

Section 4.4) focuses on the effects of the Proposed Action on hydrology, riparian conditions, sediment production and delivery, and aquatic habitat. Where possible and based on the availability of data specific to the Primary Assessment Area and the 11 HPAs, these effects are quantified or described (e.g., LWD recruitment, stream shading, water temperature, sediment production and delivery) in support of the stated conclusion. Potential impacts to the covered species are discussed in more detail in EIS Section 4.5.

Response to Comment G4-18

For the reasons discussed in responses to Comments G4-6, G4-14 through G4-17, G4-19 and Master Response 8, the Services disagree with the premises of this comment and its conclusions. Based on these responses and other information contained in the Plan, the Services believe that the requirements of ESA Section 10(a)(2)(A) have been satisfied.

Response to Comment G4-19

The referenced statement was not made with respect to all impacts of timber harvesting but in relation to the subject of altered hydrology. As explained in AHCP/CCAA Section 5.2, the potential impacts of altered hydrology are complex. AHCP/CCAA Section 5.2.2 provides the following example of the difficulty in determining the extent to which watershed hydrology is actually altered by timber harvesting activities and, similarly, the extent to which such altered hydrology may negatively impact the covered species:

“For example, management-altered hydrology has the potential to harm both the early stages of development (eggs and alevins) as well as over-wintering juvenile salmonids. On the other hand, the effects of altered hydrology may be beneficial for adults returning to spawn in the fall and summer juvenile populations. Therefore, depending on which potentially limiting factors are actually limiting for salmonid production in a given sub-basin, some levels of altered hydrology may be beneficial. However, if other factors are limiting, altered hydrology may cause take and lead to local declines in populations of salmonids. For instance, if summer water temperatures are limiting, increases in summer base flows

V. IMPACTS OF AHCP/CCAA ON THE COVERED SPECIES NOT ADEQUATELY ASSESSED

G4-18 [Given that the current status of the Covered Species is not adequately described (II. and IV. above) and that the potential impacts of the timber management activities (II. And IV. above and next paragraph) nor the conservation measures (III. and IV. above) are not sufficiently presented, it is clear that the AHCP/CCAA fails to assess its potential impacts on the Covered Species. Thus, the AHCP/CCAA expressly fails to meet the requirements of the Endangered Species Act (ESA) which mandates that an HCP must ensure that the effects of the authorized incidental take will be adequately minimized and mitigated to the maximum extent possible (ESA 10(a)(2)(A)). As such, if the AHCP is approved in its current form, it will violate the ESA.

G4-19 [Additionally, Section 5 of the AHCP/CCAA concludes in sections that it is “difficult to assess” the impacts of timber harvesting on Covered Species. Although unambiguous scientific evidence may be lacking in this particular case (because the background data has not been adequately presented), it is a recognized fact that timber harvesting is a principal cause of the decline of salmonid populations, and that lack of protection from timber practices contributed largely to the listing of these species under the federal and state ESAs (see Lippe and Bailey 2001). Even the source that the AHCP/CCAA cites numerous as an authority on the biological effects of logging on salmonids (Spence et al. 1996) unambiguously states that logging “alter(s) watershed processes, resulting in degradation of streams, lakes, and estuaries.” Simpson’s claim of scientific ignorance is unacceptable given the established link between logging practices and degradation of salmonid populations.

G4-20 [In several parts of Section 7 of the AHCP/CCAA, there are blanket statements that the conservation plan will benefit the Covered Species. For example, 7.2.1.2.3 states: “A benefit of tree retention with regard to slope stability on deep-seated landslides, headwall swales, and SMZs is the maintenance of forest canopy, which will preserve some measure of rainfall interception and evapotranspiration...[which] is expected to contribute to acceptable slope stability conditions in some locations through partially mitigating high ground water ratios that may be management related.” In addition to the fact that “acceptable” conditions will occur in only “some” locations (implying that unacceptable conditions will occur in others), this statement is not backed up with an analysis of the benefits of the conservation plan measures and how they, quantitatively compare to the detrimental impacts of timber harvesting activities. This is one example among many in this section that demonstrate the lack of a meaningful assessment of the effectiveness of this AHCP/CCAA.

VI. LACK OF CUMULATIVE EFFECTS AND WATERSHED/ DOWNSTREAM EFFECTS ANALYSES

An EIS must analyze “cumulative actions, which when viewed together have cumulatively significant impacts.” (40 C.F.R. 1508.25(a)(2).) “Cumulative impact” is defined by NEPA as the impact on the environment that results from “the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal

could be beneficial. In contrast, increases in winter peak flows could cause take and lead to local declines if spawning or over-wintering survival rates were limiting.”

Notwithstanding the challenge associated with this analysis, the Plan meets its obligation to conduct the analysis. To counteract possible effects associated with uncertainty in this regard, the Plan provides measures to avoid or minimize and mitigate any negative impacts that could result from altered hydrology and provides that such measures will be implemented in each of the HPAs regardless of whether altered hydrology is, in fact, the habitat factor in individual HPAs that appears to be limiting for the covered species, their habitats, or the proper functioning of healthy aquatic/riparian ecosystem within that HPA, e.g., see AHCP/CCAA Section 6.2.3 (road management measures) and Section 6.2.4 (harvest-related ground disturbance). Accordingly, the Plan contains an adequate assessment of the potential impacts of take relating to altered hydrology and includes measures that are adequate to address such impacts by imposing them throughout the Plan Area regardless of whether they are actually occurring or will occur.

Response to Comment G4-20

The Plan is designed so that its conservation measures as a whole not only minimize and mitigate individual impacts of take, but also would result in improvements in habitat conditions for the covered species. The analysis in AHCP/CCAA Section 7 extends the AHCP/CCAA Section 4 assessment of the current conditions for the covered species in the area where the Plan will be implemented and the AHCP/CCAA Section 5's assessment of the potential impacts of covered activities that may result in take and the types of effects that such take may have on covered species. The AHCP/CCAA Section 7 assesses the benefits of the conservation strategy's effectiveness in meeting the purposes of the Plan - it examines all possible impacts of take that may occur, together with their relative significance to each of the covered species by category and in relation to all potential impacts and measures. This analysis, along with the EIS, provides a basis upon which the Services may determine that the Plan, as revised in response to comments, meets the ESA Section 10(a) issuance criteria.

As discussed in response to Comment G4-15, there is no obligation to use quantitative analysis only. Qualitative analysis is also useful in the HCP context.

Response to Comment G4-21

The statement that the Plan contains an admission that cumulative impacts from the Plan exist is based on a misreading of the reference statement in the Plan. The referenced section of the Plan actually states that certain sediment-related impacts, as a type of impact, are cumulative in nature and then goes on to explain how Plan measures are designed to minimize such impacts. Master Response 3 discusses the Plan’s cumulative effects approach and conclusions in greater detail.

Implementation of the Operating Conservation Program as a whole will provide maintenance and improvement of properly functioning habitat and related environmental conditions, for the benefit of the covered species and their habitats and will contribute to conservation efforts intended to preclude or avoid a need to list the ESP species in the future. See AHCP/CCAA Sections 4, 5, 6, and 7.

Response to Comment G4-22

This comment reflects a misreading of the analysis contained in the Plan. The referenced statement explains how certain types of environmental conditions can result from the type of activities covered by the Plan-if such impacts are not minimized or mitigated. As explained, the Plan contains numerous measures to minimize and mitigate such impacts, and a number of its measures are intended to improve existing conditions (see AHCP/CCAA Sections 5 and 7.4, EIS Sections 4.2.8, 4.3.8 and 4.4.8, among others, and Master Response 3).

or non-federal) or person undertakes such other actions.” (40 C.F.R. 1508.7). In addition an EIS must examine “reasonable options” for avoiding or mitigating any significant cumulative effects identified. (40 C.F.R. 1508.25).

Early in Section 5.7, the critical question of cumulative impacts is raised correctly as : “In the case of issuance of an ITP/ESP, the cumulative effects issue is whether the incremental impacts of take, when combined with impacts from other projects, will appreciably reduce the likelihood of survival and recovery in the wild of any Covered Species (the ‘jeopardy’ standard’); if so, the AHCP/CCAA would fail one of the significant approval criteria for both ITPs and ESPs.”

G4-21 Unfortunately the cumulative impacts assessment in the AHCP/CCAA is inconclusive, contradictory, and quantitatively inadequate. The AHCP/CCAA does admit that cumulative effects from the plan exist. In Section 5.3.4, in discussing the impacts of timber harvesting on sedimentation, it is stated that “The impacts are generally cumulative in nature.” Another admission which relates to Large Woody Debris (LWD) states: “The decline of recruitment of potential LWD from riparian zones can be expected to reduce LWD recruitment to streams for decades following timber harvest of riparian areas...[and] in larger streams lower in the watershed... the impacts may be cumulative.” Soon thereafter, this admission is contradicted in Section 5.7 which states: “[T]he incremental effect of Plan implementation will be positive compare with existing baseline conditions and will result in generally improving habitat conditions for native salmonids over the term of the Permits in all HPA. Therefore, Plan implementation will not result in negative cumulative effects.” Clearly, the only way that this illogical conclusion could be reached is through the use of the inappropriate baseline conditions of current logging practices perpetuated into the future (see I. above). In Section 7.4, the understanding of the true cumulative effects are demonstrated: “cumulative impacts could result from the spatial and temporal interactions of factors such as water temperature, hydrology, nutrients and barriers to movements with sediment and LWD.” The above contradictions included in the AHCP/CCAA regarding cumulative impacts are unacceptable. Further, the broad generalizations and unsubstantiated conclusions regarding this issue make it impossible to assess the validity of claims regarding the cumulative impacts, be they taken as positive or negative.

G4-23 Although entitled “Cumulative Watershed Effects,” Appendix E.5 of the AHCP/CCAA fails to address the cumulative effects of the specific Covered Activities on the Covered Species. Instead, this section is only a broad definition of cumulative watershed effects, with examples that may or may not apply to the Plan Area, and with no plan specific assessment provided.

G4-24 Section 4.3.7 of the DEIS claims that “Overall, the cumulative effect of all these resource management programs would be to protect and/ or improve hydrology and water quality conditions in each of the 11 HPAs beyond currently existing levels and beyond levels that would be expected under the No Action Alternative.” Clearly this is another case where the use of the inappropriate baseline (see I. above) is used to make a false conclusion, this time in relation to cumulative effects. Therefore, the conclusion in ES-7.3 of the DEIS that “Because the overall effect of implementation would result in net environmental benefits, implementing either the

See Master Response 1 for a discussion of the appropriateness of the baseline.

Response to Comment G4-23

See Master Response 3. The Services believe the Plan's analysis of potential cumulative effects and the measures it proposes to address such potential effects are sufficient to accomplish the purposes explained in the Plan.

Response to Comment G4-24

As noted in EIS Section 4.1.2.1 (NEPA Requirements for Cumulative Impacts Assessment), CEQ regulations state that "the range of alternatives considered [for cumulative impacts analyses] must include the No Action Alternative as a baseline against which to evaluate cumulative effects" (40 CFR 1508.7). As discussed above in the response to Comment G4-2, the CEQ notes that the "no action" alternative may be thought of in terms of continuing with actions where ongoing programs and activities (such as timber harvesting pursuant to the CFPRs and road construction) will continue, even as new plans are developed. (<http://ceq.eh.doe.gov/nepa/regs/40>). For the purposes of this Plan and these Permits, the No Action Alternative equates to "no change" from current management direction or level of management intensity. See Master Response 1 regarding current baseline conditions and Master Response 2 regarding the No Action Alternative.

Response to Comment G4-25

For the reasons discussed in Master Response 3 and based on analysis provided in the EIS, the Services respectfully disagree with this comment.

Response to Comment G4-26

See Master Response 3.

Response to Comment G4-27

The ESA provides that ITPs must be issued pursuant to “otherwise lawful activities.” As explained in AHCP/CCAA Section 1.4.2, the CFPRs will continue to govern Green Diamond’s THP process, and those rules have provisions for recognizing HCPs approved by the Services in addressing certain requirements of the rules. Additional discussion of the CFPRs is provided in Master Response 7.

Response to Comment G4-28

The ESA requires the Services to determine that an ITP applicant will meet the ESA Section 10(a) approval criteria, e.g., to minimize and mitigate the impacts of take to the maximum extent practicable and that such take will not appreciably reduce the likelihood of survival and recovery of the species in the wild. ESP applicants must include in the operating conservation program of a CCAA measures that, if combined with other conservation measures implemented on all other necessary properties would remove or preclude the need to list the species in the future. It is not necessary for each individual measure included in the Operating Conservation Program (AHCP/CCAA Section 6.2) to exceed the provisions of the California FPRs to satisfy the requirements of the ESA. The ESA Permit issuance criteria are described in AHCP/CCAA Section 1.4.1 and Master Response 8.

G4-25
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G4-30
G4-31

proposed AHCP/CCAA or the action alternatives in conjunction with other management actions would not likely result in cumulative impacts.” is unacceptable and must be revisited.

In addition to the required cumulative effects analysis, the AHCP/CCAA and DEIS fail to consider larger-scale watershed and downstream effects. Section 1.3.2.4.1 and Table 1-2 of the AHCP/CCAA indicate that of the nine coastal drainages covered, the current ownership ranges from 0.3-88%. What are the effects to the downstream areas not covered in the Plan Area? This is particularly important in terms of possible effects on surrounding public lands. These documents must address the fact that the management practices may effect more than just the Plan Area owned by Simpson.

VII. AHCP/CCAA MANAGEMENT DOES NOT GO BEYOND STATUS QUO CALIFORNIA STATE FOREST PRACTICES RULES (FPRs)

As written, it is difficult to discern whether the management prescriptions under the AHCP/CCAA comply with current California State Forest Practices Rules. The AHCP/CCAA needs to clearly identify all mitigation measures and quantify if and how they differ from current FPRs.

In areas where the prescriptions are comparable to the FPRs, often the AHCP/CCAA does not go significantly beyond the already required statutes. For example, the total zone widths for RMZs are in line with the maximum required under the FPRs. Therefore, implementing this plan does not increase riparian zone protections beyond that already covered by state law.

Additionally, it has been well documented that the FPRs in California are inadequate to protect species of concern. It has even been established that this insufficient protection has contributed directly to the need to list some of the Covered Species under the Federal Endangered Species Act (Lippe and Bailey 2001). Therefore, this perpetuation of status quo management practices does not minimize or mitigate environmental impacts to the level required for an issuance of an Incidental Take Permit.

VIII. COHO COMMENT

Beyond the comments above, Defenders would like to address that is unclear how the AHCP/CCAA would meet currently unidentified recovery objectives for the Southern Oregon-Northern Coastal California coho ESU. This species is found within the Plan Area and a species recovery plan is in process for this salmonid. Not only will Simpson need to address the needs of this species in or out of the context of an HCP, but California state regulations will invoke Section 2081 of the California Endangered Species Act and require an Environmental Impact Report under CEQA. Several of these requirements, notably the cumulative effects analysis, are much more stringent than those presented in the current DEIS and AHCP/CCAA, therefore strengthening the need for the comments in this letter to be addressed.

The relationship between Operating Conservation Program measures and the CFPRs is described in Master Response 7.

Response to Comment G4-29

Implementation of the Operating Conservation Program will not “perpetuate the status quo.” In addition to having to meet the requirements of all other applicable laws and regulations, the Plan imposes a new layer of requirements. The ESA requires that the applicant meet the criteria of ESA Section 10(a), which include ensuring that take is incidental to otherwise lawful activities.

Response to Comment G4-30

As the comment notes, no recovery plan objectives have been established for coho salmon. The ESA does not require ITP applicants to affirmatively recover listed species. However, implementation of this Plan will improve conditions for all of the covered species by focusing conservation efforts on the one or more factors in each of the HPAs that act on different life stages of the covered species and have a greater likelihood of limiting the survival, growth or recovery of resident populations. In addition, the Operating Conservation Program as a whole addresses potential impacts and limiting factors collectively so as to ensure that implementation of the conservation strategy will minimize and mitigate impacts of incidental take on the ITP species to the maximum extent practicable.

Response to Comment G4-31

With regard to State law issues referenced in the comment, to the Services knowledge that the applicant has not sought take authorization from the CDFG, although the Fish and Game Commission has begun the formal process for listing coho salmon under the California ESA. Both the definitions of take and the requirements for take authorization vary between State and Federal ESAs. The CEQA has a role in various aspects of Green Diamond’s activities in the Plan Area, such as when the CDF approves a THP or when the CDFG approves a Streambed Alteration Agreement under Section 1603 of the State Fish and Game Code. Pursuant to State law, Green Diamond and these agencies will address CEQA issues as they arise.

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Response to Comment G4-32

Comment noted. Please see responses to Comments G3-1 through G3-97 (Daniel Hall's comments).

IX. INCORPORATION OF AMERICAN LANDS' COMMENTS

G4-32

Defenders has had the opportunity to review the comments on these documents submitted on behalf of American Lands' by Daniel Hall. We agree with his assessment and hereby incorporate those concerns into these by reference.

X. CONCLUSION

Overall, the quality and content of the ACHP/CCAA and DEIS are inadequate and do not meet statutory requirements under NEPA or the ESA as set forth above. As such, these comments must be addressed before an Incidental Take Permit can be issued to Simpson for the Covered Species.

Sincerely,


Cynthia Wilkerson
California Species Associate

X. Literature Cited

Lippe, T.N. and K. Bailey. 2001. Regulation of logging on private land in California under Governor Gray Davis. Golden Gate University Law Review, 31(4): 1-17.

Spence, B.C., G.A. Lomnický, R.M. Hughes, and R.P. Novitzki. 1996. An ecosystem approach to salmonid conservation. TR-4501-96-6057. Corvallis, OR. Man Tech Environmental Research Services Corporation.

Welsh, H.H., Jr., T.D. Roelofs, and C.A. Frissell. 2000. Aquatic ecosystems of the redwood region. Pages 165-200 in R.F. Noss, ed., The Redwood Forest: History, Ecology, and Conservation of the Coast Redwoods. Island Press, Covelo, California.

Letter - G5. Signatory -Friends of the Van
Duzen.

Swift, Richard/SAC

From: JB [james.f.bond@noaa.gov]
Sent: November 18, 2002 7:38 AM
To: Garwin Yip; Swift, Richard/SAC; Neal Ewald
Cc: Amedee Brickey (E-mail)
Subject: [Fwd: Simpson Habitat Conservation Plan]



Citizens Comment
to Simpson SY...

----- Original Message -----

Subject: Simpson Habitat Conservation Plan
Date: Sun, 17 Nov 2002 22:46:33 -0800
From: Steinberg Family <stein@humboldt1.com>
To: amedee_brickey@fws.ca.gov, James.F.Bond@noaa.gov

Enclosed you will find an attachment with Friends of the Van Duzen comments on the Simpson HCP. Information on TMDL are on Palco lands but we believe that Simpson's HCP does not adequately address the sedimentation issues. Thank you for including these comments on the Simpson HCP.

Sal Steinberg
Community Representative
Friends of the Van Duzen
PO Box 315
Carlotta, Ca.95528

Response to Comment G5-1

The Van Duzen River is part of the Eel River HPA. See AHCP/CCAA Section 4.4.11. Specific information regarding the Van Duzen, including its 303(d)-listed status, geology and vegetation, and the presence or absence of the covered species in or near its waters are considered in the Plan. See, e.g., AHCP/CCAA Sections 4.3.6, 4.4.11.3, 4.4.11.5, 4.4.11.8 and Table 4-14. Green Diamond's Operating Conservation Program is based on information about the covered species, their status and habitat conditions, on an HPA-by-HPA basis. AHCP/CCAA Section 5 assesses the potential impacts to covered species and their habitats that may result in take, AHCP/CCAA Section 6 includes biological goals and objective and the Operating Conservation Program, and AHCP/CCAA Section 7 builds on earlier analyses to draw specific conclusions regarding the effectiveness of the conservation strategy, including the portion of the Van Duzen River within the Eel River HPA.

G5-1

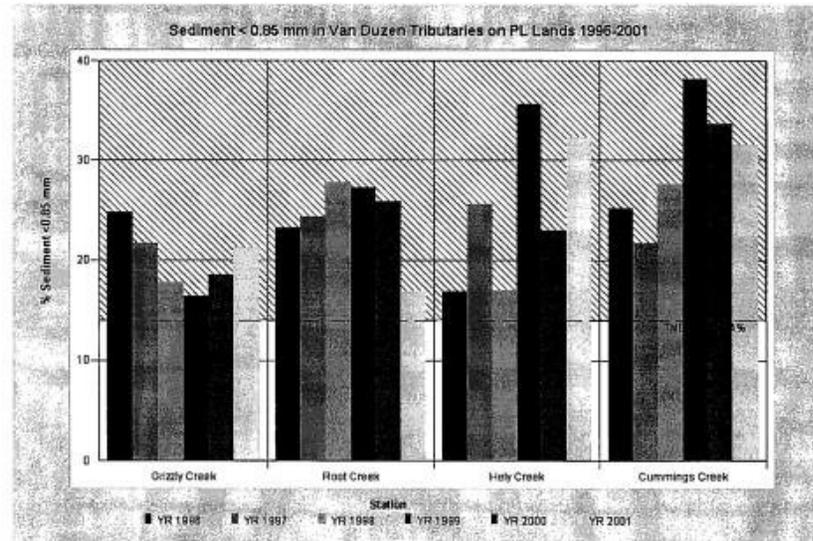
**Friends of the Van Duzen
Comment to Simpson Habitat Conservation Plan**

One of the major purposes of a Sustained Yield Plan is to insure the protection of the watershed especially in regards to preserving habitat for fish, amphibians, and reptiles. Simpson's timber harvest plans in the Van Duzen watershed especially their cutting across from Wilder Road have contributed large amounts of fine sediment to the Van Duzen mainstem, caused flooding for residents, and destroyed the aesthetic viewshed. Simpson's large clearcuts in the Stevens Creek drainage above Grizzly Creek have caused landslides, contributed fine sediment to the Van Duzen tributaries, and affected the very vulnerable marbled murrelet population.

The Van Duzen River watershed has reached a critical time. Once a thriving coho, Chinook, and steelhead population, the latest California Dept. of Fish and Game study shows that the coho is almost extinct and that the Chinook and steelhead are seriously endangered. In the PALCO watershed assessment for the Van Duzen, in the amphibians and reptiles section, Tetra Tech divided their research into 33 geomorphic units. 25 out of 33 units did not meet properly functioning conditions for turtles, salamanders, or the tailed frog due to fine sediment and embeddedness. How does the Simpson study adequately address the protection of species along the Van Duzen?

In 1999 the Environmental Protection Agency The levels of fine sediment in the Van Duzen are well beyond the thresholds set for Total Maximum Daily Load. Here is the data from the PALCO study.

KRIS Coho
Area: Van Duzen
Topic: Sediment: Fines <0.85mm Van Duzen Tribs 1996-2001



The percentage of fine sediment less than 0.85 mm in all Van Duzen River tributaries draining PALCO lands is higher than thresholds set by the U.S. Environmental Protection Agency for the Garcia River (14%) in all years since 1996. Hely and Cummings Creek have extremely high fine sediment in this size class indicating active sediment sources. Fine sediment levels in all these streams

Response to Comment G5-2

The Plan recognizes the regulatory status of the Van Duzen under the CWA Section 303(d) process as water quality limited for sediment. AHCP/CCAA Section 4.3.6, Table 4-3. The existing sediment load is a baseline condition (see Master Response 1) and the potential for increased sediment input has been identified as a potential impact to the covered species and their habitats (AHCP/CCAA Section 5.3; Appendix E). AHCP/CCAA Section 6.1.2.2.4 includes a biological objective for reducing sediment delivery into watercourses. This and the other biological goals and objectives set forth in AHCP/CCAA Section 6.1 were used to guide development of specific measures that are included in the Operating Conservation Program (AHCP/CCAA Section 6.2). Implementation of the Operating Conservation Program will minimize and mitigate the impacts of take to the maximum extent practicable and ensure that such take will not appreciably reduce the likelihood of survival and recovery of the covered species in the wild. See Master Response 8. If results of the monitoring program (AHCP/CCAA Section 6.2.5) demonstrate that adjustments to the Operating Conservation Program are necessary, the adaptive management program (AHCP/CCAA Section 6.2.6) provides a mechanism to adjust the conservation measures. See AHCP/CCAA Section 6.3.5.1.2 regarding the “feedback loop” between the Monitoring Program and the Adaptive Management Program.

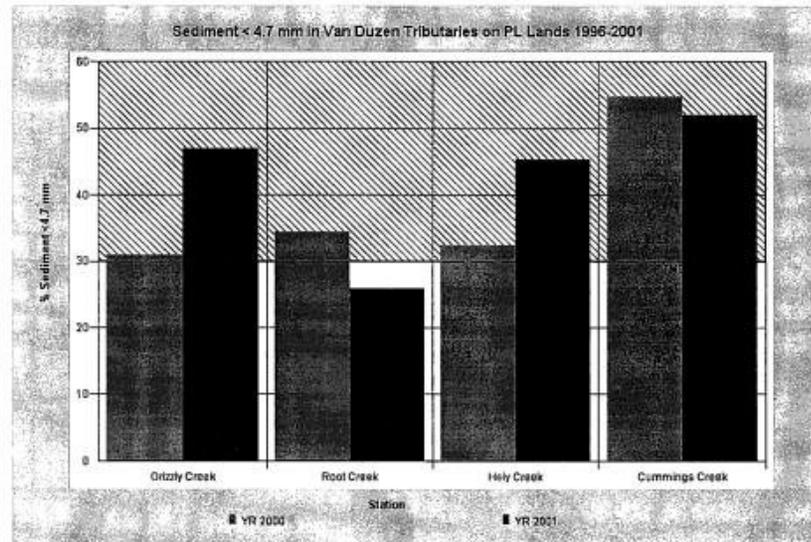
The commenter wants to know how the Plan addresses the “TMDL issue.” To the Services’ knowledge, Green Diamond has not applied for any CWA or State Porter-Cologne Act approvals uniquely associated with TMDLs. However, as discussed above, the Plan has taken into account water quality issues associated

are so high that they are likely to infiltrate salmon and steelhead redds and cause increased egg and alevin mortality. Road densities are very high and may be the source of high fine sediment levels in some streams but logging has also been active and has triggered many landslides.

G5-2

The Simpson study does not adequately address the problem of sedimentation in the Van Duzen River Watershed. It does not adequately address the TMDL issue. According to the Kelsey study, the Coastal Range is the most erosive in all of North America. How does Simpson justify their policy of continued clear cutting in the Van Duzen Basin, and the discharge of sediment into the rivers and tributaries. How does the SYP address the need for monitoring stations to measure sediment discharge in an impaired watershed? Further studies of fine sediment on Palco lands show the following.

KRIS Coho
Area: Van Duzen
Topic: Sediment: Fines <4.7 mm Van Duzen Tribs 1996-2001



The percentage of fine sediment less than 4.7 mm in all Van Duzen River tributaries draining PALCO lands was higher than thresholds set by the U.S. Environmental Protection Agency for the Garcia River (30%) in 2000 at all sites and all but Root Creek in 2001. High fines of this size infiltrate stream gravels forming an impervious layer and capping salmon and steelhead redds preventing emergence of fry. While fines less than 0.85 mm move out of stream systems quickly, sand sized particles cycle downstream slightly slower. Grizzly, Hely and Cummings Creeks all show acute problems with fines of this size, which are undoubtedly limiting salmon and steelhead survival. Sand would be cleared

with the 303(d) TMDL process. Given that the Permits are issued “incidental to otherwise lawful activities,” Green Diamond is responsible for ensuring compliance with Federal or State water quality laws and regulations (see AHCP/CCAA Section 1.4). Further, the biological goals and objectives of the Plan are consistent with the goal of the TMDL process of reducing sediment input in water bodies impaired by sediment. The Plan includes measures to reduce sediment inputs from legacy conditions on the landscape in the Road Implementation Plan and accelerated sediment reduction measures described in AHCP/CCAA Section 6.2.3 and 6.3.3 and to assess the effectiveness of such measures (AHCP/CCAA Section 6.2.5).

Response to Comment G5-3

The Federal processes of approving the Plan and issuing the Permits is independent of the TMDL process. However, as described above, the Plan addresses sediment input and other water quality issues throughout. The status of certain waterbodies within the Plan Area as water quality-impaired is discussed in AHCP/CCAA Section 4.3.6 and depicted in Table 4-3. Green Diamond must continue to comply with all applicable laws and regulations, including those under the jurisdiction of the State Water Resources Control Board and appropriate RWQCBs, including any duly adopted TMDL implementation plan. See AHCP/CCAA Section 1.4.2. As noted in AHCP/CCAA Section 1.4.5, the Plan serves many uses. In addition to satisfying ESA requirements regarding authorization for incidental take, the Operating Conservation Program (AHCP/CCAA Section 6.2) will address other significant, closely-related issues including water quality.

Response to Comment G5-4

Descriptions of the covered species and their habitats, including coho and Chinook salmon, are provided in AHCP/CCAA Section 3 and Appendix A. Specific information about Chinook salmon spawning habitat is provided in AHCP/CCAA Table 3-1. AHCP/CCAA Section 3 and Section 4.4 describe all of the covered species (listed and unlisted) and their status in the Plan Area on an HPA-by-HPA basis and these species' habitats and habitat conditions on an HPA-by-HPA basis. AHCP/CCAA Section 6.2 sets forth the Operating Conservation Program that focuses conservation resources on the habitat characteristics that

from a stream after several years of recovery from erosional events and extremely elevated levels indicate active sources not legacy problems.

G5-3 **How does the Simpson Habitat Conservation Plan address the need for establishing and enforcing a true TMDL?**

G5-4 The issue in the Van Duzen is indeed the buildup of fine sediment and its effect on aquatic species. Now that coho are almost extinct can Chinook spawn in the sediment choked beds? How does the Simpson Study adequately address the issue of fisheries.

The Grizzly Creek area is a large concern. Huge clearcuts by Simpson in the Stevens Creek Watershed have contributed to an instability in the area. Studies by California Dept. of Fish and Game show that there exists only about a dozen nesting pairs of marbled murrelets in the Grizzly Creek area.

G5-5 **How does the Simpson study attempt to deal with the marbled murrelet. There can be no take permit for this species as not many exist!**

G5-6 Lastly, how does the Simpson study attempt to evaluate the **cumulative effects to the watershed**. Even though the Environmental Protection Agency declared the basin as sediment impaired in 1999, increased timber harvest by Simpson and Palco have left the watershed in critical condition.

G5-7 The following is a graph developed by Legacy using the latest information from the California Dept. of Forestry GIS maps of timber harvest activities from 1989-2002. Notice the tremendous increase in cutting in 2001. What level of timber harvest can be expected from Simpson? What means will be taken to restore the watershed? At what level will Simpson be able to log the watershed?

The Van Duzen Watershed must be taken as a whole. Palco and Simpson are the two major land holders. The basin can not accommodate the logging of 2500 acres of lands as done in 2001.

have been scientifically determined to have the greatest impact on the survival and recovery of the covered species in the Plan Area. Based on this work, AHCP/CCAA Section 7 describes the effectiveness of the measures incorporated in the Plan in reducing sediment inputs and otherwise providing for improved conditions to result from the Operating Conservation Program. See, for example, AHCP/CCAA Section 7.2.3, regarding recruitment of LWD, AHCP/CCAA Section 7.2.4, regarding riparian microclimate and AHCP/CCAA Section 7.2.5, regarding water temperature, among others. Measures were selected for implementation over the entire Plan Area to address identified habitat features. Of particular importance to spawning habitat is the permeability of spawning gravel and the supply of LWD. Timber operations have the possibility of affecting those by increasing the potential for sediment input and by harvesting trees that otherwise would be likely to recruit to a Class I watercourse. Therefore, measures were developed to address these concerns. See, for example, AHCP/CCAA Sections 6.2.3, 6.2.4 and 6.2.1.2.4.

The Van Duzen River is part of the Eel River HPA. See AHCP/CCAA Section 4.4.11. Specific information regarding the Van Duzen, including its 303(d)-listed status, geology and vegetation, and the presence or absence of the covered species in or near its waters are considered in the Plan. See, e.g., AHCP/CCAA Sections 4.3.6, 4.4.11.3, 4.4.11.5, 4.4.11.8 and Table 4-14.

Response to Comment G5-5

The marbled murrelet is not a covered species. See AHCP/CCAA Sections 1.1, 1.3.3. Green Diamond did not seek and will not receive authorization to take this species. The EIS addressed impacts to marbled murrelets and other terrestrial species from Plan implementation. EIS Section 4.6.3.3 and Table 4.6-1 (“Wildlife Species of Concern: Habitat Associations and Potential impacts”). This species, along with all currently listed species under the jurisdiction of the USFWS will be addressed in the USFWS biological opinion.

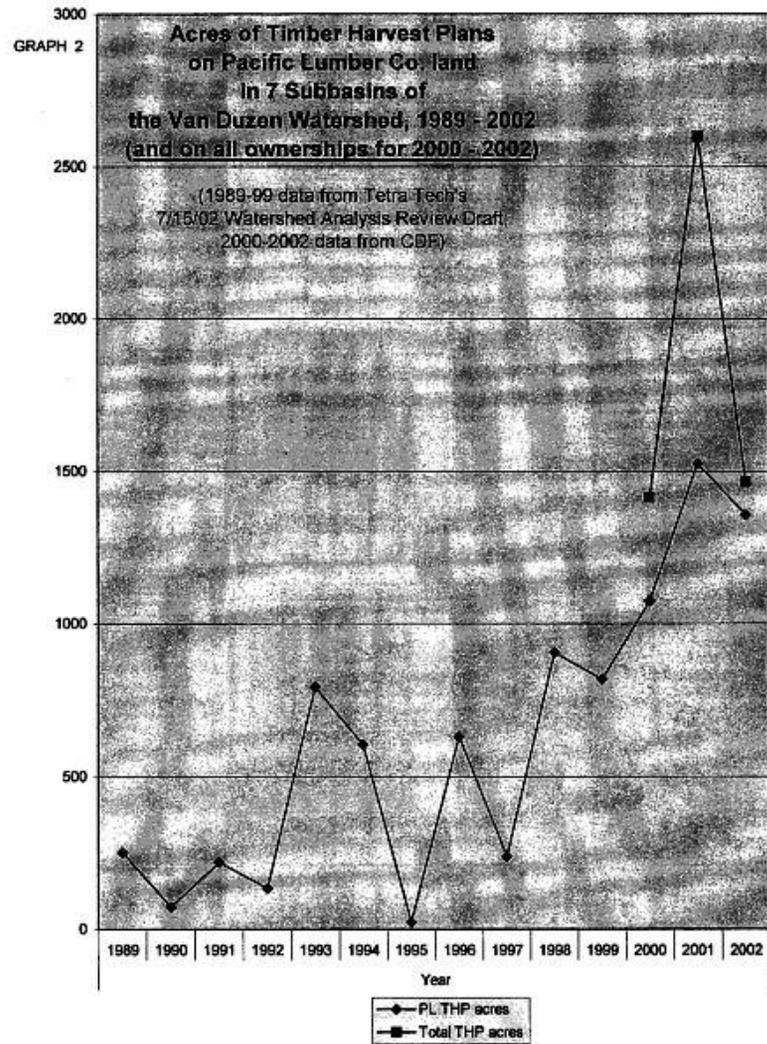
Response to Comment G5-6

Existing adverse conditions in the watershed are considered in the Plan (AHCP/CCAA Section 4.3.6) and the EIS (EIS Sections 3.3.5 and 4.2.1) as part of existing baseline conditions. See Master Response 1 regarding baseline conditions and Master Response 3 regarding the cumulative effects analysis.

Response to Comment G5-7

See Master Response 11.

Based upon information provided in AHCP/CCAA Section 4.4.11 and Table 1-1, that the Van Duzen River falls within the Eel River HPA, and that there are approximately 205,000 acres in the HPA, of which 8,000 acres are currently within the Plan Area. Presumably, nearly all of this commercial timberland will be harvested by Green Diamond sometime within the 50-year term of the Permits, since Green Diamond’s rotation age is slightly more than 50 years on average (see AHCP/CCAA Section 2.4). The Plan identifies excess sediment inputs from geologically unstable areas resulting in aggraded channels and embedded substrates as a significant factor limiting achievement of properly functioning habitat within this HPA. As described in AHCP/CCAA Section 7, implementation of the Plan is expected to contribute toward improvement of that condition.



Note: All 2002 THPs but one have not yet been approved.

Graph prepared by Robert Brothers, Legacy - TLC, for Comments by the Friends of the Van Duzen, 9/13/02
See Appendix 6, Tables 3-5 for related numerical data.

Letter - G6. Signatory - www.freeyellow.com.

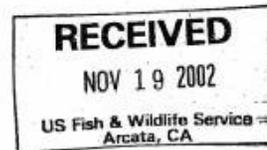
Response to Comment G6-1

All high and moderate risk sites, regardless of whether the sites are on roads appurtenant to THPs, count towards the road implementation plan requirements. See AHCP/CCAA Section 6.2.3. Green Diamond has a commitment to provide \$2.5 million a year for the first 15 years to treat high and moderate risk sites. Of this, an estimated \$1 million will be spent on roads appurtenant to THPs. Treating roads that are appurtenant to THPs is not expected to dramatically shift the emphasis of road treatments according to the prioritization tables because a large proportion of Green Diamond's current harvest activities are in high priority Road Work Units.

As part of the road implementation plan, Green Diamond will be required to decommission a large number of roads. AHCP/CCAA Table 6-10 presents the projected miles of road that fit into one of three road classifications: management roads, temporary decommissioned roads, and permanent decommissioned roads. Currently the majority of Green Diamond's roads are classified as management, but the table shows the course the road implementation plan will lead as the Plan is implemented over time. Green Diamond also builds new roads associated with THPs. Many are designed for single-use, classified as temporary and decommissioned upon completion of operations. During the road assessment process, all roads, irrespective of age, must be evaluated for sediment production. The results of the road assessment will indicate which roads will be treated first for upgrading or decommissioning based on future sediment yield,

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Roads, Stream Buffers, Covered Species Canopy Cover, Temperature, Percent increase in sediment discharge, Herbicides, Conclusions, Appendix a-g



Tailed Frog Adult

By Doug Smith <http://www.freeyellow.com/members8/thpsonlinenow>

Simpson Facts: The action area is 416,531 acres and 1,866 acres of lands which Simpson owns perpetual harvesting rights. The Simpson has 3,800 miles of logging roads. Simpson's AHCP holdings include 1540 miles of class I and class II miles of streams. Forest types less than 60 years old, with 80% of the area, and 15% of the area is in a forest type 60 years or older. A RMZ is a Riparian Management Zone. HPA is a Hydrologic Area.

The Simpson AHCP/CCAA has many beneficial actions that will bring a positive change to forestry in the modern age. It will allow the Simpson Corporation to continue to single tree select the old growth from the riparian areas and continue clear-cutting. What is different one would ask and the answer would be a confusing bank account of forest debit and credit. This is a new game of harvesting the mitigation saved from the last harvest cycle. Harvesting the bank forest (where ever that is) in order to do the right thing when it comes to setting aside unstable harvest areas near stream banks. As the process of approval marches forward red and yellow lights are already flashing and a mediation process that may work will be approached with in 30 days of the documents signing.

I believe the only things other than, reducing stream to road crossings and connectivity of roads, that will keep salmon from flopping on the edge of extinction is clear-cutting prohibition. I believe it must be better for species and cheaper for Simpson to remove crossings rather than to up grade the road, culverts and replace fill materials. This is the only way to reduce the number of culverts. In the AHCP/CCAA Simpson states 53% of the road crossings had some erosion failure across the property. I say save money and cut your labor costs in half by pulling crossings instead of trying to replace or upgrade them unless temporary bridges or bottomless culverts are used.

I have learned much from reading this AHCP/CCAA and have an appetite of questions like; where is the over all data? There is data here and there for canopy closure or conifer closure but not for all HPA watersheds.

The statement that CWEs will be mitigated to insignificance is laughable that sediment inputs can still occur when other activities such as storm proofing a road will temporarily reduce the increase of sediment to 4% because all culverts are never failsafe.

G6-1

Roads

The roads will only be fixed on appetent roads (Haul roads). The AHCP/CCAA leads some to believe there will be no net gain of roads because as Simpson states; the "practice of decommission non-management roads" will offset new roads. Are the roads to be decommissioned the sediment causing

treatment immediacy and cost-effectiveness. However, based on Green Diamond's experience, which is described in the Plan, the roads targeted for decommissioning will likely have a higher treatment immediacy and will be targeted first. In addition, treatment of new roads constructed after Permit issuance will not count towards Green Diamond's commitment to provide \$2.5 million a year for the first 15 years to treat high and moderate risk sites.

Response to Comment G6-2

The Services understand that ATVs are used in the winter period primarily for inspection of roads and crossings and identification of existing and potential problems associated with roads. AHCP/CCAA Section 6.2.3.11.4 allows for use of ATVs on unsurfaced seasonal roads during the winter period, provided that, "Any damage caused to drainage or erosion control structures by using ATVs on any road will be repaired immediately following damage."

Road densities are discussed in Master Response 17. The Services acknowledge the preference of the commenter to use road density as a factor in addressing such impacts, but believe that the measures in the Plan are well-suited to achieve its purposes. In the Plan and IA, Green Diamond has committed to implement an Operating Conservation Program to conserve habitat for and mitigate impacts on the covered species (See AHCP/CCAA Section 1.1). The Services believe that this Operating Conservation Program as a whole meets ESA Section 10 requirements.

Response to Comment G6-3

The Services were unable to locate Figure 15 referenced in the comment. See Master Response 17 regarding road density.

Response to Comment G6-4

The Services' understanding is that the data provided in AHCP/CCAA Tables F2-2 through F2-5 were current with the exception of additional inventories that were being conducted at

G6-1

abandoned roads from the last decade or legacy roads?

Section 2.2.1.1 states "limit vehicular use on un-rocked roads during winter operations to all terrain vehicles (ATVs) only." Pacific Lumber/Maxxam's HCP has no vehicle use and fix all drainage structures even if used by others. Recent logging costs have brought about the idea of using ATVs to haul small to medium logs downhill to landings. Is Simpson considering ATV use for any yarding including winter operations and have they used ATVs in the past? No ATVs must be allowed on un-rocked roads or skid trails during winter operations or wet periods. The AHCP/AACC must stat the road crossings and connectivity density must be reduced to half of current densities in each sub-watershed of the plan area.

G6-2

Section 2.2.1.3 states; no time line on implementation plan of how much maintained or Road upgrading or road decommissioning only "as appropriate" the completion of only "prioritization of sub-watershed road work units" with in 5 years of issuance. Roads are to be updated and rarely decommissioned where roads will not have any significant decrease in densities.

G6-3

The road density in figure 15 must be taken in to account and the rest of the Sub-basins need similar data to figure 15 in each Sub-basin on Simpson ownership in the Final AHCP/CCAA.

G6-4

Section f-2.3 states "road upgrading and road decommissioning for Rowdy Cr and the Little River is expected to cost nine million dollars" What is the figure separated for just road decommissioning? The data in tables f2-2 through F 2-5 us two years old in two months. Is there a statically significant difference if the tables were current to 19-11-2002?

G6-5

Is it true that figures based on total inventoried not on the total property for the table F 2-6? The huge value of "53% of crossing failure (erosion) frequency on abandoned roads" is 1 in 2 causing erosion. This points out that half of the crossings on Simpson's property should be removed and not replaced. The inventoried roads have diversion potential of 31% average from a range of 24% to 81%. The average road to stream connectivity is 33% with a rang of 6-74%. The 74% connectivity is three out of four of the roads. The table's future of average connectivity will be 7%. What is the range for that projection? How far in to the future is that calculated? 5, 15, or 50 years? On page F-38 state "salmon Cr and Rowdy Cr it was found that 12% and 21% of road networks respectively are directly connected" to the streams. What is the percent connectivity figure comparing Simpson roads the whole watershed road and stream networks?

G6-6

It is assumed there are 10 to 25% more roads then are documented in the Simpson GIS data. Is this not a significant cause for erroneous analysis. F-29 states "much of this variability is likely attributed to relative differences in road and skid trail densities in each sub-area watershed. So Simpson admits to road and skid trail densities data that must be incorporated into the final AHCP.

G6-7

From section E-5 "forests roads increase peak flows and sediment inputs to small watersheds 2.5% - 3.9% of the watershed is composed of road surfaces." What is the density of rocked and un-rocked roads in each HPA watershed? How many of the HPAs over the 3.9% threshold. Over the life of the plan all roads must become detached hydrologically and densities must be reduced to below 3.9% for each sub-area watershed. This AHCP/CCAA has no road density data. I was disappointed to have to roads analysis myself. The AHCP/CCAA must state that it is mandatory that all new stream crossings be pulled upon completion of all THPs in all HPAs. Jacoby Cr Road Density is 2.7 mi/mi² with proposed roads up to 3.9 mi/mi² so Simpson must not build any new roads. Yeager Cr has 5.5 mi/mi² is the road density as stated PL' s HCP figure 3.6-4

G6-8

G6-9

The AHCP/CCAA states; "Only 45% of roads will be maintained annually." Are they the mainline roads? Why not inspect all roads or decommission the other 55% not maintained.

Stream Buffers

G6-10

In this plan there was no discussion of potential tree heights. To create data for shade on streams that would add the aspects of the hill shade (DEM) to the greatest tree height potential from that site and compare that to current tree height. This GIS technique was written in the Navarro River TMDL document. This gives the buffer widths with the highest priority for maximization of the width and conifer canopy cover to produce the greatest benefit for the covered species. A 30', 50', 100', buffer width that has an aspect that would allow direct sunlight potential for durations (1-3hrs) that causes stream warming is ineffective. The AHCP/AACC must apply stream buffers that take in account of aspect to determine minimum no cut

the time of Plan preparation. The additional inventory information from these areas, plus other watersheds, will be included in the five-year assessment of future sediment yield (see AHCP/CCAA Section 6.2.3.2.2). However, the Services believe that the information provided in these tables provide a good representation of roads across the Plan Area spanning a number of geologic types and geographical terrains.

An estimate of costs associated with decommissioning alone is not available or necessary because the Road Management Measures (AHCP/CCAA Section 6.2.3) require both decommissioning and upgrading.

Response to Comment G6-5

The information presented in AHCP/CCAA Table F2-6 is based on 518 miles of inventoried road from five watersheds on Green Diamond property. In some instances, the estimates are based on Green Diamond's professional experience and judgment. The five watersheds span a number of geologic types in the Plan Area. Green Diamond extrapolated the sediment production and delivery figures from these watersheds to the remainder of the Plan Area to furnish reasonable estimates for future sediment delivery.

The projected average stream connectivity is 7 percent (see AHCP/CCAA Section F 2.4). This estimate is based on 100 feet of connected road per crossing with an average crossing density of 3.5 crossings per mile. The Plan requires road upgrading and implementation of new road construction guidelines (AHCP/CCAA Section 6.2.3.5) that will hydrologically disconnect the roads from the watercourses by installing ditch relief culverts or rolling dips approximately 50 to 100 feet before the ditch water enters a Class I or II watercourse. Implementation of the road implementation plan spans the 50-year term of the Permits. However, there is a 15-year acceleration period for the road implementation plan (see AHCP/CCAA Section 6.2.3.2.1) where approximately 48 percent of the potential sediment from high and moderate risk sites will be treated, which includes hydrologically disconnecting the roads from the watercourses.

The AHCP/CCAA states that the roads in Salmon Creek and Rowdy

Creek were 12 percent and 21 percent hydrologically connected to the watercourses. Information on connectivity for each of the entire watersheds is not available to compare with the connectivity of Green Diamond's roads.

Response to Comment G6-6

All high and moderate risk sites will be treated by the end of the 50-year term of the Permits. AHCP/CCAA Section 6.2.3.2.3 provides for a financial adjustment of the accelerated implementation plan if the refined estimate after the five-year assessment differs from the original estimate of future sediment yield by greater than 5%.

Response to Comment G6-7

The goal of the slope stability conservation measures is "to reduce management related sediment delivery to the aquatic system from landslides and landslide related erosion that might occur in specific portions of the landscape." (See AHCP/CCAA Section 6.3.2.1.). A discussion of the relative effectiveness of silvicultural prescriptions on slope stability is provided in AHCP/CCAA Appendix F1 and the modeled effectiveness of the slope stability conservation measures is shown in AHCP/CCAA Table F3-8. Data from the Plan Area has been reviewed through the steep streamside slope (SSS) assessment and the mass wasting assessment, to estimate the expected effectiveness of the various prescriptions and the relationship between timber management and mass wasting, as described in AHCP/CCAA Sections D.3.4 and D.3.5. See response to Comment J1-19 regarding the SSS pilot study and the response to Comment S5-77 regarding the mass wasting assessment pilot study.

The slope stability conservation measures include the use of SHALSTAB as a screening tool to aid in identifying terrain that may include headwall swales (AHCP/CCAA Section 6.2.2.2.1). SHALSTAB itself, however, does not identify headwall swales. Headwall swales only can be identified through direct field observation, regardless of whether the landform occurs inside or outside a SHALSTAB area. A selection silvicultural method is the proposed default prescription for

field verified headwall swales rather than complete avoidance (AHCP/CCAA Section 6.2.2.2.3).

Response to Comment G6-8

Many roads are designed for single-use with that THP and decommissioned upon completion of operations including the removal of the stream crossings. Other new roads are needed to access additional THPs in the future and will be classified as management roads. AHCP/CCAA Section 6.3.3.2.1 notes that as timber harvesting operations along management roads are completed, the roads will be decommissioned and other previously decommissioned roads may be reopened as timber operations along them begin.

Response to Comment G6-9

The Plan requires inspection of all mainline roads every year (AHCP/CCAA Section 6.2.3.9.3). All other management roads or roads yet to be decommissioned that are accessible to maintenance crews will be maintained (AHCP/CCAA Section 6.2.3.9.4). Because of the number of roads currently on the landscape, the Plan establishes a rotating schedule under which maintenance will occur. Based on this schedule and the number of mainline roads, the Plan contains an estimate that approximately 45 percent of Green Diamond's roads will be maintained annually at the beginning of the Plan. As the Plan is implemented over time, the number of roads that will require maintenance would decrease but the actual percentage of maintained roads would increase because there will be fewer roads due to the road decommissioning that will occur under the Plan. See Master Response 17 on road densities.

Response to Comment G6-10

See Master Response 18

Response to Comment G6-11

See Master Response 18 regarding riparian widths and Master Response 6 regarding the relationship between this Plan and the Pacific Lumber Company's HCP.

Windthrow is a natural phenomenon in forested landscapes. This process is the most likely mechanism that will accomplish recruitment of woody materials into stream channels. Recruitment of LWD is included in the Biological Goals and Objectives (AHCP/CCAA Section 6.1.2.2.2).

Plan standards for Class I RMZs require high tree canopy closures to be maintained within the zone (AHCP/CCAA Section 6.2.1.2.1) and trees that are likely to recruit to the watercourse are required to be left (AHCP/CCAA Section 6.2.1.2.5). For Class II RMZs, overstory canopy closures of 85 percent within the inner zone and at least 70 percent in the outer zone are expected to maintain sufficient trees near the watercourse to provide a long term source of large wood recruitment. Trees likely to recruit from a Class II RMZ to a Class I RMZ must be left in the zone in accordance with AHCP/CCAA Section 6.2.1.4.3. In addition, all safe snags must be left in RMZs (see AHCP/CCAA Sections 6.2.1.1.10 and 6.2.1.4.7). These habitat elements will be left for wildlife habitat and as potential sources of future LWD in stream channels.

AHCP/CCAA practices for RMZ areas are expected to assure a consistent supply of trees and snags capable of recruitment to Class I and II watercourse channels. RMZ widths for the Green Diamond AHCP/CCAA were developed using the goals and objectives set forth in AHCP/CCAA Section 6.1.

G6-10

buffers so no direct sunlight falls on the stream.

Reid and Hilton (1998) found increased tree fall rates from blow down in riparian zones as far as 200 meters from the edge of clear cuts in the North Fork Caspar Creek basin. They also found that 30% of trees recruited to the stream were knocked in by "trigger trees" which were outside one site potential tree height. It seems likely that large wood recruitment could be substantially altered by blow down under the HCP with only 100 foot and 30 foot no cut zones on Class I and II streams, respectively, and clear cuts allowed up to the edge of the outer band width (170 feet and 100 feet). Streamside buffers must be designed so that there is no blow down and complete blow down more than 150 feet of buffer would be a design flaw in the THP process. Has a blow down event occurred of such great magnitude in the past? What was the width of a buffer left when such a large blow down event occurred? What is the minimum width of buffer that would be 100% effective to prevent large scale blow down?

G6-11

Simpson must add the width of road harvests inside the RMZ in setting the total no cut buffer width on all three stream classes. Pacific Lumber/Maxxam's HCP includes the width of the road harvested inside RMZ, when setting their final buffer width.

Stream buffer width minimum must be wide enough in design that road ditches that drain within 50' to 100 feet of both class I and class II streams to dispel effects of discharge; as stated in the AHCP/CCAA. These stream buffer width minimums must be no cut fully vegetated when applied when road relief culverts are discharged.

A Fact 61% of class II streams would have 100 foot RMZ and 70 foot RMZ on the remaining 39%.

SSS	Steep Streamside Slope	
RMZ	Riparian Management Zone	
RSMZ	Riparian Slope Stability Management Zone	Inner Zone
SMZ	Slope Stability Management Zone	Outer Zone
EEZ	Equipment Exclusion Zone	

G6-12

All buffer widths are in slope distances not horizontal distances so mapped buffers are not the reality on the ground. This becomes a problem when the slope is very steep. Rise over run distances reduce the buffer widths by a significant percentage. The maximum buffer width must be applied to offset this effect.

G6-13

The section 6.2.1.2.3 states that "less than 15 conifer stems per acre that are greater than 16 inches dbh." What is that figure converted into basal areas? What would that figure be in conifer canopy cover? This statement allows all class II streams to experience 15 conifer stems some time during the term of the plan on the inner zone. This 15 conifer stems retention standard cannot lower the canopy cover to more than 70% in the AHCP/AACC. Is there already a lower than 70% canopy cover that is allowed under this prescription?

G6-14

6.2.1.1 Inner RMZ class I stream.

Inner zones with minimum 50', 30', zero or one conifer retention for class I, II, III respectively.

Slope	Width
<30%	50'
30-60%	60'
>60%	70'

The inner 50' must have 85% canopy closure and the outer 100' of the buffer must have 70% canopy closure. Total width of buffer is 150 feet.

G6-15

RMZ class II stream 70-100'

Inner zone 30' Total width From perennial vegetation.

Outer zone 40-70' 1 The first 1000' of 1st order reach 2 All 2nd order or larger Reach. Only one harvest entry into class II RMZ over the life of the plan on all parts of the plan area. This is not a limit it is an allowed harvest of the stream buffers.

Response to Comment G6-12

The Plan acknowledges that the effect of increasing side slope steepness increases the potential for LWD recruitment, and this has been accounted for in AHCP/CCAA Section 6.2.1.1.1, where the width of the inner zone increases with greater slope steepness, and in AHCP/CCAA Section 6.2.1.2.5, where more trees are likely to recruit with greater slope steepness. The inner zone of the RMZ has a high overstory canopy retention (85 percent overstory canopy retention) but the probability that a tree within the inner or outer zones on steeper slopes is likely to recruit also dramatically increases. See Master Response 5 for “likelihood to recruit” language.

Response to Comment G6-13

AHCP/CCAA Section 5.3 specifically addresses the “linkage” requested by the commenter—the potential for increased sediment input due to harvest and road building activities.

AHCP/CCAA Section 6.2.5 provides a description of the measures proposed to monitor the effectiveness of the reduction in sediment delivery from road-related sources.

Specific protocols for monitoring the effects of sediment delivery on aquatic habitats are outlined in AHCP/CCAA Appendix D. These include: D.1.5 Road Related Sediment Delivery (Turbidity) Monitoring; D.2.2 Channel Monitoring; and D.3.6 Long-term Habitat Assessments. Green Diamond’s fish habitat data are presented in AHCP/CCAA Appendix C (specifically Appendices C1 and C2 for habitat information and C3 for thalweg profiles and channel widths analyzed to date).

Because these studies will continue under the AHCP/CCAA (see Section 6.2.5) additional habitat information will be generated and provided in the biennial reports prepared and submitted to the Services (see AHCP/CCAA Section 6.2.7.3).

Response to Comment G6-14

No response necessary. The commenter reiterates parts of AHCP/CCAA Sections 6.2.1.1 and 6.2.1.2.

Response to Comment G6-15

No response necessary. The commenter reiterates parts of AHCP/CCAA Sections 6.2.1.3 and 6.2.1.4.

Response to Comment G6-16

See Master Response 18 regarding riparian widths. Further, studies on Class III and headwater streams (see AHCP/CCAA Appendices C4 and C11) indicate that mature trees do not necessarily become functional LWD in Class III watercourses. Mature trees in the headwater streams tend to be too large and span these small channels without providing any LWD benefit to the channel. Much of the functional wood in these headwater streams can be provided by limbs and other logging debris from the timber harvest.

The conservation measures provided for EEZs in Tier B Class III watercourses provide for the retention of one conifer per 50 feet of stream within the 50 foot EEZ (AHCP/CCAA Section 6.2.1.7). In addition, all conifers that act as control points within the channel or contribute to bank stability must be retained according to the Plan. Finally, all LWD on the ground must be left following harvest. The Services believe that, collectively, these measures and others set forth in the Operating Conservation Program provide adequate protection for covered species and their habitats within the Plan Area. The Services do not believe that providing a minimum diameter as a measure for the few retained conifers would provide meaningful additional conservation benefit under the circumstances here. The Services believe that, overall, implementation of the Operating Conservation Program will meet the requirements for issuance of the ESA Section 10 permits (see Master Response 8).

Response to Comment G6-17

Single tree selection (see definitions, AHCP/CCAA Section 10.2) is a default prescription and, as shown in AHCP/CCAA Section

G6-16 **Class III stream buffers**
 Teir A below slope limit Teir B above slope limit
 30' EEZ No conifer minimum 50' EEZ
 Teir B has 60% - 70% steeper slopes requirements for each HPA group retain hardwoods and non-merchantable trees in the EEZ including one conifer per 50' of stream. This may be a dwarf non-merchantable tree that will not help the stream to be a properly functioning condition (PFC). The plan must be amended to require minimum size of the retained conifer trees must be above pole timber to provide PFC at 8-16 inch dbh on the class III.

G6-17

HPA Group	Class I	Class II	Class III	Slope Gradient
Smith River	150	100	70	65%
Coastal Klamath	475	200	100	70%
Korbel	200	200	70	65%
Humboldt Bay	200	200	70	60%

The SSS has a inner RSMZ and an outer SMZ. RSMZs that will have no harvesting occur in the Blue Creek and Costal Klamath HPAs. The other watersheds have:
 Inner Zone of RSMZ on all class I 70 feet
 Inner Zone of RSMZ on all class II 30 feet
 Class I and class II streams have a No harvest inner zone and 85% canopy in outer zone
 Over story canopy in RSMZ inner zone 85%
 Over story canopy in RSMZ outer zone 75% for class II-1 streams
 Only one harvest entry into class II SMZ over the life of the plan on all parts of the plan area. The singletree selection is the silviculture method. This is not a limit, it is an allowed harvest of the stream buffers. It could be analogist that only one landslide per harvest unit would be allowed but that would not be beneficial to the covered species.

G6-18 The AHCP plan is not canopy cover but the standard is based on the over story canopy that is based on the site that has harvested canopy cover. Are there any class III streams with 60% - 70% steep slopes in the HPAs considered? Where is the map of these areas? Where are the maps of the SSS, RSMZ, and RMZ areas? What happened to CDF standards of steep slopes classified at 50% to 60%? Class III streams in the AHCP area must have a minimum of 30 no cut buffer width.

- G6-19
- A. Simplified Prescription strategy alternative
- Class I **200 feet No cut fixed widths**
 - Class II **130 feet No cut including ponds, swamps, bogs, and seeps**
 - Class III **25-50 feet Equipment Limitation Zone**

Note that it is an ELZ limiting heavy equipment use in class III riparian areas, not a Equipment Exclusion Zone excluding bulldozers from riparian areas. The ELZ must be changed to an EEZ for class III. What limits are placed on a ELZ?

"Buffer strips approximately 47 Meters (154 feet) wide would support amphibian communities similar in species richness to that of average un-logged forest." This quote is from the paper D. G. Vesly was published in 2001 and it also states using spherical dosimeter cause a difference in value near clear cut openings next to stream buffers rather that a lower density of over story trees in the buffer. These "forest edges have been found to have higher wind velocities and greater diurnal variation in temperature and relative humidity than forest interiors. The effect of reduced canopy closure and lower availability of decayed logs may affect long-term persistence of salamander population at buffers we surveyed. Buffer strips of 20 meters wide contained approximately 80% of the detectable torrent salamanders sites that were clear cut supported about 1/2 of the species richness and 1/3 total abundance of salamanders in un-logged forests." (Vesly 2001) A negative "influence of a clear cut edge extends 240 meters into the forest interior." (Chen et al 1995) In 15 studies salamanders averaged in clear cuts was lower 20% of that in control stands. (Hunter 1995)

Femat 1993 (PL HCP) figure 3.6-4 shows that even a 200-foot buffer is 40% effective with

6.2.2.1.7, limits tree harvest within SMZs. This prescription should provide conditions for retained trees including spacing, species retained, size classes, and harvest entry in SMZs. Please refer to AHCP/CCAA Section 6.2.2.1 for a thorough description of the conservation measures that are required to limit adverse impacts to covered species from sediment delivery from steep streamside slopes. The Services believe that, overall, implementation of the Operating Conservation Program will meet the requirements for issuance of the ESA Section 10 permits (see Master Response 8) and, therefore, that no change is required in the Plan's proposed use of the single-tree selection method.

Response to Comment G6-18

Class-III watercourse RMZs are addressed by conservation measures provided in AHCP/CCAA Section 6.2.1.5 and further described in AHCP/CCAA Section 6.3.1.3, which measures include those to address steep slopes adjacent to Class III watercourses. The Services understand that these areas are not presently identified across the Plan Area, but will be identified in the field and addressed through California's THP process. The same is true for SSS and RMZ areas, which will be mapped and protected based on field observations, and review by a California Registered Geologist where appropriate, through the THP process. However, Appendix F3 of the Plan does present sediment modeling for the pilot watersheds that calculates the approximate cumulative area in acres and by percentage of watershed area for RMZs and SMZs as well as for other MWPZs. The rationale for the initial default slope gradient thresholds for the various HPA groups for SSS is based on empirical data from the Plan Area, as described in AHCP/CCAA Section 6.3. The minimum gradient and maximum slope distance for individual HPAs will subsequently be established through the SSS Delineation Study during the first seven years, as described in the AHCP/CCAA in Section 6.3.2.2.4, Section 6.3.5.4.2 and Appendix D.3.3. The CDF standards for steep slopes as described in the FPRs are unaffected by the AHCP/CCAA.

Also, see Master Response 16 regarding the 70 percent effectiveness requirements for the SSS measures. The Services believe that, overall, implementation of the Operating Conservation Program will meet the

requirements for issuance of the ESA Section 10 permits (see Master Response 8) and, therefore, that no change is required in the Plan's proposed use of the single-tree selection method. No maps are provided in the Plan or associated EIS.

Response to Comment G6-19

Under the Simplified Prescription alternative (Alternative B), Class III watercourses will be afforded the same protection as in the No Action Alternative.

Response to Comment G6-20

See Master Response 18.

Response to Comment G6-21

The commenter seems to have misinterpreted a biological objective (AHCP/CCAA Section 6.1.2.2.3) for a summary statement about the impact of harvesting activity on the covered amphibians. Please note that this section of the AHCP/CCAA is the "Amphibian Population Objective." For a discussion of potential impacts on the covered amphibian species, see AHCP/CCAA Sections 5 and 7. For a discussion of the role of biological goals and objectives see Master Response 12.

Response to Comment G6-22

The Service is not aware of long-term data on the population trends of the covered amphibian species within the Plan Area. The only available data with respect to the Plan Area are the monitoring data listed in Appendix C1 of the AHCP/CCAA, Section 1.2 and Appendix C1, Section 1.3. Contrary to the assertions of the commenter, these data do not indicate a population decline for either species, only some variability in the data collected to date. There are too few years of data to allow a meaningful statistical analysis, and the only conclusion that can be made at this time is that there is substantial annual variation in the estimated numbers of individuals. This does not mean that the populations are actually fluctuating annually, since it is equally likely that the variation in the population data is a function of sampling variability.

G6-20 [decreased relative humidity that can effect nighttime foraging opportunities for the covered amphibians. A minimum of 100 foot buffer has 80% effectiveness for radiation and 50% effectiveness for air temperatures. The buffers suggested in the AHCP/CCAA are not effective at protecting the properly functioning habitat requirements Completely functioning Habitat is possible to be 100% effective when buffer widths are; 85' for bank stabilization, 128' for shade nutrition and 170 ' for sediment on Large Woody Debris. The buffer widths for micro-climate is 510 feet.

G6-21 [**Covered Species**
Section 6.1.2.2.3 states "harvest activities have no measurable impact on populations of the covered amphibians." The AHCP does not specify which types of harvest will or will not impact. Which silvicultural methods lead to that determination? Another section stated that it was premature to make decisions on the analysis of the data gathered and then Simpson makes such a statement of faulty reasoning. The AHCP states that the Tailed Frog data to date has had very little harvesting history. Are the covered species in decline currently and in the past? Is the data on amphibians found to be statistically significant with "substantial annual variation." I observed in tables on pages C-23,C-24 hat the same monitoring sites on torrent salamanders and tailed frogs are both diminishing in the abundance of number of individuals.

Streams containing Coho from stream surveys:Canyon Cr, NFMad, Little River, Sullivan Cr
These streams must be afforded the simplified prescription strategy alternative or Greater maximum buffer width specified in this document.

G6-23 ["Buffer strips approximately 47 Meters (154 feet) wide would support amphibian communities similar in species richness to that of average un-logged forest." This quote is form the paper D. G. Vesly was published in 2001 and it also states using spherical dosimeter cause a difference in value near clear cut openings next to stream buffers rather that a lower density of over story trees in the buffer. These "forest edges have been found to have higher wind velocities and greater diurnal variation in temperature and relative humidity than forest interiors. The effect of reduced canopy closure and lower availability of decayed logs may affect long-term persistence of salamander population at buffers we surveyed. Buffer strips of 20 meters wide contained approximately 80% of the detectable torrent salamanders sites that were clear cut supported about 1/2 of the species richness and 1/3 total abundance of salamanders in un-logged forests." (Vesly 2001) A negative "influence of a clear cut edge extends 240 meters into the forest interior." (Chen et al 1995) In 15 studies salamanders averaged in clear cuts was lower 20% of that in control stands. (Hunter 1995) Is this a significant decline in potential habitat and number of species found in post harvest clear cuts? No clear-cut silviculture must be prescribed within 47m (154') or at least a minimum of 150' on class III streams the AHCP/CCAA must state.

G6-24 [Femat 1993 figure shows that even a 200-foot no cut buffer is 40% effective with decreased relative humidity that can effect nighttime foraging opportunities for the covered amphibians. A minimum of 100 no cut foot buffer has 80% effective for radiation and 50% effective for air temperatures. The buffers suggested in the AHCP/CCAA are not effective at protecting the properly functioning habitat requirements. The Northwestern Pond Turtle is sensitive to shade and require canopy closures of at least 50% for thermal cover for nesting and hiding cover. Many streams on Simpson's property **do not meet Properly Functioning Conditions and life history requirements of the Northwest Pond Turtle. Why was Northwestern Pond Turtle not added to the AHCP/AACC?**

G6-25 [Historically citizens of the Van Duzen Watershed have enjoyed watching turtles, when their habitat was less impacted. Local citizens have observed the disappearance of the Northwestern Pond turtle. What is the data on embeddedness and percent fines for all Simpson properties in the plan area? Are the percents statistically high on Simpson lands when compared to these properly functioning conditions?

G6-26 [Similar to the Southern Torrent Salamander, Tailed frogs prefer between 18-33% embeddedness. **Measurements for fine and embeddedness significantly exceed both the NMFS PFC Matrix and the life history requirements of the tailed frog.** Southern Torrent Salamander, Tailed frogs prefer between 11-16 % Fines Substrate Composition as fair condition.