerly Hayward) for over 10 years (see attached qualifications). I have been recognized as an expert on CEQA in the California courts. This letter presents my comments with respect to the adequacy of the DEIR to meet CEQA requirements.

My review indicates that the DEIR is a nearly unreadable and often incomprehensible mélange of data and information that has been neither synthesized nor arranged in such a way as to provide an analytical trail from the project description to impacts to mitigation. As such, it fails to achieve the CEQA mandates of clear impartial analysis and full disclosure to the public and decision-makers. In addition, the deficiencies in project/alternatives description, baseline, impacts assessment, and factual errors/contradictions result in a document that fails entirely to fulfill its required purpose of identifying potentially significant environmental impacts and mitigating them. As such, it also fails to fairly and fully disclose to the public and decision-makers the environmental implications of this project. Therefore, it is my professional opinion that the document's deficiencies are so severe as to require major re-writing and recirculation for renewed public review.

General and specific comments are provided in the attached table. Accompanying letters by Baye, Strittholt, Taylor, and Higgins detail deficiencies in the document's treatment of forestry, fisheries, and other biological resources. Please feel free to contact me at (510) 849-2354 if you have questions regarding these comments.

Sincerely;

Richard Grassetti
Principal

General Deficiencies

The following deficiencies are prevalent throughout the DEIR and render it inadequate on its face to meet CEQA disclosure requirements:

1-9

As detailed in the Specific Comments below, and the accompanying letters from technical experts Baye, , as well as the detailed analysis of forest resource issues presented by statistician Vince Taylor, the 1400+ page document is a disorganized "data dump" of relevant and irrelevant information that mixes setting and impact information with extraneous information that should be in an appendix or excluded from the document completely. It is unreadable even to a CEQA expert with over 22 years of experience. In fact, this is the most disorganized and disjointed document I can remember reviewing. It has redundant and often inconsistent consistent setting and cumulative impacts sections placed in different section of the EIR. It repeatedly fails to address scoping and 2002 EIR comments, and contains erratic shifts in technical level, scientific and regulatory jargon, and general public language). All of these failures and excesses combine to result in a document that fails its basic CEQA purpose: to inform the public and decision-makers, and provide them the opportunity to meaningfully assess the environmental implications of approving the project or alternatives. In the end, this document clearly does not comply with CEQA Guidelines Sections 15140 and 15141, which require that EIRs "be written in plain language so that decision-makers and the public can rapidly understand the documents", and that "the text of Draft EIRs should normally be less than 150 pages and for proposals of unusual scope or complexity should normally be less than 300 pages. In short, this length, structure, and content of this document preclude the lay-public and decision-makers from informed decision-making.

Despite (or perhaps because of) its length, the document provides remarkably little actual information on the project area, but rather focuses on describing environmental processes (i.e. biological, hydrological, geomorphologic, and economic processes) and generic background data. Because the information provided is not synthesized, integrated, or comparatively related it becomes nearly useless to the lay-reader.

As discussed in the Specific Comments below, this data-dump deficiency is aggravated by the document's absolute failure to relate setting, impact, and mitigation discussions. In addition, the minimal impacts "analyses" are often just unsupported conclusions.

The document also contains a number of factual errors and contradictions. These are described in the Specific Comments, below and in the accompanying letters from technical experts Baye, Strittholt, Taylor, and Higgins.

Inadequate Project and Alternatives Descriptions

The following deficiencies result in a project and alternatives description that fails to present adequate, stable detail from which to conduct an impact assessment that objectively assesses the project's impacts, and that fails to allow the public and decision-makers to meaningfully discern the differences between the environmental impacts of project alternatives.

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The Project Description is unclear as to the basic purposes of the Plan and how the Plan is intended to meet those purposes. Is it just a logging plan with some monitoring or are there real experiments that are proposed that drive the specifics of the logging plan? For example, the Project Description for Alt C1 states that, "With limited exception, clearcutting is permitted only for research purposes." (Executive Summary, p.8). Yet the Timber Resources section indicates that 40% of the proposed logging would be clearcutting, and that 20% of the total forest area would be clearcut over the term of the plan. (This acreage may, in fact be even greater, due to CDF's distinctions between a number of forest harvest types that all are essentially clearcutting). Please explain this apparent inconsistency. What's the purpose of the research? Why is such a large area of clearcutting required for this research? How do the logging and research interrelate? Is there research being done on the forest that can't be done on commercial forests? Why isn't the research being focused on sustainable forestry rather than traditional forest practices, the results of which are obvious from the environmental setting information?

18
19

It also is unclear if the plan is primarily a mitigation and research plan for past problematic logging practices or really just a blanket timber harvest proposal for the forest. It appears to be both. However, its impacts as a timber harvest proposal are obscured in the document by an emphasis on the mitigation strategies. Unfortunately, as detailed below and in the accompanying Baye, Strittholt, and Higgins letters, many of the mitigation strategies are either unsupported or have proven ineffective in the Forest.

20

As detailed in the Specific Comments below, and in the attached Strittholt and Taylor comments, the EIR omits any meaningful spatial characterization of each of the alternatives, thereby making a realistic assessment of impacts impossible (see, for example, the Aquatic Resources and Timber Resources discussion (EIR Sections 6.1 and 6.3).

21

As described in the specific comments below, the Alternatives chapter's descriptions of the Alternatives are insufficiently detailed and are too vaguely worded to permit complete, accurate, or meaningful assessment of potential impacts. Alternatives description is scattered throughout the document, making it hard to understand what's actually being proposed. This lack of detail precludes meaningful review. Specifically, the DEIR's failure to adequately describe the alternatives results in a "grain" (level of detail) of impacts assessments are often so coarse that the EIR (and the reader) is unable to discern differences in impacts amongst alternatives. This is particularly problematic in a document of this length.

Inappropriate Baseline

22

As summarized below and detailed in the Specific comments herein and in the accompanying expert letters, the DEIR's Setting sections fail to comply with CEQA Guidelines Section 15125 (a) that the EIR must include "a description of the physical environmental conditions in the vicinity of the project at the time the Notice of Preparation is published…from both a local and regional perspective".

Environmental setting typically consists of two components: 1) resource conditions on the ground at the time the DEIR is issued, and 2) existing operations that are contributing to those conditions. The DEIR is inconsistent in its treatment of these conditions and, particularly deficient in its failure to consider the differences

23 between current logging operations and proposed project logging operations. In certain instances, the EIR considers the environmental setting to be past logging practices and not the current (since 2000-2) nearly no-logging practices. The project baseline is also problematic; the EIR generally treats the baseline as past timber harvest activities/methods/approaches, however there has been no timber harvesting over the past 4-6 years. Therefore, the CEQA operational baseline should not be the past, extensive, and environmentally problematic timber harvesting, but rather the current no-harvest scenario.

Many of the studies used to describe the baseline conditions are old, out of date, and do not reflect 2005-6 on-the-ground conditions:

- As detailed in the accompanying Taylor letter, most of the timber inventory that forms the foundation for both the development of Plan/EIR alternatives and the EIR impacts assessment is 17 years old, this despite the fact that CDF has recently conducted an updated inventory. As described in detail in the Taylor comments, the forest inventory is further deficient in that it fails to address timber harvest at a watershed or sub-watershed level. This lack of an adequately grained forest inventory results in a failure to identify sensitive habitats and water quality conditions in the setting, which leads to a corresponding failure of the EIR in identifying project impacts and mitigation measures. As detailed by Taylor, not only is the forest inventory out of date and too coarse to be meaningful, it also includes a number of other significant deficiencies rendering it inappropriate for use as the forest baseline in this EIR.

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- As described in the Strittholt letter, the EIR's forest classifications do not reflect on-the-ground conditions. Further, they incorrectly characterize the existing and potential habitat values of various subareas of the Forest. Most importantly, the EIR's classification of the forest fails to identify forests in the 100 to 150-year-old range, which are both needed to provide future old-growth habitat, and which currently provide of the old growth habitat values essential for the survival of threatened species.

27

- As detailed in the specific comments below, as well as in the accompanying Baye and Higgins letters, critical water quality, fisheries, and other species data are similarly out of date. Further complicating the analyses is the fact that critical studies on different, but related, resources (for example fisheries and water quality) are from different time periods, making the EIR's requisite interdisciplinary assessment difficult and of questionable validity.

28

Inadequate Impact Assessments

29 As summarized below and detailed in the Specific Comments below and in the accompanying technical expert letters, the DEIR fails to comply with CEQA Guidelines' Section 15126.2 (a0 requirements that "Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussions should include the relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems….and other aspects of the resource base such as water, historical resources, scenic quality, and public services."

30 The DEIR fails to address important forest-wide issues, particularly pertaining to fish and wildlife issues. The Forest's importance to, and overall project impacts on special status species ranging from the northern spotted owl to salmonid species, are not evaluated in terms of the overall plan. Similarly, mitigations that can only be addressed at the Plan level, such as habitat Conservation Plans, are not evaluated in this document, but rather inappropriately deferred to the THP stage.

31 The project impact assessment fails to assess potential individual or cumulative impacts of the project over the next 5-20 years, many of which may be significant, in fact, more significant than those of the project. Instead, it focuses only on the very long term (30-100 years). The focus on the long-term results in an EIR that just misses many of the project's impacts. For example, sediments associated with logging may increase until the roadways stabilization program is implemented, which, depending on funding, could be up to 10 years. Similarly, the project would harvest many of the older (80-100-year old) existing trees, but obscures the biological impacts of that harvesting by focusing the analyses 10-100-years from now, when current saplings approach late seral stage. This failure to evaluate 5-30-year project impacts both skews project impacts (and the need for mitigation) and fails to identify numerous potentially significant impacts of the projects, ranging from sedimentation and water quality to salmonids and amphibians. CEQA requires the analyses of all project impacts, not just those at the end of the Plan period, which, ironically, are the most speculative.

32 The DEIR repeatedly defers project-site specific studies to the future THP stage, despite containing a detailed list of THP's proposed for the first 5-10 years of the Plan. Although programmatic EIRs may appropriately defer some analyses to future site-specific environmental reviews, this applies only to impacts and project that are speculative.

33 The document's analytical approach is academic and conclusatory, rather than critical. The impact analyses do not take a worst case analytical view, but rather a detached and often overly optimistic view that provides considerable information on processes but generally does not clearly tie the analyses to the conclusions. Many of the impact assessments are conclusatory and not well supported by fact/analysis. The EIR's conclusions appear to have been developed independently of the analyses and often conflict with the text of the analyses.

34 Some of the impacts are "segmented" by different causes and not aggregated as a whole (i.e. sedimentation segmented into roads, recreation, logging, etc.). This results in piecemealed impacts that do not represent the effect of the overall action.

35 Most of the cumulative impacts assessments do not approach cumulative impacts in an additive or synergistic manner, but rather use this analysis to identify project impacts as proportionally minor and therefore not significant cumulatively. This is in direct contravention of the requirements for cumulative impacts analysis in CEQA. In addition, the cumulative impact discussions fail to address the project impacts in combination with past impacts, contrary to CEQA requirements.

36 The DEIR further trivializes project impacts by assuming that compliance with THP's and Forest Practice Rules (FPRs), in combination with Plan guidelines will mitigate project impacts to less than significant levels. This circular reasoning

assumes that plan policies (including THPs and FPRs) will mitigate all Plan impacts. Yet this reasoning is unsupported by evidence in the EIR. In fact, the declining resources under current FPRs and THPs enumerated (i.e. continuing declining fisheries) in various EIR sections indicate that those procedures/practices are inadequate to mitigate the impacts of logging under the Plan.

37 The DEIR's failure to adequately assess or correctly identify project impacts as *potentially significant*, results in a corresponding failure to identify the need for mitigations. Simply stated, because CEQA requires that only significant impacts be mitigated, and the EIR fails to identify numerous potentially significant impacts, it then necessarily fails to mitigate those missing impacts.

Inadequate Mitigations

38 The DEIR fails to comply with CEQA Guidelines Section 15126.4 requirements that "an EIR shall describe feasible measures which could minimize significant adverse effects…" Additionally, as described below and in the Specific Comments section of this letter, the DEIR fails to comply with Guidelines Section 15126.4(a)(1)(B), which stipulates that "Formulation of mitigation measures shall not be deferred until some future time. "

39 Many mitigations in this DEIR simply defer the actual mitigation/necessary study to future site-specific THP's. This deferral of mitigation is inappropriate because this EIR could and should contain programmatic mitigations that would reduce or assure less-than-significant impacts. If impacts are to be considered "less than significant", the mitigations in this document should provide a framework that assures that project impacts will in fact be mitigated to a less than significant level. Absent those details/requirements in this document, the impacts cannot be considered mitigated to less than significant.

40 Many of the Plan's policy and EIR mitigation measures are vague and unenforceable. They frequently consist of future studies, or are couched in terms such as "should be considered", "coordinate with", etc. Simply stated, they just don't assure mitigation and, as such, many impacts considered "less than significant" in the EIR should, in fact, be considered significant and unmitigated.

41 A program EIR is the appropriate, and frequently the only, vehicle for programmatic mitigations, such as Habitat Conservation Plans. This EIR fails to identify any such regional mitigations for impacts of cumulative and Plan logging, despite clear evidence of declining resources (i.e. fisheries, other special status species) to which the project contributes, at least in its first 20 years.

SPECIFIC COMMENTS ON DEIR

	Introduction	
42	The Plan and EIR do not comply with "Allowable cut levels must be derived from pertinent current inventory and growth data." Data used in the EIR are outdated; new inventory supposed to be completed soon. In order to comply with this policy, the Plan and EIR should be revised to include that data. The EIR analyses should be revised to account for the updated data, and the document should be recirculated for public/agency review.	p. II-7, item (C)
43	Project description fails to describe the proposed logging plan/types of logging/annual logging/etc. Also, the duration of the plan is not disclosed in the project description. This information is critical to evaluating environmental impacts of the project.	Section II, general
	Project Information	
44	Section III.5 is a data dump that doesn't provide any CEQA-relevant information. It serves only to confuse the reader, and should be deleted from the EIR.	Section III.5
	Environmental Setting	
45	Environmental Setting Section (Ch V) is redundant and irrelevant to the CEQA analyses. What is its purpose? Additionally, it is not an environmental setting section as described in CEQA Guidelines section 15125. Instead, it is more of a land management setting. It is superfluous and confusing, and should be deleted or integrated into the topic-specific setting sections.	Section V, general
46	The Alternatives section, p. VI-1 states that all alts "are feasible" (paragraph 3), yet the summary says they're not feasible.	p. VI-1
47	The summary table should be revised to include the mitigation measures.	Section I, general
48	The Alternatives Section, p. VI-3, addresses the issue of whether it is JSDF's role to assure species don't go extinct, and concludes that it is not because JDSF is too small to fill that role. However, the EIR fails to acknowledge, either in this section or in the Cumulative Impacts section, that, if project logging activities contribute to their extinction, this would be a cumulatively significant impact.	p. VI-3
	Alternatives	
49	As detailed in the Baye and Strittholt letters, and in specific comments	general

	on the technical analyses below, and as summarized in the General Comments, above, the description of the alternatives is inadequate in both technical and spatial detail to allow the EIR to conduct a meaningful comparison of impacts between the project and alternatives.	
	Aesthetics	
50	Threshold of significance is in error – "In managed forests such as JSDF, timber harvesting is not generally presumed to have a significant adverse effect on aesthetics whereas the same treatment in an unmanaged setting may be significant" (pp. VII.2-12 and13). This is not appropriate per CEQA.	pp. VII.2-12 and13
51	Impact 1 analysis too coarse to be meaningful. Further, it considers short term impacts (2-5) years as not particularly significant (p. 13)…ignoring repeated such "short-term" impacts throughout 45% forest (p.15).	p. VII.2-15
52	Are "Additional protections not described in DFMP but employed by CDF." (p. VII.2-18) included as CEQA mitigations or not? They need to be added as mitigations to assure implementation.	VII.2-18
53	Mitigation 3 – Future CEQA process isn't a mitigation – CEQA allows approval of projects with significant unmitigable impacts.	
54	Visual impacts Less Than Significant "Findings" on pp. VII.2-26-28 are argument/setting but not impacts analysis. In addition, many of the items in the findings are neither required nor incorporated into the plan.	VII.2-26-28
55	Mitigation 4 – this mitigation is too vague and unenforceable to actually mitigate anything.	VII.2-28
	Air Quality	
56	The PM10 analysis (p.V.II.5-10) (impacts in setting section) is only for diesel fuel use (air toxics) and fails to include other logging activities. Inappropriately piecemeals the impact so it's not possible to tell if overall PM10 emissions exceed the 80 lbs/year significance threshold. The importance of this omission is noted on p. VII.5-14 *"The largest source of PM10 emissions on JSDF is from vehicle and equipment travel on unpaved roads…Slash burning represents the second largest source of PM10 emissions…"* Yet emissions from these sources are not calculated in the impacts analysis and, instead, are just assumed to be less than significant. Overall PM10 contributions are likely to exceed the 80 lbs/year threshold. At a minimum, calculations are required to assess this impact in the EIR.	VII.5-14

	Aquatic Resources	
57	As described in the California Regional Water Quality Control Board, North Coast Region's comment letter dated February 9, 2006, the water quality analysis has numerous substantive errors and deficiencies. The RWQCB letter spells out in detail how the water quality analysis makes a series of "best case" assumptions that are unsupported in the EIR or in the Plan itself. As described in that letter, there is no evidence in the Plan that it would, in fact, protect water quality such that the project would not significantly adversely affect aquatic resources. TMDL's are not proposed to be met, and as a result, salmonids may continue to decline as a result of implementation of the Plan. The RWQCB letter also provides evidence that deferring water quality protection to the THP stage has not adequately protected water quality, even in the most recent THPs that were written to be consistent with the Plan's policies.	General
58	The RWQCB's comments are echoed by fisheries biologist Patrick Higgins' comment letter, which flatly contradicts the EIR's Reliance on Forest Practice Rules that form the foundation of the mitigation for timber harvest impacts on aquatic resources under the Plan. There is no disagreement among experts on this fact – as detailed in the Higgins letter, numerous studies have shown that the FPRs fail to mitigate impacts on fisheries and other aquatic resources. The EIR either fails to address these studies, or acknowledges them but then stands their conclusions on their head. This fails the CEQA process entirely.	General
59	As detailed in the Stritthold letter, the EIR fails to include any meaningful watershed assessment, but rather a fragmented and often misinterpreted mélange of studies that are never synthesized or integrated as to their relevance and meaning to the impact assessment.	General
60	As detailed in the Stritthold letter, The EIR also fails to address the project's contribution to stressors on sensitive aquatic species, both individually and in terms of cumulative timber harvesting activities.	General
61	As detailed in the Stritthold letter, the EIR fails to address the importance of JDSF stronghold watersheds to the recovery, survival, or failure of sensitive aquatic species. The impacts of the various alternatives on these strongholds is never described or assessed in the EIR.	General
62	EIR states *"the current condition of aquatic resources was assessed as part of the watershed analysis conducted for JSDF as part of a draft Habitat Conservation Plan (CDF 1999)"*. On page VII.6.1-18, it is revealed that the stream inventories were actually done in 1995, 1996, and 1997, with the majority of the studies dating from 1995. The EIR Aquatic Resources assessment is using six to 11-year-old baseline information, which does not reflect current on the ground conditions. The old information describes a baseline that was being heavily impacted by	VII.6.1-2

	logging; the current baseline is likely far less impacted because the Forest has not seen active logging since 2000/2002. In fact, this is explicitly acknowledged in the EIR, pp. VII.6.1-44 and 45: *The rate of timber harvest increased substantially from the mid- 1980's to the mid-1990's in the Noyo River Watershed, when compared with periods for the last 70 years (Figure VII6.1.10. In some sub-basins approximately 80% of the land area has been included in a THP applying a range of harvest prescriptions. Extensive harvests in portions of the Big River watershed to the south of the JDSF occurred from the mid 1980s through the decade of the 1990s.* The degradation of the watersheds both within and outside of JSDF in that period are clearly described. However, the DEIR fails to inform the reader whether this paints an accurate picture of current conditions in the watershed, nearly a decade later. Therefore the Setting discussion appears to be at least incomplete and at most deceiving. Updated baseline information is necessary in order to conduct an accurate assessment of project impacts (change from baseline conditions to post-project conditions).	
63	This chapter has a 98-page setting section and an 11-page impact/mitigation section, including analysis of impacts to six alternatives, or less than two pages of impacts/mitigations per alternative. The setting section is a data dump of all available information on fisheries and associated hydrologic, sediment, and water quality information. There is no indication in the text as to what is important or not important. Further, where varying data sets and conclusions are provided, there is no comparative assessment to allow the reader to understand what's actually being used to determine the EIR's conclusions regarding the sensitivity or importance of the resource, or of the factors affecting the health of the aquatic resources. This is a multi-disciplinary assessment rather than an interdisciplinary assessment.	VII.6.1, general
64	An EIR is intended to inform the public and decision-makers, many of whom are lay people with little technical background. This EIR in general, and the Aquatic Resources section in particular are so heavily laden with untranslated technical jargon that it fails to serve CEQA's public information purposes. For example, the pool habitat and sediment and spawning gravel quality assessments on pp. VII.6.1-21 through 25 are completely indecipherable technical jargon. Similarly, the discussions of fish populations on pp. VII.6.1-76 through 81 are completely indecipherable to a non-fish biologist. The steelhead listing information on pp. VII.6.1-87 through 91 is another form of data dump – much of this information has nothing to do with the study area at all. The lay-reader is left at a complete loss in attempting to understand the meaning and significance of this	VII.6.1, general

	information. This problem of a complete failure to edit the document to remove extraneous information and explain key facts and processes so that a logical trail from setting to impacts to mitigation can be followed by the reader is repeated throughout the section and document. Interestingly, of the entire 98 pages of setting, one paragraph on p. VII.6.1-37 seems to sum up the entire mountain of gibberish: *"In early-seral stages, the immature riparian vegetation (both hardwood and coniferous species) is a low-to-moderate shade source and a poor contributor of large wood. In mid-seral stages, the riparian vegetation is a good shade source and a low-to-moderate contributor of large wood. Most riparian vegetation does not become a good source of large wood until late-seral stages. Although much of the land is currently in early- to mid-seral stages, riparian habitat should improve over time (20-90 years)."* However, the EIR fails to inform the reader what will happen to the fisheries in the interim, i.e. in the next 20 years, which will be the primary focus of the plan. Will the fisheries drop below self-sustaining levels? Will there be any fish left to enjoy the improved conditions in the future? Will certain alternatives avoid 20 years of continued degradation of the resources? This is of real concern because, fisheries stocks have declined precipitously as shown on Table VII.6.1.8, and recognized by the NMFS's 2001 listing of the Coho "*The Central California Coast ESU is presently in danger of extinction*". (DEIR, p. 57). This was echoed by CDFG in 2002, and by the 2000 NOAA Fisheries listing of Northern California steelhead populations as threatened. The DEIR, p. VII.6-71 further acknowledges that "*Chinook salmon continue to exhibit depressed population sizes [and that] spring-run Chinook…may not be extant anywhere in the range of the [Coastal California] ESU.*" Somehow, despite the document's acknowledgement of the fisheries crash, the DEIR concludes, absent any supporting data, that continued widespread logging of the Forest would have no potentially significant impact.	
65	As detailed in the Higgins letter, the EIR mysteriously relies on1996-2001 water temperature data despite the existence of an extensive system of instantaneous water temperature monitors. This fails to describe an important baseline condition at the time of preparation of the EIR, as required by CEQA.	
66	As detailed in the Higgins letter, the EIR uses an incorrect turbidity threshold for salmonids of 40 ntu, while it has been clearly shown that 25ntu is the correct threshold standard. Please revise the impacts assessment using the correct threshold.	
67	The Habitat Suitability Overview on pp. VII.6.1-37 through 53 provides relatively detailed information (albeit outdated) the major	VII.6.1-37 through 53

	tributaries in the Planning Area, however this information, like most of the setting information, is not carried through to the Impacts and Mitigations discussions. Because the specific areas to be harvested under the plan are known (and disclosed elsewhere in the document), it is possible to determine at this time the project logging's impacts on each of these water courses. Therefore it is impermissible to fail to assess this impact in the Plan EIR, and improper to defer those assessments to the THP stage.	
68	Section 6.1.12 describes the project components intended to protect habitat. This information Project Description or Impacts information, not setting. This is an example of the muddled organization of the document, where setting and impact information is frequently mis-located such that the reader is prevented from understanding the differences between baseline conditions and post-project conditions.	Section 6.1.12
69	Sections 6.1.12, 13, and 14 also set forth a host of mitigation included in the plan, which, the EIR concludes, is adequate to protect aquatic resources (the EIR states explicitly that no additional mitigation are required). Yet the Impacts discussion fails to provide any analysis that these protections would actually protect the resources. Rather, the impacts discussions seems to take the position that, because the Plan would be better than the 1995-6 logging methods, that the project impacts would be beneficial. This fails to acknowledge the large-scale logging that would be permitted by the Plan, which may not be beneficial compared to the current no-logging conditions.	Sections 6.1.12, 13, and 14
70	Impacts 1a-e conclude that the project would have less than significant or beneficial impacts on various hydrologic, geomorphic, and debris conditions affecting fisheries. However, there is no analysis as to the effects of the project logging's impacts, in the context of past and existing degradation of fisheries habitat, on actual fish populations.	p. VII.6.1-99 – 104
71	For Impacts 2-4, there is no analysis as to the effects of the project logging's impacts, in the context of past and existing degradation of fisheries habitat, on actual fish populations. The big question of whether the fisheries would continue to decline, and to what extent, remains unanswered. Impact 5, which should explicitly answer that question, basically states that habitat would improve compared with current (or at least 1996) degraded conditions, but concludes with the vague "Some beneficial effects on fish and amphibian populations will result from the cumulative effects of these measures." This "Impacts assessment" fails completely to address the EIR's stated significance criteria, namely whether fish or amphibian populations will drop below self-sustaining levels. Impact 6 has a similarly vague conclusion of beneficial effect, but even that conclusion is based on an extremely tentative conclusion that "These measures will lead to improvement of instream habitat and	pp. VII.6.1-105-111

	may (emphasis added) lead to increased numbers of fish. In none of these "analyses" are the numerous studies described in excruciating detail in the setting section referenced. There is simply no analytical trail to support the conclusions that the project would result in rejuvenation of the depressed fisheries, or protect them from extinction due to project or cumulative (past, present, and reasonably foreseeable) forest management practices.	
	Botanical Resources	
72	The EIR relies almost entirely on CNDDB data for its identification of botanical resources. Doesn't the JDSF have its own species survey data (at a more-detailed stand level)? If so, that information should be incorporated into the EIR.	General
73	The last paragraph on p. VII.6.2-13 states that project impacts on the 100-acres of unique plant communities will be evaluated separately when specific projects are proposed. This is an improper deferral of analysis. To the extent that the plan permits certain activities in those areas, impacts should be determined in this EIR, at least on a general level, and programmatic mitigations identified and adopted that would eliminate potential impacts to these species/habitats.	p. VII.6.2-13;
74 74a	The claims that Impacts 1-5 would be less than significant because of the plan's site and species-specific protection measures is entirely unsupported by fact. The Management Plan calls only for surveys and future development of mitigation for plant species of concern, and has only generic language regarding protection activities in old-growth forests and wetlands. Similarly, the goals and objectives in the plan are so vague as to not provide any mitigation assurance (for example, they are conditioned by terms such as "work towards", minimize", "as feasible"). Nearly all mitigation is deferred to the THPs. As discussed above, programmatic mitigations should be identified and adopted that would eliminate potential impacts to these species/habitats. Absent explicit mitigation measures, the EIR contains no evidence to support its conclusions of no significant impacts to plant species.	VII.6.2-21-24; VII.6.2-25-29
75	The Additional Management Measures (referred to as a Mitigation Measures in the ADEIR) for cumulative botanical impacts rely on vague recommendations for "discouraging" , "monitoring", "future study", and "consultation" to mitigate this impact. These vague terms do not assure mitigation and, therefore, either this impact must be considered significant or the mitigations need to be revised to require specific measures to avoid the project's contribution to cumulatively significant impacts.	VII.6.2-45 & 46
76	This section fails to address the potential impacts on special status plant species, communities, and habitats from the use of herbicides.	VII.6.2, general

	Please add this analysis to the EIR.	
	Timber Resources	
77	The timber resources section fails to provide the information on the age of forest stands. This information is critical to identifying impacts of the project on numerous sensitive species, both in the short- and long-term. Specifically, "mature" forests are not identified, nor are the impacts of removal of those forests in the plan. See the Strittholt letter for additional discussion of this issue.	General
78	The second paragraph notes that new forest inventory information will be available by the end of 2005, and that the Continuous Forest Inventory also is scheduled for completion at this time. Given that the DEIR was released to the public in mid- December, 2005, this information should have been included in the EIR rather than the old data. This is particularly important given Board Policy 0351.4 C, which states that "Allowable cut levels must be derived from pertinent current inventory and growth data." The EIR's failure to use the current forest inventory data results in a Plan and CEQA analysis that fail to comply with this Board Policy.	p. VII.6.3-4
79	The discussion in this chapter indicates that the Department has a clear plan for which areas of the Forest will be harvested, and what sorts of harvest will be applied to each area (i.e. Fourteen Gulch compartment described on p. VII.6.3-11), yet the impact assessments throughout the EIR fail to reflect the specificity of this plan. The impact assessments should be revised to assess site-specific impacts of the plan to the extent that the plan is site-specific. Deferral of analysis and mitigation this analysis to future THP's is not permissible under CEQA. At a minimum, mitigations should be expanded to assure mitigation in all of these areas.	General
80	The criteria used in the evaluation of even-aged stands (see pp. VII.6.3-11-12) are so vague as to not assure that significant adverse impacts would occur. For example, "The amount of regeneration harvesting in an assessment area may need to be constrained in order to reduce the potential for adverse cumulative watershed, habitat, aesthetic, or other environmental impacts" is so vague as to be meaningless; it provides no guidance to implementation of the project, not any assurance of mitigation against cumulative impacts. Please revise thee criteria to provide for mitigation against cumulative impacts, which should be the primary focus of the EIR.	Chapter VII.6.3, general
81	This entire chapter is really part of the project description and should be integrated into Chapter III to allow the reader a full understanding of the project being assessed (prior to reading half of the EIR), and to reduce the redundancy of the document.	Chapter VII.6.3, general
82	Table VII.6.3.4 should be in the Project Information chapter – it clearly indicates what that chapter fails to disclose; that 29% of the entire forest and 40% of the high production area is proposed for	p. VII.6.3-28

	clearcutting.	
83	The Plan includes the use of herbicides on hardwoods, yet the EIR includes no analysis of the potential impacts of the use of herbicides. (See additional comments on the hazards and Hazardous Materials Section)	p. VII.6.3-30
84	Whether or not Impacts 1 and 2 are considered beneficial or adverse depends on the baseline and duration considered in the analyses. Continuing to protect already extant and protected old-growth forests, (as considered beneficial in Impact 1) is not a beneficial impact because those groves already exist and current "no-cut" policies would not be altered by the Plan. Similarly, Impact 2 continues to cut large swaths of the forest and therefore does not benefit the forest compared with current no-cut management. Further, the EIR impacts assessment grossly considers growth over the entire forest and not specific sub-basins, where harvesting may far outstrip growth. The Plan includes enough detail for sub-basin analyses, and these should be included in the EIR as they are key to other impact assessments such as biological resources and water quality. Finally, as discussed in previous comments, the conclusions that the Plan would result in increased late-seral stands and total board feet of standing timber are based on outdated forest inventories and must be updated with current inventory information.	pp. VII.6.3-32 & 33
85	Impact 3 is not a CEQA environmental impact and should be deleted from the EIR – maximum sustained production is an economic, not environmental, consideration and may, in fact, create more environmental impacts than lesser production levels. Please remove this non-environmental "impact" from the EIR.	p. VII.6.3-38
86	Impact 4 is not a CEQA environmental impact and should be deleted from the EIR – use of silvicultural methods is a management goal, not an environmental consideration and may, in fact, create more environmental impacts than lesser production levels. Please remove this non-environmental "impact" from the EIR.	p. VII.6.3-40
	Forest Protection	
87	The first paragraph states that pest management activities is not required under CEQA. This is false; if it is part of the project and may result in environmental impacts (i.e. from use of pesticides), it is required to be assessed. Additionally, the "Impacts" subsection has the wrong focus – instead of focusing on diseases, it should focus on the potential impacts of IPM to the various environmental resources areas. Please revise as	p. VII.6.4-1; sec. VII..6.4, general

	appropriate.	
88	Sub-section 6.4.2 is entirely out of place and results in piecemealed impact assessments. Forest protection measures that are part of the Plan his information should be summarized in the Project Information section and impacts should be evaluated and the discussions integrated into the discussions on the various resource topics represented by the subheadings.	Section VII.6.4.2, general
89	The so-called "mitigations" in this section are not mitigations for project impacts, but rather means to assess or treat various tree pathologies. This section needs to be revised to mitigate the potential impacts that IPM activities may result in (i.e. use of pesticides and herbicides).	Section VII.6.4.3, general
	Wetlands	
90	This section fails to provide any meaningful analysis of the potential impacts of the Plan to wetlands. It includes no maps or descriptions of wetlands within the Forest, nor does it identify or evaluate potential project impacts to those wetlands. Instead it relies upon a vague Plan policy to "manage wetlands in a manner that maintains or restores productivity…." And, rather than evaluating compliance with that goal, just assumes compliance. CEQA requires a trail of evidence supporting conclusions, not just unsupported assertions.	Section VII.6.5, general
	Wildlife	
91	This 270-page wildlife section is a massive data dump where important issues are buried in trivia and semi-random data. Various evaluations of habitat are presented but the reader is provided no means of determining the validity of each approach, or even which approaches/conclusions are ultimately included in the impacts analysis. Despite this bulk of data, no specific impact or mitigations are called out in the text. It's format does not follow that of the rest of the EIR. Impact, setting, and mitigation information is first mashed together and general Plan policies are assumed to mitigate even if they would only "potentially be implements" (see, for example marbled murrelet discussion on bottom of p. 89). Impacts of alternatives are not discussed immediately those of the project, as in other chapters. The Impacts discussions are not numbered and are not tied back to, or supported by the setting discussions. For potentially significant impacts, surveys for species are considered sufficient to mitigate impacts to less than significant levels when, under CEQA case law, surveys do not constitute mitigation and even where the EIR acknowledges significant reductions in habitats (i.e. Cooper's hawk, bald eagle, osprey marbled murrelet, yellow warbler, Vaux's swift, purple martin, etc.) over the next 20 years. In fact, Table VII.6.6.17 clearly shows that numerous special status species, including nearly all carnivores and fur-bearers, would experience major habitat	Section VII.6.6. general

	declines through 2030, some of which would continue far longer into the future. Habitats for some species (i.e. white-tailed kite and northern harrier) would be eliminated entirely. Nowhere does the discussion evaluate the significance of 20-30 years of declining habitats to species already in marked decline or threatened with extinction. This analysis needs to be added to the EIR for each species to comply with CEQA's analytical requirements. The entire section needs to be edited to succinctly describe the wildlife resources and habitats of the forest, and provide relevant information upon which to conduct the impact assessment. This entire chapter is unreadable to the layperson and fails completely to provide. The CEQA-mandated evaluation of potential significant impacts and mitigation measures on these resources.	
92	As detailed in the Strittholt letter, the use of WHR's tends to underestimate project impacts. In nearly all cases, more detailed assessments have shown "a dramatic reduction in habitat potential for most wildlife species" compared with the WRH models.	General
93	The EIR wildlife assessment fails to provide adequate analytical detail to allow the public and decision-makers to compare how the different alternatives' impacts compare spatially; this information is required to identify impacts on specific special-status species.	General
94	The EIR wildlife assessment fails to provide adequate analytical detail regarding the effects of cumulative stressors on specific special-status species. For example, the various subcategories in the Watershed Cumulative Effects discussion are disaggregated and addressed separately, and the impacts are never re-aggregated.	General
95	The assertion that the project would not conflict with any habitat conservation plan or equivalent is not correct. Recovery plans for the various state- and federally listed threatened or endangered species are, in fact, habitat conservation plans. The EIR should be augmented to address the proposed JSDF's Management Plan's compliance with these species' ESA Recovery Plans.	p. VII.6.6-130
	Geology and Soils	
96	As described in the California Regional Water Quality Control Board, North Coast Region's comment letter dated February 9, 2006, the water quality analysis has numerous substantive errors and deficiencies. The RWQCB letter spells out in detail how the sediment analysis makes a series of "best case" assumptions that are unsupported in the EIR or in the Plan itself. As described in that letter, there is no evidence in the Plan that it would, in fact, protect water quality such that the project would comply with TMDL requirements, either individually or cumulatively. The RWQCB letter also provides evidence that deferring sediment protection to the THP stage has not adequately protected water quality, even in the most recent THPs that were written to be consistent with the Plan's policies.	general

97	The statement that harvest-related surface erosion is a temporary impact does not mean that the impact is less than significant. Please define "temporary" in this context and discuss how this sort of temporary impact may be significant.	p. VI.7-8
98	Porter Cologne Act discussion: Items 1 and 2 state that the Basin Plan prohibits discharges deleterious to fish, wildlife, and other beneficial uses. Yet the EIR discloses that ongoing timber harvesting activities in the Forest have contributed to Forest-specific and cumulative degradation of habitats and species contra to these prohibitions. The EIR provides no substantive information/analyses that would lead the reader to believe that such deleterious effects would not continue, albeit at lesser levels. In order to assess the project's compliance with these regulations, please provide calculations indicating whether the Plan would result in or contribute to exceedances of TMDL's.	p. VII.7-27
99	Hillslope management policies in the Plan consist of field review and consultation with geologists. Consultation and review do not provide mitigation because there are no actual requirements for avoiding or mitigating impacts to unstable slopes from timber harvest activities. Therefore these policies cannot be shown to mitigate project impacts.	p.VII.7-30
100	Impacts 4 and 5: See above – 'modern forest management practices' referred to on p. 37 have still resulted in massive fisheries declines due in large part to water quality/sedimentation issues resulting from landsliding and erosion. Further, landslides still result from timber harvesting and associated road-cutting. The impact refers to people and structures but fails to address the water quality implications of landslides. The Plan adds consultation with geologists to these practices, but no actual on-the-ground mitigation/avoidance is required. Therefore this impact is still significant.	p.VII.7-36 - 41
	Hazards and Hazardous Materials	
101	Last paragraph: Studies have shown that the greatest water quality contamination and health hazard impacts are not from the glyphosate itself, but rather from the quantities of adjuvants and surfactants, which are added to the glyphosate herbicide mixture in larger quantities and have greater toxicities to humans. Please describe and evaluate the environmental and human health effects of the all components of the glyphosate herbicide mixtures, as well as any other known herbicide mixtures that may be applied in this forest. The EIR acknowledges (p. 8-11) that the low herbicide uses cited in the document would be substantially increased with the proposed Plan, therefore the EIR should assess the potential impacts of the anticipated quantities of herbicide use.	p. VII.8-11
102	First full paragraph states that "Because DPR is the CEQA Lead Agency, this determination [of no environmental impact of a pesticide] is binding on all state agencies, including CDF." The EIR further explains that DPR would be responsible for responding to any	p. VII.8-15

	comments on herbicide use. This is patently false and misrepresents CEQA's analytical requirements. The cited CEQA sections (Statutes section 21080.1 and Guidelines section 15050) do not state, imply, or otherwise indicate that all state agencies must make the same findings for a specific project in a specific area as the DPR made for statewide general application of herbicides. The EIR fails to provide any actual analytical evidence that herbicide application associated with the Plan would not result in any significant impacts. In fact, the EIR fails even to identify the general quantities of herbicides to be used. It does not identify adjuvants and/or surfactants to be used in the Forest. There is simply no analysis; instead the EIR relies on legal arguments that are unsupported in the statutes. The DPR's CEQA findings did not consider specific sensitive resources or surfactant formulations and cannot logically be applied to all specific application sites in the State. The State itself has recognized this and prepared numerous EIRs on the projects involving large-scale use of herbicides, all of which include actual analyses of the potential impacts of the herbicides (for example the *SF Bay Estuary Invasive Spartina Project EIR*, and the *Egeria Densa Control Program EIR*). Please revise the EIR to include an actual analysis of herbicide use and recirculate for public and agency comment.	
103	See above; the EIR is fundamentally lacking any actual analysis of pesticide use. Further, the reference to a 2001 PALCO THP where CDF made similar findings is peculiar. CDF seems to citing itself to say that its (clearly erroneous) interpretation of CEQA is correct. This entire impact discussion is nothing more than legalistic argument unsupported by fact or statute.	Impact 3; p. VII.8-20 through 22
	Heritage Resources	
104	This section muddles impacts in with the setting section, blurring the distinction between setting and impacts (see, for example, p. VII.9-15, 2nd paragraph, p. VII.9-193rd paragraph).	Section VIII.9, general
105	If the Cat barn is to be torn down as part of the Plan, that would be a significant unmitigable impact under CEQA (see League for Protection of Oakland's Architectural Resources v. City of Oakland, et. al., Feb 10, 1997). Please revise the EIR impact section accordingly.	p. VII.9-19
106	Roadway development is known to adversely affect cultural resources (p. 32) and, as noted on the bottom of p. 33, road-building proposed in the Plan could still adversely affect these resources despite the management plan policies. Therefore, the EIR should still consider this impact to be potentially significant.	p. VII.9-33
107	Per settled case law, Mitigation Measure 1's requirements of documentation and data recovery of historic buildings that may be affected by THP activities would not mitigate the impacts below the significance level(see League for Protection of Oakland's Architectural Resources v. City of Oakland, et. al., Feb 10, 1997).	p. VII.9-43

	Therefore this impact is significant and not mitigable. Please revise this impact accordingly.	
108	Mitigations 3, 4, 8, 13, and 14 also do not guarantee any actual mitigation of potentially significant impacts to less than significant levels in that they rely primarily on future studies, consultation, and training, and not avoidance or on-the ground mitigation.	pp. VII.9-43-52
	Water Quality	
109	As described in the California Regional Water Quality Control Board, North Coast Region's comment letter dated February 9, 2006, the water quality analysis has numerous substantive errors and deficiencies. The RWQCB letter spells out in detail how the water quality analysis makes a series of "best case" assumptions that are unsupported in the EIR or in the Plan itself. As described in that letter, there is no evidence in the Plan that it would, in fact, protect water quality such that the project would not significantly adversely affect aquatic resources. TMDL's are not proposed to be met, and as a result, salmonids may continue to decline as a result of implementation of the Plan. The RWQCB letter also provides evidence that deferring water quality protection to the THP stage has not adequately protected water quality, even in the most recent THPs that were written to be consistent with the Plan's policies. These deficiencies is significant to the extent that the impact assessment needs to be completely redone and recirculated to provide decision-makers and the public with meaningful information regarding the project.	general
110	Please identify the numerical TMDL's for the project's Noyo and Big River watershed. Please describe how current conditions compare to these TMDL's. The EIR Water Quality Impacts section should then compare project water quality conditions with these TMDL's to determine significance.	p. VII.10-7; Section VII.10, general
111	First bullet point: Increased sediment occurs for 10-11 years. This is not a short-term impact, particularly given the life cycles of salmonids. Please revise text and analyses accordingly.	p. VII.10-9
112	Similarly, nitrate levels can rise 3-5 times for periods of 3-5 years. Please reconsider the significance of this "short-term" impact in light of life cycles of salmonids.	p. VII.10-11
113	Please provide a detailed evaluation of anticipated Plan water quality compliance with each of the waste discharge prohibitions and water quality objectives identified on pp. VII.10-15 & 16. The water quality impact assessment should be revised to reflect project compliance/non-compliance with these criteria. This approach is consistent with the significance criteria identified on p. VII.10-20.	p. VII.10-15
114	Impact 1: The EIR provides no quantitative evidence that past water	p. VII.10-21

	quality problems and violations of water quality standards will not be violated under the Plan. Instead the EIR claims that "long-term potential sediment delivery in these already sediment-impaired waterbodies will be reduced…" (p. 23). This sidesteps the issue as to whether or not the Plan will comply with applicable water quality criteria, the knowledge of which is essential to identifying the environmentally superior alternative, as well as the significance of the Plan's own impacts. To remedy this deficiency, please conduct a quantitative model that permits the reader to determine whether the Plan will result in compliance with TMDL's and other water quality criteria in the Basin Plan for each 10-year plan period.	through 25
115	Impact 6: Please discuss the potential water quality impacts of the Plan's proposed use of herbicides on water quality.	p. VII.10-27 & 28
116	Please provide evidence supporting the conclusion that the proposed 200-foot neighbor buffer would actually mitigate all potential land use impacts. Please provide evidence that the California Department of Parks and Recreation and Mendocino County agree that this buffer is adequate. This comment also applies to Impact 3, Cumulative Impacts.	p. VII.11-10 & 13
	Land Use Planning	
117	The Thresholds of Significance need to be augmented to address actual land use conflicts, such as conflicts with the adjacent parks.	p. VII.11-11
118	Please add a discussion of potential conflicts with adjacent State Parks uses to the Impact 2 discussion/analysis.	p. VII.11-11 &12
	Noise	
119	Impact 1: The Noise impacts assessment is devoid of any analysis. What would the noise levels be at the nearest residence? At the adjacent State Park lands? Mitigation 1 inappropriately defers all noise mitigation to future THPs. Therefore the EIR reader is informed of neither the impact or mitigation. Please add detailed impacts analyses and mitigation requirements to guide THP site-specific impact and mitigation assessment (i.e. limitations on hours of work, limitations on equipment use near sensitive human or animal receptors).	p. VII.12-12
120	Impact 2: The Vibration impacts assessment is devoid of any analysis. What would the vibration levels be at the nearest residence? Mitigation 2 inappropriately defers all noise mitigation to future rock quarry permits.	p. VII.12-12

	Therefore the EIR reader is informed of neither the impact or mitigation. Please add detailed impacts analyses and mitigation requirements to guide site-specific impact and mitigation assessment (i.e. limitations on hours of work, limitations on equipment use near sensitive human or animal receptors).	
121	Impact 3: Temporary impacts can be significant (see Berkeley Keep Jets Over the Bay v. Board of Port Commissioners case). Please provide an analysis of potential temporary noise impacts on both human and sensitive special status animal species.	p. VII.12-13
122	Impact 4: This is a conclusion supported by zero analysis. Please provide an noise assessment showing if/how well the Plan's 200-foot buffers mitigate noise impacts on sensitive species and humans. Please note that the "mitigation" for helicopter flight noise' only requires "consideration" of flight characteristics. Consideration is not mitigation.	p. VII.12-13
123	Mitigation 3 (Impact 6) is not actual mitigation but rather just deferral of mitigation to the project reviews. Please provide actual mitigation as described in comments on Impact 1, above.	p. VII.12-15
	Public Services and Recreation	
124	Please update the discussion of the Big River Interim Management Plan, which should have been complete at the date of release of the DEIR.	p. VII.14-14
125	Please add the following threshold of significance: If the DFMP would conflict with the use of existing nearby or adjacent recreation resources.	p. VII.14-21
126	Please describe why decommissioning of Road 200/loss of access to waterfall Grove is not considered a significant impact to recreational resources. What is the basis for the conclusion that Impact 2a is "less than significant"?	p. VII.14-23
127	Please add an analysis of the project's potential conflicts with recreational uses/enjoyment of the adjacent State Parks.	p. VII.14-24
	Transportation and Traffic	
128	The truck trip generation analysis is an impermissible plan-to-plan assessment. Rather than comparing truck trips under the proposed Plan with the current Plan, project trips should be compared with current conditions, which involve minimal timber harvest/trucking. The project would generate on the order of 8,000 truck trips/year, or about 53 trucks/day, which equates to about 106 one-way trips/day. Please assess the potential for impacts to roadways, including congestions/delays and wear, of these truck trips.	p. VII.15-3

129	The traffic chapter fails to include any cumulative traffic impacts analysis. Chapter VIII, Cumulative Impacts also fails to provide any quantitative assessment of cumulative traffic impacts. Please add this.	p. VII.15-10
	Cumulative Effects	
130	Cumulative impacts assessment is split up between this chapter and some, but not all, of chapter VII. This scattering of information makes identification of the cumulative impacts difficult and confusing. For document readability, the EIR should be edited so that the cumulative impacts assessment is in one chapter or the other.	Ch VIII, Cumulative, general
131	Tables VIII.9 and VIII.10 clearly show that detailed information is available regarding the proposed timber management (harvesting) activities under the Plan over the next 10 years. Because this information is known, the impacts of these specific harvest on specific habitats, species, fisheries, water quality, noise receptors, roadways, and land use conflicts, should be disclosed in this EIR. These THP's should be overlain on sensitive resources maps to determine which, if any, sensitive resources may be affected in the next ten years. Mitigation measures should be included in this document that address the major impacts of these known THP's.	Ch VIII, Cumulative, general
132	As described in the Higgins letter, CDF does not use timber harvest data to qualify cumulative impacts, but rather relies on an unsupported assumption that all of those impacts are fully mitigated. Because of the past heavy cutting on the Forest, even moderate harvesting in the future would contribute to cumulatively significant impacts. The extent of cut on other lands and the previous intensive management on JDSF suggests that only thinning from below, full cable-suspension selective logging, and "light-touch" forestry over the next 20 years would limit cumulative impacts of timber harvesting to a less-than-significant level.	General
133	First paragraph concludes that the project "would result in beneficial temperatures over time". This is deceptive in that it fails to describe the 5-10-year impact of proposed THP's on stream temperatures. Because the proposed THP's are known, this analysis must be include in the EIR. Assessment of the 5-10 year harvesting impacts also is important because of the life cycles of the already threatened salmonid runs. Please add this assessment to the EIR.	p. VIII.45
134	First full paragraph claims that the project would reduce nutrient loadings compared with existing/past logging. Is this true compared with current minimal logging levels?	p. VIII-46
135	The discussion of large woody debris is not a cumulative impacts assessment. It is just a rehash of measures included in the Plan to reduce this impacts, followed by a vague statement that LWD would increase over time. Please revise so that the reader can discern the level of impact of the Plan plus past and current activities on LWD.	pp. VIII-46-50

	What is the level of impact from the known THP's over the next 10 years? How might this affect threatened or endangered fish species during that period?	
136	The discussion of sediment effects on water quality is not a cumulative impacts assessment. It is just a rehash of measures included in the Plan to reduce this impacts, followed by vague statements that background sediment production would not be increased, and that timber harvest activity sediment production "would be held to a minimum", and that "it is concluded that timber management under alternatives C2 through F will result in a decrease in the current level of adverse sediment cumulative impacts over time". Please revise so that the reader can discern the level of impact of the Plan plus past and current activities on sediment/water quality. What is the level of impact from the known THP's over the next 10 years? Will cumulative sediment production meet TMDL's? How might this affect threatened or endangered fish species during that period?	pp. VIII-50-60
137	The Hazardous Materials discussion contains no actual analysis and instead refers back to the Section VII.8. text, which includes no actual analysis of the impacts of herbicides/pesticides, just legal argument as to why no such analysis is required. The Cumulative Impacts discussion then discusses how forestry use of herbicides/pesticides is a small percentage of county-wide use of those products. This approach to cumulative impact assessment is entirely counter to the basic concept of cumulative impacts, which is that many small contributors to an impact may result in an ultimately significant impact– instead of saying that the project contribution is small, therefore the impact is not significant, the assessment should calculate what the impact of the project plus other existing and planned herbicide uses are.	pp. VIII-60, 61
		pp. VIII-85-89
	Other CEQA Analyses	
138	Unavoidable Impacts: Please revise this section in light of the above comments.	p. IX-1

RICHARD GRASSETTI QUALIFICATIONS

Richard Grassetti

PRINCIPAL

Expertise

- CEQA/NEPA Environmental Assessment
- Project Management
- Geologic and Hydrologic Analysis

Principal Professiona l Responsibilities

Mr. Grassetti is an environmental planner with over 19 years of experience in environmental impact analysis, hydrologic and geologic assessment, project management, and regulatory compliance. He is a recognized expert on California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) processes, and has served as an expert witness on CEQA and planning issues. Mr. Grassetti regularly conducts peer review and QC/QA for all types of environmental impact analyses, and works frequently with public agencies, citizens groups, and applicants. He has managed the preparation of over 50 CEQA and NEPA documents, as well as numerous local agency planning and permitting documents. Mr. Grassetti has prepared over 200 hydrologic, geologic, and other technical analyses for CEQA and NEPA documents. He has analyzed the environmental impacts of a wide range of projects including residential developments, waste management projects, mixed-use developments, infrastructure improvements, energy development, military base reuse projects, and recreational facilities throughout the western U.S. In addition to his consulting practice, Mr. Grassetti is an adjunct professor at California State University, Hayward, where he teaches courses on environmental impact assessment, among others.

Professional Services

- Management and preparation of all types of environmental impact assessment and documentation for public agencies, applicants, citizens groups, and attorneys
- Peer review of environmental documents for technical adequacy and regulatory compliance
- Expert witness services
- Assisting clients in CEQA and NEPA process compliance

- Preparation of hydrologic and geologic analyses for EIRs and EISs
- Preparation of project feasibility, opportunities, and constraints analyses, and mitigation monitoring and reporting plans

Education

University of Oregon, Eugene, Department of Geography, M.A., Geography (Emphasis on Fluvial Geomorphology and Water Resources Planning), 1981.

University of California, Berkeley, Department of Geography, B.A., Physical Geography, 1978.

Professional Experience

1992-Present	Principal, GECo Environmental Consulting, Berkeley, CA
1994-Present	Adjunct Professor, Department of Geography and Environmental Studies, California State University, Hayward, CA
1988-1992	Environmental Group Co-Manager/ Senior Project Manager, LSA Associates, Inc. Richmond, CA
1987-1988	Independent Environmental Consultant, Berkeley, CA
1986-1987	Environmental/Urban Planner, City of Richmond, CA
1982-1986	Senior Technical Associate - Hydrology and Geology - Environmental Science Associates, Inc. San Francisco, CA
1979-1981	Graduate Teaching Fellow, Department of Geography, University of Oregon, Eugene, OR
1978	Intern, California Division of Mines and Geology, San Francisco, CA

Professional Affiliations and

Member and Past Chapter Director, Association of Environmental Professionals, San Francisco Bay Chapter

Certifications

Member, International Association for Impact Assessment

Publications and Presentations

Grassetti, R. *Round Up The Usual Suspects: Common Deficiencies in US and California Environmental Impact assessments.* Paper Presented at International Association for Impact Assessment Conference, Vancouver, Canada. May 2004.

Grassetti, R. *Understanding Environmental Impact Assessment – A Layperson's Guide to Environmental Impact Documents and Processes.* (in press).

Grassetti, R. *Developing a Citizens Handbook for Impact Assessment.* Paper Presented at International Association for Impact Assessment Conference, Marrakech, Morocco. June 2003

Grassetti, R. *CEQA and Sustainability.* Paper Presented at Association of Environmental Professionals Conference, Palm Springs, California. April 2002.

Grassetti, R. and M. Kent. *Certifying Green Development, an Incentive-Based Application of Environmental Impact Assessment.* Paper Presented at International Association for Impact Assessment Conference, Cartagena, Colombia. May 2001

Grassetti, Richard. *Report from the Headwaters: Promises and Failures of Strategic Environmental Assessment in Preserving California's Ancient Redwoods.* Paper Presented at International Association for Impact Assessment Conference, Glasgow, Scotland. June 1999.

Grassetti, R. A., N. Dennis, and R. Odland. *An Analytical Framework for Sustainable Development in EIA in the USA.* Paper Presented at International Association for Impact Assessment Conference, Christchurch, New Zealand. April 1998.

Grassetti, R. A. *Ethics, Public Policy, and the Environmental Professional.* Presentation at the Association of Environmental Professionals Annual Conference, San Diego. May 1992.

Grassetti, R. A. *Regulation and Development of Urban Area Wetlands in the United States: The San Francisco Bay Area Case Study.* Water Quality Bulletin, United Nations/World Health Organization Collaborating Centre on Surface and Ground Water Quality. April 1989.

Grassetti, R. A. *Cumulative Impacts Analysis, An Overview*. Journal of Pesticide Reform. Fall 1986.

1986, 1987. Guest Lecturer, Environmental Studies Program, University of California, Berkeley.

REPRESENTATIVE PROJECT EXPERIENCE

A. PREPARATION OF CEQA/NEPA TECHNICAL ANALYSES/DOCUMENTS

Baxter Creek Restoration Project CEQA Consulting. Mr. Grassetti assisted City of El Cerrito staff in the preparation of an Initial Study for the proposed Baxter Creek Restoration Project. Client: City of El Cerrito.

Fallon Villages CEQA Consulting. Mr. Grassetti prepared draft EIR sections end provided CEQA guidance for an 1100-acre planned development in Dublin. Major issues included land use, traffic, traffic, and biological resources. Client: Braddock and Logan Services.

Pelandale-McHenry Specific Plan. Mr. Grassetti prepared the Specific Plan for an 80-acre residential/commercial development in Modesto. Major issues included land use, traffic, and provision of adequate infrastructure. Client: Meritage Homes.

Monte Cresta Roadway Extension Initial Study. Mr. Grassetti prepared an Initial Study/Negative declaration for a roadway extension in San Juan Hills area of the City of Belmont. Major issues included slope stability and growth inducement. Client: City of Belmont.

Bethel Island Water Supply Project. Mr. Grassetti prepared and Initial Study for a proposed new water supply system for the community of Bethel Island in Contra Costa County. Major issues included growth inducement, archaeological resources, and biological resources. Client: Bethel Island Municipal Improvement District.

Invasive Spartina Control Project EIR/EIS and Addendum. Mr. Grassetti prepared the programmatic EIR/EIS on a plan to control invasive cordgrasses throughout the San Francisco Bay. Major issues included endangered species, visual resources, water quality, and human health and safety. Mr. Grassetti subsequently prepared an addendum for the addition of a new herbicide to the Spartina Control Program. Client: California State Coastal Commission.

Aptos Sanitary Sewer Replacement Project Initial Study. Mr. Grassetti prepared an Initial Study for the replacement of a storm-damaged sanitary sewer pipeline in Santa Cruz County. Major issues included cultural resources and biological resources. Client: Harris and Associates.

Eastern Dublin Specific Plan Supplemental EIR. Mr. Grassetti prepared a Supplemental EIR for an 1100-acre mixed-use project in the City of Dublin. Major issues included traffic, biological resources, public services, noise, and air quality. Clients: Shea Homes and Braddock and Logan Services.

Consolidated Forward Landfill Project EIR Update. Mr. Grassetti prepared an EIR for the expansion and consolidation of the Forward Landfill and the Austin Road Landfill

near Stockton, CA. Major issues include toxics, water quality, traffic, biological resources, and air quality. Client: San Joaquin County Community Development Department.

Austin Road Landfill Expansion Project EIR Update. Mr. Grassetti prepared an Initial Study and Supplemental EIR updating a 1994 EIR for the expansion of the Austin Road Landfill near Stockton, CA. Major issues include water quality, traffic, biological resources, and air quality. Client: San Joaquin County Community Development Department.

Central Contra Costa Household Hazardous Waste Facility Studies: Mr. Grassetti assisted Central Contra Costa Sanitary District staff in the preparation of a Planning Study and subsequent CEQA Initial Study on feasibility, siting, and environmental issues associated with the development of a Household Hazardous Waste collection program and facility in Central Contra Costa County. Client: Central Contra Costa Sanitary District.

Southwest Richmond Flood Control Project IS. Mr. Grassetti prepared the Initial Study and Mitigated Negative Declaration for a proposed flood control project in the City of Richmond. Client: City of Richmond.

Wickland Oil Martinez Tank Farm Expansion Project EIR Management. Mr. Grassetti served as an extension of City of Martinez Planning Department staff to manage all aspects of the preparation of the CEQA review for a 2,000,000 barrel expansion at Wickland's Martinez oil storage terminal. We prepared the NOP, RFP, assisted in consultant selection, and managed the consultant preparing the EIR on this project. Client: City of Martinez.

Wayside Road Sewer Expansion Initial Study. Mr. Grassetti prepared an Initial Study and Mitigated Negative Declaration for a proposed new sewer system in the Wayside Road area of Portola Valley. Client: West Bay Sanitary District

Los Trancos Woods Sewer Expansion Initial Study. Mr. Grassetti prepared an Initial Study and Mitigated Negative Declaration for a proposed new sewer system in the Los Trancos Woods area of Portola Valley. Client: West Bay Sanitary District

Arastradero Road Sewer Expansion Initial Study. Mr. Grassetti prepared an Initial Study and Mitigated Negative Declaration for a proposed new sewer system in the Arastradero Road area of Portola Valley. Client: West Bay Sanitary District

Lower Orinda Pumping Station Initial Study/Negative Declaration. Mr. Grassetti prepared an Initial Study/Negative Declaration for renovating or relocating a wastewater pumping plant in Orinda, CA. Client: Central Contra Costa Sanitary District.

Shell Martinez Breakout Tanks Project Initial Study. Mr. Grassetti prepared an Initial Study for two proposed new waste water storage tanks at Shell's Martinez Manufacturing

Complex. Major issues included air quality, odors, and visual impacts. Client: City of Martinez.

Shell Martinez Biotreater Facility Initial Study. Mr. Grassetti prepared the Initial Study/Negative Declaration for a proposed new biotreater facility for Shell's Martinez Manufacturing Complex waste water treatment plant. Major issues included water quality, wetlands, growth-inducement, and cumulative impacts. Client: City of Martinez.

Vallejo Solar Power Plant Initial Study. Mr. Grassetti prepared a CEQA Initial Study/Negative declaration for a proposed photovoltaic array intended to power a water pumping plant in the City of Vallejo. Major issues included land use compatibility and visual quality. Client: City of Vallejo.

Ranch on Silver Creek CEQA Consulting. Mr. Grassetti prepared the Mitigation Monitoring and Reporting Program and other CEQA compliance tasks for a large residential/golf course project in San Jose. Client: Sycamore Associates.

Morgan Hill Ranch Initial Study Analyses. Mr. Grassetti prepared the Hydrology, Geology, and Hazardous Materials analyses for the Morgan Hill Ranch Mixed Use Project Initial Study. Client: Wagstaff and Associates.

East Bay MUD Water Conservation Study. Mr. Grassetti conducted the field portion of a major water conservation survey for the East Bay MUD service area. Client: Water Resource Engineering.

East Bay MUD Pipeline CEQA Analyses. Mr. Grassetti prepared technical analyses for two EIRs regarding proposed new East Bay MUD pipeline in Sacramento, San Joaquin, and Calaveras Counties. Client: Uribe & Associates.

Sunnyvale Landfill Power Plant CEQA Initial Study. Mr. Grassetti prepared an Initial Study for a proposed landfill gas-fueled power plant at the Sunnyvale Landfill in Santa Clara County. Recommendations for mitigation and further environmental review were prepared. Client: 3E Engineering.

Fremont Redevelopment Project Hydrologic Analysis. Mr. Grassetti prepared the hydrology section for an environmental impact report for four redevelopment projects in Fremont. Client: Wagstaff and Associates.

Ostrom Road Landfill Hydrologic Analysis. Mr. Grassetti prepared the hydrology section for an environmental impact report on the proposed vertical expansion of an existing Class II landfill in Yuba County. Client: ESA Associates.

Pinole Portion of the Bay Trail Hydrologic, Geologic, and CEQA QA/QC Analyses. Mr. Grassetti prepared the hydrologic and geologic analyses for a CEQA Initial Study on

a half-mile segment of the Bay Trail in the City of Pinole. Mr. Grassetti also provided CEQA process consulting services on this project. Client: Placemakers.

Kennedy Park Master Plan Hydrologic and CEQA QA/QC Analyses. Mr. Grassetti prepared the hydrologic analyses for an environmental impact report on a proposed park master plan in the City of Napa. Client: Placemakers.

U.S. Navy Bay Area Base Closure and Re-Use Environmental Studies. Mr. Grassetti assisted in the NEPA/CEQA review process for US Navy Base Closures and Re-Use for numerous bases throughout the San Francisco Bay Area. Work tasks include CEQA compliance overview, internal peer review, quality control reviews, and preparation of technical analyses.

B. PEER REVIEW CEQA/NEPA COMPLIANCE, AND EXPERT WITNESS CONSULTING

Los Angeles Airport Arrival Enhancement Project Environmental Assessment NEPA Peer Review. Mr. Grassetti prepared a peer review and expert declarations regarding the adequacy of the NEPA Environmental Assessment for rerouting of flight paths for aircraft arriving at Los Angeles International Airport. Major issues included adequacy of assessment of noise effects on traditional cultural practices of the Morongo Band of Mission Indians. Client: Law Offices of Alexander & Karshmer.

Metropolitan Oakland International Airport Development Plan Environmental Impact Report CEQA Review. Mr. Grassetti performed a critical review and assisted in the preparation of comments and ultimately successful litigation regarding the proposed expansion of Metropolitan Oakland International Airport. Major issues included noise, cumulative impacts, and alternatives selection/analyses. Client: Law Office of John Shordike.

Oakland Creek Protection Ordinance Litigation. Mr. Grassetti is providing ongoing expert CEQA and Creek Protection Ordinance consulting for litigation regarding failure to enforce the City of Oakland's Creek Protection Ordinance. Client: North Hills Phoenix Association.

San Francisco International Airport Environmental Liaison Office Consulting. Mr. Grassetti conducted various internal peer review tasks associated with environmental studies being prepared for SFIA's proposed runway expansion. Client: LSA Associates, Inc.

El Cerrito Lumber Yard CEQA Peer Review. Mr. Grassetti conducted an internal peer review for an Initial Study on a controversial parcel in the City of El Cerrito. Client: City of El Cerrito.

Sausalito Marina CEQA Critique. Mr. Grassetti prepared a peer review and critique of an EIR for a proposed new marina in Sausalito. Client: Confidential

Sausalito Police and Fire Station CEQA Critique. Mr. Grassetti prepared a peer review and critique of an EIR for a proposed new public safety building in Sausalito. Client: Confidential

Napa Verison Tower CEQA Critique. Mr. Grassetti conducted a peer review and critique for a cellular telephone tower in the City of Napa. Client: Confidential.

West Bay Sanitary District CEQA Assistance. Mr. Grassetti presented a short-course on successful CEQA compliance for staff of the West Bay Sanitary District in Menlo Park, CA. Client: West Bay Sanitary District.

Morongo Mining Projects Environmental Reviews. Mr. Grassetti provided CEQA, NEPA, and technical consulting to the Morongo Band of Mission Indians regarding two aggregate mines adjacent to their reservation in Riverside County, CA. Client: Law Office of Alexander & Karshmer.

Napa Skateboard Park Peer Review. Mr. Grassetti conducted a peer review and critique for a neighborhood association on a proposed skateboard park in the City of Napa. Client: Confidential.

Headwaters Forest Project EIR/EIS Review. Mr. Grassetti conducted an expert review of the CEQA and NEPA adequacy and technical validity of EIR/EIS on the Headwaters Forest Habitat Conservation Plan, Sustained Yield Plan, and land purchase. Clients: Environmental Law Foundation; Environmental Protection and Information Center, and Sierra Club.

Global Photon Fiber-Optic Cable EIR Peer Review. Mr. Grassetti assisted in a third-party peer review of an EIR on a proposed offshore fiber-optics cable. Client: Tetra Tech, Inc., and California State Lands Commission.

Coachella Valley Water Management Plan CEQA Peer Review. Mr. Grassetti assisted a consortium of Coachella Valley Indian Tribes in reviewing CEQA documents on the Coachella Valley Water Management Plan. Client: Consortium of Coachella Valley Tribes.

Salton Sea Enhanced Evaporation System Initial Study/Environmental Assessment Peer Review. Mr. Grassetti reviewed the draft IS/EA for a spray project to evaporate excess return flow water from the Salton Sea. Client: Morongo Band of Mission Indians.

Santa Rosa Home Depot CEQA Peer Review: Mr. Grassetti conducted a peer review and provided expert testimony regarding the adequacy of the Environmental Impact

Report and associated technical studies for a proposed Home Depot shopping center in Santa Rosa. Client: Redwood Empire Merchants Association.

Mitsubishi Mine CEQA Litigation Review. Mr. Grassetti conducted a review of legal briefs regarding the adequacy of CEQA analyses for a proposed mine expansion in San Bernardino County. Client: Law Offices of Thomas Mauriello.

Alamo Gate Permitting Review. Mr. Grassetti performed a critical review and prepared expert testimony and correspondence regarding the adequacy of CEQA and land use permitting and studies for a proposed gate on Las Trampas Road which would preclude vehicular access to a regional park staging area. Client: Las Trampas Trails Advocates.

Cambria Condominiums Environmental and Planning Review. Mr. Grassetti prepared expert reviews of the potential environmental effects and Local Coastal Plan compliance of a proposed condominium development in Cambria, San Luis Obispo County. Client: Law Office of Vern Kalshan.

Mariposa County Planning Policy Reviews. Mr. Grassetti conducted a review of proposed alterations to the Mariposa County General Plan for CEQA compliance. Client: Dr. Barton Brown.

Gregory Canyon Landfill Environmental Processing Review. Mr. Grassetti was retained to review the environmental permitting and CEQA analyses for the proposed Gregory Canyon Landfill in northern San Diego County. Procedural issues include landfill siting requirements and CEQA process compliance. Technical issues include cultural resources, hydrology, endangered species, traffic, and health and safety. Client: Law Offices of Alexander & Karshmer and Pala Band of Mission Indians.

Otay Ranch Development CEQA Review. Mr. Grassetti prepared an expert review of the Environmental Impact Report for the 23,000-acre Otay Ranch project in San Diego County in connection with ongoing litigation. Major issues were CEQA compliance, compliance with the California planning process, biological impacts, cumulative impacts, and alternatives. Client: Law Offices of Charles Stevens Crandall.

Punta Estrella Chip Mill Environmental Report Compliance Review. Mr. Grassetti prepared a review of a proponents environmental report for a proposed wood chip mill in Costa Rica to determine compliance of documentation with U.S. environmental standards and policies. Major compliance issues included US Clean Air Act and Clean Water Act standards, NEPA standards, and adequacy of overall impacts analysis. Client: Scientific Certification Systems.

Carroll Canyon Burn Facility CEQA Compliance Review. Mr. Grassetti prepared a CEQA process review for a proposed Negative Declaration on a planned contaminated-earth burning facility in the City of San Diego. Client: Law Offices of William Mackersie.

Monterey Bay Marine Lab CEQA Compliance Review: Mr. Grassetti assisted attorneys in review of a CEQA Negative Declaration, NEPA Environmental Assessment, and associated documents for the relocation of the Monterey Bay Marine Laboratory. Issues included the effectiveness of mitigation to cultural and biological resources, the appropriateness of the Negative Declaration versus an EIR, and other CEQA issues. Client: Law Offices of Alexander & Karshmer.

Monterey Ground Water Ordinances CEQA Compliance Review. Mr. Grassetti provided expert CEQA consulting services to attorneys regarding the appropriateness of Monterey County's CEQA processing of proposed ground water ordinances. Client: Salinas Valley Water Coalition.

Jamestown Whistlestop CEQA Adequacy Review. Mr. Grassetti performed an expert review and assisted in successful litigation regarding an Initial Study for a proposed mini mall in Jamestown, Tuolumne County. Client: Law Offices of Thomas Mauriello.

Sunrise Hills Environmental Impact Report Peer Review. Mr. Grassetti performed a critical review of the applicability of the EIR for a proposed 200-unit residential development in Sonora, Tuolumne County. Major issues include grading, erosion, water quality, biological impacts, and visual quality. Client: Sylva Corporation.

Sonora Crossroads Shopping Center Environmental Impact Report Review. Mr. Grassetti performed a review of an EIR for a major new shopping center in Sonora, Tuolumne County. Major issues included geologic and hydrologic impacts. Findings were presented to the Sonora City Council, and pre-litigation assistance was provided. Client: Citizens for Well Planned Development.

Blue Oaks Residential Development CEQA Studies Review and Critique. Mr. Grassetti performed several tasks related to a proposed residential development in western Tuolumne County. Tasks included review of County CEQA procedure, review of Initial Study, review of Draft EIR, and coordination with attorneys. Client: Western Tuolumne County Citizens Action Group.

Yosemite Junction Project CEQA Review. Mr. Grassetti prepared a review and critique of a proposed Negative Declaration for a 40-unit outlet mall in Tuolumne County, California. The Negative Declaration was subsequently denied and the project application rescinded. Client: Sylva Corporation.

Sonora Mining Corporation CEQA Review/Expert Witness Services. Mr. Grassetti conducted a review and critique of CEQA compliance for the proposed expansion of Sonora Mining Corporation's Jamestown Gold Mine in Tuolumne County, California. Client: Law Office of Alexander Henson.

Save Our Forests and Rangelands Expert Review and Witness Services. Mr. Grassetti provided expert review, consulting services, and expert witness testimony on CEQA issues for a successful legal challenge to an EIR and Area Plan for 200,000 acres in the

Central Mountain Sub-region of San Diego County. Client: Law Offices of Milberg, Weiss, Bershad, Specthrie, & Lerach.

San Diego County Land Use Planning, Consulting and Expert Witness Services. Mr. Grassetti provided an expert declaration and several comment letters and background analyses on the proposed amendments the San Diego County General Plan regarding agricultural preserve and water management policies. Clients: Law Offices of Charles Stevens Crandall; Save Our Forests and Rangelands.

Letter P-177

Response to Cover Letter Comment - The commenter's general conclusion in the cover letter, that the DEIR is inadequate and requires re-writing and recirculation, is supported by the more specific comments that follow.

The Board will respond to each of those specific comments and in so doing respond to this general comment as well. This document has been many years in the making and includes the input of professionals, relies upon scientific studies and peer reviewed research. The document exceeds the minimum EIR requirements described in CCR §§15120 – 15131 and the Board has complied with all of CEQA's procedural requirements (CCR §§15080 – 15089). None of the conditions requiring the recirculation of a DEIR as described in CCR §15088.5 exist.

Response to General Comment #1 - The commenter states that the DEIR is "unreadable" and "disorganized", is a "data dump", and contains "irrelevant" and "extraneous" information.

Given the complexity of issues raised in earlier comment and scoping efforts and the level of scrutiny that actions at JDSF draw the Board believes their disclosure responsibilities under CEQA required them to clearly lay before the public and agencies all of the information available to them in reaching a decision to either approve or disapprove the DFMP. This required an interpretation of the hundreds of studies and research articles addressing coastal forest management, descriptions of the dozens of listed species that would potentially be affected, the status of watersheds, the forests and other resources, a wealth of historical information about the forest, an explanation of the environmental processes involved, the numerous Board policies and Forest Practice Rules that guide State Forest management, and numerous other state and federal environmental laws that the Board must consider in their decision. The Board believes that the public as well as other agencies expected a document that reflected a high level of disclosure, analysis and expertise; much more than could be accomplished in a 150 to 300 page document recommended by the commenter.

Response to General Comment #2-The commenter states that the document "mixes setting and impact information".

While no example of this is provided, the Board believes that comment may be refer to the tiering, or nesting, of the Environmental Setting that was done in this document to enhance clarity and relevance. This approach is described in Section V-1 (page V-1) which states that this section provides an "overview" of the environmental setting and that more detailed settings are described in the resource specific sections (Section VII) and in the Cumulative Effects Section (Section VIII). While this approach leads to some redundancy and related information being found in more than one location, its intent was to better focus the reader on the specific resource under discussion.

Response to General Comment # 3 - The commenter also states that the "cumulative impacts sections are placed in different section (sic) of the EIR".

As with the Environmental Setting described above, the cumulative impacts section was nested within the document such that the reader could focus on the cumulative impacts associated with a single resource (Section VII) and could focus on the interactions between the cumulative effects of multiple resources in another section (Section VIII). This was done intentionally to enhance clarity and readability and not to cause confusion.

Response to General Comment #4 - The commenter states that the document "repeatedly fails to address scoping and 2002 EIR comments".

The Board has taken into consideration the comments that were received by the Department and the Board during earlier scoping efforts in the crafting of this EIR. For example, the DEIR considers two new alternatives as a direct result of public input. Alternative F looks at potential new management direction for JDSF as a result of SB 1648 (Chesbro) and input from the Sierra Club during the Board

scoping process. And the Board's Alternative C2 includes additional mitigations and management constraints on the DFMP as a result of public input on the 2002 EIR prepared by the Department. Following the close of public comment on the 2005 DEIR, the Board developed the new Alternative G in large part in response to the comments received on the DEIR and the alternatives contained therein.

Response to General Comment #5 - The commenter believes that the technical, scientific and regulatory "jargon" used in the DEIR violates CCR §15140 and its requirement that EIRs be written in "plain language".

The Board has strived to create a document that is clear to the public and that contains a minimum of unnecessary discussion. However, this document does address many highly technical subjects and as such relies on many highly specific terms. While the authors could have eliminated more of the information to better achieve the "plain language" goal, they would have done so with a consequent loss in precision and an increase in ambiguity. It was the Board's intention to reach a balance. Knowing that the interested public was generally familiar with many of the complex issues involved the Board felt it reasonable to not oversimplify. Where technical usage was unavoidable the extensive list of Acronyms and Abbreviations and Glossary of Terms found in the Appendices was available.

Response to General Comment #6 - The commenter believes that the DEIR's page length violates CCR §15141.

The "*Discussion*" following this CEQA Guidelines section clearly identifies these page limits as being "recommended", not absolute. Given the history of this project – the public involvement, past litigation, controversy, etc. – the Board believes that the public and other agencies expected a level of disclosure, analysis and discussion which resulted in a document larger than what is recommended in the Guidelines.

Response to General Comment #7 - The commenter states that "the document provides remarkably little actual information on the project area, but rather focuses on describing environmental processes… and generic background data. Because the information provided is not synthesized, integrated, or comparatively related it becomes nearly useless to the lay-reader".

The Board agrees that the document relies upon significant amounts of historic and research data as well as describes the numerous environmental processes that effect management decision and outcomes; however, the Board does not believe that this has supplanted meaningful analysis. For example, the Wildlife and Wildlife Habitat Section (VII-6.6) at 240 pages, devotes 10 pages to an analysis of the proposed project's impacts and 110 pages to a quantitative comparison of the alternatives. Without the preceding 100 plus pages of background materials on the status of the listed species and the condition of the habitat, both on a local and regional basis, the reader would be without a perspective for understanding the analytical results. The Board believes that the public was better served through their inclusion in the document.

Response to General Comment #8 - The commenter states that the document fails "to relate setting, impact and mitigation discussions" and that the "minimal impacts "analyses" are often just unsupported conclusions".

Without specific examples the Board is unable to address this comment other than to say that it recognizes the need to create those linkages and believes it has done so in this document.

Response to General Comment #9 - The commenter states that the document "contains a number of factual errors and contradictions".

The Board thanks the commenter and other reviewers cited for drawing attention to these items. Each will be addressed, and if found necessary, corrected in the final EIR.

INADEQUATE PROJECT AND ALTERNATIVES DESCRIPTIONS

Response to Comment 10
The purpose of the DFMP is explained in detail on page 1 of the Plan and summarized on page III-1 of the DEIR. The DFMP's goals and objectives are described in detail in Appendix II of the Plan and are reiterated in DEIR Sections I.4 and III.2. A described in the Plan the purposes are: 1). Guide the integrated use and protection of the Forest's resources; 2). Meet requirements of legislation and Board policy, and; 3). Address local regional and statewide concerns. These purposes are guided by state legislation, Board Policy and forest management planning.

Response to Comment 11
The DFMP is not a logging plan. As explained above the DFMP has multiple purposes, goals and objectives. Timber management and demonstration, as implemented through logging, is one aspect of the DFMP. As described in Chapter 4 of the DFMP JDSF has an extensive research program. Some research requires logging; however, there are other projects that do not involve logging such as investigating the forest's fire history and researching the movement of LWD in watercourses. Conversely, timber harvesting will take place that does not have a direct research link. Table 5 of the DFMP describes the desired future forest structure conditions. The goal for management on JDSF is to move the Forest toward these conditions. It is not feasible to create these conditions through research studies alone. Many timber harvesting operations will therefore not have a direct research link, but rather will be implemented to create the variety of forest structure conditions necessary to remain relevant as a managed research forest. Where mitigation is required, either in the DFMP or DEIR, monitoring is also required to ensure compliance and effectiveness. CEQA requires the adoption of a Mitigation Monitoring and Report Plan (PRC §21081.6) as described on page IX-2 of the DEIR that covers all projects implemented under the Plan, not just monitoring associated with logging.

Response to Comment 12
The apparent inconsistency may arise due to misconception:

1) The commenter may believe that a number of forest harvest types which are presented as different silvicultural systems (presumably those that create openings in a stand) are all essentially clearcutting. Unlike clearcutting, the different silvicultural systems are distinguished by a variety of different amounts and spatial configurations of the original stand after harvest. They have very different effects on the environment, including forest structure, micro-climate and wildlife habitat.

2) The commenter may believe that all of the acres assigned to even-aged management will be harvested during the term of the plan. These acres do not represent stands that are scheduled for harvest in the short term. They represent the sum total of all acres, of varying stages of development, that are being cultivated using a particular silvicultural system. In forestry, where a crop of trees can take a century or longer to grow to where they are ready for harvest, only a small minority of the acreage assigned to an even-aged silvicultural system will be harvested in any given year. Many of these stands are young and as such are decades away from being harvested.

The Management Plan states that up to 26 percent of JDSF will be managed under even-aged silvicultural systems (Table 5). Chapter 3 states that a maximum of about one percent of JDSF may be clearcut harvested in any one decade. These statements are not inconsistent.

Response to Comment 13
The purpose of research on clearcutting is the same as that of all other silvicultural methods, namely to increase the knowledge of this silvicultural method, its application, and the potential environmental effects.

Response to Comment 14
The area of the Forest dedicated to clearcutting is in fact miniscule compared to the other silvicultural methods. The area dedicated to clearcutting, at most 500 acres per decade, is much less than its importance as one of the most prevalent forest management techniques within the redwood region.

Response to Comment 15
Logging can be tied to a specific research project such as the Caspar Creek study, which investigates effects of timber harvest on streamflow and soil. Logging can also be done to create and maintain managed forest conditions that are necessary to support research. Given the amount of acres that have to be treated each year to achieve the forest structure goals in Table 7 in the management plan, research projects alone cannot be the only vehicle for timber harvest on JDSF. In any given year, a majority of the silvicultural treatments will probably not be directly associated with a specific research project. Rather, they will be aimed at creating the diversity of forest structure conditions necessary to meet the Forest's mandate as a managed research forest as opposed to an ecological reserve.

Response to Comment 16
Despite the fact that there are no shortages of clearcut study sites to choose from outside JDSF, commercial forests typically do not have the funding, institutional mechanisms, infrastructure, and staff required to plan and implement research projects through to completion, nor the desire to share the results with competitors and the general public. Shifting management directions often preclude long-term studies on private forest lands. Forest research requires long time commitments and stability in management in order to ensure that the investment in the research can bear fruit. JDSF remains one of the few forested areas within the redwood region and the State where this research is possible[1].

Response to Comment 17
The research on JDSF is focused on sustainable forestry practices, including those with potential to improve long-term forest management and protection.

Response to Comment 18
The plan appropriately includes a strong restoration and mitigation emphasis, as well as a proposal for future management of forest stands as dictated by statute and Board policy. JDSF is one of a few well stocked large tracts of redwood forest in Mendocino county that is not in a depleted condition. Past logging practices on JDSF created the current forest conditions, and as such they are not problematic. The Department acquired the forest in a largely depleted condition in the 1940s. JDSF did not grow into its current forest condition despite the Department's past management; management created the current condition.

Response to Comment 19
Many of the management or mitigation measures adopted by the Board have never been specified in previous management plans for JDSF, having been newly established for the ADFFMP or developed in recent years, and shown to be effective. Though often related to well-known and proven strategies that have been applied in the past within the Forest and elsewhere, most of the measures have been specifically proposed for this management plan. The Board believes that the elements of the plan related to future timber harvest are well organized and plainly presented.

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[1] O'Hara, Kevin. Professor of Silviculture, University of California, Berkeley. Letter to the Board of Forestry and Fire Protection, dated March 23, 2007.

See responses to comments below and responses to the cited comment letters from Peter Baye (mailed DEIR comment letter P-214), James Strittholt (e-mailed DEIR comment letter E-25), and Patrick Higgins (e-mailed DEIR comment letter E-26). In addition to the significant project information incorporated into the DEIR, the project is also further described in the DFMP. The final proposed form of the project is detailed in the RDEIR and the ADFFMP. The proposed project comprises significantly more than just timber harvesting. As proposed in Alternative C1, the project also includes fisheries habitat improvement, late seral forest restoration, a research and demonstration program, a recreation program, a monitoring and adaptive management program, and a miscellaneous forests products sale program, among other elements. The proposed project in the ADFFMP also would provide a substantial increase in the amount of forest to be restored to late seral conditions and to be managed to develop older forest conditions, including a 6,800-acre older forest structure zone.

Mitigation strategies obscure nothing; they make clear where potential significant adverse environmental pacts are identified and the manner in which these impacts are proposed to be lessened to a less-than-significant level.

Response to Comment 20
The assessment area is the same for all alternatives. For watershed resources, for example, the assessment area includes the entire Noyo and Big River watershed area, including the short-run coastal watersheds between the two larger river systems. Additional information that extends beyond the assessment area, is provided as the environmental setting.

Response to Comment 21
The commenter is correct that descriptions of the alternatives can be found in various locations within the DEIR; the Executive Summary, Section VI, and Table VI.1. This was done to provide the reader with various levels of detail that they might find appropriate for their level of interest. The most detailed description of each alternative is provided in Table VI.1 where the comparison is made between the alternatives, management approaches and the various resource elements.

The Board believes that a sufficient level of detail has been provided about each alternative considering that the DEIR is programmatic, analyzing the future activities that may occur under the DFMP over the next five to ten years. By their very nature, programmatic EIRs and management plans are “course” and oftentimes provide only general policy and management direction. This Plan and DEIR provide much more. Additional specificity and detail will be provided once projects tiering to this Plan and DEIR are proposed.

INAPPROPRIATE BASELINE

Response to Comment 22
The temporary curtailment of timber operations at JDSF invalidates the environmental setting and baseline conditions relied upon by the Board in determining whether its adoption of the DFMP results in significant impacts. The environmental setting and baseline conditions are reflected in the status of the environment and the various resource elements; not whether or not operations are occurring. In determining the baseline condition it is irrelevant whether logging, gravel quarrying or sub-division development is occurring; it is the status of each resource element that determines the environmental setting. Where changes in operations occur (increased, decreased, or curtailed) that in some way affect a resource, the change will be reflected in the status of that resource. If the cessation of timber operations has resulted in changes to water quality then the determination as to whether the approval of the project results in impacts will be based upon a comparison with that new baseline condition; not whether the most recent timber operations occurred last week or five years in the past.

Over the years there have been many fluctuations in the level of harvest at JDSF; from no annual harvest (late 1940s and early 2000s), to a few million board feet per year, to over 40 million board feet in a few years. This variability is attributed to changing market conditions, forest staffing, interest in bidding on sales, as well as litigation. In addition, timber operations cease every winter. However,

the cessation of timber operations at JDSF, seasonally or longer, does not equate to “no management”; research projects carry on, campgrounds are utilized, crews maintain roads. The Board’s baseline for approving the DFMP takes into consideration the effects of past logging as well as ongoing management activities as determined by the status of the individual resource elements.

Response to Comment 23
A 16 years old inventory is not outside of normal standards in forestry, where trees can take a century or longer to grow to maturity. The inventory used to support the management plan/EIR is current in the sense that it accurately captures the current resource conditions. It is approaching the end of its useful life span, but careful updates for growth and harvest have preserved its accuracy. Short-term updates of an inventory is an accepted industry practice. A new resources inventory was installed in 2005. In addition, the Continuous Forest Inventory (CFI) plot system was remeasured during 2005. The CFI was initiated in 1959, and has been periodically remeasured. This is one of the longest standing forest growth data sets within the redwood region. Both sets of 2005 measurements corroborate the inventory used to support this management plan/EIR. JDSF, by virtue of being a research forest, constantly collects and updates resource information data. If the EIR were to be continually revised to incorporate the latest resource inventory data, it would never be completed.

Response to Comment 24
This comment implies that a lack of inventory data at the planning watershed level represents a failure to meet the minimum obligations under CEQA and to provide a basis for informed decision making and public participation in the development of the Management Plan. The EIR is a programmatic document that provides sufficient information with which to perform an analysis of potential impacts associated with the management plan. Habitat types are clearly provided in spatial format. In addition, future projects will tier to the EIR. Environmental analysis will be performed for those projects. In the case of timber harvest plans, a more detailed inventory is generally performed for the project. The appropriate level of detail of inventory data for analysis depends on the objective of the analysis. The management plan/EIR is a forest wide planning effort, consequently the proper scale of data and analysis is the entire forest and adjacent ownerships.

Response to Comment 25
The level of detail (“grain”) of the forest inventory exceeds standards in the industry. The data were aggregated to the level of detail commensurate with the objectives for this particular project.

Response to Comment 26
Without a more specific description of the perceived deficiencies, a meaningful response is not possible. Mr. Taylor’s concerns have been addressed in detail in the responses to his DEIR comment letters P-184 and P-185. The Board believes the inventory used to support the management plan/EIR is fully adequate.

Response to Comment 27
The Board believes that forest stands are accurately identified and used in the analysis of impacts of the proposed project. Structural characteristics are a more reliable characteristic of habitat values than age. Silviculture on JDSF and elsewhere in recent years has gravitated away from clearcutting to create stands with a simple, well-defined age structure, toward more complex harvesting systems that create irregular stands with multiple age classes. In these irregular stands, the age construct can have questionable value. While it is always possible to calculate the average age of any forests and stands, the age parameter is often an unreliable diagnostic for the evaluation of old-growth habitat values.

A large portion of JDSF consists of uneven-aged stands. These stands typically arise from selection harvests, in which individual trees or small groups of trees are harvested at a time. Regeneration of young trees in these small canopy gaps create a stand that eventually consists of a variety of different size and age class cohorts. It would not be very meaningful to average the ages of old-growth trees with poles and saplings in such a stand to arrive at an average stand age.

Even-aged stands are subject to similar difficulties. Residual individual old-growth trees are spread throughout the Forest outside of old-growth groves, and intermingled with second growth stands. Residual mature second growth trees are routinely left after harvest entries to provide wildlife habitat as well as shade and shelter for the next generation of trees emerging in the understory. Substantial cohorts of younger trees often appear under a relatively open canopy of mature trees as a result of natural seedfall. In these and many other scenarios, a simple arithmetic average age would not be useful as a measure of habitat values. Alternative more complex age definitions can be used, but no agreed upon technical standard exists for how to measure age in irregular stands.

See also the response to comment 77.

Response to Comment 28

The DEIR and RDEIR relied upon the best available information for all of its analyses. "CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commenters" (CCR §15204). An EIR "need not be exhaustive" in its review of impacts and should be focused on "what is reasonably feasible" (CCR §15151). Conducting new research or "normalizing" existing data sets is not reasonable or feasible given the broad geographic scope of the project and the low likelihood of severe impacts.

See also response to comment 62, below. See also response to Patrick Higgins letter of comment on the DEIR (e-mailed comment letter E-26), particularly the responses to comments 17 and 19. See also response to Peter Baye letter of comment on the DEIR (mailed comment letter P-214).

The Board recognizes that results from numerous research studies cited in the comprehensive RDEIR were from widely ranging time periods. Study results were reported that provided insight into how past practices impacted watershed related resources (since they shed light on how the proposed timber operations will potentially impact aquatic and terrestrial resources), and some of these studies are older than others. The best available information for these purposes was used. It is important to note that more information exists for JDSF and the JDSF assessment area than for most areas in the Coast Range of northwestern California. It is also important to recognize that just because a scientifically valid study is older, it does not mean that the study's results are invalid or unimportant. Several integrative analyses are provided in the DEIR to look at in-stream fisheries habitat and water quality issues together. See section VIII.7.1 and Model 1: GIS Evaluation of Cumulative Watershed Effects and Recovery Potential and Model 2: Fish and Game In-Stream Channel Surveys and Ecological Management Decision Support System.

The DEIR also utilizes considerable amounts of research on logging impacts to water quality and aquatic resources that been conducted on JDSF in the Caspar Creek watershed study: see DEIR sections VII.6.1 (Aquatic Resources), VII.7 (Geology and Soils), VII.10 (Hydrology and Water Quality), and section VIII (Cumulative Effects). This research does integrate the impacts on several resources over one time period. The Caspar Creek study has been ongoing since 1962 and is one of the most comprehensive, long-term watershed studies in the United States (Ziemer and Ryan 2000). Results from logging impacts on the North Fork of Caspar Creek are all from the same time period and provide an excellent example of how interdisciplinary assessment can successfully occur when a properly funded long-term watershed study is undertaken. The Board believes that the studies summarized in this section, and in particular the results from the Caspar Creek watershed study, provide a firm basis projecting the expected level of impacts from the proposed alternative in the RDEIR. Results from the Caspar Creek study have been reported on in over 150 scientific papers that are available on the internet (http://www.fs.fed.us/psw/topics/water/caspar/caspubs.shtml). These papers include study results on changes in peak flows, sediment yield, hillslope erosion, fisheries, and macroinvertebrate communities. New study results are posted as they are available, with entries for papers completed in 2007 available.

INADEQUATE IMPACT ASSESSMENTS

Response to Comment 29
The Board believes it has fully complied with CCR §15126.2(a), but without specific examples is unable to provide a more detailed response.

Response to Comment 30
The DEIR and DFMP have extensive discussion on fish and wildlife species, including specifically the NSO and coho salmon, in their respective sections of the document (Section VII.6). Without more specifics, the Board is unsure what the commenter finds lacking. The DEIR includes programmatic mitigation for the impacts identified with adopting the DFMP; however, there are no HCPs associated with this project as neither the Board nor the Department are seeking an incidental take permit (federal ESA section 10(a)) from a federal wildlife agency.

Response to Comment 31
There are benefits of long-term planning and cumulative effects analysis that come with developing a management plan and analyzing its implementation in a programmatic EIR. Both management plans and PEIRs allow a lead agency to consider the broad policy and long-term consequences of their actions. These are areas that are often overlooked by lead agencies that instead focus on the short-term through the routine review and approval of individual projects. It is the Board's opinion that this Plan and EIR appropriately focuses on where the forest will be in the mid-term as well as long-term as a result of the proposed management. The EIR provides an analyses of the impacts associated with that outcome and provides the necessary mitigation to address the known impacts. The site specific effects associated with individual projects are best addressed at the project level. DEIR Section II-6.2 (page II-10) and Table II-1 describe the CEQA compliance that is necessary for subsequent site specific projects that tier to this programmatic EIR.

Response to Comment 32
The commenter uses the term "studies", indicating large scale, possibly property-wide research intended to identify problems or develop solutions; however, in the context of this comment the Board interprets this to mean "surveys" that are routinely conducted prior to approval of individual projects. The Board is of the opinion that surveys designed to identify sensitive resources within a project area are appropriately "deferred" until the specific project has been defined and project planning and analysis has begun. Certain surveys are "time sensitive" and may only be conducted within a limited period of time prior to project approval and implementation (i.e., NSO surveys) while others are so extensive in scope (e.g., property-wide archaeological or botanical surveys) as to be infeasible without considerable resources. Where these surveys have not been completed, impacts would indeed be "speculative" and not something that could be addressed in a programmatic EIR or the DFMP. However, the Board has identified a number of potential impacts associated with approval of the DFMP and has developed measures to reduce those impacts programmatically (e.g., snag and LWD dependent species and Road Management Plan). Future timber harvesting plans and other potential projects will include a detailed analysis of potential impacts, tiered to the EIR.

The DFMP includes a short-term harvest schedule (DFMP page 56, and amended in RDEIR Table II.3) that lists proposed harvest units and identifies the general silvicultural treatments to be applied. While these proposed THPs are considered in a general way by the Board in developing this EIR they have not been reviewed at the level of detail that would occur under the THP process. These THPs are somewhat speculative, require the approval of other agencies (CAL FIRE, CDFG, RWQCB) and are subject to a detailed, project-specific planning, assessment, and review process. Additional information and surveys results collected at the time of THP development will be used in identifying site specific impacts and mitigation; a level of detail that is infeasible in this EIR, as well as speculative, due to the preliminary nature of project-specific information. In the event that these THPs are ultimately reviewed by the Department's forest practice program, they will be subject to the requirements found in the final management plan and programmatic mitigations identified in the final EIR, as well as project-specific mitigation proposed by the Forest staff or required during the project review process.

Response to Comment 33
The Board is somewhat uncertain as to the use of the word "academic" in the context of the comment, and assumes that the intended meaning is "merely theoretical; having no direct practical application," (Webster's New World Dictionary, Third College Edition). While appropriate theoretical underpinnings of science are relied on in the DEIR, the DEIR's analyses are anything but theoretical. They rely on large amounts of data specifically collected on JDSF, within the larger JDSF cumulative effects assessment area, or within the larger region. Tested, empirically derived models are used in many cases to analyze the data and predict outcomes (e.g., use of the California Wildlife Habitats Relationship System, the FRAGSTATS model, SEDMODL2, SHALSTAB). Results are practically applied to help determine the potential effects of implementing a range of proposed management alternatives on a real piece of forestland.

The comment does not include specific examples of where the DEIR is conclusory, where conclusions are not tied to or supported by facts or analyses, or where conclusions appear to be developed independent of analyses or conflict with the analyses.

"Worst case analytical review" is not a term found in the CEQA statute or guidelines. CEQA does not require lead agencies to consider the effects of extreme events or scenarios that are too speculative; nor does it require consideration of the consequences of illegal activities. The Board has considered the environmental impacts of project related activities that are above the minimum or baseline level. The ADFFMP was developed with the intent of protecting the various forest resources and therefore contains management measures intended to prevent worst case scenarios from occurring. And where the DEIR identifies areas where impacts, either individually or cumulatively, are significant (i.e., worst case scenarios) mitigations are required to reduce those occurrences. The Alternatives, A through G, provide a broad range in the levels of management activity that might occur at JDSF, and could be considered a comparison of best- and worst-case scenarios. They include everything; from no timber harvesting (Alternative A) to 31 MMBF annually (Alternative C1); no evenaged management (Alternative E) to 40 percent evenaged management (Alternative B). In addition, the analysis that occurred in the development of the DEIR, as well as the analysis that typically occurs in the development of specific projects, includes an anticipation of the considerable variability that can occur. For example, the ADFFMP and the FPRs require watercourse culvert sizing that accommodates 100 year storm events; well in excess of the average storm and the standards utilized in non-forested settings. In addition, the DEIR anticipates the "arrival" of Marbled Murrelets to stands within and adjacent to JDSF (a worst case scenario if not anticipated and "take" were to occur) and requires a number of measures to avoid the potential for impacts, including protecting existing suitable habitat, managing designated areas to advance the development of late successional forest conditions, and conducting surveys prior to commencing management activities in areas near Marbled Murrelet habitat. The DEIR approach for assessing potential impacts is far from the "detached and often overly optimistic view" characterized by the commenter.

Response to Comment 34
The analysis addresses individual and cumulative impacts in a complementary manner. It is critical to understand both, since one must examine and understand the individual pieces to understand the whole or the cumulative effect.

Individual impacts can be significant by themselves or can combine to produce cumulative impacts on a single resource in close proximity by successive or adjacent activities (such as soil compaction) or on one or more remote resources (such as water quality where two or more streams come together). The referenced examination of sediment in the DEIR is a good example of how these effects were thoroughly examined and addressed. Effects related to specific resource types are described in individual sections of the analysis, while cumulative effects on different resource types are addressed in terms of combined effects over time and space, such as sediment budgets, as described in Section 7.2.5 and Appendix 11 of the DEIR. Portions of the cumulative effects discussion rely substantially on references to the more specific sections to avoid unnecessary repetition in an already voluminous document.

As stated on DEIR page VIII-2, "A substantial amount of cumulative impact assessment has already been presented in section VII Resource Specific Analysis. The purpose of this section is to introduce additional information that is relevant specifically to cumulative effects and to synthesize and recap, rather than repeat in detail, information that is found in other parts of this EIR. Therefore, the following discussion of cumulative impacts relies in part on the more detailed descriptions that are included in other sections of this EIR." Because activities proposed in the Management Plan and DEIR have impacts on values associated with specific resources, it is most appropriate to organize these documents around the affected resource types, rather than splitting a multitude of effects on each resource into impact groups, as implied in Comment 34. Organizing by specific resources and values allows us to identify and provide appropriate mitigation for on-site impacts that can be individually treated, while taking a more holistic approach to determining and mitigating for cumulative impacts from complex interactions.

Response to Comment 35

The DEIR uses a systematic approach to address cumulative effects. It identifies past, present, and reasonably foreseeable future projects. It thoroughly identifies the types of impacts these projects can cause and the manner in which they can accumulate over space and time. Given natural variability and the complexity of natural processes, specific production functions typically are not available to quantitatively tie specific project to specific levels of impacts. However, a substantial amount of data are available that indicate what environmental conditions are currently and how those current conditions compare to regulatory target values, thresholds of impact to specific species (e.g., water temperatures and salmonid species survival), and reference values from undisturbed environments. Quantitative information on historical environmental conditions is much more limited. The DEIR presents and discusses these data on environmental conditions, including how current conditions are reflective of past management activity and how reasonably foreseeable probable future projects are anticipated to affect these conditions. While analytical tools are not always available to make a quantitative linkage between future projects and effects on the environment, at minimum a qualitative linkage is made.

Cumulative effects analysis is required when the project may contribute to effects caused by other projects. In analyzing cumulative effects, it is important not only to evaluate the total effects of all projects and programs, where possible, but also the relative contribution of the proposed project to the cumulative effects. Although an analysis may indicate that cumulative effects may be significant at the scale of a project or a region, the lead agency is nonetheless only responsible for mitigating for the portion of the effect to which it contributes.

For example, aquatic habitat changes associated with timber harvest and road conditions on JDSF, prior to mitigations, have the potential to contribute to the larger scale aquatic habitat changes that have occurred regionally or locally, the additive effects of ocean conditions, or the influence of agricultural practices, etc., on salmonid populations. The DEIR demonstrates that JDSF's relative contribution to these larger scale impacts is minimal, be they positive or negative. While the cumulative effects of all these activities is significant, contribution of the activities discussed under the programmatic DEIR and forest management plan to these cumulative effects is small and thus mitigation obligations of the program, taken as a whole, are small,

No data currently exist to tease out the relative quantitative magnitude of individual and numerous historic impacts on the aquatic environment and the resources supported, either from a local or a regional scale. The net result of past impacts is however readily apparent on the landscape as are salmonid population estimates and trends. Consequently, the baseline against which cumulative impacts must be assessed is representative of a system that has been markedly impacted historically and continues to recover or regress incrementally with current land uses.

The DEIR used BioView, a spatial wildlife habitat relationships model, to examine at a large scale and in a quantitative fashion the temporal and spatial implications of forest management on habitat quality for a suite of species of special concern. These analyses were carried out on lands within the

cumulative effects assessment area of which only a portion (about 23 percent) is JDSF. Timber harvest projections on JDSF, on adjacent ownerships (to the degree they could be determined or estimated), as well as those on lands placed in reserve or modified management status, on adjacent ownerships, and other descriptors of expected change in forest conditions were used to inform the BioView analysis.

There are a number of quantitative as well as qualitative elements found in the cumulative impacts assessment for the Marbled Murrelet. Recent literature as well as public comment has noted the importance of not only large, moss-covered limbs as a suitable nest substrate for this species. No data are available to ascertain the current frequency of occurrence of this desired structural attribute nor is information available to determine quantitatively the impact of past forest practices on present day occurrence. It does appear however that large limb structure is influenced by multiple environmental and management variables. There is somewhat greater certainty, however, that limb moss is found most frequently in close proximity to coastal climatic influences. This knowledge was used in a conceptual model along with other relevant information to identify likely Murrelet habitat management areas and potential for cumulative effects to potential Murrelet habitat on the western edge of the forest. That information crossed a number of resource areas including past timber harvest, condition of existing stands, and the potential for recreational disturbance. The implications of the latter included an undesirable increase in corvid population density or human disturbance to future murrelet nesting habitat.

Several quantitative models were used to examine watershed cumulative effects, including the road sediment model, SEDMODL2 (see DEIR section VII.7.2.4), and the hydrology model, Delta Q (see DEIR Appendix 10). The EMDS model used to evaluate in-stream habitat quality has both quantitative and qualitative components (see DEIR pages VIII-73 to -74).

Response to Comment 36
The Board does not simply assume that THPs, the FPRs, or the DFMP will mitigate impacts to a level of less than significant; the DEIR analysis demonstrates that these elements, along with other state and federal environmental laws ensure that impacts will be mitigated through a variety of means. The THP process is not a simple application of the FPRs but rather incorporates detailed planning by a registered professional forester, a cumulative impacts analysis, multidisciplinary review that includes participation by agency experts and the public, and on-the-ground review team agency preharvest inspections, thereby ensuring all project-specific timber harvesting impacts will be identified and mitigation developed. This is a level of site-specific review that cannot occur at the programmatic level.

The DEIR does not conclude that use of the standard FPRs alone will mitigate all cumulative impacts. In addition to the standard FPRs, mitigation for cumulative impacts is provided by requirements included in the Draft Management Plan and the Road Management Plan, that will be implemented both as stand-alone projects and as part of future THPs, and by site-specific requirements identified as part of the THP review process.

In addition, the DEIR has identified particular practices and sensitive resources where impacts may occur that are not addressed by the standard application of the FPRs. The DEIR requires additional mitigation to lessen those impacts. For example, the DEIR identifies a potential for impacts to snag and LWD dependant species as a result of implementing the DFMP. As such, a measure is required, that is in addition to the standard FPRs, to mitigate this impact (Page VII.6.6-131). Even where no significant impacts are identified, the Board has required additional Management Measures in certain instances to ensure protection of sensitive resources (i.e., Section VII.6.2.7, Additional Management Measures for Botanical Resources).

Response to Comment 37
The commenter is correct that the lead agency is under no obligation to identify or require mitigation where the DEIR has not identified significant effects to the environment (CCR § 15126.4(a)(3)). However, in several cases the Board has chosen to adopt “Additionsl Management Measures” to

better implement Board policies, contribute to recovery, or to further ensure that impacts do not result, despite finding no evidence of a significant impact (i.e., Section VII.6.2.7, Additional Management Measures for Botanical Resources).

INADEQUATE MITIGATIONS

Response to Comment 38
Without specific examples the Board is unable to fully address this comment other than to say that the Board has not identified any significant impacts associated with the DFMP or ADFFMP that are left unmitigated, nor has it deferred the mitigation of those impacts to a later date. The Board has developed numerous programmatic level mitigation measures to reduce the identified impacts associated with implementing the ADFFMP. Where as yet unidentified additional impact potentials are encountered on specific projects, new site-specific mitigation will be developed.

Response to Comment 39
The DEIR, being a programmatic EIR, recognizes that much of the mitigation required when implementing an individual project will be dependent on the specific circumstances associated with the individual projects. Therefore there is some reliance on the fact that impacts associated with timber harvesting that may potentially occur will be further mitigated through the application of the Forest Practice Rules and the THP impacts assessment and multidisciplinary review processes. This is both required and enforceable mitigation. The DEIR requires additional programmatic level mitigation to lessen those potential impacts. For example, the DEIR identifies additional potential to lessen the level of impact to snag and LWD dependant species as a result of implementing the DFMP. As such, mitigation was established, that is in addition to the standard FPRs, which mitigates this impact (Page VII.6.6-131). The mitigation for snags that was adopted through the EIR process serves to ensure that significant impacts will not occur. Even where no potential impacts are identified, the DEIR requires Additional Management Measures in certain instances to ensure a high level of protection of sensitive resources (i.e., Section VII.6.2.7, Additional Management Measures for Botanical Resources).

One of the principle objectives of the analysis performed for the DEIR is to assess potential impacts associated with a programmatic management direction or proposal, in addition to an analysis of several alternatives. Further assessment occurs at the project level, producing a tiered assessment of potential environmental effects.

In addition to certifying the final EIR and adopting the Final FMP, the Board must also adopt a Mitigation Monitoring and Reporting Plan (MMRP) (PRC 21081.6). The MMRP provides the “framework” that ensures impacts are mitigated though application of the specified measures identified in the EIR.

Response to Comment 40
Without specific examples the Board is unable to address this comment other than to say that it recognizes the need to develop mitigation measures that are both clear and enforceable and believes it has done so in this document. In that this is a programmatic EIR for the approval of a plan, it is appropriate to require mitigation that results in changes in the way the Plan is carried out. Developing new information through studies supports an adaptive management approach, thus making the Plan responsive to changes in the environment and improvements in forest management science. While “studies”, “considering” and “coordinating” are not mitigation, in-and-of-themselves, requiring future project proponents to take these steps will result in decisions which are based on better information than would be possible otherwise.

Response to Comment 41
The Board agrees that programmatic EIRs are appropriate for the consideration of mitigations such as those developed in HCPs. However, the DEIR and ADFFMP have not identified any species requiring incidental take permits pursuant to section 10(a) of the federal Endangered Species Act, triggering the requirement to develop and seek Fish and Wildlife Service or National Marine Fisheries

Service approval of an HCP. All listed species will be protected from "take". All potential impacts to federal and state listed species have been fully mitigated in either the Plan or DEIR. In addition, the Board in its approval of the ADFFMP, cannot be held responsible for the development of regional mitigations for impacts that are not associated with that approval. While the Board recognizes the decline that has occurred regionally in the resources the commenter cites, the activities which will occur at JDSF as a result of adopting this Plan will not contribute to that decline. In fact, many of the provisions of the ADFFMP and mitigations required in the DEIR will assist in the recovery and restoration of some of those resources.

Introduction

Response to Comment 42
The inventory used to support the management plan/EIR is current in the sense that it accurately captures the current resource conditions. It is approaching the end of its useful life span, but careful updates for growth and harvest have preserved its accuracy. Short-term updates of an inventory is an accepted industry practice. A new resources inventory was installed in 2005. In addition, the CFI plot system was remeasured during 2005. Both corroborate the inventory used to support this management plan/EIR. JDSF, by virtue of being a research forest, constantly collects and updates resource information data. If the EIR were to be continually revised to incorporate the latest resource inventory data, it would never be completed. The Board has determined the inventory used to support the management plan/EIR is fully adequate.

Response to Comment 43
The Project Description, including information about proposed logging, is presented in DEIR Section III, Project Information, and more specifically in Section III.3 Project Description. Section II referenced by the commenter provides the reader with more general introductory and background information and was not intended to provide the level of detail found in a Project Description or the Draft Forest Management Plan itself.

Project Information

Response to Comment 44
Section III.5 is included in this DEIR in compliance with CEQA Guidelines Sections 15124(c) and 15131 and is intended to provide the reader with a general understanding of the social and economic forces at work in the Redwood and North Coast regions and the part that JDSF plays in the area. By their very nature, these types of analysis are data intensive and require a careful balancing on the part of the Board in determining the appropriate level of quantitative information for inclusion in the document. The Board chose to err on the side of full disclosure, presenting as much pertinent information to the reader as possible. But to characterize the full disclosure as a “data dump” is an inaccurate portrayal of this section as there is considerable analysis, discussion and data interpretation that occurs as well.

Environmental Setting

Response to Comment 45
The Environmental Setting is a required element in a DEIR (CCR §15125) and must include a description of the physical environmental conditions that exist in the vicinity of the proposed project. The environmental setting must also be described from both a local and regional perspective. Section V describes the existing conditions in and around JDSF in terms of: land use; climate; topography and geology; vegetation; wildlife; aquatic resources; recreation and other uses; as well as land ownership and management. The Board believes that land management—both past and current—is an important element in describing and understanding the environmental setting and is therefore included in this section. As described in the Introduction to Section V, the Board in crafting the DEIR has done as the commenter suggests by including and expanding upon the environmental setting in each of the respective resource specific sections. The nesting of levels of specificity was adopted in order to reduce redundancy and enhance the relevance of the material for the reader.

Response to Comment 46
The Board erred in using the term "infeasible" in describing the project alternatives that were not immediately implementable due to inconsistencies with Board Policy or requiring new legislation as described on page VI-14 and as highlighted (shaded) in Table VI-1. The RDEIR clarified that the alternatives are feasible, but would require some legislative or policy changes prior to their implementation in whole. See also response to comment 1 in DEIR comment letter P-171 from Paul Carroll.

Response to Comment 47
Table I-2 identifies the project's potential significant effects, identifies alternatives that avoid those effects and briefly describes mitigations that reduce or eliminate the effect. This is consistent with CCR § 15123(b)(1). To include a detailed description of the mitigation in this table would significantly complicate and lengthen the table in addition to being redundant. For more details the reader is directed to the mitigation developed for the specific resources found in Section VII of the DEIR.

Response to Comment 48
The Board agrees that any activities carried out under that ADFFMP, including logging, that contributes to a species extinction would be significant effect, cumulatively or otherwise. However, the DEIR and RDEIR have not identified any effects associated with adopting Alternative C1 of Alternative G that would lead to a finding that extinction of any species is likely to occur. The proposed alternative, Alternative G, provides additional management direction to create habitat with older forest structure, and allocates additional late seral develop area specifically for the purpose of future development of habitat for the marbled murrelet.

Alternatives

Response to Comment 49
As described in Section II of the DEIR, this is a programmatic EIR that evaluates and analyzes the potential effects that may occur as a result of implementing the ADFFMP. The ADFFMP, for the most part, provides only general policy and management direction and proposes few site specific projects. By their vary nature, programmatic EIRs are general and lack the site specific technical and spatial detail that might be found in a project level EIR. As such, the project alternatives are general as well and reflect only broad changes in JDSF forest management policy and practice that mitigate or avoid impacts from implementing the plan. The technical and spatial detail the commenter is looking for will come with specific project proposals that tier to the final plan approved, and final EIR certified, by the Board.

Aesthetics

Response to Comment 50
Thresholds of significance are established by a lead agency to determine the significance of environmental effects that arise as the result of carrying out a project. Effects are generally measured as the difference in the effects that occur under the baseline condition, or "no project" alternative, and the proposed project. It is the lead agency's responsibility to determine when an effect crosses the threshold between less than significant and significant. The setting of that threshold is a complicated process—more of an art than a science –and relies on a variety of factors. In the case of aesthetic resources at JDSF, those factors are described in the DEIR on page VII.2-12 and include a project's visibility, integrity and uniqueness of the resource, and the magnitude of change. Where the project is not readily visible, the resource is not unique or lacks integrity or the change is minor the lead agency may find that the project does not create a significant impact. And, in the case where the existing baseline condition as described in the Environmental Setting is such that the proposed project would not differ significantly from what is already present the project's effects may be less than significant as well. In the case of timber harvesting and aesthetics the Board has concluded that forest management in a managed landscape would not automatically exceed an aesthetic threshold, whereas similar activities in an unmanaged, or pristine, environment may exceed

a threshold, depending upon the specifics of the management activity. This approach for setting thresholds is not in error nor inappropriate under CEQA.

Response to Comment 51
By their vary nature, programmatic EIRs require a general, or "coarse", analysis, identify broad classes of impacts and develop mitigation measures that can be applied widely. Site specific impact analysis will occur on a project-by-project basis (see DEIR section II-6.1, page II-10).

The ADFFMP and DEIR consider immediate, short and long term impacts, as well as cumulative impacts to aesthetic resources. The ADFFMP includes specific measures to avoid and minimize visual impacts along roads or trails, recreational facilities and old growth groves (DEIR page VII.2-17). The DEIR proposes additional mitigation that lessens the immediate and short term visual impacts associated with even-aged management (DEIR Mitigation 1; page VII.2-15). Mitigation 1 and 2 provide an added level of consideration and mitigation for short and long term aesthetic effects from timber management on Special Treatment areas. Potential cumulative aesthetics effects are addressed with Mitigation 4.

The DFMP states that no more than 29% (ADFFMP page 50) of the forest will receive even-aged management. Furthermore, those treatments will be applied incrementally over a 60 to 150 year rotation, where harvested stands will grow and develop concurrently with management activities in other stands. Forest stands harvested under an even-aged management system are far from static. In fact, many of the stands that have been recognized as being aesthetically pleasing to Forest recreationalists are the direct result of even-aged management applied by the Caspar Lumber Company decades ago. The implementation of Mitigation 1 and Mitigation 4 along with the dispersal of these treatments over space and time will ensure that neither short-term nor cumulative impacts to scenic vistas will occur.

Response to Comment 52
The "additional protections" identified in the DEIR are examples of the measures that the Department has employed in the past to lessen the visual impacts associated with THPs and are not included as required mitigation in this DEIR. Whether these measures would be used in the future will depend on the results of the site specific analysis that occurs in the preparation of a THP. That analysis is a required in Mitigation 2 for THPs that are within or adjacent to Special Treatment Areas or buffers. These measures may be applied or adjusted where appropriate to protect visual resources.

Response to Comment 53
As is common practice in programmatic EIRs, DEIR Mitigation 3 makes it clear that future development projects that may cause light and glare will undergo an independent CEQA review. While a lead agency may approve a project that has unmitigable impacts it may only do so if it has certified an EIR and after making a statement of overriding considerations. However, Mitigation 3 specifies that the potential for impacts be assessed and prevented.

Response to Comment 54
The only Findings on page VII.2-26-28 is for Cumulative Impact 1, where the impact was found to be less than significant once mitigation was applied. This mitigation is required and will be incorporated into the Plan.

Response to Comment 55
As is common practice in programmatic EIRs, this mitigation describes the process that will be followed in the development of future THPs to avoid cumulative aesthetic effects. The mitigation is neither vague nor unenforceable as it mandates the circumstances where the measure is to be applied, describes the evaluation process that the Registered Professional Forester will conduct in order to reach a determination and requires that one or more of the specific mitigations be applied where cumulative aesthetic effects are found to occur.

Response to Comment 56
DEIR page VII.5.14 adequately addresses the types of emission sources and causes of the emissions (e.g., timber harvest or recreation activities). As discussed on page VII.5-15, measured PM 10 emissions exceeded the Federal 24-hour or annual average PM10 standards twice since 1999; both attributed to summer wildfires. Mendocino County is in non-attainment for the State PM 10 standard, which is stricter. The primary reason for non-attainment in the measurement station areas (Willits and Ukiah), is smoke accumulation from winter wood heating of homes, and particulates from vehicle exhaust and road dust, coming from highly urbanized concentrations using unpaved roads. Both cities are also located in valleys prone to summer air inversions.

On page VII.5-14, it is stated PM10 emissions from activities in the JDSF would be the lowest when historically the PM-10 monitoring stations in the North Coast have measured the highest ambient PM 10 concentrations. Sources of PM10 emissions on the forest are not calculated because there is almost no probability of JDSF contributing to produce a significant effect upon the seasonal air quality pollution in Mendocino County.

As described on page VII.5-13, PM 10 emissions on JDSF from slash burning are not significant because:

- Slash from roadside vegetation maintenance is burned in small widely distributed piles, in winter or spring when air quality is best.
- Most of the slash from timber sales is made available for public firewood collection. Any burn piles generated are re-distributed into small piles and burned as described above.
- All burning is in compliance with the MCAQMD open burning regulations. Open burning is not allowed on days when it could adversely affect air quality.
- The Mendocino Unit bans open burning, generally all summer between July and Nov. The purpose of the ban is fire prevention, but the rule is also beneficial to air quality standards.
- As described on page VII.5-12, PM10 emissions resulting from vehicle use on dry roads can result from three sources: logging traffic, recreation traffic, and administration/management vehicles.
- Logging is subject to the California Forest Practices Act, which requires mitigation of dust control by wetting the road. (Fire prevention measures are also listed and enforced, mitigating the potential for smoke emissions from wildfire.)
- All vehicles, including heavy equipment, are subject to the California Air Quality emissions standards. Heavy equipment used in logging operations is not concentrated in one area, minimizing the potential of accumulated emissions. Any emissions coming from equipment occur in areas generally remote from the urban interface.

- Recreation and Administrative traffic on dry unpaved roads is controlled in several ways, eliminating much of the dust:

    - The major and most well-traveled roads in the forest are already surfaced with rock, minimizing dust emission. When available, JDSF obtains Cal Trans-produced asphalt grindings to add a temporary surface to heavily trafficked roads.
    - Prior to logging operations, the forest may require (in the sale contract) an application of “lignin” or other dust-control measure to designated surface roads as additional mitigation for traffic-related dust from logging.
    - The forest is developing a “road plan” to rock and/or pave other popular recreation roads to minimize dust, especially in critical areas near streams and fish habitat.
    - Recreation traffic to and from campgrounds is speed controlled--a 5mph speed limit is posted and enforced.
    - The forest maintains post harvest-required rolling dips and waterbars, which have a side benefit to control vehicle speed and minimize dust from traffic.

Aquatic Resources

Response to Comment 57
The Board does not believe that the characterization reflects the position of the North Coast Regional Water Quality Control Board (NCRWQCB) letter (Agency Comment Letter A-1). See the NCRWQCB letter and the response to its comments in section III of the FEIR. See in particular the responses to NCRWQCB comments 1-8.

Response to Comment 58
The DFMP and DEIR rely only in part on the Forest Practice Rules and the timber harvesting plan review process to address harvest impacts on aquatic resources. The cited studies are not wholly applicable. See the response to the referenced comment letter of Patrick Higgins (see e-mailed comment letter E-26 in Section IV). The Board response to the Higgins comment letter (see response to comments 4 and 13) and response to the Paul Carroll comment letter (see mailed comment letter P-171 in Section IV) (see response to comments 11-14)

Response to Comment 59
See the response to the cited comment letter from James Strittholt (see e-mailed comment letter E-25 in section IV). See specifically the responses to comments 25-35.

Response to Comment 60
See the response to the cited comment letter from James Strittholt (see e-mailed comment letter E-25 in section IV). See specifically the responses to comments 25-33.

Response to Comment 61
See the response to the cited comment letter from James Strittholt (see e-mailed comment letter E-25 in section IV). See specifically the response to comment 7.

The DEIR and RDEIR assessed potential project impacts on all watersheds and concluded that that management of JDSF, as proposed under the ADFFMP, would result in continued recovery of aquatic habitat within the Forest. This habitat is expected to contribute to the recovery of salmonid populations.

Response to Comment 62
The cited watershed analysis information that is incorporated into the DEIR is only part or the information used to assess aquatic resources. The DEIR used the most recent information that was reasonably available "CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commenters" (CCR §15204). An EIR "need not be exhaustive" in its review of impacts and should be focused on "what is reasonably feasible" (CCR §15151). Conducting new research or "normalizing" existing data sets is not reasonable or feasible given the broad geographic scope of the project and the low likelihood of sever impacts. For example, water temperature information (a key factor for aquatic resources) was as recent as the summer of 2003 (the critical time for water temperature for fish). In-stream fish habitat surveys also were as recent as 2003. Mendocino Redwood Company's 2002 watershed analysis of the Big River watershed also provided information on conditions for aquatic resources. Given that the Notice of Preparation (the benchmark for establishing the environmental setting (CCR §15125(a))) for the DEIR was released in January of 2004, this information is reasonably current.

See also the response to comment 28.

Response to Comment 63
The Board recognizes that the Aquatics section includes an abundance of information covering a wide range of aquatic habitat topics. However, this material is supplied to give the reader complete background information necessary to understand current fisheries status regionally, in Mendocino County, and within JDSF. The information provided includes the results of past monitoring work, and how past practices have impacted sensitive habitat conditions within the assessment area. With this

comprehensive dataset, it is possible to reasonably project what the impact will be from the proposed project, as well as potential impacts for the other alternatives.

The Board believes that the DEIR provides both multidisciplinary and interdisciplinary assessment. See, for example, DEIR Cumulative Effects section VIII.7.1. Several integrative analyses are provided there to look at in-stream fisheries habitat and water quality issues together: Model 1: GIS Evaluation of Cumulative Watershed Effects and Recovery Potential and Model 2: Fish and Game In-Stream Channel Surveys and Ecological Management Decision Support System.

See also the response to comment 25 in the letter of comment from James Strittholt (DEIR electronic comment letter E-25).

Response to Comment 64.
The wide range of background information, varying at times in its detail or spatial comprehensiveness, is reflective of the pool of information that was reasonably available for use in the DEIR. Taken as a whole, however, this information provides a robust picture of the aquatic resource conditions on JDSF, the larger watershed cumulative effects assessment area, and the broader regional setting. One intention of the DEIR was to provide the reader with a regional context that could then be applied specifically to considerations of JDSF. Threatened and endangered salmonids are of significant public concern. The section is arranged to examine the topics of habitat, populations, and the regulatory environment first at a regional scale, and then at the local scale of the JDSF ownership and adjacent ownerships. For example, section 6.1.2 provides a regional overview of aquatic habitat conditions. This section is followed by section 6.1.3, which describes aquatic conditions within the JDSF ownership and by section 6.1.4 which examines aquatic conditions on adjacent watersheds and downstream areas. Similarly, section 6.1.6 examines salmonid population status in a regional context. This section is followed by section 6.1.7 that examines fish distribution and status on JDSF proper. Finally, section 6.1.11 describes elements of the state and federal regulatory environment that guide JDSF management. This section is followed by section 6.1.12 , which describes specific regulatory and other specific management measures already incorporated in the JDSF management plan. Addressing aquatic resource setting issues at multiple scales for a programmatic EIR is clearly complex. That complexity was recognized early on and the DEIR aquatic resources section organized to minimize reader confusion. See also response to Comment 1.

Different portions of the DEIR vary in their technical complexity, and some sections may be more challenging than others for the less technical reader. However, much of the DEIR is written at a level reasonable for the less technical reader. In particular, the summary impact tables at the end of each resource analysis chapter are written in a very accessible fashion. These tables provide the key kind of summary information (how do the various alternatives differ in their potential environmental impacts) that the less technical reader is most likely to find interesting.

The paragraph quoted from page VII.6.1-37 of the DEIR touches on only two (stream temperature and large woody debris recruitment role of riparian vegetation) of the many impact areas addressed in the DEIR (these include sediment, streambank stability, in-stream habitat characteristics, and aquatic macroinvertebrates). It is not intended to be a comprehensive summary of potential impacts to riparian functions. Further, the limited quote misses the full context of the paragraph from which it is lifted:

> Much of the riparian landscape on JDSF is not yet providing full riparian function. Seral stage classification provides a general indication of riparian conditions and quality. Two percent of the riparian vegetation found in JDSF is made up of young open forest and 34 percent is mid-seral forest. Where some level of disturbance has occurred in riparian areas, there would be an extended period required to attain fully functioning conditions. For example, in early-seral stages, the immature riparian vegetation (both hardwood and coniferous species) is a low-to-moderate shade source and a poor contributor of large wood. In mid-seral stages, the riparian vegetation is a good shade source and a low-to-moderate contributor of large wood.

> Most riparian vegetation does not become a good source of large wood until the late-seral stages. Although much of the land is currently in early- to mid-seral stages, riparian habitat should improve over time (20 to 90 years). (DEIR page VII.6.1-37)

Thus, only 2 percent of JDSF riparian vegetation is made up of early forest stages that provide lower riparian habitat quality. Thirty-four percent is in mid-seral forest that provides a good shade source and a low-to-moderate source of large wood. Other portions of JDSF provide higher levels of shade and large woody debris value. The ADFFMP is specifically designed to improve the riparian vegetation in Class I and II Watercourse and Lake Protection Zones over time, including minimizing disturbance and facilitating the development of late seral forest conditions over time. The 90-year period mentioned in the paragraph is not intended to suggest that riparian vegetation will be reduced over the next two decades. Rather, it is meant to indicate that riparian vegetation that is currently in the mid-seral stages will take 90 years or more to grow into the more advanced seral conditions that will provide even higher levels of shade and large woody debris. The end result of the implementation of the ADFFMP will be the improvement of riparian vegetation over time, resulting in the improvement of in-stream habitat for salmonids. By improving habitat conditions, the Plan will contribute to the enhancement of salmonid populations. However, due to influences on salmonid populations outside of JDSF and the influence of ocean conditions on salmonid populations, the analysis is unable to definitively determine how salmonid populations themselves will change. See also the response to comment 70.

Response to Comment 65
See the response to the referenced comment letter of Patrick Higgins (see e-mailed comment letter E-26 in Section IV); see specifically the responses to comments 17 and 19.

Response to Comment 66
See the response to the referenced comment letter of Patrick Higgins (see e-mailed comment letter E-26 in Section IV); see specifically the response to comment 21.

Response to Comment 67
The Habitat Suitability Overview concentrates on those lands outside of JDSF but within the larger watershed based assessment area including those watersheds that “receive” aquatic conditions largely influenced by JDSF forest conditions (water temperature, sediment load etc.). As such they are a key input to an evaluation of cumulative and programmatic level impacts and provide important contextual information where stream conditions outside of JDSF can help explain certain aquatic conditions on JDSF including stream temperature, sediment levels, salmonid distribution, and large woody debris loading as an artifact of historic practices. DEIR Sections 6.1.11 through 6.1.14 pages VII.6.1-90 through VII.6.1-98 are pertinent to an evaluation of impact and are prelude to Section 6.1.16 Project Impacts.

The EIR is programmatic and not designed to evaluate in detail the impacts from individual forest management operations. Knowledge of the general location of a future THP provides insufficient information to assess project impact to a specific watercourse. During development of a THP and associated environmental analysis, a large number of project-specific variables are addressed that influence potential impacts to the watercourse. These include slope characteristics, near-stream forest conditions, ultimate watercourse and lake protection zone (WLPZ) width, harvest prescription, follow-up silvicultural and fuels treatments, and influence of site specific mitigation measures. On the programmatic level of the DEIR, the analysis does not anticipate significant adverse effects on peak flow or water temperature. Any water quality impacts are likely to be temporary; chronic sediment sources such as forest roads are expected to decrease over time with implementation of the accelerated road management plan. In addition, the most severe impacts to water courses from logging are from historic land management and are well documented in the EIR. Near and in-stream habitat conditions are expected to continue to improve with the application of the Accelerated Road Management Plan, other management measures, and project-specific mitigations.

Response to Comment 68
The Aquatic Resources Section (VII.6.1) was arranged purposefully to respond to judicial direction to explicitly improve upon the setting description with additional information of a regional context. The Section is arranged to examine the topics of habitat, populations, and the regulatory environment first at a regional scale, and then at the local scale of the JDSF ownership and adjacent ownerships. For example, Section 6.1.2 provides a regional overview of aquatic habitat conditions followed by Section 6.1.3 describing aquatic conditions within the JDSF ownership and by Section 6.1.4 which examines aquatic conditions on adjacent watersheds and downstream areas. Similarly, Section 6.1.6 examines salmonid population status in a regional context, followed by Section 6.1.7 that examines fish distribution and status within JDSF. Finally, Section 6.1.11 describes elements of the state and federal regulatory environment that guide JDSF management followed by Section 6.1.12 that describes specific regulatory and other site specific management measures already incorporated in the JDSF management plan. Addressing aquatic resource setting issues at multiple scales for a programmatic EIR is clearly complex. That complexity was recognized early on and the DEIR aquatic resources section organized to minimize reader confusion.

Response to Comment 69
The DEIR and RDEIR provide a comparison between the Plan (Alternative C1 and G) and "the current no-logging conditions" (Alternative A). While there has been a lull in logging, it is a temporary condition and therefore is only reflected in part under Alternative A which describes a curtailment of most forms of forest management in the long-term.

Regarding placement of Section 6.1.12 and 6.1.13 see response to Comment #68.

Section 6.1.14 describes additional management measures to promote recovery of aquatic resources for specific DEIR alternatives which will be additional or new to the ADFFMP. These measures were developed as a result of alternative analysis in the present programmatic DEIR and include an Accelerated Road Management Plan, and Large Woody Debris Survey, Recruitment, and Placement.

Section 6.1.16 Project Impacts provides a summary of analyses and findings regarding expected impacts of alternatives, including the no action alternative. Section 6.1.17 provides a comparison of alternative impact on various measures in markedly more detail, including the no action alternative. The no action (the commenter's "no logging" alternative) alternative also carries with it the potential for environmental impact in that existing road maintenance and/or abandonment would be decreased markedly from other alternatives. The likely result would be an increase in road sediment inputs to the stream system (See Table VII.6.1.12). Supporting analysis and literature review of the status and importance of certain measures such as sediment, temperature, and large woody debris are described in the regional and local setting sections referenced in response to comment 68.

The commenter is concerned that insufficient analysis was conducted in support of findings of impact extent and magnitude. The present DEIR is a programmatic document that will guide the identification of site specific projects and an additional level of environmental review. The programmatic DEIR meets its analytical and disclosure responsibility under CEQA. "CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commenters" (CCR §15204). An EIR "need not be exhaustive" in its review of impacts and should be focused on "what is reasonably feasible" (CCR §15151). Conducting new research or "normalizing" existing data sets is not reasonable or feasible given the broad geographic scope of the project and the low likelihood of sever impacts.

Response to Comment 70
There are many determinants of fish populations, only a few of which are potentially influenced by logging activities. Logging does not typically directly affect fish populations (e.g., directly killing fish); rather it affects fish populations through modification of their habitat. As thoroughly discussed in the DEIR, the potential habitat effects of logging include sedimentation of streams, increases in stream temperatures through canopy removal, reducing the availability of large woody debris that provides in-stream habitat structure and meters sediment, altering nutrient levels, or affecting water flow. The

DEIR thoroughly examines the fisheries habitat effects of past and present projects, including both those that may have negative impacts (such as streamside roads) and those that may have positive effects (e.g., projects to reduce sediment from roads or to place large woody debris in streams. The DEIR also thoroughly examines the potential impacts to fisheries habitat from reasonably foreseeable probable future projects, including timber harvesting on JDSF and other ownerships within the cumulative effects assessment area. As noted in the comment, the DEIR found that "the project would have less than significant or beneficial impacts on various hydrologic, geomorphic, and debris conditions affecting fisheries." By having less than significant or beneficial effects on these habitat factors affecting fisheries, the proposed project will have less than significant or beneficial effects on fish populations.

Based on the extensive literature review provided in the Aquatics chapter of the DEIR and RDEIR, the discussion of the measures in ADFFMP that will address hydrologic, geomorphic, debris, and other factors concerning aquatic habitat, the DEIR and RDEIR support the conclusion that the resulting with reduced sediment input to streams, as well as increased shading and large wood input, improved habitat conditions will be produced for state and federally listed anadromous fish species. For example, the RDEIR explains in considerable detail how implementation of the Road Management Plan will reduce long-term sediment entry in to JDSF watercourses. Additionally, riparian prescriptions will be implemented as part of the preferred alternative that will produce late seral habitat, which will greatly improve stream shading and long-term large wood recruitment. How these improved habitat conditions will translate into improved fish population numbers and biomass is clearly dependent on factors beyond those related to timber operations on JDSF. These factors include short-term ocean conditions (such as El Niños) and longer term shifts in ocean climate (such as the Pacific Decadal Oscillation), as well as changes in ocean harvest (fishing) rates. These influences contribute to year-to-year variability, as well as longer term fluctuations in population levels. These factors are beyond the scope of the DEIR and RDEIR.

Response to Comment 71
It is not necessary for the Project Impacts Section (6.1.16) to reiterate the setting or impact findings described in other sections of the DEIR. Aquatic impacts associated with the removal or alteration of riparian vegetation, as one example, are similar whether they arise from "logging" or other forms of land use. In this sense, the DEIR evaluated the habitat conditions likely to result from all land uses collectively rather than individually. Data are not consistently available to determine "whether the fisheries would continue to decline, and to what extent,…" in the quantitative fashion suggested by the comment. Impacts on self-sustaining levels of fish and amphibians were evaluated based on measurable criteria of habitat condition. The habitat elements that are directly influenced by management activities were not determined to be limiting after application of identified management and mitigation measures. In fact, the management plan has been developed such that habitat conditions and water quality for fish and amphibians were judged to be improving over time.

The word "**may"** (emphasis added) was purposefully selected. It is not readily determinable if improvements in stream habitat result in an increase in fish numbers or an increase in fish use of a previously degraded stream reach. In addition, it is not readily determinable what environmental factors and their relative proportion of impact are responsible for the increase or decrease in an anadromous fish population. The number of environmental variables influencing populations and independent of stream habitat condition is large and includes ocean conditions, commercial fish harvest, predation and disease, and others. It is for these reasons that the Board chose to evaluate impact based on quantitative measures of stream habitat condition rather than quantitative measures of fish and amphibian population levels in the DEIR.

Botanical Resources

Response to Comment 72
JDSF has relied both on CNDDB and its own data for botanical information. New occurrences of CNPS 1 &2 listed species have been reported to CNDDB by JDSF for the last five years. A draft

quality forest floristic list for JDSF has been compiled, including surveys in some THP areas. Information pertinent to the analysis has been included in the EIR.

Response to Comment 73
The details associated with potential future projects is speculative at this time. Therefore, a detailed assessment of potential for impacts to occur would be premature. However, mitigation and evaluation processes have been adopted that will protect resources of concern. Should any projects be proposed that have potential to impact unique plant communities, site-specific effects would be evaluated and mitigations developed.

Because the plant communities involved are not wide spread at JDSF, future projects in the unique plant communities will not tier solely off the plant list in Table VII.6.2.1. Developing current, unique, community based-scoping lists would be necessary if and when any projects are proposed in unique plant communities.

Chaparral and alkali soil grassland are minor plant communities with limited distribution on JDSF. These communities are not rare regionally, nor have they been recognized for special status.

Response to Comment 74
This comment includes several elements that have been addressed previously.

Regarding surveys for plant species of concern, the text of the DFMP and DEIR have been amended to clarify that the Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities (CDFG 2000) will be followed for THPs and large projects. As a result, floristic surveys will be conducted. This addresses the Department of Fish and Game's concerns that these survey techniques would provide better quality data.

Most future projects are of a speculative nature at the current time. The DEIR includes provision for protection of Species of Special Concern. For example, on page VII.6.2-21, it is stated, "JDSF will provide site- and species-specific protection measures that contribute to maintenance or improvement of long-term conservation of population viability of these plant species." "Management activities will be altered if necessary, including avoidance of plant populations, to prevent significant negative effects to habitat." In addition, under "Mitigation Development" on page VII.6.2 -23 the DEIR states "Upon determination that a proposed action is likely to result in a significant adverse effect, mitigation measures proposed to substantially lessen or avoid the impact will be include in project-associated documentation."

Both species-specific and site-specific mitigation measures should be based upon plant biology, the specific situation at a given occurrence, and the types of potential effects associated with the project. Predetermined mitigation measures may be found to be inadequate or even counter productive in specific situations. Project-specific mitigation measures that utilize the most recent information for individual species are likely to be the most effective means of protecting plants and their habitats.

Protection of "old growth forests" is discussed in detail. Pages VII.6.2-24 to 26 of the DEIR describes specific protection measures.

Wetland related information can be found in the EIR section specifically entitled "Wetlands" and in related sections including; Aquatic Resources, Botanical Resources, Wildlife and Wildlife Habitat, Geology and Soils, Hydrology and Water Quality. Hillslope springs and seeps are recognized as wetland areas and afforded the same protection as Class II watercourses.

Goals and objectives in the DEIR are based on those found in the DFMP, but include modifications made by the Board. The DFMP's intent is to establish direction for management (page iii). In some aspects the direction is quite specific, while for other aspects, it is more goal oriented. The Goals and Objectives provide a level of guidance that supplements the guidance found in legislation and Board policies.

Response to Comment 74a
Most potential impacts will be prevented by avoidance and maintenance of site-specific conditions that support rare plants. Please see responses above and DEIR pages VII.6.2-21 through -23. The conclusions regarding significance for both plant communities (pages VII.6.2-25 through -26) and for species of concern (page sVII.6.2-26 through -42) are supported in the text.

Response to Comment 75
The commenter has noted a change in EIR text for specific measures from the administrative draft to the formal December 2005 draft. The terminology has been amended. As noted in the text, these measures were not generated by the need to prevent significant impacts, but to provide additional protection. The two issues addressed in these management measures are complex and there are no simple, proven mitigations. For example, the control of invasive weeds that impact rare plants requires an evaluation of multiple factors, including the biology of the specific invasive weed, the biology of the rare plant species, site conditions, feasible treatment options, and the ecological effects of treatment verses impact to a rare plant occurrence. Site-specific analysis would be necessary to develop appropriate projects and protection measures.

The determination regarding significant impacts special status plants and Mushroom Corners are listed from pages V11.6.2-29 to -45.

Response to Comment 76
Significant impacts to rare plants associated with the use of herbicides are not expected to occur (VII.8-21). Herbicide use within harvest areas tends to be infrequent (once or twice in 80 to 120 years, if at all) and the treated areas separated by time and space, which greatly reduces the potential for cumulative effects to occur. In addition, herbicide use is highly targeted, which reduces the volume of herbicide used and avoids application to non-target species.

The EIR provides a brief list of situations where herbicides may be used. One of these is for successful reforestation, when the control of hardwoods may be important. As provided, floristic survey in harvest areas would identify rare plant occurrences, so that they could be easily avoided during any post-harvest herbicide treatment. In the eastern, drier parts of the forest, hardwoods are present at higher than natural densities as a result of past management practices and repeated fires. In order to establish a more natural, historic species mix and forest environment, some level of hardwood control may be desirable. Herbicide treatment would be targeted and limited to the extent necessary to re-establish an appropriate mix of species. Manual treatments, specifically chain saw cutting, could also be utilized to target specific species. Rare plants are likely to benefit from an increase in potential habitat area, and would be protected during reforestation efforts.

Timber Resources

Response to Comment 77
The Board disagrees with the assertion that age information is critical to identifying impacts of the project on numerous sensitive species. Stands of trees are commonly uneven-aged; they contain trees of a range of age classes. The age construct loses much of its meaning for such stands. Even stands that are classified as even-aged often have substantial cohorts of different age classes, reflecting disturbance events and periodic regeneration through the life of the stand. Further, habitat is as much if not more defined by other external parameters such as the size and shape of stands and their juxtaposition on the landscape, than it is by stand age.

A more reliable indicator of stand characteristics for habitat suitability purposes, which was used in this analysis, is stand structure. Habitat is primarily defined by structural characteristics rather than age. Because it is known what types of tree and stand structural characteristics constitute suitable habitat, it is possible to reliably evaluate habitat suitability of stands based on these structural characteristics. The Board believes this approach enables the most accurate evaluation method for determining any impacts of the project on sensitive species.

Response to Comment 78
These two new inventory efforts were completed in 2005, well after completion of the DEIR. As a research forest, JDSF continuously collects and updates resource information data. If the EIR were to be continually revised to incorporate the latest resource inventory data, it would never be completed. The 2005 forest resource inventory corroborates the results of the inventory used as a basis for this EIR. Recent inventory estimates remain consistent with prior estimates.

The inventory used to support the Management Plan and EIR is current in the sense that it accurately captures the current resource conditions. It is approaching the end of its useful life span, but careful updates for growth and harvest have preserved its accuracy. The inventory was projected to the present by use of the growth program CRYPTOS. Using a simulation model for short-term updates of an inventory is an accepted industry practice. In addition, the CFI plot system has been measured on a periodic basis, producing an estimate of periodic annual growth and a check upon forest-wide inventory. Two new inventory projects, an intensive inventory consisting of approximately 5,000 plots, and a CFI remeasurement, both support the inventory data used in this EIR.

Response to Comment 79
The statement was made in the context of discussing different silvicultural methods, and where these could favorably be applied. This does not constitute a site-specific plan. The objectives of the analysis remain at the Forest wide level. Consequently the analysis is at the non-site specific forest wide level. The Board believes this is the most accurate analysis approach given best available current data.

Response to Comment 80
The comment refers to a set of meaningful criteria intended for silvicultural treatment selection by knowledgeable professional foresters, in combination with a breadth of knowledge of site-specific local conditions. It would be inappropriate to try to prescribe project implementation guidelines for every conceivable situation. Guidance to project implementation is described elsewhere.

Response to Comment 81.
This chapter is an essential part of the project analysis.

Response to Comment 82
Clearcutting is very different from even-aged management. Clearcutting refers to the final harvest of a stand when it reaches rotation age. Even-aged management in contrast, refers more generally to a silvicultural system where stands are cultivated over time to develop one or two age classes. Only a small fraction of the acreage assigned to this silvicultural system will reach rotation age and be harvested in any given year. The remaining acres will remain unharvested in various development stages ranging from regeneration through young stands and up to maturity.

Unlike clearcutting, the different evenaged silvicultural systems proposed at JDSF leave a variety of different amounts and spatial configurations of the original stand untouched on the site after harvest. Each of these different evenaged silvicultural systems have very different effects on the environment, including forest structure, micro-climate and wildlife habitat. The information in Table VII.6.3.4 logically belongs in the Timber Management section.

Response to Comment 83
The potential impacts of the use of herbicides are addressed in DEIR section VII.6.3-16 and refers the reader to VII.8 and Appendix 13. The RDEIR Alternative G placed further limitations on herbicide use. The Management Plan includes the following in Chapter 3: “Adjusting imbalance in conifer/hardwood stocking levels by utilizing herbicides will be limited to specific reforestation situations on the east side of the Forest. In specific areas toward the east end of the forest, high tanoak stocking levels are capable of preventing native conifer establishment and growth. Herbicides may be used to decrease native hardwood stocking levels only when other options: are prohibitively expensive, dramatically increase fuel loading, are overly damaging to conifer regeneration, or are not likely to be successful.” This direction makes it clear that selective treatment of hardwoods by

herbicides would be limited in scope and highly unlikely to result in the effects postulated by the commenter. Because herbicide use for hardwood density adjustment will be limited, dispersed in space and time, utilize selective directed application techniques and subject to regulatory and site specific evaluation, detailed analysis was not necessary for this programmatic document.

Response to Comment 84
In addition to protecting existing old-growth groves, the plan proposes to enhance and expand existing groves through cultivating recruitment areas around the groves and limited harvest areas to enhance habitat values.

Late seral habitat components can be cultivated faster through judicious application of silvicultural treatments than through a purely no cut policy. Current management of stands with late seral/successional is not no cut. Retaining stands with existing late seral/successional characteristics is just one way to achieve the goals of the plan. Another way is to actively recruit such stands from stands that do not currently meet the definition of late seral/successional.

The commenter feels that the plan should include analyses at the sub-basin level because they are in his opinion key to impact assessments such as biological resources and water quality. The appropriate level of spatial resolution of the analysis depends on the analysis objectives. The Management Plan/EIR is a forest wide planning effort, consequently the proper scale of data and analysis is the entire forest and adjacent ownerships.

Response to Comment 85
Impact 3 is in fact a CEQA environmental impact. The section identifies the impact not as maximum sustained production (MSP) in and of itself, but rather environmental effects relating to MSP. Because MSP is a direct measure of the level of harvest intensity over time and the resulting forest structure, it is a highly relevant environmental impact.

Response to Comment 86
The section identifies Impact 4 not as application of silvicultural methods in and of itself, rather environmental effects relating to the application of silvicultural methods. Because silvicultural methods is a direct measure of the type of management applied over time and the resulting forest structure, it is a highly relevant environmental impact.

Forest Protection

Response to Comment 87
The typical EIR focuses on a resource-by-resource analysis of a project's effects. The Board, recognizing that pest outbreaks are an important factor in driving management decisions, chose to include a discussion on Forest Protection. In that "Forest Protection" itself is not a resource this was an atypical approach and therefore warranted the "not necessarily required by CEQA" statement in the EIR. The Department's response to pest outbreaks, not unlike its response to fires or floods, triggers actions that are not purely speculative and therefore part of the project. In this case, the Integrated Pest Management Program (IPM), a component of the DFMP, will be implemented in the event of pest problems and may result in treatments potentially impacting various resources. The Board chose to consolidate that analysis in this section rather than scattering it in the various resource sections.

At the same time the Board recognized that the pest outbreaks themselves can have resource impacts, both direct and indirect, that are similar to project impacts and may interact with project impacts cumulatively. Therefore this section includes a series of management measures and Best Management Practices that reduce the potential for disease induced impacts.

DIER section 6.4, Forest Protection, includes a detailed discussion of pest management activities' regulatory content for various pathogens that have the potential to affect JDSF. The regulatory setting is complex and can include Federal quarantine zones, surveys and limits on types of material that

could be removed from the State Forest (DEIR pages VII.6.4-7 to 13). The Board is not proposing changes in the pest (pathogen) management requirements that are a product of these regulatory processes. The information in section VII.6.4 is of value for understanding the setting, but is not directly affected by the proposals in the Management Plan.

The Impacts section focus is appropriate. The impact statement reveals that plant disease and insect outbreaks are “localized and sporadic occurrence”. Thus the application of any IPM management activities would be similar, localized and sporadic. It also reveals that “Sanitation/Salvage or other timber harvest operations” would be the most likely response to a significant pest or disease outbreak on the Forest. Harvest operations would be considered a management activity of the Forest, and as such would be subject to all of the protection measures included in the Forest Management Plan. Furthermore, if the operations are a commercial operation, the activity would be subject to the Forest Practice Rules and the timber harvesting plan review process. The impacts section clearly recognizes that management impacts will be evaluated if IPM is undertaken. Specific projects are speculative at this time given the known insect and diseases at JDSF. There is no need to revise this section.

Response to Comment 88
DEIR sub-section VII.6.4.2 is appropriate. (See response to comment 87). It discusses the potential effects of pest and diseases on various resource areas, as well as the effects that certain treatments of pests and diseases could have on various resources. Given the uncertainty of an infestation occurring and that integrated pest management would trigger a treatment; the context is appropriate. It recognizes “The presence of pests and plant diseases can occasionally cause numerous secondary impacts upon the botanical, timber, wildlife, and soils resources of JDSF, in addition to the primary loss of tree growth and tree mortality. Forest pest and plant disease management activities may have additional impacts upon these biological resources” (page VII.6.4-15). The inclusion of this section sets forth possible concerns should any future management of pests be undertaken. This section is cautious, listing problems that are not tied to a specific proposal. Its inclusion reflects the Board’s interest in careful evaluation of any future proposals.

This information in sub-section 6.4.2 is not piecemealing. Piecemealing is the practice of dividing a larger project or activity into smaller components with more limited potential for significant effects thereby creating the impression that the larger project does not have effects. In fact, the Board has done just the opposite in recognizing the linkage between the DFMP and IPM and analyzing the impacts that might arise. It is immaterial exactly where that disclosure occurs in the EIR. Given the complexity of the biophysical circumstances of JDSF and the broad range of management activities contemplated under the management plan, it is impossible to consider all things in one area of the DEIR. The most likely treatment of an infestation is salvage, i.e., harvest of dead, dying, or diseased trees. Harvest of trees is a key proposed action in the EIR, thus each resource section has addressed this issue. The subsection provides a context relative to salvage activities that can be considered for site specific projects, should they occur.

Response to Comment 89
The intent of this section is two fold: to acknowledge the activities that may arise from implementing IPM under the DFMP in response to pest problems and to identify the impacts to specific resources associated with pest outbreaks (see Response to Comment 87). The “mitigations” the commenter references are BMPs and management measures designed to lessen the latter and are not identified as mitigations. Any mitigations associated with the former, the treatments proposed under the IPM are addressed in each of the resource areas of this chapter. For example, if the IPM treatment requires the removal of diseased trees the DFMP and the mitigations associated with timber harvesting will reduce the related potential impacts. The Hazards Section addresses the measures required to mitigate the effects of pesticide use in the event that the IPM recommends chemical treatments. There is no need to repeat those mitigations in this section.

Response to Comment 90
Consideration of issues closely related to wetlands can be found in the section specifically dealing with wetlands, and in other areas of the DEIR, including; Aquatic Resources, Botanical Resources,

Wildlife and Wildlife Habitat, Geology and Soils, Hydrology and Water Quality. Wetlands lie at the interface between aquatic and terrestrial environments.

Given the limited extent of survey for wetlands on the forest, no specific map of wetlands currently exists. Again, since this is a programmatic EIR, certain rare or unmapped resources can only be addressed on a project-by-project basis and this document can only describe the required protocols to be followed in the event that project level surveys and analysis identify a potential impact. For all projects, including timber harvesting, a thorough examination of project areas will occur during the planning phase. Wetlands will be identified, properly located, and protected as the result of the planning effort. The identification and mapping of aquatic features is a key THP preparation process.

Wildlife

Response to Comment 91
The large amount of information provided was determined necessary to document the need for management measures incorporated into the plan, to support the impact analysis for the plan, and especially to support the cumulative impacts analysis that was required as a result of previous legal challenges.

Relatively few mitigation measures were identified because management actions to protect, enhance, and monitor wildlife species were incorporated as management actions into the plan (i.e., the proposed action). The BOF considers its approach of developing a plan that incorporates wildlife needs up-front on an equal basis with other resources, rather than dealing with potential wildlife impacts as an afterthought through mitigation measures. These management measures are spelled out clearly at a program level in the plan and the EIR. Where the measures were later determined to be deficient in addressing certain impacts, additional mitigation measures were added (e.g., for additional snag retention and monitoring; DEIR P. VII.6.6-131).

The Recovery Plan measures identified in the Setting as “potentially implemented by JDSF” (page VII6.6-89) should have been characterized as “potentially implementable”. The intent of this section was simply to list Recovery Plans that may be applicable to JDSF, so that the public could judge the performance of the plan in assisting in recovery. The Setting section would not be a place to identify measures that the plan had incorporated. Many of these recovery measures are specifically incorporated into the plan, as specified in the Timber Resources section (VII.6.3) and as noted in the wildlife section on Pp. VII6.6-113-114, 121, and 127.

Surveys are not relied upon as mitigation in the plan. Rather, they are components of the plan’s management measures and mitigation actions that will be used at the project level to determine when other specified protection and habitat management measures are to be applied. Surveys also are to be used to monitor effectiveness of specific management actions and cumulative impacts, and provide an information source for future planning.

The characterization of the plan’s stated effects on the Cooper’s Hawk, Bald Eagle, Osprey, Marbled Murrelet, Yellow Warbler, Vaux’s Swift, and Purple Martin is incorrect. The DEIR does not characterize changes in habitat suitability for these species as significant for a variety of reasons. First, as noted in the plan, the CWHR analysis does not characterize all habitat effects of the plan. Rather it provides a general evaluation of potential habitat suitability based on vegetation age and density classes created under each alternative. A number of these species depend on special habitat elements, including riparian habitats that were not considered in the CWHR analysis. Specifically, habitat suitability for the Osprey, Vaux’s Swift, and Purple Martin are determined more by the availability of large snags for nesting than by habitat density and the sizes of overstory trees (notwithstanding long-term relationships between tree sizes and subsequent snag sizes). Similarly, exclusion of riparian habitats from the CWHR analysis makes the results of the analysis only partially relevant to species that make extensive use of these areas (or for whom the habitats are highly suitable), including the Yellow Warbler, Osprey, Cooper’s Hawk, and Bald Eagle,.

Another important reason for not equating the CWHR modeling results to direct effects on species is that habitat suitability does not always equate to population effects on species. In particular, for the Bald Eagle, a decline in the availability of suitable forest habitat within JDSF under plan management will not result in changes in the occurrence or abundance because the species is more likely limited by the availability of suitable aquatic foraging habitat (i.e., reservoirs and estuaries). The impact evaluations in the DEIR recognized the multiplicity of factors (in addition to the quality and quantity of habitats on JDSF) that affect outcomes for the species as the basis for the conclusions reached regarding significance.

The characterization that the DEIR analysis "clearly shows that numerous special status species, including nearly all carnivores and fur-bearers, would experience major habitat declines through 2030" is incorrect. For example, for the proposed alternative, of 19 special status species considered as having the greatest potential to be affected by DEIR alternatives, habitat suitability as measured by CWHR would decrease by greater than 10% for 8 species by 2030 and for only 4 species by 2060 (summarized from Table VII.6.6.23).

All of the special-status species for which habitat suitability under the CWHR analysis would decrease by greater than 10% share at least one of 4 characteristics:

1. they primarily occupy or would favor aquatic and riparian habitats that were not included in the CWHR analysis (western pond turtle, yellow-legged frog, red-legged frog, Yellow Warbler, marten);
2. they favor open habitats and range extensively over large areas (Golden Eagle, Peregrine Falcon, Bald Eagle);
3. are absent or occur only marginally because coastal forest habitats are not preferred (Golden Eagle, Bald Eagle, Goshawk, Marten); or
4. they are primarily associated with snag conditions rather than certain vegetation types or age classes or density classes within certain types (Purple Martin).

As noted in the setting section (DEIR Pages VII.6.6-47-48 and 50) the Golden Eagle, Peregrine Falcon are species that occur in low densities compared to other habitats and geographic areas of the State. These species and several other raptors (Northern Harrier, Short-eared Owl, White-tailed Kite, and Merlin) tend to be more common in open nonforested habitats, rather than forested areas. They likely are more common now than historically at JDSF and surrounding lands due to past timber harvest and forest clearing for residential and agricultural uses. Changes in habitat suitability for these species would occur in response to reductions in the extent of timber harvest (especially by even-aged approaches) and resulting loss of disturbed open habitats. The effects of these habitat changes in an area of marginal habitat that is of little importance to these species' populations will have little long-term conservation effect on these species as a whole. Therefore, the impacts to habitat conditions are considered less than significant under CEQA.

The Goshawk also rarely occurs at JDSF, with few records; the species is more typical of drier, higher elevation forest to the east and in the Sierra Nevada. The decline in Goshawk habitat capability under the proposed project and several other alternatives is a result of the reduction in extent of open foraging habitat and general decrease in extent of mature montane hardwood conifer habitat,as a result of succession to late-successional conifer forest.

As noted in the DEIR, only two species of furbearers are considered special-status species, the fisher and marten. The fisher and marten were included in the CWHR analysis at the request of the California Department of Fish and Game despite the fact that they have never been recorded at JDSF or in adjacent ownerships. The decline in habitat capability for the marten and fisher is a result of reduction in extent of the older montane hardwood conifer 4 and redwood 6 habitat types, but importantly, the CWHR assessment does not consider the abundant acres of habitat that will be protected and enhanced in and adjacent to riparian areas, which are important habitats to both the martin and the fisher (see DEIR Page VII.6.6-108). Finally, the marten and fisher have never been

recorded at JDSF and colonization and occupancy of the area seems unlikely over the short-term (see DEIR page VII.6.6-110). Therefore the marten and fisher are unlikely to be significantly affected by actions under the plan.

All of the other furbearers are primarily associated with open herbaceous areas and shrublands (e.g., ermine, long-tailed weasel, raccoon, striped skunk, gray fox, bobcat, mountain lion), or oak dominated habitats (ringtail, mountain lion, coyote). Declines in theses species reflect habitat changes that will result from management changes to reduce the application of even-aged silvicultural management of forest stands that produce open conditions and natural succession that will reduce the extent of the older montane hardwood conifer habitat type.

The apparent declines in habitat capability for the western pond turtle reflects the species' preference for open habitats adjacent to waterways. The habitat changes identified in the CWHR analysis, however, reflect maturation of younger, open stands located away from riparian habitat (because riparian habitat was not included in the CWHR analysis because its' acreage would be relatively stable across Alternatives). Overall habitat capability and occurrence and abundance of the pond turtle, however, is much more dependent on aquatic habitat characteristics, especially presence of lotic (slow water) habitats and aquatic woody debris, which would be enhanced over time through application of riparian enhancement prescriptions. Overall effects of upland habitat changes and the plan as a whole are not considered significant for the western pond turtle.

The rationale for not addressing other potential special-status species in the DEIR is presented in the table inserted at the end of this response to comments. This table is to be added to the EIR. None of these species are expected to be significantly affected by management actions under any alternatives, due to absence from the area, relative abundance of the species (due to recovery from past declines), and adequacy of existing regulatory protections in the FPRs.

Response to Comment 92
The CWHR system was designed to conservatively estimate potential effects of habitat changes on species. Thus, it is more likely to overstate than understate effects of habitat impacts. The contention that most assessments have shown greater effects on habitat than are predicted by CWHR is not supported.

Response to Comment 93
A spatial analysis was designed and performed explicitly for those species that were considered most sensitive to potential habitat fragmentation issues. These species, the rationale for their selection, and the methods and results of the analysis are presented on DEIR Pages VII.6.6-216-240.

Response to Comment 94
This comment is nonspecific and thus difficult to address. The impact analysis for special-status species (DEIR Pages VII6.6-122-130) integrates all relevant information for each species and makes a determination regarding significance of effects.

Response to Comment 95
A Habitat Conservation Plan (HCP) is a specific requirement of a permit to authorize take of a federal threatened or endangered species under Section 10(a) of the federal Endangered Species Act (ESA). No HCP has been prepared or approved for a listed species JDSF or on adjacent lands that could potentially be affected by JDSF actions. Therefore, the JDSF plan does not conflict with an HCP.

A Recovery Plan is a federal plan adopted consistent with Section 4 of the federal Endangered Species Act to guide the actions of federal agencies in assisting in the recovery of a listed species. Recovery plans do not apply to non-federal entities (i.e., state and local agencies and private interests). Therefore, by definition, it is not possible for a state action to "conflict" with a Recovery Plan.

Non-federal actions can be evaluated as to the extent to which they further or are consistent with the goals of a federal recovery plan. The BOF has incorporated measures into all alternatives that protect and enhance habitat for listed species that have recovery plans, including the Marbled Murrelet, Northern Spotted Owl, and coho salmon. Thus, JDSF actions are expected to contribute to the recovery or these species where possible, and at a minimum, to not create outcomes that are inconsistent with the goals of federal Recovery Plans.

Geology and Soils

Response to Comment 96
The JDSF management plan protects water quality and reduces sediment delivery significantly during THP preparation in many ways. In terms of sediment production, new road construction is concentrated along ridge tops with few to no watercourse crossings. Ridge top roads use little to no fill and roads are crowned or outsloped distributing water runoff. In addition, with each THP, segments of older deemed at high risk for producing and delivery of sediment are decommissioned or abandoned as part of the THP. As found in resent research (Bawcom, 2005), most sediment delivering landslides originate along old cut/fill roads constructed midslope or lower and at culvert crossings. By completing the proposed road inventory and treating at risk roads with each THP and additional roads not associated with THPs, sediment reduction is substantial and does protect water quality in this way.

Response to Comment 97
Harvest related surface erosion, can be significant if it becomes a chronic source and is not prevented from entering watercourses in the absence of effective buffer. Redwood, and tanoak, and many other brush species are sprouting species, and vegetation rapidly re-establishes itself in harvested areas. Additional sediment from harvesting usually occurs the following winter season before vegetation has filled in or where newly compacted surfaces, roads, skid trails, may have fine sediment that can move downslope with the first rainfall. Chronic sediment sources are established along debris slides scars within steep streamside slopes and along old roads with thick fill and sidecast slopes that fail. However, streamside slope debris slide sediment sources occur naturally and contribute needed gravels and large woody debris to the stream system, so all sediment sources are not considered to have a negative effect.

Response to Comment 98
The EIR clearly explains that historic timber harvesting and other land uses within the assessment area have had a significant impact upon the fishery and other beneficial uses of water. The EIR includes a detailed assessment of the potential for significant and cumulative impacts to occur, based upon proposed management of the Forest under current and planned standards. As planned and mitigated, operations conducted under the management plan are not expected to result in significant impacts, nor are they expected to create discharges deleterious to fish, wildlife, and other beneficial uses. The commenter erroneously suggests that the science related to TMDL standards has advanced to the point where the level of sediment delivery from all sources can be quantified with any degree of certainty. This is not the case.

Individual TMDL Implementation Plans will not be generated for these North Coast watersheds. Rather, Water Board staff has determined that sediment waste discharge reduction and attainment of water quality standards can be more effectively achieved without amending the Basin Plan and by addressing all sediment impaired water bodies in the North Coast Region through the “TMDL Implementation Policy for Sediment Impaired Receiving Waters (Resolution No. R1-2004-0087).” This policy will be followed, as is stated in the DEIR.

The amount of sediment delivery that will occur related to timber operations depends on several factors, including proper implementation of the Forest Practice Rules (FPR) and additional plan/Management Plan measures; the size, intensity and duration of stressing storm events following timber operations; legacy impacts remaining from first and second entry operations, etc. Due to these factors, it is impossible to accurately predict how much sediment will be generated from a suite

of timber operations occurring over the Forest. It is generally accepted in the watershed literature that soil erosion rates and the effectiveness of erosion control efforts vary greatly and are highly dependent on weather conditions. It is illogical to calculate an exact number for sediment generation, when sediment production is highly variable over space and time. The Department's monitoring work (Cafferata and Munn 2002, Brandow et al. 2006) has shown that when properly implemented, the FPRs are effective in preventing hillslope erosion features from occurring.

The roughly estimated Noyo TMDL background loading is 370 tons/mi^2/yr, and over 40 years of sediment monitoring in the South Fork of Caspar Creek has found a long term average of 393 tons/mi^2/yr (Keppeler et al. 2007), while the 5000 yr+ rate is ~695 tons/mi^2/yr (Ferrier et al. 2005). With improved practices, it is logical to assume that the long-term sediment rate in the South Fork and other JDSF watershed locations should decline, and not exceed the TMDL maximum set at 470 tons/mi^2/yr..

Response to Comment 99
Field review and consultation with geologists includes conclusions and recommendations for timber harvesting near unstable slopes. These include a detailed analysis of on ground conditions and the use and application of the Forest Practice Rules that do restrict activities near or on unstable slopes. There are actual requirements both in the Forest Practices act and by the standard of practice for geologists who are licensed in the State of California. Therefore, the mitigations proposed and accepted in THPs do in fact mitigate project impacts.

Response to Comment 100
There is no evidence to suggest that modern forest practices have resulted in massive fisheries declines. The Department of Fish and Game and others continue to monitor the fishery in an attempt to discern population and habitat trends. The analysis performed for the EIR suggests that the aquatic habitat is in a state of recovery, and that the recovery is likely to continue due to improved management practices and active restoration projects.

Landsliding and erosion studies are ongoing. Bawcom (2007) inventoried all clearcuts on the state forest completed between 1980 and 1995 (note: clearcutting has not been used on the state forest since 1995). Most slope failures were found to be related to old roadways, not the timber harvest per se.

Project planning includes consultation with a certified engineering geologist, which often results in specific mitigation to maintain slope stability and improve the level of protection for slopes. The Road Management Plan is expected to improve conditions for the fishery by improving road construction standards, increasing road maintenance activity, and reducing road grade and road fill in locations with potential to erode.

Response to Comment 101
Appendix 13 identifies the five herbicides that are anticipated to be used on the Forest during the implementation of the Management Plan. The uses, toxicity, and potential impacts of these herbicides on animals and humans are briefly discussed. Surfactants, such as the glyphosate surfactant POEA and its toxicity, also are briefly discussed (see response to comment 35 in the DEIR comment letter P-214 from Peter Baye).

Past and possible future Glyphosate mixes at JDSF use smaller concentrations of surfactants than the active ingredient. It is well understood that some surfactants and active ingredients can have more toxic effects on organisms than Glyphosate alone. This information is noted in DEIR Appendix 13, page 3. Not all Glyphosate applications will require the specific surfactant that has hazard problems for aquatic organisms. In site specific projects analysis, the appropriate surfactant can be identified to protect aquatic or other resources. The DEIR details how additional analysis will be required for site specific projects (Page II-12 to -15).

DIER page VII.13-18 provides an explanation of the Department's responsibilities for identifying potential impacts associated with herbicide application. When specific information has been presented by commenters, for example concerns about POEA, the Board has examined the information to determine if any of it was significant new information (see DEIR electronic comment letter E-28, submitted by Californians for Alternatives to Toxics, responses to comment 90 and other comments). The Board concluded that no significant new information was provided.

Herbicide use will not be substantially increased. The exact wording regarding future herbicide use in the DEIR (page VII.8-10 to -11) is: "The low level of herbicide use on the Forest in recent years is indicative of the low level of management activity in general, in addition to the request for reduced herbicide use from the public. When management activity levels on the Forest increase following the implementation of the DFMP, herbicide use levels may increase above those of the past several years. However, it is not anticipated that herbicide use will increase to the levels of the early to mid 1990s."

The RDEIR included additional limitations on use, and predicted herbicide use under Alternative G would be less than under Alternative C1 (RDEIR page III-105). The Administrative Draft Final Forest Management Plan includes a sequence of evaluation factors that will limit use and reduce the potential for adverse effects. The commenter's assumption that the increase in herbicide use on JDSF would be "substantial" is speculative and not consistent with the expected management under the ADFFMP.

Indicative of current herbicide use levels, DEIR page VII.8-10 identifies that only 20 pounds (active ingredient basis) of herbicides were applied on JDSF over a four-year period beginning in 2000. Definitive estimates of future herbicide use are not possible at this time, and given the significant limitations on herbicide use established in the RDEIR and ADFFMP, this information is unnecessary for an informed decision at the level of a programmatic EIR. The analysis conducted for the DEIR and REIR considers the potential for significant and cumulative effects. The anticipated level of impact associated with each area of management, and associated with each of the alternatives considered, is included at the end of each resource subject analysis. By implementing Integrated Weed Management principles and the limitations described in the finalized plan, the Board is confident that vegetation management will be more efficient and effective, usage of herbicides will be low, and that significant impacts related to invasive plants and control methods can be avoided, as demonstrated by the analysis in the DEIR and RDEIR. These findings are further supported by the responses to DEIR electronic comment letter E-28, submitted by Californians for Alternatives to Toxics, found herein.

Response to Comment 102

The DEIR includes the following:

> CDF will consult with DPR and the county agricultural commissioner about the submitted information both to obtain the evaluation by the agencies with their expertise and to alert them about the issues. DPR could respond to the information with a decision to reevaluate the registration of the herbicide or it could advise CDF that the information is repetitive of what was evaluated during the registration decision.

This represents consultation by the lead agency, a fundamental precept of CEQA, in order to obtain expert opinion.

Regarding the comment on the DEIR and the role of DPR, the paragraph in quote in full states:

> When posting for public comment its proposed decision to register a new pesticide product and in approving the Public Notice for registration of a pesticide, DPR makes a finding as to whether the pesticide would cause a

> significant effect on the environment. Because DPR is the CEQA lead agency, this determination is binding on all State agencies, including CDF (PRC § 21080.1, 14 CCR § 15050). Accordingly, if a registered herbicide will be used in accordance with the directions and restrictions on the pesticide product label and any other restrictions established by DPR, CDF is required to find that the use will not have a significant effect on the environment unless there is new information showing significant or potentially significant effects not analyzed by DPR.

The last paragraph from the same page in the DEIR adds this information:

> Where herbicide use is proposed for use under the DFMP CDF will review the herbicide's intended use and its possible environmental effects. CDF will determine whether the proposed use would be consistent with the label and the registration limitations and whether DPR's lead agency determination of significance will still apply. CDF will also check for significant new information showing changes in circumstances or available information that would require new environmental analysis. Significant new information should be referred to DPR for that department's analysis as part of its ongoing evaluation program. CDF will look for simple and practical ways to avoid or mitigate potential new significant effects on the environment.

The DPR lead agency status does not relieve CAL FIRE from conducting the appropriate site-specific analysis before undertaking any weed management activities. The Board agrees that each proposed project should be evaluated carefully to ensure protection of sensitive resources. JDSF will conduct CEQA-appropriate project level analysis for all uses of herbicides. The DEIR and RDEIR provide a description of the range of control methods to be used and identify the weed species that are anticipated to potentially require treatment. The DEIR also identifies the herbicides that are anticipated to be used, where herbicides are decided to be the best treatment approach (see Appendix 13). Beyond the specific management direction and programmatic level of assessment provided in the DEIR and RDEIR, the environmental analysis is best conducted at the project level, given the great variability in project purposes and site-specific conditions. Within this programmatic context, the assessment in the DEIR and RDEIR documents did not find that the proposed actions, as mitigated, would result in a significant potential environmental impact

The necessity of project specific evaluation is recognized. For example CALFIRE would not revisit the extensive toxicological review that DPR conducts, but would determine if the proposed use was appropriate given environmental or other site concerns. Surfactants or other adjuvant would be included in this review. Appendix 13 of the DEIR provides general descriptions of herbicides considered for use on Jackson Demonstration State Forest that includes information on potential risks (potential for groundwater contamination, effects of contact with skin, eyes or when ingested, etc.).

The proposed project does not contemplate "large-scale use" of herbicides. The *Spartina* EIS/EIR cited by the commenter includes recognition that DPR and the Agriculture Commissioners regulate pesticide use (http://www.spartina.org/project_documents/eis_final.htm : Section 5.0 ENVIRONMENTAL COMPLIANCE). This EIS/EIR is not directly comparable to the EIR for the JDSF Management Plan, given the great difference in scope of the two programs. The narrow purpose of the *Spartina* control program is "to arrest and reverse the spread of invasive nonnative cordgrass species in the Estuary to preserve and restore the ecological integrity of the Estuary's intertidal habitats and estuarine ecosystem," (*Spartina* EIS/EIR, page S-1). The JDSF EIR, on the other hand, addresses a very broad program of management for a diverse redwood/Douglas-fir forest. The preferred alternative (Alternative 1) for the *Spartina* program includes the use of herbicides as one of the key treatments for achieving program objectives. Under the JDSF management plan, the use of herbicides is only one small element of the overall forest management program. Given the substantially different nature of these two programs, including the *Spartina* program's direct application of herbicides to intertidal and estuarine systems, it is not unusual that the *Spartina*

EIR/EIS might have included a more detailed analysis of herbicide impact potentials. The *Spartina* EIR/EIS concluded that the alternative that included the use of herbicides (Alternative 1) was environmentally superior to the alternative that did not (Alternative 2) (*Spartina* EIS/EIR, page S-6).

There will be differences in the content of a CEQA document where the main objective is management of an invasive weed (commenter characterizes as large-scale herbicide use) versus the programmatic EIR providing a framework for a decade span of management of a forest. The herbicide information provided in the DEIR and ADFFMP is adequate for the consideration of potential effects at the programmatic management planning level.

See the response to comment 101 regarding the herbicides, adjuvants, and surfactants anticipated to be used under the ADFFMP. The comment provides no evidence that the herbicide usage proposed in the management plan would lead to significant adverse environmental impacts.

Response to Comment 103
See response to comment 102.

It is not unreasonable for the Board to rely on previous herbicide-related environmental assessment conducted by the department or by another major forest landowner in an HCP for which an EIR/EIS was prepared. CEQA encourages (CCR § 15148), incorporation by reference (CCR §15150), and tiering (CCR §15152) from previously prepared EIRs and specifically states that a “lead agency may use an earlier EIR prepared in connection with an earlier project to apply to a later project, if the circumstances of the projects are essentially the same” (CCR §15153). Clearly the analysis and findings in a THP, the functional equivalent of an EIR (PRC §21080.5) with regard to the use of herbicides in the management of a redwood forest environment in Humboldt County “are essentially the same” as the project at hand.

Heritage Resources

Response to Comment 104
The project setting, potentially significant environmental impacts, and mitigation measures were discussed in distinctive, separate sections throughout most of this DEIR, but complete separation was not chosen in every instance. Occasionally, within the Heritage Resources chapter, it was necessary to discuss past survey and mitigation work as part of the project setting since programs to identify and protect heritage resources at JDSF have been in place since 1979.

The second paragraph of page VII.9-15 is a discussion of the regional setting discussing the Mendocino Woodlands property, its designation as a National Historical Landmark, and the fact that the Department and DPR have met to discuss the possibility of a of a joint effort to conduct a heritage resource survey throughout the entire property to provide a comprehensive assessment of the NHL designation. This paragraph then discusses the possibility that this joint survey may be completed at a future date if sufficient funding and staffing resources can be secured. It clarifies for the reader of this DEIR that until that joint survey and evaluation are completed, the heritage resources within the Woodlands property will be protected through a comprehensive set of procedures. This discussion fits best under regional setting.

Likewise, paragraph 3 of Page VII.9-19 discusses the historic Cat Barn, its National Register status, condition, and the Department's decision to manage it as a standing ruin until it falls down on its own or to possibly tear it down after first obtaining appropriate approvals. This paragraph discusses work that has already been done and fits best in the discussion of current project setting.

Response to Comment 105
Approximately 15 years ago, the Department hired a team of technical experts to assess the condition of the historic Cat Barn located at Camp 20. This team documented extensive and fatal deterioration of its wooden superstructure caused by natural decay and provided an estimated cost

for reconstruction. The Department determined that rehabilitation of the Cat Barn was not feasible due to an extremely high cost for restoration. The massive historic building has been managed as a standing ruin ever since this determination was made. The Department constructed a fence preventing access to the interior of the barn to keep forest visitors safe. This Cat Barn will eventually collapse. The Department may at some point in the future decide to tear it down after obtaining appropriate approvals.

The cited court case involved the City of Oakland's proposed demolition of the historic Montgomery Wards Building in downtown Oakland. That court ruled that a Lead Agency must use an EIR for that type of project. It found that a Mitigated Negative Declaration for demolition of a significant historic building was inappropriate since it also ruled that documentation prior to demolition did not constitute mitigation to reduce the significance of the impact to a less than significant level. As a result of precedent setting case law, Lead Agencies such as the Department are now aware that an EIR must be prepared for any proposed project involving the demolition of a significant historic building.

The DEIR does not include a detailed analysis of the potentially significant impact of tearing down the Cat Barn, and does not propose to do so. However, The Management Plan for Historic Buildings and Archaeological Sites ((HRMP) Foster and Thornton 2001) discusses the possibility of tearing down the Cat Barn and a number of other historic buildings that the Department is unable to save due to a number of constraints affecting their preservation and management. The HRMP also discusses a commitment to long-term preservation of 29 significant historical buildings including the 1915 Caspar Woods Schoolhouse located within JDSF in close proximity to the Cat Barn. This statewide preservation effort mitigates the significant impact associated with the eventual loss of the Cat Barn and the remaining historic buildings that the Department is unable to save. The plan was developed in consultation with the State Historic Preservation Officer and in response to extensive public review during an EIR process. The HRMP-EIR (State Clearinghouse Number 99021015) was certified on October 12, 2001. In the event that the Department chose to demolish the Cat Barn, it would find that this action did not cause a significant effect because the demolition of historic buildings had already been disclosed and fully mitigated in the HRMP EIR.

Response to Comment 106

The DEIR identifies construction and maintenance of roadways as the project activity with the greatest potential to cause significant damage to heritage resources. The DEIR also includes a number of mitigation measures designed to avoid these impacts or reduce them to a less than significant level. Prior to any grading activity which could threaten heritage resources, a number of procedural steps will be followed. These include checking the JDSF archaeological database to identify any known sites that might be affected, conducting surveys along existing roads to search for undiscovered heritage resources which could be affected, and the development of protection measures to avoid or protect heritage resources. This work will be done by JDSF staff in consultation with the regional Department Archaeologist. The primary objective will be to avoid grading through a heritage resource by using site avoidance, lifting the blade and leaving that section untreated, or by placement of clean fill over the top of the potentially affected resource (DEIR section VII.9).

This section identifies the possibility of having to re-route road segments around a site or the need to conduct archaeological studies at a site to evaluate its significance or to recover its data before a site is disturbed. These mitigation measures will be designed to reduce the level of impact to less than significant level.

Response to Comment 107

Case law has indeed clarified that documentation of historic buildings prior to demolition does not constitute mitigation sufficient to use a Mitigated Negative Declaration, and that an EIR would need to be prepared. This clarification of law should not be interpreted to mean that public agencies have no requirements to document their historic buildings. CEQA, PRC 5024, and Executive Order W-26-92 provide state agencies with a clear mandate for such documentation and the preparation of Historic Building Records (including photographs) is a standard professional procedure employed during heritage resource inventories. For historic buildings, the recording process often includes a

determination of the building's significance. By discussing documentation of historic buildings under Mitigation Measure 1, the Board is not attempting to mitigate this impact to a less than significant level. It represents public disclosure of the intention to record and document historical resources as a standard practice during inventories and project review.

Response to Comment 108
These mitigation measures commit JDSF staff to follow a number of important steps designed to ensure resource identification and protection. These tasks include heritage resources training given to key JDSF staff, and consultation with local Native Americans. The mitigation measures also specify that the Archaeological Review Procedures for CDF Projects (Foster 2003) be followed during review of all non-THP project activities which have potential to damage heritage resources. All of these listed mitigation measures contribute to the overall objective of identification, documentation and protection of heritage resources.

Contrary to the comment, the mitigation makes use of strategies including avoidance and site-specific mitigation. The following discussion of protection measures appears in Archaeological Review Procedures for CDF Projects (Foster 2003:16):

Develop Protection Measures: CDF shall develop effective protection measures for all identified cultural resources located within project areas. These measures may include adjusting the project location or design to entirely avoid cultural resource locations or changing project activities so that damaging effects to cultural resources will not occur. These protection measures shall be written in clear, enforceable language, and shall be included in the archaeological survey report. CDF shall exercise a strategy of avoiding all adverse impacts to cultural resources. If impacts to cultural resources cannot be avoided, CDF is responsible for developing specific, effective measures to ensure the mitigation/reduction of impacts to cultural resources in order to avoid or prevent substantial adverse change as defined in state law (PRC Sections 5020-5024, 210833.2, 21084.1, and CCR Sections 15064.5 through 15360).

Water Quality

Response to Comment 109
See response to comment 57 above.

The North Coast Regional Water Quality Control Board (NCRWQCB) letter (Agency Comment Letter A-1) has been mischaracterized. See the NCRWQCB letter and the response to its comments in section III of the FEIR. See specifically the response to comments 1, 2, 4, 7, 8.

The NCRWQCB letter cites one instance of a THP (THP 1-03-093 MEN) that it believes was not written in a manner consistent with the Forest Management Plan or the Forest Practice Rules, based upon the field report by it's representative in the THP pre-harvest or pre-approval field inspection process. THP 1-03-093 MEN is not an approved THP, and as such, has not been subject to a full multi-disciplinary review and approval process. The THP was prepared and submitted by a registered professional forester employed by the Department, and employed participation by a certified engineering geologist, a certified sediment and erosion control specialist, and others. The plan was reviewed in the field by representatives of the NCRWQCB and the Department of Fish and Game. As is generally the case, recommendations were made by the agency representatives, to be considered by the Department and the review team in further review of the THP. JDSF staff would have an opportunity to respond to the recommendations made by representatives of agencies who participate in the preharvest field inspection, and to agree with the recommendations, disagree with the recommendations, or offer more information, further analysis, alternative measures, or explanation. This exchange would then go before the multi-disciplinary review team for consideration before a final decision were made by the Department. The review process for the THP was halted by the Department in order to complete the EIR and management planning process for JDSF. This is

not an indication that the NCRWQCB has expressed the opinion that the management plan does not conform to its rules, laws, or policies.

Response to Comment 110
The numerical TMDLs for the Noyo and Big River watersheds are listed in US EPA 1999 and 2001, respectively. Listed instream parameters and targets include turbidity (≤ 20 above background), % fines <0.85 mm (≤ 14% as wet volume), embeddedness (increasing % of riffle habitat units that are less than 25% embedded), pool frequency/depth (≥ 40% of habitat length in pools > 3 ft deep), V* (≤ 0.27 Noyo, <.0.21 Franciscan Big), backwater pools (> % of backwater pools per habitat length), LWD (increase in number and volume of key pieces per stream length), and thalweg profile (increasing variation in thalwag elevation around the mean thalweg slope). Current conditions for these parameters are listed in the Aquatics chapter of the DEIR. In general, turbidity is highly variable depending on discharge (see chart on page VII.10-9), % fines not available (data for D_{50} provided), embeddedness was 20% in 0-1% gradient channels and 27% in 1-2% channels (VII.6.1-25), pool frequency data provided on page VII.6,1-21, V* has mean values of 0.28 for 1-2% gradient channels and 0.39 for 2-4% gradient channels (page VII.6.1-21), LWD data provided on page VII.6.1-35, thalweg profiles—data not available.

The DEIR considers the Big River and Noyo River sediment TMDLs established by the U.S. EPA. Proposed JDSF Management Measures beginning on page VII.10-18 discuss measures in the Plan to achieve water quality goals, including reduced sediment input. Thresholds of significance, beginning on page VII.10-20 in the DEIR, include the following threshold: "An impact of the proposed project would be considered significant to hydrology or water quality if it results in…[a] violation of any water quality standards." This includes the sediment TMDLs established by the U.S. EPA.

The DEIR identifies in the "Rapid Sediment Budget" discussion, that it is estimated that approximately 74% of sediment results from road-related surface erosion and road-related landsliding. This estimate established the need for the Road Management Plan analyzed in the DEIR and RDEIR and contained in the ADFFMP. Road sites are the identified priority for treatment due to the predominance of sediment originating from these sites. The reductions in sediment yield associated with the implementation of the Road Management Plan are anticipated to be consistent with the Noyo and Big River TMDL requirements.

Instream and hillslope monitoring to be implemented is well described in Chapter 5 of the Draft JDSF Management Plan and will provide an indication of stream condition and attainment of water quality objectives. For instream channel conditions, the document states that "Parameters sampled will vary depending on the stream reach evaluated, but may include:

- LWD frequency by size class, with information on condition and placement
- Pool dimensions (including pool volume], residual pool depth, and useable
- rearing/holding/overwintering habitat)
- Pool frequency
- Gravel permeability, embeddedness and size distribution (including overall d_{50} of sampled reaches)
- Channel dimensions (measured using transects)
- Longitudinal profiles and cross sections
- Bank conditions and entrenchment
- Benthic macroinvertebrates

These are parameters listed with associated water quality targets for North Coast listed watersheds.

Response to Comment 111
The text states that increased storm flow volumes (or peak flows) are increased for 10-11 years following clearcut harvesting based on research conducted in the North Fork Caspar Creek basin. In a geomorphic context, a change of approximately one decade is considered a short-term impact.

Nakamoto (1998) reported that while variability was high, there were no dramatic changes in the abundance of coho salmon or steelhead trout recorded after clearcutting nearly 50% of the North Fork in only three years, a treatment in both intensity and timing much more severe than is proposed for the JDSF Management Plan. No changes to the text are necessary.

Response to Comment 112
A time period of three to five years can reasonably be considered to be a short-term hydrologic impact based on common usage in the watershed literature. As the brief literature below indicates, nutrient releases related to logging do no raise significant concerns for salmonids.

Hicks et al. (1991) state that studies indicate that nutrient increases (mostly nitrates) are limited to the first decade after logging; that primary production is stimulated in the presence of increased light and nutrient concentrations; that watersheds dominated by volcanic rock are more likely to show enhanced autotrophic production after logging than watersheds dominated by sedimentary or metamorphic rock (JDSF is largely underlain by sedimentary and metamorphic material); that herbivorous invertebrates will most likely benefit from increased algal growth; and that salmonid production may or may not be enhanced during periods of increased nutrient concentration (citing Gregory et al. 1987). Gregory et al. 1987 state that increased light and nutrient levels following harvesting can elicit increased primary production that may persist for 10 to 20 years. There is no indication from these comprehensive reviews that salmonid production would decrease from the low level nitrate increases that follow logging.

In the JDSF assessment area, Bottorff and Knight (1996) reported that most macroinvertebrate and algal variables increased significantly after clearcut logging in the North Fork Caspar Creek basin. Macroinvertebrates increased because of increased stream algae, and algae increased because of increased light, water temperature, and nutrients. In conclusion, while the literature states that improperly implemented forest practices can adversely impact salmonids if they cause thermal tolerances are exceeded by water temperature increases, if winter habitat is reduced, or if sediment degrades spawning and rearing habitat, there is no indication that nutrient increases associated with logging hillslopes will directly adversely impact fish numbers or biomass.

Dahlgren (1998) documented that nitrate increases following clearcut harvesting in North Fork Caspar Creek were relatively minor. He found that nitrate fluxes from the clearcut watersheds were generally 2 to 2.5 times greater than from the adjacent reference watersheds, but that the elevated concentration of NO_3 in stream water from the clearcut watersheds was rapidly decreased in the higher-order downstream segments. Dahlgren (1998) reported that while elevated NO_3 concentrations in stream water from the clearcut watershed might suggest a large loss of nitrogen due to clearcutting, conversion to a flux (kg/ha/yr) indicates maximum loss of only 1.85 kg/ha/yr, and fluxes decreased to <0.4 kg/ha/yr in the three years following harvest. Thus, he found that stream water loss of nitrogen following clearcutting was not a major environmental concern in this redwood/Douglas-fir ecosystem.

Response to Comment 113
The California Forest Practice Rules state that the applicable Regional Water Quality Control Board Basin Plan standards must be upheld when timber operations are conducted on non-federal lands in this state. See also the responses to comments 1, 2, 5, 6, and 7 in the DEIR comment letter submitted by the North Coast Regional Water Quality Control Board (agency comment letter A-1).

The practices that are proposed under the preferred alternative in the RDEIR have been developed to meet or exceed the standards in the Forest Practice Rules. Proposed JDSF Management Measures beginning on page VII.10-18 discuss measures in the Plan to achieve water quality goals, including reduced sediment input, which directly relate to Basin Plan standards. Thresholds of significance, beginning on page VII.10-20 in the DEIR, include the following threshold: "An impact of the proposed project would be considered significant to hydrology or water quality if it results in…[a] violation of any water quality standards."

Multiple remediations of sediment sources over time and space within JDSF, or, more importantly, within the relevant cumulative watershed effects assessment area, have the potential to produce both short-term adverse impacts and long-term positive impacts on sediment levels and associated beneficial uses. Sediment reduction practices such as replacement of failing or improperly placed or sized culverts have the potential to cause short-term increases in sediment, while promising to provide a long-term reduction in stream sedimentation. These potentials are recognized in the DEIR on page VIII-39. See also footnote 6 on page VIII-58. The programmatic cumulative effects analysis in the DEIR and RDEIR, which looks across the entire watershed assessment area and considers management on other ownerships, concludes that the either the DFMP or the ADFFMP would result in a significant beneficial effect on sediment. At the project level, project-based CEQA analysis is likely to be done for most road remediation projects (see the DEIR sections "Programmatic EIRs and Future Projects" at pages II-10 to -14 and "Future Decisions to Implement the JDSF Management Plan" at pages IV-1 to -2), including, where required, additional cumulative effects analysis that will consider the potential short-term and long-term interaction between the potential sediment effects of multiple road remediation projects. This approach, which will address these effects at the appropriate watershed level of analysis regardless of land ownership, will ensure that the potential short-term increases in sediment that such projects may cause will not result in a significant adverse impact or be in a quantity deleterious to fish, wildlife or other beneficial uses.

Response to Comment 114
Please see the response to comments 110 and 113 regarding compliance with TMDLs and the Basin Plan.

The Board notes that CEQA does not specifically require quantitative modeling. CEQA requires the analysis in an EIR to be sufficient "to provide decision makers with the information which enables them to make a decision…". Such an analysis "need not be exhaustive" and "is to be reviewed in the light of what is reasonably feasible" (CCR §15151). Qualitative projections can be adequate to address future impacts in many cases; in some cases, quantitative models or the necessary data inputs to quantitative models do not exist.

Perhaps the most in-depth and comprehensive water quality information available in California related to timber operations has been collected on JDSF as part of the Caspar Creek watershed study, and results from this 40+ year study have been incorporated in the RDEIR in several locations where appropriate. Practices proposed under the preferred alternative will be superior to those tested in the North Fork of Caspar Creek, making it reasonable to conclude that water quality impacts will be even further reduced. In the North Fork study, the modern Forest Practice Rules were tested in a statistically valid experiment, with results published and posted online. Actual field results from the North Fork Caspar Creek study are far superior to use of a office-based quantitative model, as suggested by the commenter, that can be manipulated to yield results suited to the model developer. The Caspar Creek results have shown that implementation of the modern forest practice rules (post-1973) have substantially reduced water quality impacts related to sediment. Results from the Caspar Creek study, and other information and analysis provided in the DEIR and RDEIR, support the conclusion that TMDL and Basin Plan standards will be upheld under the preferred alternative in the RDEIR.

Response to Comment 115
The comment suggests that DEIR Hydrology and Water Quality Impact 6: "Otherwise degrade water quality" should address herbicide use. Herbicide use is addressed in the Hazards section and the Cumulative Effects section. Individual projects will vary in the potential to deliver herbicides to water; requiring site-specific measures such as increasing buffer width or changing surfactants to reduce this risk. Any applications will be carefully designed to avoid potential water contamination. The project-specific planning process, including CEQA-appropriate project-level assessment of site-specific conditions, compliance with labels, pesticide regulations, and pest control recommendations, will provide adequate water quality protection. Given the limited potential use and protection measures the probability of impact to water quality is virtually non existent. There is no need to address herbicide use under Impact 6 since it is addressed elsewhere.

See also the response to comment 137.

Land Use Planning

Response to Comment 116
The DEIR does not indicated that the buffer would mitigate all potential land use impacts, but that it would prevent any significant land use impacts (see DEIR discussion of land use impacts 2 and 3, DEIR pages VII.11-11 to -12). The neighbor buffer is a mapped and designated zone adjacent to specific rural residential areas, not state parks. A buffer is also specified in forest practice regulation for areas adjacent to state parks, and is referred to as a Special Treatment Area (STA) in the Forest Practice Rules. The neighbor buffer, on the other hand, is a buffer area that has been proposed by the Department to help protect residential properties from potential impacts associated with forest management within JDSF.

This is a programmatic EIR which addresses the general impacts associated with approving the DFMP. The EIR provides a general description and analysis of the neighbor impacts that may occur and provides general mitigation to address those impacts when implementing individual projects under the Plan. However, this EIR is unable to clearly establish the significance of the neighbor impacts associated with individual projects. It therefore requires project proponents to consider the neighborhood effects associated with the individual project and develop appropriate mitigation. This site-specific analysis will be dependent on the proximity of the project to sensitive receptors (e.g., campgrounds, residences, state parks, and sensitive animals), the type of impact generated and intervening vegetation and topography – factors that cannot be addressed at the programmatic level. Subsequent CEQA documents (or THPs) will identify any additional mitigation. Many of the potential neighbor impacts are closely related to the noise, aesthetic, and recreation resource areas that are discussed in their own sections of the DEIR.

JDSF (with the exception of a small area of rangeland) is zoned as “timberland production zone” (TPZ) by Mendocino County, in accordance with the state’s Timberland Productivity Act of 1982. Land use in TPZ is restricted to growing and harvesting timber, as well as certain other compatible uses. The state Government Code for TPZ establishes a presumption that timber operations may be reasonably expected to and will occur on that parcel [Government Code § 51115.1(a)]. By zoning JDSF as TPZ and zoning neighboring parcels as rural residential or other zoning designations, the County is making a per se determination that the adjacent land uses, including timber management and homes, are compatible.

Department of Parks and Recreation comments on the DEIR did not indicate any specific concerns regarding neighborhood buffer effects and harvesting (see Agency DEIR comment letter A-4). As stated above, the forest practice rules establish a special treatment area adjacent to state parks. The Department of Forestry and Fire Protection and the Department of Parks and Recreation have a memorandum of understanding in place to address mutual management concerns related to Mendocino Woodlands. That MOU contains the stipulation:

> Without approval of DPR, CDF shall not harvest trees commercially from within 200 feet of camp areas, recreational cabins, or main roads located within the lands administered by DPR. This harvest exclusion shall not apply to timber removal necessitated by road maintenance activities, activities associated with the existing Railroad Gulch Silvicultural Study area, or other provisions established by this agreement.

This MOU item uses the same buffer width as the basic neighborhood buffer and the STA provided in the DEIR and FPR, but is more restrictive in that it allows no commercial harvesting within the buffer. The more stringent MOU buffer requirement will supersede the standard neighborhood buffer provided in the DFMP or ADFMP.

Response to Comment 117
Page VII.11-6 states. " Issues related to state parks as neighbors are addressed in the Aesthetics and Recreation sections of the EIR. Aesthetics begins on page VII.2-1 and Recreation begins on page VII.14-1.

Response to Comment 118
Please see response to comment 117.

Noise

Response to Comment 119
As described earlier, this is a programmatic EIR which addresses the general impacts associated with approving the ADFFMP. The EIR provides a general description and analysis of the noise sources and impacts that may occur and provides general mitigation to address those impacts when implementing individual projects under the Plan. However, this EIR is unable to clearly establish the significance of noise impacts associated with individual projects. It therefore requires project proponents to consider the noise effects associated with the individual project and develop appropriate mitigation. This site-specific analysis will be dependent on the proximity of the project to sensitive receptors (campgrounds, residences, state parks, sensitive animals), the type of noise generated and intervening vegetation and topography – factors that cannot be addressed at the programmatic level. Subsequent CEQA documents (or THPs) will identify any additional mitigation. Programmatic mitigations 1 through 4 from the DEIR were incorporated into Alternative G (in the RDEIR) to address those noise impacts which were identified and that could be addressed at the program level.

Response to Comment 120
This is a programmatic document which discloses the fact that quarries may be necessary to the future management of the Forest; however, their location, size and proximity to sensitive receptors is speculative at this time and therefore the EIR does not address specific impacts or mitigation. Any quarry development would be subject to further permitting and therefore require the preparation of subsequent CEQA documents. Also, see response to comment 119.

Response to Comment 121
The Board did recognize that temporary or periodic noise associated with implementing the ADFFMP could be significant (Noise Impact 4 (Page VII.12-13) and required mitigation (Noise Mitigation 2). These mitigations have been incorporated into Alternative G which was identified by the Board as the proposed project in the RDEIR.

Response to Comment 122
The proposed 200 foot buffers are not the only noise mitigations required under the Plan. The buffers are part of a suite of measures to address the variety of impacts that may arise. Noise Mitigation 2 also includes: limiting days of timber operations; avoiding nesting and breeding sites; biological surveys prior to project implementation; and limitations on helicopter operations. These mitigations have been incorporated into Alternative G.

Given that this is a programmatic EIR and the uncertainty associated with site specific projects to be implemented at a later date, the Board believes that the level of analysis is appropriate. As described above, future site specific projects will require a more detailed evaluation of their noise effects. Once adopted, the Plan will require future project proponents to "consider" the noise effects associated with their site specific project. Within this context, "consideration" is appropriate mitigation.

Response to Comment 123
Mitigation 3, as well as the other noise mitigations found in the DEIR, has been incorporated into Alternative G, the new proposed project identified by the Board. See Responses 119 through 122.

Public Services and Recreation

Response to Comment 124
The description of the Big River Interim Management Plan found in the in the Recreation Section of the DEIR is adequate for CEQA purposes, as CCR §15125 states the Environmental Setting must describe the conditions that exist at the time the Notice of Preparation is published. The Board has directed the Department to carefully consider the plan's guidance when managing portions of JDSF adjacent to the park unit.

Response to Comment 125
CEQA requires analysis of potential changes in the environment. Additionally, CEQA does not require complete harmony among competing uses. The DEIR recognizes the potential for conflicts between uses on JDSF. These conflicts are addressed through measures in the management plan or through mitigations developed in the DEIR. The combination of thresholds found in the Recreation, Noise and Aesthetics sections of the DEIR provide adequate measures to identify potential impacts to recreation resources: specifically, potential adverse effects on a scenic vista; degradation to the visual character or quality of a site; and, substantial increases in noise. The DEIR provides mitigations to address these potential impacts. Furthermore, site-specific impacts will require analysis and mitigation through the CEQA analysis conducted for individual projects.

Response to Comment 126
The potential decommissioning of Road 200 is offered as an example of a roadway that is suspected of contributing sediment to Chamberlain Creek. There is no plan to decommission this roadway. Should such a plan be considered in the future, the potential for effects related to aquatic and watershed resources, in addition to the potential for impacts to recreational resources, would be considered and an assessment produced.

Response to Comment 127
Please see response to comment 117.

Transportation and Traffic

Response to Comment 128
The baseline condition for determining impacts is the existing environmental setting. This coincides with the management that occurs under the current (1983) management despite temporary lulls in activity, either seasonally or annually. Regardless, the level of truck traffic, under the 1983 Plan or the DEIR's proposed project (Alt. C1) do not exceed the thresholds of significance, especially in consideration of the non-truck traffic already occurring, such as routine forest management, recreation, or state highway traffic. Alternative G will produce an estimated average annual harvest that is lower than Alternative C1, resulted in fewer log truck trips and other harvest-related road use.

Response to Comment 129
In an effort to avoid repetition and minimize the size of the DEIR the Board considered the individual and cumulative impacts to Transportation and Traffic together. Page VII.15-8 describes the thresholds of significance to be applied and Page VII.15-9 makes the significance determinations for both the individual and cumulative effects. In that JDSF is located in a largely rural area and that timber harvesting and recreation activities contribute in a minor way to local traffic, the DEIR found all potential impacts to be less than significant or no impact. The cumulative effects section of the DEIR states that, *"There is no indication that there are currently any existing traffic cumulative impacts within the assessment area;"* therefore, adoption of the DFMP would not contribute toward an existing cumulative effect. The individual and cumulative effects associated with Alternative G were assessed in a similar manner.

Cumulative Effects

Response to Comment 130
Sections of the DEIR and RDEIR that address cumulative effects can be readily identified in the table of contents.

The DEIR and RDEIR provide discussions of cumulative effects in multiple, appropriate places throughout the documents. Cumulative effects are addressed in a number of the individual resource analysis sections, as well as a single section that deals entirely with cumulative effects (Section VIII in the DEIR and Section IV in the RDEIR). Where cumulative effects are discussed in an individual resource analysis section, those discussions are clearly labeled as being about cumulative effects.

Some cumulative effects issues are crosscutting: For example, how do sediment, stream temperature, nutrients, flow, and large woody debris combine to affect in-stream fish habitat? Such issues are appropriately addressed in integrative sections like VIII in the DEIR and IV in the RDEIR. Other cumulative effects issues are more focused on how a single impact type may accumulate over space and time, such as loss of a particular habitat type and its impacts on a species that prefers that habitat (e.g., needs of Marbled Murrelets for trees, typically old growth, with large platform branches to provide nesting sites). This kind of focused impact can be appropriately contained within a section addressing wildlife and wildlife habitat.

Response to Comment 131
The DEIR and EIR provide mitigations that are determined to be necessary and appropriate at a programmatic level. However, while the ADFFMP is primarily programmatic, it does provide some specificity in terms of location and probably silvicultural method for future projects. CALFIRE, in crafting the DFMP, included a list of proposed future harvest units (DFMP Table 5, page 56, and as amended in RDEIR Table II.3). And the DEIR cumulative effects section discusses future timber harvesting that may occur within the assessment area. While the list is subject to change due to adaptive management and operational considerations, it constitutes a series of reasonably foreseeable future projects that require disclosure, impact analysis, and consideration in the assessment of cumulative effects. However, the depth of analysis contained in this EIR for each of the proposed THPs is not to the level of specificity that is typical in the Department's review of THPs, primarily due to the fact that the projects either have not yet been planned to any level of detail, or the planning was preliminary at the time the analysis for the DEIR was conducted. All THPs conducted both on and off JDSF—whether currently approved, under review or in development—will be subject to the Department's discretionary approval under the Forest Practice Act and Rules and the THP review process (a functional equivalent to an EIR; PRC §21080.5). Those that are within the boundaries of JDSF will, in addition, be evaluated for compliance with the protection measures and management guidelines identified in the final Plan and EIR. Subsequent environmental analysis (CEQA documents or THPs) required to conduct activities at JDSF will, where appropriate, rely on "tiering" and incorporate all, or parts, of the final EIR and Plan by reference to avoid repetitive analysis and discussions, and to focus on site-specific information (CCR §15152). All activities will be subject to the constraints and mitigations identified in the final EIR and Plan. In that the DEIR does not authorize or approve any of these future projects and the projects located within JDSF will be subject to the constraints found in the ADFFMP and DEIR the level of analysis is sufficient for a programmatic EIR.

Response to Comment 132
The DEIR does not find that all impacts of timber harvest are fully mitigated. Where the potential for significant impacts is found, those impacts are mitigated to a level of less than significant.

See also the response to the Patrick Higgins DEIR comment letter (see e-mailed comment letter E-26 in Section IV); see specifically the responses to comments 27 and 28.

Similar concerns about past rate of harvest and future harvest intensity were expressed by James Strittholt. See the response to his DEIR comment letter (see e-mailed comment letter E-25); see specifically the response to comment 32.

Response to Comment 133
The DEIR is programmatic and not designed to evaluate detailed impacts from individual future timber harvest plans. However, it is anticipated that water temperatures will improve, in both the short- and long-term, under the management proposed under the DFMP and as mitigated under individual project level THPs. The forest management proposed under the DFMP will promote late seral conditions in the WLPZ in the 5 to 10 year period the commenter is concerned about as well as over the life of the Plan. This should have the indirect benefit of maintaining and enhancing canopy cover as well as a positive effect on stream temperature, large woody debris presence and general streambank stability. In addition, JDSF has a long-term effort to collect water quality data which is expected to facilitate an adaptive management approach (see Chapter 5, Adaptive Management and Monitoring, in the ADFFMP). See also response to comment 67, second paragraph.

Response to Comment 134
The statement made in the RDEIR refers to reduced nutrient loadings compared to impacts from timber operations conducted in the 1980s and 1990s on JDSF, not for the period from approximately 2000 to the present when logging has essentially ceased due to repeated legal challenges to the JDSF Management Plan and DEIR. It is illogical to compare nutrient loading from the proposed alternative to that which has occurred without timber harvesting occurring on JDSF. Based on the court rulings regarding management at JDSF, the 1983 Management Plan is the plan that is currently operative on JDSF, although all harvesting under that plan is enjoined. Harvesting during the 1980s and 1990s was carried out consistent with this plan. Thus, harvesting during that period is an appropriate benchmark for comparison of future logging.

Response to Comment 135
The discussion of large woody debris (LWD) in the Cumulative Effects section (VIII) of the DEIR is substantively supported by more detailed discussion in the Aquatic Resources section (VII.6.1). For aquatic resources as well as other resource areas, the cumulative effects section builds on and integrates the contents of the individual resource analysis sections. In addition to discussing the importance of LWD as an in-stream fish habitat element, the aquatics section of the DEIR provides a large quantity of existing information on the amount of LWD present in streams and information in how past actions have influenced those levels. The DEIR specifically discusses how historic harvest and previous misguided efforts to “clear” streams has resulted in a deficit of LWD (i.e., resulted in an adverse cumulative effect) on JDSF and the larger cumulative effects assessment area in general. Information on LWD loading of JDSF streams is provided in section VII.6.1.3. Regional and JDSF information on LWD loading and recruitment is provided on DEIR pages VII.6.1-34 to 37. Additional stream-specific information on LWD also is provided. Finally, the DEIR also describes several restoration projects that have been implemented in recent years to add large woody debris to streams on JDSF.

The descriptions of the LWD provisions for the ADFFMP (see DEIR sections VII.6.1.11 through VII.6.1.14), including the Additional Management Measure for Large Woody Debris Survey, Recruitment, and Placement, make it clear how the Plan and future projects implemented under it will lead to increased LWD in the JDSF streams over time. These provisions include management of Class I and II Watercourse and Lake Protection Zones (WLPZs) for development of late seral forest, which over time will provide the large sized LWD that will persist the longest in streams and provide the best in-stream habitat function. The provisions also favor LWD recruitment by prohibiting salvage logging in WLPZs. The Additional Management Measure for Large Woody Debris Survey, Recruitment, and Placement (see DEIR page VII.6.1-97 to -98) provides a specific, literature-based target metric for the desired level of LWD in JDSF streams, directs that surveys be done (either programmatically or at the THP level) to determine whether this metric is met, and specific steps that are to be taken where the target is not met.

In short, the DEIR/RDEIR and ADFFMP provide a thorough discussion of cumulative effects with respect to the current deficit of LWD found on many JDSF stream reaches, and they establish LWD recruitment procedures and goals that have a clear target metric and a clear process for their implementation and achievement of increase levels of LWD. The Monitoring and Adaptive Management Program (ADFFMP Chapter 5) addresses LWD as a component of Instream Conditions and Fisheries.

By increasing in-stream LWD over time, the ADFFMP will improve in-stream fisheries habitat. These habitat improvements have the potential to support larger salmonid populations. How these improved habitat conditions will translate into improved fish population numbers and biomass is clearly dependent on factors beyond those related to timber operations on JDSF. These factors include short-term ocean conditions (such as El Niños) and longer term shits in ocean climate (such as the Pacific Decadal Oscillation), as well as changes in ocean harvest (fishing) rates. These influences contribute to year-to-year variability, as well as longer term fluctuations in population levels. These factors are beyond the scope of the DEIR and RDEIR.

Response to Comment 136
The DEIR includes an analysis of potential sediment effects upon water quality that includes a discussion of past impacts, current conditions and observed trends, future potential projects, and proposed mitigation. The comment does not take note of the analysis found in various other sections of the DEIR, including Section VII.7 and VII.10. The assessment includes citation of multiple local watershed studies and their relationship to proposed management and expected results, and a discussion of how research has helped to formulate practices and mitigation. The assessment includes the modeling of planned and potential land management, and expected level of impact resulting from that management. The analysis of potential impacts of sediment upon the fishery can be found in Section VII.6.1.

Response to Comment 137
See responses to comments 101 and 102.

The DEIR (see sections VII.8, VIII.5, and Appendix 13) and RDEIR (III.8, and IV.4) specifically address the potential for cumulative effects from herbicide use and found that a significant impact would not occur.

The comment focuses on the argument that one cannot simply say the additional effect of the proposed project will be small in order to claim there will be no cumulative effect. This is correct. The comment cites the DEIR's information that forestry use of herbicides is a small percentage of total county herbicide use as an indication that the DEIR is making an inappropriate analysis. This conclusion is incorrect and the DEIR's analysis is more sophisticated than this. The critical points with respect to herbicide cumulative effects for JDSF are (1) what are the amounts of herbicide being used on JDSF watersheds, (2) is there any indication that there is currently a significant accumulation of herbicides in the affected environment, and (3) is there is an opportunity for herbicide effects to accumulate over time and space.

Herbicide Usage on JDSF Watersheds The amounts of herbicides used on JDSF watersheds are small. As the data in the DEIR indicate, forestry use of herbicides is a small percentage of total county usage, with agriculture being the largest use by far. As discussed in the DEIR, agricultural land comprises less than one percent of the cumulative effects assessment area. The information below updates the herbicide use information provided in the DEIR and serves to further support its arguments about the lack of potential for significant herbicide-related cumulative effects.

The table that follows lists forestry use relative to county-wide pesticide use for the last three years available. It shows that forestry use has declined from the 2002 use (18,706 lbs and 15,561 acres, DEIR Table VII.8.5, page VII.8-9) and typically accounts for approximately ½ of one percent of total pesticide use in the County by weight, despite the extensive forestlands (there are 925,721 acres of forestland in the county as compared to 72,179 acres of agricultural lands, per county land use

information, presented in DEIR Table VII.1.1). County-wide pesticide use has declined in these last three years as well, when measured by weight. Forestry related herbicide treatments were implemented on approximately 1/3 of one percent of the county land base.

A more local area, bracketing JDSF lands on the north and south, comprised of approximately 266,600 acres was identified using township and range. The area was not extended to the east as this is a different watershed with different land uses; to the west is the ocean. For these lands surrounding JDSF, past forestry and timberland herbicide usage use varied annually from 74 percent to 35 percent of total pounds used within this smaller area. The annual variation in use ties to the fact that the major forestry use in this area, reforestation, typically occurs only once or twice per stand rotation (~45-80 years) on a given area. Note that for the most recent data (2005), forestry applications occurred on less than one percent of the listed land area surrounding JDSF.

Pesticide Use Patterns in Mendocino County Relative to Forestry Use

Analysis Area	Year	Pounds of All Pesticides Applied	Pounds of Pesticides Applied for Forestry & Timberland Applications	Fraction of Total Pesticide use for Forestry & Timberland Applications	Acres of Forest & Timberland Treated*	Acres of Forest & Timberland Treated as Fraction of Total Acres Examined
Mendocino County (2,482,050 acres)	2003	1,475,689	10,032	0.68%	9,277	0.37%
	2004	1,162,903	5,189	0.45%	6,255	0.25%
	2005	1,213,174	6,287	0.52%	9,382	0.38%
JDSF and Neighboring Areas (266,600 acres)	2003	5,389	3,976	73.79%	2,673	1.00%
	2004	3,659	1,298	35.48%	1,414	0.53%
	2005	4,256	1,724	40.49%	2,244	0.84%

* Reports may count acreage more than once if more than one pesticide has been applied. For the county-wide numbers not enough information was available to remove duplicate acres. For the JDSF and neighboring areas, the acres that were obviously duplicated for a given location were removed.

Source: DPR website and DPR staff, October 2007.

Evidence of Existing Significant Cumulative Effects There is no basis in existing information that indicates there has been any significant accumulation of herbicides in the affected environment.

Potential for Accumulation of Herbicide Impacts The foregoing indicated that the amount of herbicides used in the vicinity of JDSF is small. The effects of this small amount of herbicide use to accumulate over time and space with the anticipated use of herbicides on JDSF under the proposed ADFFMP are not expected to be significant. For adverse cumulative effects to occur, the prior use effects would have to persist and combine with present and future potential effects. The small level of herbicide use in the JDSF area, the low level of herbicide use that will occur on JDSF under the management plan, and the fact that these treatments are dispersed across the landscape over space and time provides one indictor that the opportunity for impact accumulation is low.

Forestry-related herbicide use does not typically occur repeatedly in any given area or location. The herbicides most commonly used in forest management applications degrade fairly quickly, as noted in the information provided in DEIR Appendix 13. These products do not tend to bioaccumulate (build up and concentrate over time) in living organisms. The potential for herbicides to accumulate over time.

Mechanisms for movement of herbicides include drift via wind, surface water, and groundwater. Standard herbicide application practices avoid application when wind is capable of moving herbicide off target. No aerial application will be conducted. Herbicides will be applied directly on target vegetation by use of a backpack pump sprayer, thus minimizing potential for drift. This type of application results in little to no atomization of herbicide with potential for wind dispersal. Various measures are used to ensure that application of herbicides does not result in herbicide contamination of surface waters. Buffers and methods of application are effective mechanisms used to address this potential. Movement of herbicide into ground water typically occurs via the soil. Any herbicide movement is related to the period of time in which the herbicide persists in the soil, and whether it's chemical properties result in transport through soil or binding to soil particles. These two attributes are noted in DEIR Appendix 13 for each herbicide.

The Board has determined that cumulative impacts related to herbicide use are not expected to occur.

Other CEQA Analysis

Response to Comment 138
The Board continues to find that there are no significant unavoidable impacts associated with adopting the ADFFMP.

Table for Response to Comment 91: Rationale for Identifying Species with No Potential for Significance Effects Under Any Alternative and Therefore Not Addressed in Detail in the JDSF EIR.

Species	Project Area Occurrence and Habitats	Basis for Determination of Effects	Impacts and Significance of Plan Alternatives
Pomo bronze shoulderband snail	Found on lands adjacent to JDSF. Associated with dense redwood forest in riparian habitats and other mesic areas.	All current old growth forest habitats protected. Riparian habitats to be managed to increase late successional character.	Minor or no direct effects. Potential for habitat enhance-ment. Overall effects less than significant
Fringed myotis Long-legged myotis Pacific big-eared bat	No reported occurrences on or adjacent to JDSF. Breeding and roosting uses are mostly associated with building, caves, but may use hollow trees and other substrates	Breeding and roosting habitat will not be affected. Rangewide declines likely associated with disturbance at roosting and nesting sites (Williams (1986). Species are not likely to be sensitive to vegetation treatment with protection and creation of large snags. Old growth habitat with large snags to be protected and extent of late successional forest to be increased on JDSF	Little or no effects on species or habitat. Impacts less than significant, likely beneficial over long term
Great Blue Heron Great Egret, Double-crested Cormorant	Species are not known to regularly occur, but are observed occasionally onsite or are present on adjacent lands.	Species populations are stable or increasing in the state. If they occur at JDSF, they are localized. Existing FPR nest site protections applied on a project level during timber harvest are effective. Nesting habitat may improve through riparian management	Less-than significant; potentially beneficial in the long-term
Northern Harrier	Primarily a species of wetlands and grasslands. Seldom use shrub or forested areas, even following even aged timber harvest. No known occurrences on or adjacent to JDSF, but winters and may breed in grasslands on nearby Coastal plain.	Likely occurs only as an irregular or localized migrant or wintering species. Uses grassland and other very open areas (e.g Keiffer 1993) generally on flatter terrain, which are limited at JDSF JSDF of low importance to species.	No impacts

Species	Project Area Occurrence and Habitats	Basis for Determination of Effects	Impacts and Significance of Plan Alternatives
Sharp-shinned Hawk	Known to occur	Species has increased substantially through most of its range (Sauer et al. 2005). Not considered a state species of special concern (SSC) in draft revision of SSC list (Shuford, in prep.). Readily uses younger forest stands.	Less than significant or no impact
Merlin	No reported occurrences of the species on or adjacent to JDSF, although likely occurs in low density. Uses open areas and edge habitats for foraging. A wintering species only.	Former threat was pesticide contamination (Remsen 1978). Species has increased over most of breeding range (Sauer et al. 2005), so likely has increased as a wintering species in California. Not considered a SSC in draft revision of list (Shuford, in prep.) Likely not limited by wintering habitat	No impact.
Tricolored Blackbird	No occurrences; found locally on adjacent lands. Requires combination of marsh or wet meadow with dense cover (frequently blackberry) for nesting with grassland for foraging	Limited marsh and meadow habitat at JDSF will not affected by management actions. Not known to forage in forested habitat, even recently cleared areas. Few breeding records in Mendocino County (Keiffer 1993, Beedy and Hamilton	Less than significant or no impact
Yellow-breasted Chat	Known to occur on adjacent lands. Uses well-developed riparian areas dominated by hardwoods. Likely to be locally distributed if present	Suitable habitats will be protected through riparian management	Less than significant or no impact

References

Bawcom, J.A. 2007. Even-aged management and landslide inventory, Jackson Demonstration State Forest, Mendocino County, California. p. 323-33 *in* Standiford, R.B., G, Giusti, Y. Valachovic, W.J. Zielinski, and M.J. Furniss, technical eds. Proceedings of the Redwood Region Forest Science Symposium: What Does the Future Hold? Gen. Tech. Rept. PSW-GTR-194, Pacific Southwest Experiment Station, USDA Forest Service, Albany, CA. 553 p.

Beedy, E.C. and W. J. Hamilton III. 1997. Tricolored blackbird status update and management guidelines. U. S. Fish and Wildlife Service, Portland, OR, and California Department of Fish and Game , Sacramento, CA.

Bottorff, Richard L.; Knight, Allen W. 1996. The effects of clearcut logging on stream biology of the North Fork of Caspar Creek, Jackson Demonstration State Forest, Fort Bragg, CA -- 1986 to 1994.

Unpubl. Final Rept. prepared for the California Department of Forestry and Fire Protection, Contract No. 8CA63802. May 1996. Sacramento, CA. 177 p.

Dahlgren, Randy A. 1998. Effects of forest harvest on biogeochemical processes in the Caspar Creek watershed. Final report to California Department of Forestry and Fire Protection. Agreement Number 8CA17039. December 1998. Department of Land, Air, and Water Resources, University of California, Davis, CA. 153 p.

Gregory, S.V., Lamberti, G.A., Erman, D.C., Koski, K.V., Murphy, M.L., and Sedell, J.R. 1987. Influence of forest practices on aquatic production. *In* Streamside management: forestry and fishery interactions. *Edited by* E.O. Salo and T.W. Cundy. Univ. Wash. Inst. For. Resour. Contrib. 57. pp. 233–255.

Hicks, B.J., J.D. Hall, P.A. Bisson, and J.R. Sidell. 1991. Responses of salmonids to habitat changes. American Fisheries Society Special Publication 19: 483-518.

Keiffer, R. J. 1993. Field checklist of the birds of Mendocino County, California. Hopland, CA.

Remsen, J. V., Jr. Bird Species of Special Concern in California. Wildlife Managemnt Branch Admin. Rept. 78-1. California Department of Fish and Game, Sacramento CA.

Sauer, J. R., J. E. Hines, and J. Fallon. 2005. *The North American Breeding Bird Survey, Results and Analysis 1966 - 2004. Version 2005.2.* USGS Patuxent Wildlife Research Center*, Laurel, MD.*

Shuford, D. (Ed.) in preparation. Bird Species of Special Concern in California. California Department of Fish and Game, Sacramento, CA.

Williams, D. F. 1986. Mammalian Species of Special Concern in California. Wildlife Management Division Admin. Rept. 86-1.California Department of Fish and Game, Sacramento CA.

P-178

Dear Friends - P178

I am very interested in taking
1 care of Jackson State Demonstration forest
in a sustainable way.

2 I would like the old growth
logging to be stopped. I would like to
3 have more recreation areas. I would
like to have silt-causing, salmon habitat-
4 injuring poor roads brought up to standard -
this is so deeply essential.

Also I would like various-age
trees in all the forests upheld as natural
5 healthy habitat. I think plantation
style "tree farms" are unnatural, disease prone,
and all around bad concepts.

This forest is soulfully precious &
I'd be so happy to have it correctly
managed so it can be the healthiest
environment possible. It is a treasure
6 we all would adore having preserved for its
own sake as well as for the joy of being
able to go there and partake of the fresh
piney-scented paths and lovely waters and walk
and seeing the wildlife and listening to the silence.

lovely forest. Please give higest priority to Stewardship rather than exploitation.

Lets hold on with all our might to the concept of doing the best we can to take care of the health of this rare resource. It needs all we can do to maintain it in a good way that will recognize its complex and amazing natural right to exist as itself and also for us & future generations

Thank you for your time & for listening to the wee small voice of one nature appreciation. I could die made this letter huge with issues, but I think you get the idea.

Sincerely,

Diane Nelson

P.O. Box 387
Hopland Ca
95449-0387

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AND FIRE PROTECTION

Mailed Letter P-178

Response to Comment 1
Please see General Response 2.

Response to Comment 2
See General Response 8.

Response to Comment 3
See General Response 14.

Response to Comment 4
See General Response 11 and 13.

Response to Comment 5
See General Response 10. Even-age stand structure is not limited to stands created by even-age silvicultural practices. Naturally occurring disturbance events, such as fires or landslides, create forest openings that often develop into even-age stands. Even-age management practices as implemented on JDSF will not result in a “plantation style tree farm”. Rather they will be used to create a varied landscape with a mosaic of habitat types.

The ADFFMP restricts the use of even-aged timber management to up to 26% of the land base. The remainder of the forested areas will utilize uneven-aged management. The areas designated to allow even-aged management may include uneven-aged management as well. In addition, where even-aged prescriptions are applied, there will be a goal to retain important habitat elements such as LWD, snags, and individual trees with structural characteristics that provide habitat value, such as broken tops. Even-aged management as practiced on the Jackson Demonstration State Forest will generally produce stands with more than one canopy layer, consisting of a main canopy layer of trees grown to the designated rotation age, and an overstory of a few to several trees per acre retained from the previous stand to provide a legacy of wildlife habitat elements.

Response to Comment 6
The ADFFMP represents significant advancement in the management practices aimed at protection and restoration of environmental resources. One of the primary goals of the JDSF Management Plan is to achieve net improvements of conditions over time in comparison to existing conditions. The current plan is based on a monitoring and adaptive management feedback system. Goals are set for desired future conditions and monitoring is utilized to provide feedback regarding the effectiveness of management strategies in achieving those goals. Subsequent management actions will be modified as necessary in response to the results that are observed. Implementation of the ADFFMP is not expected to cause significant adverse environmental impacts (please see the analysis performed for the EIR). See also General Response 11, 12 and 14.

The legislative mandate that led to the creation of JDSF requires that the forest is actively managed as a demonstration of forest management. It is protected from land use conversion, but it will not be managed as a preserve due to the fact that this would be inconsistent with current legislation and Board policy.

P179

P.O. Box 339
Camptonville, CA 95922
1-800-738-8733

Northern California SOCIETY OF AMERICAN FORESTERS 1900

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BOARD OF FORESTRY AND FIRE PROTECTION

March 1, 2006

Mr. Stan Dixon, Chairman
California Board of Forestry and Fire Protection
P.O. Box 944246
Sacramento, CA 94244-2460

SUBJECT: Draft Environmental Impact Report for the Jackson Demonstration State Forest Draft Forest Management Plan

Dear Mr. Dixon:

The Northern California Society of American Foresters (NorCal SAF), with over 750 members, is a unit of the Society of American Foresters. NorCal SAF is comprised of professional foresters with extensive experience in the management of forestlands in California. The mission of the Society of American Foresters is to advance the science, education, technology, and practice of forestry; to enhance the competency of its members; to establish professional excellence; and to use the knowledge, skills, and conservation ethic of the profession to ensure the continued health and use of forest ecosystems and the present and future availability of forest resources to benefit society.

For a programmatic environmental impact report (EIR), the Jackson Demonstration State Forest (JDSF) draft EIR provides an exceptionally detailed level of description and impact analysis of the draft forest management plan (DFMP) and its alternatives. Considering that timber harvesting plans must be prepared to address the potential project-level impacts of subsequent timber operations, the DEIR
1 ensures that the principal California Environmental Quality Act goal regarding disclosure of environmental impacts for decision makers and the public will be met to an unprecedented extent at JDSF. NorCal SAF commends the California Department of Forestry and Fire Protection and JDSF staff for completing such a deep and comprehensive exploration of the ecological and managerial trends that will determine the future character of JDSF. This EIR reaches, if not defines, the state of the art for environmental analysis of forest management at the property level.

The DEIR persuasively demonstrates the extent to which the California Forest Practice Rules and other forest practices that have become standard industrial practice in the Pacific Coast region have provided, and will continue to provide, improved levels of environmental protection, and the major environmental
2 benefits that accrue to society from the conservation commitments of industrial forest landowners and the diligent application of advanced knowledge by professional resource managers. Moreover, considering the DFMP commitments that exceed standard industry practice (e.g., retention of all old-growth trees and designation of many special management areas), the management approach prescribed

2 in the DFMP achieves a highly desirable balance between environmental protection and restoration and economic productivity at JDSF from which virtually all Californians will benefit.

3 NorCal SAF supports adoption of the preferred alternative, C1. Alternatives A, E and F conflict so irreconcilably with the established purposes and goals of demonstration state forest ownership that we strongly urge their rejection. In this regard, we disagree with the conclusion on page 40 of Section VII.6.3 that implementation of the latter alternatives would have a less-than-significant effect on the goal of maximum sustained production of high-quality timber products (MSP). Taken on its face, these alternatives would demonstrably fail to achieve this goal. It is only when MSP is considered to impose only an upper limit on timber harvest, as opposed to also entailing a lower limit, as any reasonable interpretation of the goal must imply, that Alternative A, E or F could be construed as not violating the MSP requirements of the Forest Practice Act.

4 NorCal SAF has two concerns about the preferred alternative. These are the harvest level and political restriction on the treatment of biological systems. JDSF is a highly productive and well-managed forest. Limiting harvest levels to 70% of growth could lead to stand health issues in future decades that would be more difficult and expensive to treat in older stands. The restrictions placed on allowable silviculture systems, including even-aged systems, are not biologically appropriate. Forest research scientists need the management flexibility to conduct responsible and important research to better understand forest ecosystems. Forest conditions are constantly evolving and vary across the landscape. The State of California employs professional foresters to determine feasible and appropriate management activities for a designated area based upon on-site conditions. The foresters on the ground are the ones who are in the best position to determine what methods are most appropriate to maintain forest health and productivity, while giving consideration to other resources as directed by the Forest Practices Act and Forest Practice Rules.

5 NorCal SAF would also suggest that the DEIR be revised as necessary to provide the required contents of a program timberland environmental impact report (PTEIR). This type of document provides for a relatively stable regulatory and management climate. We believe that adoption of a PTEIR by JDSF would provide a major impetus for serious consideration of that type of management plan by other landowners. As such, adoption of a PTEIR by JDSF would perfectly match its demonstration function. Considering the resources and level of effort the State has already invested in this EIR, and the relative ease with which it could be converted into a PTEIR, not doing so would represent a major loss of opportunity.

Thank you for considering these comments.

Sincerely,

John S. Kessler, Policy Chair
Northern California Society of American Foresters

Mailed Letter P-179

Response to Comment 1
Comment noted. The Board and Department went to great lengths to ensure the quality and completeness of the 2005 DEIR and 2007 RDEIR.

Response to Comment 2
Comment noted. The Board believes that the balanced achieved in Alternative G and the Administrative Draft Final Forest Management Plan based on Alternative G provides a desirable balance among multiple factors, including those mentioned in the comment. This balance is represented by the goals established in the Administrative Draft Final Forest Management Plan, as well as the detailed measures the Plan contains.

Response to Comment 3
The Board has formulated and proposed to adopt an Administrative Draft Final Forest Management Plan, based on Alternative G, which includes elements of several of the alternatives. The Board has determined that the implementation of Alternative G will achieve the goal of maximum sustained production. Alternative G results in a higher level of short-term harvest than Alternative A, E, and F. It is estimated that the short-term annual harvest will vary between 20 and 25 million board feet per year. The Administrative Draft Final Forest Management Plan does not propose to establish a lower limit upon harvest level, but the Board has provided that the short-term harvest not exceed 35 million board feet per year. While the upper harvest limit is constrained in the short-term, continued assessment of stand development and growth and yield, over the longer-term is likely to result in an increasing inventory and level of harvest.

Responsibilities for JDSF to achieve maximum sustained production of high quality timber products (MSP) are found in several places in the Public Resources Code (PRC) and Board policies. The Forest Practice Act establishes the overall intent to regulate the use of timberlands to assure that:

> The goal of maximum sustained production of high-quality timber products is achieved while giving consideration to values relating recreation, watershed, wildlife, range and forage, fisheries, regional economic vitality, employment, and aesthetic enjoyment, [PRC § 4513(b)].

Specifically relevant to JDSF, the theme of achieving maximum sustained timber production “while giving consideration to...” is repeated in Public Resources Code (PRC) §§ 4639 and 5651 and in the Board Policy on timber management on the Demonstration State Forests (Policy 0351.4).

The DEIR (page VII.6.3-40 and Table VII.6.3.9) discusses the issue of whether the alternatives considered would result in significant environmental impacts with respect to the achievement of MSP. The focus of the analysis is ensuring that harvest does not exceed growth. The tradeoff between current timber production vs. greater long-term accrual of timber inventories is discussed. Table VII.6.3.7 in the DEIR or Table III.7 in the RDEIR indicate that lower levels of first decade annual harvest correspond to higher levels of long-term sustained yield.

More generally, the Board, as other land managers, has substantial discretion in determining the consideration to be given to the listed nontimber values while implementing the direction for maximum sustained production of high quality forest products.

Response to Comment 4
The harvest levels and silvicultural systems contained in Alternative C1 and in the Administrative Draft Final Forest Management Plan, which is based on Alternative G, reflect a variety of considerations, including existing statutory and policy direction for the management of JDSF, the need for maintaining a wide variety of forest stand conditions over space and time to provide highly varied research opportunities, protection of a range of environmental values (e.g., providing late seral

or older forest habitat conditions), and public concerns regarding the management of this public forest. Within areas that are to be managed to demonstrate high levels of sustained timber production, both inventory and harvest are expected to increase in the long-term, due to application of intensive forest management principles.

Alternatives C1 and G provide significant flexibility, within their frameworks, for professional forest managers to provide stand-appropriate treatments for addressing management concerns such as forest health. The frameworks of these alternatives, such as spatial assignments of areas that may receive different kinds of silvicultural treatments or overall goals for forest structure conditions, help to ensure that a varied forest landscape is provided for research and demonstration. At the same time, assignment of general treatment types (e.g., unevenaged management) at the watershed level provides research units that have undergone consistent treatment types, which may then be compared to watershed research units that have received other treatment types (e.g., a mix of evenaged and unevenaged management).

While aggressive stand treatment, under certain circumstances, has the potential to provide the opportunity to increase stand health and vigor, passive or light management also has potential to improve forest health in many instances. JDSF will be managed to demonstrate and test a broad range of forest management approaches for the benefit of private forest landowners.

The application of even-aged management has been constrained by Alternative G in consideration of its potential to produce various effects. While the Board generally agrees that management systems are most appropriately determined and applied by professional foresters at the local level, some level of restriction on even-aged management was deemed necessary in order to provide a base level of protection against impacts associated with aesthetics, habitat, and watershed resources. It is the Board's hope that research and demonstration over the coming decade will help to determine the potential for impacts associated with various forms of management.

The Administrative Draft Final Forest Management Plan is expected to remain in effect for the next 10 to 15 years. In the event that unforeseen forest health issues arise during this period, the management staff is free to come before the Board and request that the management plan be reconsidered. The Plan can be modified, through either the standard five-year plan review process called for in Board policy (Board Policy 0351.10) or through more immediate plan amendments brought to the Board by the Department. It is somewhat speculative at this point to attempt to predict the circumstances that may develop which would make this reconsideration a possibility, but both the Board and the Department have this option available at all times.

Response to Comment 5

The Board agrees that there is potential utility in the PTEIR process for JDSF. It is also the Board's desire to see the Forest back in full operation in the near future. The Board will consider the potential for a PTEIR for JDSF during the coming years, as advisory entities provide implementation and policy advice during the interim period.

The process used for development of the management plan for JDSF, including the DEIR, RDEIR, Draft Forest Management Plan and Administrative Draft Final Forest Management Plan have substantial similarity to the PTEIR process. Specifically:

- a detailed, long-term management plan is prepared and is the "project" for the purpose of the CEQA process;
- alternatives to Forest Practice Rule standards can be developed which provide equal or better protection to the resource that may be affected;
- analysis demonstrates that impacts of implementation will be less than significant per CEQA and other relevant laws;
- a separate THP process is required at the timber harvest project level, with the environmental analysis relying substantially on the EIR document;
- projects conducted are within the scope of the EIR document;

- all CEQA processes must be followed, including provision of opportunity for public input.

Also, we note that the Board and Department have previously participated in the development of a PTEIR as a demonstration project. This was the PTEIR developed for a range of fuels treatment prescriptions in the Meadow Vista community of Placer County.

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MAR 1 - 2006

BOARD OF FORESTRY AND FIRE PROTECTION

P180

March 1, 2006

Patricia Lawrence
PO Box 673
Mendocino, CA 95460

Board of Forestry and Fire Protection

Jackson State Demonstration Forest
Draft Environmental Impact Report
SCH @2004022025

Dear Board Members:

Almost daily, since 1990 I have walked or ridden horses on the roads and trails in Jackson Demonstration State Forest. I have engaged in these recreational activities mostly around the intersections of Roads 500 and 600 and adjacent roads beginning about one mile east of Caspar California. I live close enough to often hear the sounds of what people are doing out there. They are usually not very pleasant sounds.

1 From around the intersection of Roads 500 and 600 I can hear the sounds of vehicles being driven recklessly back and forth on Road 500, at Road 600; especially at night and weekends when the partiers know there will be no law enforcement. The next morning I see the deep tire gashes the trucks made and the alcohol containers and other items from the night debauchery. If these drunken people have a vehicular accident and their car explodes and starts the forest on fire, or someone dies or is injured, who's responsible?

2 I can hear the sounds of guns being shot from this same area in Jackson Demonstration State Forest. I'm not sure what they are shooting at. Sometimes people walk though the forest shooting, even rapid-fire guns. Sometimes they are close to where many people live. I walk through the same forest alone and with my friends. So do a lot of other people. One time I walked up to a vehicle whose passengers had just discharged a firearm from their vehicle at this famous intersection. What if someone gets shot while walking through Jackson Demonstration State Forest and all it would have taken is a sign warning people that there are other people in the park.

3 Party fires are also a major concern of mine. People use the dead and live trees from the edge of roads to build fires. They use the trash left by other people. They burn tires and other items such as appliances and vehicles that don't get picked up by anyone, even though your Fort Bragg office gets called many times by several people.

4 Fires at old slash piles. Slash piles of debris from the last logging are used for fires. When these are set on fire in these dry years, you will not have a forest to fight about. Why are there no signs saying extreme fire dangers like there are in other places in California parks?

Patricia Lawrence continued page two...

Patricia Lawrence continued ....

5 Illegal dumping of trash is also out of control. Some of the sites look very toxic. These sites size increases until someone starts the entire pile on fire or the state of California picks it up. Fires are often started under or with dead and dying conifer trees.

6 I do not have all the solutions, but here are some that have occurred to me over the years. Signs need to be posted at entrances to Jackson Demonstration State Forest. I was told the signs get shot at. Better than people getting shot at. Make them out of metal. Visitors will know where the park boundaries are and what they can and cannot do.

7 Park rangers could take a vehicle and a laptop and sit at the entrances to the park. They could give people directions to recycling centers and transfer stations, and talk to them about gun safety and Wildlife preservation.

8 There are many trees in Jackson Demonstration State Forest that are dead and dying from bugs and global warming. It gets worse each year. The chance of a major forest fire increases. The Pine bark beetle, and other pests are causing tree deaths in Mendocino County and across the United States in numbers beyond imagination. Europe and other countries will not take wood from the USA because of this epidemic. In much of Europe, trees are removed when they begin to show signs of disease. They are not left to die and spread diseases to other trees.

9 Your decisions about forest practices can be a good example of what this country can do to save all its forests. I do not think we can afford to cut healthy live trees, especially redwood trees that are needed for erosion and climate control. We need healthy trees to create oxygen for us to breath and to clean the air of pollution. They are a part of our weather. They are a part of the solution to global warming.

10 I understand that Jackson Demonstration State Forest gets funding from its timber harvests. What happens when there are no longer intact ecosystems? When new timber harvest plans for Jackson Demonstration State Forest are made, please consider these important and worthwhile budget items; protection of wildlife, and cleanup and preservation of ecosystems and Native American sites.

Sincerely,

Patricia Lawrence

Patricia Lawrence
PO Box 673
Mendocino, CA 95460
707-964-7821

Jackson State Demonstration Forest
Draft Environmental Impact Report
SCH @2004022025

2

Mailed Letter P-180

Response to Comment 1
The ability of JDSF staff to enforce all applicable rules and regulations is limited by a combination of the amount and form of illegal activity, the size of the staff, level of law enforcement training, and available budget. It is recognized that illegal activity occurs, and not all of this activity can be prevented. However, the local staff does what it can to limit and curtail this form of activity within the Forest.

JDSF is open to public access and recreation. While most visitors to the Forest abide by all applicable rules and regulations, some do not. It is illegal to damage the Forest roads, to litter the Forest, and to light fires in unauthorized locations. Damage caused by illegal activity is ultimately the responsibility of the person or persons conducting this illegal activity.

CAL FIRE employs staff dedicated to law enforcement, but this limited staff is incapable of preventing all illegal activity, especially after nightfall and on weekends when the majority of the staff is not at work. The few trained law enforcement personnel are incapable of preventing all illegal activity. However, when individuals are encountered who are breaking the law, they are dealt with appropriately.

Response to Comment 2
This discharge of firearms within JDSF must comply with applicable regulations. Many forms of shooting can be conducted legally, but limits apply, such as distances from roads and residences, campgrounds, and other places of concentrated public use. Regulations apply to the discharge of firearms within JDSF. CAL FIRE enforces these regulations when individuals are encountered who are breaking the law. An increase in signage relative to shooting regulation may reduce the incidence of illegal shooting that occurs, but this is somewhat speculative. The management plan does not propose to alter shooting provisions or shooting regulation within the Forest, but does propose to increase the level of signage relative to recreational uses.

Response to Comment 3
JDSF staff devotes a considerable amount of time, effort, and expense to the pickup and disposal of refuse dumped illegally within the Forest, contrary to the stated concern. A clean-up staff of three part-time employees, often in combination with a heavy equipment operator and a conservation camp crew, has loaded and hauled hundreds of cubic yards of illegally-dumped refuse from the Forest, in addition to dozens of abandoned automobiles, travel trailers, and miscellaneous household appliances. This is an on-going activity, conducted in response to illegal dumping within the Forest.

Burning in unauthorized areas is a violation of law.

Response to Comment 4
The Department of Forestry and Fire Protection posts the level of fire danger at all fire stations, and at additional locations along public highways. Additional signage may have limited potential reduce the incidence of illegal burning of vegetation within the Forest, but this is somewhat speculative. The Board believes that most of the individuals who make fires illegally are well aware of the law, which is why most of the illegal burning occurs at night.

Response to Comment 5
The Department actively inspects and removes trash concentrations along roadways and in other places where dumping tends to occur. These trash concentrations are examined for evidence of toxic materials. When these materials are encountered, they are properly disposed of. The County Department of Public Health is contacted whenever an unidentified and potentially toxic substance is encountered.

Response to Comment 6
The Board agrees that improved signage may help reduce the incidence of illegal activity within the Forest, and an increase in signage has been proposed in the management plan.

Response to Comment 7
While posting employees at the entrances to the Forest for substantial periods of time may have potential to reduce illegal activity, the Department does not have sufficient staffing or budget to devote to this effort. The Board believes that most of the illegal dumping that occurs is due to an effort to avoid high dump fees on the part of the participants, not due to lack of knowledge concerning the location of legal waste management facilities.

Response to Comment 8
The death of individual trees within the Forest has not been linked to the phenomenon of global warming. Individual tree mortality is a natural occurrence within the Forest, particularly due to the density and age class structure of many of the stands. Dead trees have demonstrated value as habitat for wildlife. The Department of Fish and Game encourages the retention of dead trees within the Forest. While dead trees may be more prone to burning, the extent of mortality within JDSF is not expected to result in significant impacts related to fire hazard.

Response to Comment 9
Live trees consume carbon dioxide and release oxygen into the atmosphere. The forests of JDSF are growing and productive, and the level of carbon sequestration is increasing. A sustainable harvest of timber can be maintained while continuing to grow and sustain a healthy forest. Significant impacts related to global oxygen supply are not expected to occur. JDSF will produce a net ozygen benefit over time. A detailed discussion of landslides and erosion, including management goals, proposed management actions, potential impacts, and mitigation measures, can be found in section VII.7 of the DEIR. Significant impacts are not expected to occur.

Response to Comment 10
It is the intent of management to maintain and create intact ecosystems. Protection of wildlife, restoration and protection of ecosystems, and of Native American sites are important elements of the management plan, and are considered when timber harvesting is being planned and implemented. Please see DEIR Sections VII.6 and VII.9 for the assessment of potential impacts to ecosystems, wildlife, and heritage resources.

P-181

Regarding Jackson State (SCH#2004022025) the intent should be restoration of the forests (with selective thinning) and zero erosion of the hills and creeks. With proper management it can be done.

T.S. Force

Mailed Letter P-181

Response to Comment 1
Please see General Response 2. Desire for restoration to be the management focus for JDSF noted. Management of JDSF is guided by legislative statutes, regulations and Board policy. While forest restoration is one of the main goals of the ADFFMP, it has not been adopted as the sole management goal. However, the ADFFMP represents significant advancement in the management practices aimed at protection and restoration of environmental resources. One of the primary goals of the JDSF Management Plan is to achieve net improvements of conditions for natural resources over time in comparison to existing conditions. The current plan is based on a monitoring and adaptive management feedback system. Goals are set for desired future conditions and monitoring is utilized to provide feedback regarding the effectiveness of management strategies in achieving those goals. Subsequent management actions will be modified as necessary in response to the results that are observed. Implementation of the ADFFMP is not expected to cause any significant adverse environmental impacts.

A detailed discussion of landslides and erosion, including management goals, proposed management actions, potential impacts, and mitigation measures, can be found in section VII.7 of the DEIR. As part of the management plan special concern areas were identified, including those areas at high risk of slope failure. A Hillslope Management plan to provide for slope stability, including input from a Certified Engineering Geologist, will be utilized to reduce the risk of management related adverse impacts associated with landslides and surface erosion. See also General Response 13.

P-182

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BOARD OF FORESTRY
AND FIRE PROTECTION

3/1/06 -1000

MIKE RILLA

ALTERNATIVE D IS BEST APPROACH

COMMENT BY PHONE

Mailed Letter P-182

Response to Comment
Support of Alternative D noted. Alternative G was developed by blending the elements and management strategies of several Alternatives, including Alternative D. This includes accelerated implementation of the Road Management Plan, a reduction in the use of even-age management and clearcutting, a reduction in the planned timber harvest level, an increase in the area dedicated to development of late-seral forest conditions, an increase in resource protection and restoration measures, such as snag retention and LWD placement, and a management emphasis on research, demonstration and education.