FINAL ENVIRONMENTAL IMPACT STATEMENT FOR AUTHORIZATION FOR INCIDENTAL TAKE AND IMPLEMENTATION OF THE STANFORD UNIVERSITY HABITAT CONSERVATION PLAN

VOLUME II: COMMENTS AND RESPONSES

NOVEMBER 2012

U.S. Fish and Wildlife Service

National Marine Fisheries Service

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United States Fish and Wildlife Service and
National Oceanic Atmospheric Administration/
National Marine Fisheries Service
as Co-Lead Agencies

Final Environmental Impact Statement for Authorization for Incidental Take and Implementation of the Stanford University Habitat Conservation Plan

Volume II: Comments and Responses

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LIST OF ACRONYMS AND ABBREVIATIONS

ABAG	Association of Bay Area Governments
AGB	Academic Growth Boundary
BMP	Best Management Practice
CCC	Central California Coast
CDFG	California Department of Fish and Game
CEMAR	Center for Ecosystem Management and Restoration
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CRF	California Red-legged Frog
CTS	California Tiger Salamander
CWA	Clean Water Act
DPS	Distinct Population Segment
DEIS	Draft Environmental Impact Statement
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act (Federal)
FEIS	Final Environmental Impact Statement
GUP	General Use Permit
HCP	Habitat Conservation Plan
ITP	Incidental Take Permit
JSB	Junipero Serra Boulevard
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
SCVWD	Santa Clara Valley Water District
Services	U.S. Fish and Wildlife Service and National Marine Fisheries Service
SFGS	San Francisco Garter Snake
SHEP	Steelhead Habitat Enhancement Project
SLAC	Stanford Linear Accelerator Center
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey
WPT	Western Pond Turtle

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Volume II: Comments and Responses on the Draft Environmental Impact Statement for Authorization for Incidental Take and Implementation of the Stanford University Habitat Conservation Plan

1.0 Introduction

1.1 Purpose of Comment and Response Document

This document is Volume II of the Final Environmental Impact Statement (FEIS) for Authorization for Incidental Take and Implementation of the Stanford University Habitat Conservation Plan (HCP). Volume II provides a record of the comments received on the Draft Environmental Impact Statement (DEIS) and Draft HCP, and provides the National Marine Fisheries Service and the United States Fish and Wildlife Service (Services) responses to those comments. When preparing a final EIS, an agency must address comments received on the draft, either by modifying the alternatives in the DEIS, supplementing the DEIS alternatives, revising the analysis, making factual corrections, or explaining why the comments do not require further agency response (40 CFR 1503.4). The Services reviewed and considered all of the comments received on the DEIS and Draft HCP, and used the comments to update Volume I of FEIS.

1.2 Organization of Volume II

Section 1.3 below contains a list of the comment letters received. The list is divided into comments from public agencies, organizations and the general public. During the public comment period, over 3,000 form letters from members of the general public were submitted by electronic mail (email) to the Services. For these duplicate email messages, one copy of the form letter is included (referred to as "Form Letter") and the individual names of persons are not listed.

Section 2 of Volume II contains the comment letters submitted during the public comment period. Each letter has been assigned an individual number. Comments within each letter were marked to identify the specific topic area and comment numbers noted in the margin.

Section 3 of Volume II contains the responses to the comments. The comments are grouped by topic area and presented under an appropriate heading. This allows for a single response to address several and duplicative comments received on a particular topic. In several cases, there are multiple responses from the Services, because an individual made multiple comments in a single letter. Each comment is copied verbatim from the comment letter, and no edits were made; even grammatical or typographic errors were preserved.

1.3 List of Public Agencies, Organizations and Individuals Who Submitted Comments

The following public agencies, organizations and members of the general public submitted comments on the DEIS:

1.3.1 Public Agencies

City of Menlo Park, Kathleen Gallagher
City of Menlo Park, Kent Steffens

City of Palo Alto, Glenn Roberts and Curtis Williams
County of Santa Clara, Rob Eastwood
Town of Portola Valley, B. Stephen Toben
U.S. Environmental Protection Agency, Kathleen Goforth

1.3.2 Organizations

Beyond Searsville Dam, Matt Stoecker
California Sportfishing Protection Alliance, Chris Shutes
Center for Biological Diversity, Jeff Miller
Committee for Green Foothills, Brian Schmidt
Committee for Green Foothills, Brian Schmidt and Lennie Roberts
Guadalupe-Coyote Resource Conservation District, Lawrence Johmann
San Francisquito Creek Joint Powers Authority, Len Materman
League of Women Voters, Jamie Shepard
Trout Unlimited, Kent MacIntosh

1.3.3 Individuals

Email Form letter
Susan Culliney
Pat Haines
Amos Hausman-Rogers
Steve Kennedy
Libby Lucas
Donna Mackowski
Susan McDonough
Jean Public
Carolyn Rogers
Marilyn Walter

1.4 How to Find the Response to Your Comments

Table 1 below lists alphabetically the agencies, organizations, and individuals that submitted comments on the DEIS. To find the response to your comments:

- Refer to Table 1 to find the reference number assigned to your letter. Section 2 contains all comment letters.
- Find your comment letter in Section 2; the notations in the right margin assign a unique comment number to each comment and indicate the section in which the Services response can be found.
- Review the section and topic area to find your comment, along with similar comments made by others, and the Services' response. Each section has been grouped by topic area and includes the Services' response to individual comments and groups of similar comments.

Table 1. Comment Letter Assignments

Name (in alphabetical order)	Assigned Number	Comment Letter Location	Topic Areas Addressed in Each Letter
Beyond Searsville Dam, Matt Stoecker (08-29-10)	2	Section 2.2 Page 2-4	3.2.2 Conservation Easements/Mitigation Accounts; 3.2.10 Covered Species-Steelhead; 3.2.11 Covered Species-Western Pond Turtle; 3.2.12 Cumulative Effects Analysis; 3.2.16 Felt Reservoir; 3.2.18 Form letters and related comments regarding the analysis and mitigation of Searsville Dam and Reservoir; 3.2.19 General; 3.2.22 Hydrology, Water Quality and Groundwater; 3.2.25 Management Zones; 3.2.26 Non-native Species (and Native Revegetation); 3.2.29 References; 3.2.30 Regional Flood Planning; 3.2.32 Searsville Dam and Reservoir-Baseline Information and Cumulative Effects; 3.2.33 Searsville Dam-Relationship with Lake Water System; 3.2.34 Searsville Dam and Reservoir-General Comments; 3.2.35 Searsville Reservoir-Dredging; 3.2.36 Water Rights
Beyond Searsville Dam, Matt Stoecker (06-15-10)	29	Section 2.2 Page 2-64	3.2.1 45-day Comment Period Extension
California Sportfishing Protection Alliance, Chris Shutes	28	Section 2.28 Page 2-150	3.2.1 45-day Comment Period Extension
Center for Biological Diversity, Jeff Miller (attached to Beyond Searsville Dam letter, 08-29-10)	2	Section 2.2 Page 2-60	3.2.2 Conservation Easements/Mitigation Accounts; 3.2.6 Covered Species-California Tiger Salamander; 3.2.9 Covered Species-San Francisco Garter Snake; 3.2.23 Land Trust; 3.2.37 Wildlife Corridors
Center for Biological Diversity, Jeff Miller	30	Section 2.2 Page 2-65	3.2.1 45-day Comment Period Extension
Center for Ecosystem Management and Restoration, Gordon Becker (on behalf of Beyond Searsville Dam)	3	Section 2.3 Page 2-66	3.2.2 Conservation Easements/Mitigation Accounts; 3.2.3 Conservation Program Manager; 3.2.10 Covered Species-Steelhead; 3.2.12 Cumulative Effects Analysis; 3.2.13 Development-General Use Permit; 3.2.18 Form letters and related comments regarding the analysis and mitigation of Searsville Dam and Reservoir; 3.2.19 General; 3.2.22 Hydrology, Water Quality and Groundwater; 3.2.24 Land Use; 3.2.26 Non-native Species (and Native Revegetation); 3.2.32 Searsville Dam and Reservoir-Baseline Information and Cumulative Effects
City of Menlo Park, Kathleen Gallagher	4	Section 2.4 Page 2-75	3.2.24 Land Use
City of Menlo Park, Kent Steffens	5	Section 2.5 Page 2-76	3.2.24 Land Use; 3.2.30 Regional Flood Planning

Table 1. Comment Letter Assignments

Name (in alphabetical order)	Assigned Number	Comment Letter Location	Topic Areas Addressed in Each Letter
City of Palo Alto, Glenn Roberts and Curtis Williams	6	Section 2.6 Page 2-79	3.2.30 Regional Flood Planning
Committee for Green Foothills, Brian Schmidt	7	Section 2.7 Page 2-81	3.2.1 45-day Comment Period Extension; 3.2.15 Development-Sustainable Development Study
Committee for Green Foothills, Brian Schmidt and Lennie Roberts	8	Section 2.8 Page 2-84	3.2.2 Conservation Easements/Mitigation Accounts; 3.2.9 Covered Species-San Francisco Garter Snake; 3.2.13 Development-General Use Permit; 3.2.15 Development-Sustainable Development Study; 3.2.18 Form letters and related comments regarding the analysis and mitigation of Searsville Dam and Reservoir; 3.2.23 Land Trust; 3.2.30 Regional Flood Planning
County of Santa Clara, Rob Eastwood	9	Section 2.9 Page 2-88	3.2.19 General
Culliney, Susan	18	Section 2.18 Page 2-132	3.2.18 Form letters and related comments regarding the analysis and mitigation of Searsville Dam and Reservoir
ESA Biological Resources, Brian Pittman (on behalf of Santa Clara County)	10	Section 2.10 Page 2-99	3.2.4 Coordination with Other Laws and Regulations; 3.2.6 Covered Species-California Tiger Salamander; 3.2.22 Hydrology, Water Quality and Groundwater
Form letter	17	Section 2.17 Page 2-130	3.2.1 45-day Comment Period Extension; 3.2.18 Form letters and related comments regarding the analysis and mitigation of Searsville Dam and Reservoir
Guadalupe-Coyote Resource Conservation District, Lawrence Johmann	11	Section 2.11 Page 2-106	3.2.4 Coordination with Other Laws and Regulations; 3.2.6 Covered Species-California Tiger Salamander; 3.2.7 Covered Species-Estimating Take/Alternatives to Avoid Take; 3.2.10 Covered Species-Steelhead; 3.2.13 Development-General Use Permit; 3.2.14 Development-Stanford's Future Development; 3.2.17 Foothills Fire Management Plan; 3.2.19 General; 3.2.20 Geologic Hazards, Seismicity, Soils; 3.2.21 Grazing; 3.2.22 Hydrology, Water Quality and Groundwater; 3.2.23 Land Trust; 3.2.26 Non-native Species (and Native Revegetation); 3.2.28 Recreational Impacts on Covered Species; 3.2.29 References; 3.2.30 Regional Flood Planning; 3.2.31 Review and Reporting; 3.2.33 Searsville Dam-Relationship with Lake Water System; 3.2.36 Water Rights; 3.2.37 Wildlife Corridors
Haines, Pat	19	Section 2.19 Page 2-133	3.2.18 Form letters and related comments regarding the analysis and mitigation of Searsville Dam and Reservoir

Table 1. Comment Letter Assignments

Name (in alphabetical order)	Assigned Number	Comment Letter Location	Topic Areas Addressed in Each Letter
Hausman-Rogers, Amos	20	Section 2.20 Page 2-134	3.2.18 Form letters and related comments regarding the analysis and mitigation of Searsville Dam and Reservoir
Kennedy, Steve	21	Section 2.21 Page 2-135	3.2.26 Non-native Species (and Native Revegetation)
League of Women Voters, Jamie Shephard	13	Section 2.13 Page 2-114	3.2.2 Conservation Easements/Mitigation Accounts; 3.2.14 Development-Stanford's Future Development; 3.2.23 Land Trust
Lucas, Libby	22	Section 2.22 Page 2-136	3.2.2 Conservation Easements/Mitigation Accounts; 3.2.4 Coordination with Other Laws and Regulations; 3.2.5 Cover Other Species; 3.2.7 Covered Species-Estimating Take/Alternatives to Avoid Take; 3.2.8 Covered Species-Habitat Information; 3.2.10 Covered Species-Steelhead; 3.2.11 Covered Species-Western Pond Turtle; 3.2.13 Development-General Use Permit; 3.2.14 Development-Stanford's Future Development; 3.2.15 Development-Sustainable Development Study; 3.2.17 Foothills Fire Management Plan; 3.2.19 General; 3.2.21 Grazing; 3.2.22 Hydrology, Water Quality and Groundwater; 3.2.23 Land Trust; 3.2.26 Non-native Species (and Native Revegetation); 3.2.28 Recreational Impacts on Covered Species; 3.2.31 Review and Reporting; 3.2.36 Water Rights; 3.2.37 Wildlife Corridors
Mackowski, Donna	23	Section 2.23 Page 2-142	3.2.18 Form letters and related comments regarding the analysis and mitigation of Searsville Dam and Reservoir
McDonough, Susan	24	Section 2.24 Page 2-143	3.2.14 Development-Stanford's Future Development
Public, Jean	25	Section 2.25 Page 2-144	3.2.27 Permit Term
Rogers, Carolyn	26	Section 2.26 Page 2-147	3.2.18 Form letters and related comments regarding the analysis and mitigation of Searsville Dam and Reservoir
San Francisquito Creek Joint Powers Authority, Len Materman	12	Section 2.12 Page 2-112	3.2.30 Regional Flood Planning
Shute, Mihaly & Weinberger LLP, Ellison Folk (on behalf of Beyond Searsville Dam)	14	Section 2.14 Page 2-115	3.2.10 Covered Species-Steelhead; 3.2.18 Form letters and related comments regarding the analysis and mitigation of Searsville Dam and Reservoir; 3.2.22 Hydrology, Water Quality and Groundwater; 3.2.32 Searsville Dam and Reservoir-Baseline Information and Cumulative Effects; 3.2.33 Searsville Dam-Relationship with Lake Water

Table 1. Comment Letter Assignments

Name (in alphabetical order)	Assigned Number	Comment Letter Location	Topic Areas Addressed in Each Letter
			System; 3.2.34 Searsville Dam and Reservoir-General Comments; 3.2.35 Searsville Reservoir-Dredging; 3.2.36 Water Rights
Town of Portola Valley, Stephen Toben	15	Section 2.15 Page 2-126	3.2.2 Conservation Easements/Mitigation Accounts ; 3.2.5 Cover Other Species; 3.2.31 Review and Reporting; 3.2.26 Non-native Species (and Native Revegetation); 3.2.31 Review and Reporting; 3.2.36 Water Rights
Trout Unlimited, Kent MacIntosh	16	Section 2.16 Page 2-129	3.2.1 45-day Comment Period Extension
US Environmental Protection Agency, Kathleen Goforth	1	Section 2.1 Page 2-2	3.2.4 Coordination with Other Laws and Regulations; 3.2.19 General
Walter, Marilyn	27	Section 2.27 Page 2-148	3.2.18 Form letters and related comments regarding the analysis and mitigation of Searsville Dam and Reservoir

2.0 Comments Received on the DEIS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

AUG 05 2010

AUG 05 2010

Ms. Sheila Larsen
Senior Staff Biologist
U.S. Fish and Wildlife Service
2800 Cottage Way, Room W-2605
Sacramento, CA 95825

Subject: Draft Environmental Impact Statement for Authorization for Incidental Take and Implementation of the Stanford University Habitat Conservation Plan, San Mateo and Santa Clara Counties, California (CEQ# 20100121)

Dear Ms. Larsen:

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the Stanford University (Stanford) Habitat Conservation Plan pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act.

The EPA appreciates the efforts of Stanford to develop a Habitat Conservation Plan (HCP) to avoid, minimize, and mitigate take of five species (Covered Species) and their habitats within more than 8,000 acres of San Mateo and Santa Clara Counties, California (Covered Area). We recognize the importance of a coordinated approach to protecting and preserving the Covered Species and their habitats from Stanford activities (Covered Activities) over the 50-year permit term.

Based on our review of the DEIS, we have rated the proposed project and the document LO-1, Lack of Objections – Adequate (see enclosed EPA Rating Definitions). EPA commends the U.S. Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS) on the quality of the environmental impact statement. The DEIS is comprehensive, well organized, and includes excellent tables and maps. We are pleased that the document includes a section on how climate change may affect the proposed action and Covered Species, and that the HCP will be adapted, as needed, to respond to such effects.

1.1
Section 3.2.19

We recommend that the Final Environmental Impact Statement (FEIS) provide additional information on the potential interface between the HCP and Section 404 of the Clean Water Act (CWA). The DEIS states that Stanford lands "contain seasonal and perennial wetlands," but that because the "exact location of future development is still

1.2
Section 3.2.4

1.2 cont'd

unknown, Stanford does not know if its future development might result in fill of wetlands or other aquatic resources regulated under the CWA." The FEIS should describe how jurisdictional wetlands will be identified over the permit term, and how FWS, NMFS, and Stanford will coordinate with the U.S. Army Corps of Engineers to ensure that any development covered by the HCP complies with the permit requirements of Section 404 of the CWA.

We appreciate the opportunity to review this DEIS, and are available to discuss our comments. When the FEIS is released for public review, please send one hard copy and one CD-ROM to the address above (Mail Code: CED-2). If you have any questions, please contact me at 415-972-3521, or contact Jason Gerdes, the lead reviewer for this project. Jason can be reached at 415-947-4221 or gerdes.jason@epa.gov.

Sincerely,

Kathleen M. Goforth, Manager
Environmental Review Office

Enclosure: Summary of EPA Rating System

cc: John Robles, Fish and Wildlife Biologist, U.S. Fish & Wildlife Service
Gary Stern, Fisheries Biologist, National Marine Fisheries Service

Gary Stern
San Francisco Bay Region Supervisor
National Marine Fisheries Service
777 Sonoma Ave., Room 325
Santa Rosa, CA 95404

August 29, 2010

Re: Stanford Habitat Conservation Plan and Draft Environmental Impact Statement
Revised and Sent August 30, 2010

BSD is a coalition of thousands of supporters and advocates and dozens of non-profit groups and businesses that share a common interest in supporting actions to evaluate and consider removal of Stanford University's Searsville Diversion Dam in a manner that is beneficial to protecting creekside communities and watershed health. Determining the future of Searsville Dam is a complex issue with many questions that need to be addressed, but several things are clear. Firstly, Searsville Dam has had and continues to have an enormous impact on the health and safety of the entire San Francisquito Creek watershed, surrounding communities, and the San Francisco Bay. Secondly, decisions, and even indecision, at Searsville Dam impacts us all and requires committed stakeholder collaboration and agreement from impacted communities surrounding Stanford. Thirdly, the science is clear that restoring free-flowing streams by removing antiquated dams is feasible, provides enormous benefits to the surrounding ecosystem, and is being carried out in ways to improve flood protection, reduce safety liability, improve water supplies, and save the owners money. Increasingly, owners of non-essential dams are choosing dam removal as their preferred options and enjoying abundant funding opportunities and regulatory support and collaboration. Finally, Stanford University has an amazing opportunity with to work collaboratively with surrounding communities to become leaders in community planning, land stewardship, ecosystem restoration, sustainable water use, and the science of watershed-scale ecosystem restoration and protection at a revived Jasper Ridge Biological Preserve. Many folks at Stanford are excited about such prospects already and our coalitions wants to make clear that we truly do look forward to working collaboratively with the University and others on this unique opportunity.

We support the implementation of well-crafted, comprehensive, and committed Habitat Conservation Plans (HCP). Such an HCP can be a very useful long-term planning tool

with benefits to endangered species protection and effective landowner stewardship. We cannot, however, support the Proposed Alternative presented in this HCP or the DEIS as written, due to the significant lack of quantifiable data, inadequate analysis, significant errors, and critical omission of key factors (such as the presence of the Searsville Diversion Dam) severely limiting Covered Species and inadequate mitigation measures to ensure long-term persisting protection of these species in the face of climate change prediction within the course of this proposed 50-year HCP. We believe, as supported by data within this letter and the attached opinions of our biological and legal experts, that the separation and omission of the Searsville Diversion Dam from proposed and covered actions at the attached Searsville Water Diversion are not appropriate or legal and that the lack of detail and analysis of the proposed dredging operation, water diversion operations, and lack of adequately determined and required bypass flows and fish passage at Searsville Diversion Dam (as required by NMFS and implemented at the other two Stanford water diversion facilities in the watershed) render the HCP biologically inadequate and the DEIS legally inadequate.

The HCP states: "If the HCP is successful, the Covered Species populations at Stanford will increase, and, as the Covered Species become more abundant, they will inhabit more areas at Stanford" (p.49). While we agree with this statement, it also points to fatal flaws in the HCP and is doomed to not be successful for steelhead and likely other Covered Species. We do not believe that the proposed HCP will result in considerable habitat improvement to significantly increase populations, and with predicted climate change is expected to result in a decrease in aquatic habitat size for Covered Species, as described in this letter. In addition, and as shown in the HCP, the proposed alternative would lead to significant ongoing mortality. While proposed (but not adequately described) habitat improvements to currently occupied steelhead habitat could provide some benefits, the proposed HCP and DEIS specifically excludes requirements for steelhead passage at Searsville Dam and so steelhead would not be able to "inhabit more areas at Stanford" than they already do, thus compromising the success of the HCP, as described in the above statement. In addition, as shown in this letter, there is overwhelming evidence that presently occupied habitat conditions for steelhead, western pond turtle, red-legged frog, and potentially San Francisco Garter Snake and California tiger salamander will decline over the next 50 years in Corte Madera Creek and San Francisquito Creek downstream of the Searsville Diversion Dam due to significant negative impacts from the entire Searsville Diversion Dam Facility. It is abundantly clear from the scientific literature, data cited here, language in Stanford's own HCP, and language in the federal agencies DEIS, that that the combined effects of continued operation at the Searsville Diversion Dam Facility will jeopardize the continued survival and future persistence of the Covered Species.

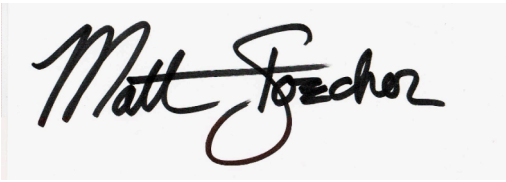
The DEIS is severely lacking in collected data and analysis of salmonid resources within San Francisquito Creek and the region. We recommend that the Agencies contact Beyond Searsville Dam and the Center for Ecosystem Management and Restoration to access extensive data and files related to salmonids in the watershed and region. Other concerns, corrections, and comments are provided following the primary section outlining the reasons why the Searsville Diversion Dam must be included in both the HCP and DEIS

as an integral part of the covered Searsville Diversion Dam Facility, Searsville Water Diversion, Reservoir, proposed dredging and assessed in the DEIS for the past, present, and future Cumulative Effect analysis and proposed mitigation strategy. For these reasons we request that the DEIS be withdrawn, revised (with major revisions to the proposed HCP), and re-released rather than finalized from its current form.

A unique opportunity, with agency support and outside funding available, exists with the potential removal of Searsville Dam that would upgrade and improve Stanford's water supply and storage system alongside major restoration at Jasper Ridge, reduced environmental regulations and enforcement, and reduced safety liability concerns. Our coalition and dozens of other groups, alongside with resource agencies, would like to collaborate with Stanford and other stakeholders on investigating such options that would be mutually beneficial to watershed stakeholders, ecosystem health, Covered Species protection, public safety, and reliable water supply.

In describing the collaborative efforts needed for the San Francisquito Creek watershed Lund and Gullard (2003) describe it well. "Preserving the health and beauty of the last free flowing creek in the area as well as its vertebrate and invertebrate inhabitants while preventing such devastating floods as those of 1955 and 1998 is the task of five city governments, two counties, and a couple dozen other agencies, all of whom will be affected by the ultimate decisions. How the issue is resolved will be a test of our ability to work together, and of our wisdom." As noted below, and cited by top scientists at Stanford University, all decisions, or indecision, at the Searsville Diversion Dam and Reservoir impacts the entire watershed and region far beyond Stanford's borders. We are ready to work together with Stanford, NMFS, USFWS, and other watershed stakeholders in a well-defined, collaborative manner to address the complex issues surrounding the Searsville Diversion Dam Facility and find a solution, based on the best available information, for the benefit of surrounding community safety, ecosystem health, and Stanford University.

Respectfully Submitted,



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COMMENTS ON THE SEARSVILLE DIVERSION DAM FACILITY

The Stanford HCP attempts to separate the presence of the Searsville Diversion Dam, as well as omit analysis of it negative environmental impacts, from other Covered Activities related to the overall Searsville Diversion Dam Facility (diversion dam, water diversion, reservoir, downstream releases, and proposed dredging). As shown in this letter the Searsville Diversion Dam is an essential and connected component of the Searsville Diversion Dam Facility and cannot be separated from the attached water diversion, resulting reservoir, and proposed diversion, downstream release measures, and new dredging. As described below, these actions cause, and would continue to cause, a multitude of enormous direct and indirect impacts that effect Covered Species, the entire San Francisquito Creek watershed, surrounding community safety, and San Francisco Bay. As described below, and supported by scientific literature and expert biological and legal documents attached here, the HCP fails to adequately address the many biological, legal, and safety impacts of the Searsville Diversion Dam Facility. The DEIS fails to adequately analyze these, and other, impacts or require adequate mitigation measures. The result is a biologically inadequate HCP and legally inadequate DEIS that, if approved, would jeopardize the survival of Covered Species and the safety of the region. The DEIS must be withdrawn, rewritten with adequate analysis, and re-released with an adequate public comment period.

The Searsville Diversion Dam Facility is not adequately addressed in the DEIS

The DEIS states (2-6) that: "Other than ongoing operation and maintenance, no Covered Activities are proposed for Searsville Dam." The HCP states: "Likewise, the presence of the dam is not a Covered Activity" (p.95). We do not believe this first statement to be accurate. Searsville Dam is a water diversion dam and the HCP includes coverage of the water diversion rates described and not quantified downstream releases controlled by a combination of the Searsville Diversion Dam configuration itself and the attached water diversion. In addition, the new, massive, proposed dredging operation is not part of ongoing maintenance and should not be covered as such and we believe requires additional and separate permits from the Army Corps, DFG, and others. Dredging is being proposed due impacts caused by the presence of the Searsville Diversion Dam and dredging operations are dependent on, and impacted by, the dam and spillway configuration and connected water diversion. Dredging is also shown in this letter, and as cited by Stanford experts and consultants, to have additional and significant impacts to Covered Species and downstream Critical Habitat that is not part of current operation and maintenance. We believe it is illegal to include operations and maintenance of the dam and reservoir, new dredging, water diversion rates and inadequate downstream releases over Searsville Diversion Dam, without including the presence of the dam and fully assessing the impacts of the dam.

2.1

Section 3.2.23

Despite the above request that the Searsville Diversion Dam not be analyzed as a Covered Activity, the HCP acknowledges the negative impacts of the dam as a migration barrier to steelhead passage. The HCP states: "As Stanford continues to evaluate

alternatives for the long-term management of Searsville Dam and Reservoir, the feasibility for providing steelhead access to historic habitat in Corte Madera and Sausal creeks will be studied" (p.59). The HCP then states: "However, as part of the HCP, Stanford will perform the Searsville Dam Measure described below" (p.95).

"Stanford will commit to study the technical feasibility of fish passage alternatives at Searsville Dam within 10 years of approval of the HCP. Stanford will allocate $100,000 to conduct the feasibility study in conjunction with any Stanford, local agency, state agency, or federal agency proposed project to modify Searsville Dam or independently if no such dam modification project is proposed within the 10-year time frame. The results reached in the technical feasibility study will be incorporated into any proposed future dam modification project. Cost, environmental impacts, and other factors will also be considered in the decision whether or not to include fish passage facilities in any future dam modification project."

The inadequately described "feasibility study" does not require any action to mitigate impacts from the dam, but rather mere consideration in the next ten years, at which point Stanford could say it was not feasible do to any number of reasons. The measure describes no watershed stakeholder collaboration (as recommended in NMFS 2008 Biological Opinion, HCP Appendix A), is massively under funded to conduct a comprehensive and detailed study of this type, does not include mention of dam removal alternatives as requested by multiple public comment letters for the HCP scoping process (included in this letter), has an unacceptable time frame of ten years, and does not contain any commitment to adequately determine or implement bypass flows or timely and effective fish passage project implementation. This weak, no action measure is unacceptable. In addition, it is our understanding that Searsville Diversion Dam is currently in violation of at least two CDFG Codes requiring fish passage and adequate bypass flows for downstream resources, neither of which are occurring, as well as other violations (see attached letter from Shute, Mihaly, Weinberger LLP). We request that NMFS and USFWS coordinate with CDFG and other regulatory agencies noted in the above letter and include considerations, legal requirements, and appropriate mitigation requirements in the DEIS that ensure timely compliance of the Searsville Diversion Dam Facility with other federal, state, regional, and local codes and laws.

2.2
Section 3.2.24

2.3
Section 3.2.24

The HCP (p.59) states: "Stanford does not currently plan to modify Searsville Dam and is only requesting incidental take authorization for the routine maintenance and operation of the dam, which does not include any major repairs or modifications to the dam." Ongoing operation and maintenance of the Searsville Diversion Dam Facility (including water diversion and inadequate downstream releases over the dam's spillway) is causing take of steelhead below the dam, and significantly altering downstream habitat for Covered Species, as supported by extensive data cited later in this letter. Dredging of the reservoir to year 2000 capacity is new, ongoing, and major modification to the overall Searsville Diversion Dam Facility that will cause additional alteration of the reservoir's water quality and downstream releases and surface flow and requires thorough analysis in the DEIS. The HCP provides scant data, or even commits to a type of dredging operation,

2.4
Section 3.2.32

2.5
Section 3.2.35

and the DEIS fails to assess in any meaningful way the impacts of dredging. Dredging impacts are discussed in more detail later in this letter. 2.5 cont'd

Searsville Dam must be assessed as part of the Searsville Diversion Dam Facility

The HCP (p.49) identifies that the "Searsville Dam diversion" and Searsville Reservoir are an integral parts of Stanford's "... "Lake" water system". The HCP seeks coverage of this "Lake" water system and the Searsville Diversion Dam must be included as an essential part of that system and adequately assessed in the HCP. 2.6 Section 3.2.23

Stanford archives show that the Stanford Board of Trustees discussed "cleaning out said reservoir (Searsville) by the blow-out pipe or pipes now or hereafter in said dam..." (Regnery 1991 p.122). Regnery (1991) also quotes Waterways (1982) to state: "Two heavy cast iron pipes emerge from the base of Searsville dam", that one of the pipes "now served solely as Searsville Lake "blowoff"- a way of draining the lake into San Francisquito Creek", and that the second pipe contains a venturi meter that "measures water flow out of the lake (Searville Reservoir)" (p.130). In 1924, Regnery (1991) reports that "a three-level outlet at the dam was installed in order to draw off surface water" (p.137). These statements shows the direct connection between the dam, the water diversion pipes that pass inside the dam, downstream bypass flow potential, and measurement devices essential to the water diversion operations, which are included for coverage in the proposed HCP. The presence of Searsville Dam cannot be divorced from the Searsville Diversion infrastructure. The statement also shows the direct connection between the dam and operations and management of the reservoir in addressing the sediment trapped within, and blowoff capabilities. The HCP omits and the DEIS fails to include and adequately assess impacts of Searsville Dam, the essential component of the entire the entire Searsville Diversion Dam Facility.

<u>NEPA requires inclusion of Searsville Dam in the DEIS Cumulative Effects analysis</u> 2.7 Section 3.2.32
With respect to the omission of detailed analysis of Searsville Dam, the HCP and DEIS fail to "analyze the potential environmental effects related to the issuance of a Section 10 incidental take permit consistent with NEPA requirements. The NEPA analysis will address the direct, indirect, and cumulative effects" (HCP p. 6). Cumulative effects are defined as the "impact on the environment that results from the incremental impacts of the action when added to the past, present, and reasonably foreseeable future actions" (DEIS 5-58). In addition, to our assertion that Searsville Dam must be fully assessed in the HCP and DEIS due to it's integral role as part of the Searsville Diversion Dam water diversion being addressed in these documents, the above statement requires that the DEIS analyzes the dam as part of the cumulative effect analysis as a "past, present, and future action".

Regulatory leadership is needed to address the Searsville Diversion Dam

The HCP (p. 4) states: "Some of Stanford's facilities and day-to-day operations, such as Searsville Dam which was built in 1892, have changed very little since Stanford opened

its doors. Other facilities and day-to-day activities have evolved or been expanded over time to reflect new technology, respond to environmental concerns, or accommodate an expanding population." This statement both acknowledges that Searsville Dam is antiquated, over-century-old technology that has not been addressed to respond to environmental concerns and that other facilities, such as both of Stanford's other instream water diversions, have evolved to reflect new technology and endangered species protection. Unfortunately the HCP fails to commitment too and the DEIS fails to require that this major limiting factor to Covered Species, Critical Habitat, and watershed function is adequately addressed.

The SHEP supports requiring bypass flows and fish passage at Searsville Diversion Dam
Figure 4-9, on page 4-71 of the DEIS, clearly shows the "Searsville Diversion" as one of the three "Diversion" facilities of the "Lake" Water System, along with the Los Trancos Diversion Dam and the San Francisquito Pumping Stations. The DEIS states that there is "a non-potable water system made up of water diversions from Los Trancos Creek, San Francisquito Creek, and Searsville Reservoir". This statement acknowledges that, like the Felt Lake Diversion Dam on Los Trancos Creek and the San Francisquito Creek Pump Station on San Francisquito Creek, the Searsville Diversion Dam is the integral part of the "Searsville Reservoir" diversion on Corte Madera Creek.

The HCP (p.50) describes how Stanford's Steelhead Habitat Enhancement Project (SHEP) modified Stanford's Los Trancos Diversion Dam and how the "new protocols will substantially increase flows through the (newly constructed) fish ladder, which will enhance conditions for steelhead migration and spawning. These enhancements also will accommodate the upstream and downstream movement of juvenile steelhead." The DEIS describes how implementation of the SHEP improves fish passage and bypass flows at other Stanford in-stream diversion facilities "to protect the stream and aquatic habitat downstream of the water diversion facilities" (4-9). At the other, San Francisquito Creek Pumping Station, the SHEP included "structural modifications and operational changes to this diversion facility", which will "enhance steelhead habitat and downstream passage". The HCP (p.94) later states: "The bypass flow rates approved in the SHEP Biological Opinion will be implemented." As required in the mentioned SHEP, Stanford did modifying fish barriers and bypass flows at diversion facilities.

Acknowledging that Stanford's other water diversion, Searsville Diversion Dam, was also impacting listed steelhead migration and downstream bypass flows in listed Critical Habitat, the 2008 Biological Opinion for the SHEP, written by NMFS, states: "The CORPS should work collaboratively with Stanford, the San Francisquito Watershed Council, NMFS and other interested parties in the San Francisquito watershed to restore fish passage at Searsville Dam on San Francisquito Creek" (HCP Appendix A).

The DEIS states: "Any project or activities in Zones 1 or 2 that require a Federal permit or involve Federal funding must request incidental take authorization through the Section 7 consultation process. It is anticipated that only a small percentage of Stanford's activities that would result in take have a Federal nexus, mostly relating to obtaining Corps permits (eg., creek bank maintenance work, sediment removal, and levee and berm

repair). Use of the Section 7 process, therefore, may apply to any activities that affect streams, creeks, and other jurisdictional waters, such as wetlands" (4-9). The footnote cited in the above states, "An example of a project with a federal nexus is the Steelhead Habitat Enhancement Project (SHEP). The habitat enhancement activities required a permit from the US Army Corps of Engineers, and because these activities and current diversion affect steelhead, the Corps consulted with NMFS under Section 7 of the ESA. The permit issued by the Corps incorporates a Biological Opinion prepared by NMFS that authorizes the incidental take of steelhead provided certain operational and minimization measures are implemented" (4-9 footnote).

With the extensive previous completion of the SHEP and recommendations from NMFS to provide fish passage at the Searsville Diversion Dam, Stanford's HCP should have committed too implementing, and the NMFS' own DEIS should have required its own recommendation above to require that Stanford participate in a collaborative stakeholder process to investigate fish passage alternatives, including dam removal, in a timely manner, with a detailed timeline and established requirements for fish passage, and independently and quickly established bypass flows at the Searsville Diversion Dam, both of which take into consideration climate change projections (discussed later in this letter). The HCP and DEIS fail to show meaningful data related to analysis of diversion rates and unspecified downstream bypass flows at the Searsville Diversion Dam Facility. To our knowledge, no detailed studies have been conducted to determine impacts or answer critical biological questions about the impacts of described diversion rate, downstream releases, impacts on downstream habitat, impacts to Covered Species, alterations to habitat quality, critical migration parameters, surface flow duration and extent, dewatering, and other critical impacts. As cited above, "sediment removal" requires a CORPS permit and this includes the proposed dredging in the HCP. The DEIS even states above that "current diversion affect steelhead" and required that "operational and minimization measures are implemented" in order to get authorization for incidental take of steelhead. Like Stanford's Los Trancos Diversion Dam, the Searsville Diversion Dam is a "current diversion", that is "affecting steelhead" and whose operation and water diversion is requesting incidental take of steelhead so must implement "operational and minimization measures". The DEIS fails to assess or require effective fish passage or bypass flows at the Searsville Diversion Dam Facility. Failure to include such analysis and requirements, such as were made at Stanford's other water diversion facilities, is unacceptable biologically and legally, and must be integral to any proposed HCP and DEIS.

2.8
Section 3.2.18

Unfortunately, in describing "Potential Effects of the Water Diversions on the Covered Species" including the "Searsville Diversion", the HCP makes the following false and strangely mixed message: "Stanford's diversion facilities were modernized during the 1990s and again in 2009 to protect steelhead. Physical and operational changes were made at these times. The physical changes to the facilities included the installation of fish screens and ladders. These physical changes and changes in the operation of Stanford's water diversions have significantly reduced the effects of the water diversions on the Covered Species" (p.55). Stanford has three "diversion facilities" in the San Francisquito Creek watershed and the largest is their cited "Searsville Diversion". The Searsville

2.9
Section 3.2.24

2.9 cont'd

Diversion facility (which includes the dam just as the Los Trancos Diversion includes that dam) has never been modernized (despite being the oldest) to protect steelhead. There are no fish screens or ladders at Searsville Dam and there have been no operational changes, such as establishing bypass flows, to reduce the effects of this water diversion facility on steelhead or other Covered Species. The continued operation of the Searsville Diversion Dam as described in this HCP and DEIS would result in the direct take of steelhead and other species. Interestingly, the above statement acknowledges the negative "effects" of their "water diversions", but does not consider the Searsville Diversion or need to similarly "modernize" and "protect steelhead".

2.10

Section 3.2.24

The HCP incorrectly goes on to state that the long-term effects of the SHEP and the implemented fish passage modifications and dedicated downstream by-pass flows "are beneficial to steelhead and designated Critical Habitat by largely eliminating the impacts of Stanford's water diversions on stream flows that are important to steelhead" (HCP p. 56). While the SHEP has benefited steelhead and Critical Habitat downstream of the Los Trancos and San Francisquito Diversion facilities, the SHEP did not provide these benefits to Searsville Diversion (as implied), whose operations directly impact the vast majority of Critical Habitat for steelhead on Stanford lands, from downstream of the Searsville Diversion Dam on lower Corte Madera Creek along the entire mainstem of San Francisquito Creek. Unfortunately, as shown conclusively in this letter, operations at the Searsville Diversion Dam negatively impact all listed steelhead that migrate to the Bay and back to the San Francisquito Creek watershed.

2.11

Section 3.2.18

The Santa Clara Valley Water District's HCP includes diversion dam

As described in the DEIS (5-60), the Santa Clara Valley Water District is developing a Three Creeks Habitat Conservation Plan that rightly acknowledges the negative impacts of their dams and reservoirs on steelhead and is proposing to "improve streamflow and stream temperatures below District reservoirs on steelhead and salmon streams." Page 5-61 of the DEIS also states that "Water releases from SCVWD reservoirs would be modified to increase stream flows when it would benefit the covered fish species." Stanford's HCP and the DEIS do not propose any calculated improvements to streamflow or water temperature below Searsville Diversion Dam and Reservoir or even analyze effects on Covered Species and downstream Critical Habitat. This lack of commitment to addressing the negative impacts of Searsville Dam and Reservoir are unacceptable and continue to put steelhead and other listed species and their habitat at risk.

The HCP's proposed water diversion and lack of bypass flows is totally inadequate

The HCP (p.55) states: "For purposes of this HCP; between October 1 and April 30 of each year, Stanford will not divert water to the standpipe if the surface elevation of the Searsville Reservoir drops to more than 1 foot below the spillway. In addition, diversions to the standpipe during this period will not exceed 300 acre-feet. The maximum instantaneous rate of diversion to the standpipe shall not exceed 3 cfs and the total annual diversion amounts will be consistent with historic diversion rates evaluated over decades not year to year), and will not exceed 600 acre-feet." This is clearly a proposed water diversion agreement that includes the Searsville Diversion Dam (and its above reference spillway), the attached diversion infrastructure, and the reservoir. There is no supporting

logic for the HCP or DEIS to not include the presence or analysis of Searsville Dam, while requesting coverage of the water diversion facility connected to the dam and operations that rely on, and list, the dam's spillway as part of the water diversion controls. The described water diversion agreement does not provide enough detail or supporting data to allow for even a basic analysis of impacts to downstream habitat, surface flows, water quality, Covered Species, migration, dewatering, and many other critical factors. Providing the Historic Diversion Rates Table (over decades and not year to year) is not satisfactory to assess important information about the historic diversion rates and duration in relation to specific historic flows at the dam. Detailed diversion rates for each year in operation, monthly averages, and daily records for the last several years should be provided and analyzed by experienced NMFS hydrologists and in relation to downstream flows over the Searsville Diversion Dam spillway. The HCP and DEIS should present extensive and historic diversion data sets, describe and detailed studies conducted to assess Covered Species impacts of the proposed diversion agreement, and the DEIS must complete a thorough analysis of expected impacts to downstream Covered Species and Critical Habitat.

2.12
Section 3.2.32

Dams and Reservoirs Negatively Impact Steelhead and other Listed Species

The Searsville Diversion Dam Facility causes the "take" of Covered Species
As the data referenced in this letter overwhelmingly shows, the Searsville Diversion Dam Facility, including the dam, reservoir, and other features, such as the proposed dredging, water diversion, and inadequate downstream releases of water, cause numerous forms of "take" to Covered Species, including steelhead, red-legged frog, aquatic garter, western pond turtle (candidate), and possibly tiger salamander. As described in the DEIS, "Take" of species includes "harm" which is further defined by the ESA as an "act which actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including, breeding, spawning, rearing, migrating, feeding, or sheltering" (2-3). The DEIS fails to acknowledge many of these forms of take in the proposed HCP, adequately assess these impacts, or effectively mitigate their effect.

Stanford's consultants (NHC 2001) report the drastic effects of dams on Critical Habitat and Covered Species to include; interrupting "the longitudinal continuity of habitat and migration paths for organisms, and alter the flux of water, sediment, organic debris, and nutrients in rivers, in many cases changing seasonal and long-term flow patterns", in addition to, creating "major discontinuities in fish migration paths, which fish ladders can at best only partially rectify (because even if adult passage is possible, juveniles may be unable to safely pass downstream). Reservoirs interrupt riparian corridors... Dams also alter nutrient flux through rivers, trapping nutrients and transforming organic material in reservoirs. Probably the best-documented effects, however, are effects of dams on sediment supply and flow regime in downstream reaches" (p.8).

The HCP correctly states: "Dams and other migration barriers, water diversions, removal of riparian vegetation, decreased water quantity and quality, and the presence of non-native fish all affect the quality of habitat in steelhead spawning streams" (p.35). The

Searsville Diversion Dam, Water Diversion, and Reservoir have cumulatively caused and dramatically impact all of these critical limiting factors mentioned above, yet the HCP and DEIS fail to assess these impacts that are proposed for coverage in the HCP, or propose detailed actions to mitigate them.

The ongoing operation, maintenance, and presence of the Searsville Diversion Dam, connected water diversion, and reservoir, is currently, and would continue to alter downstream flows, water quality, sediment transport, woody debris transport, habitat quality (including habitat for rearing, spawning, feeding, and shelter), directly injure steelhead jumping against the concrete dam, allow for the breeding and dispersal of predatory non-native species, and impair essential behavioral patterns, breeding, and migration.

2.13
Section 3.2.32

Searsville Diversion Dam is the major migration barrier to covered species

Importance of adequate migration

The HCP (p.11) states: "Steelhead require relatively cool and clean flowing water, and creeks that permit barrier-free passage." Table 1-1 on page 12 also states that steelhead need "unimpeded upstream and downstream dispersal routes."

Despite these accurate statements, the HCP fails to assess or mitigate the negative impacts of the impassable Searsville Diversion Dam or propose modifying or remove any impassable migration barriers that would open up new, historically accessible, habitat to steelhead. In addition, the "cool and clean flowing water" required occurs upstream of the impassable Searsville Dam, while the Covered Activities within this HCP of the reservoir and water diversion and overflow measures, are negatively impacting water temperatures, water quality, and surface flows downstream where steelhead and other Covered Species occur on Stanford land. The HCP and DEIS also fail to analyze, or even discuss, negative impacts to migration downstream of the dam caused by the Covered Activities of the Searsville Diversion's water diversion, lack of adequately established downstream bypass flows, or hydrologic alterations caused by the proposed dredging operations. As shown in the DEIS the effects of climate change will further exacerbate these downstream conditions and make adequate migration to cool, perennial flowing streams above the impassable dam all the more critical for survival. The HCP and DEIS fail to acknowledge the cumulative effects of the past, present, and future impacts of the Searsville Diversion Dam and implementation of the HCP would further jeopardize the survival of Covered Species on Stanford lands.

2.14
Section 3.2.35

Searsville Dam is a major migration barriers limiting factor for Covered Species

As described in the DEIS, "barriers to movement" are one of the main "factors affecting steelhead survival" (4-30). In discussing potentially limiting factors to steelhead, the HCP (p.35) lists "the general paucity of suitable spawning sites" for steelhead. Suitable spawning reaches in the San Francisquito Creek watershed generally occur in the upper reaches of San Francisquito Creek and in headwater tributaries, most of which occur upstream of Stanford property (Bear Creek sub-basin and the inaccessible Corte Madera Creek sub-basin upstream of Searsville Dam).

Searsville Dam was identified by the San Francisquito Watershed Council and Steelhead Task Force as the largest migration barrier blocking the most spawning and rearing habitat in the entire watershed. An estimated 18 miles of historically accessible spawning and rearing habitat occur upstream of the dam. The conservative mileage estimate of the quantity of historic steelhead habitat upstream Searsville Dam was made using knowledge of existing barriers and surveyed reaches (SFWC 2002), tracing streams using Google Earth mileage tracking tools, and proceeding to known upstream natural migration limits or estimated upstream limits using DFG upstream migration limit protocols based on sustained stream gradient limitations. The actual quantity is expected to be larger due to exclusion of smaller tributaries and greater stream sinuosity, both historically and than the relatively straight-line mileage tool used in Google Earth.

The DEIS (4-26) and HCP (p.25) incorrectly states: "Searsville Dam is a barrier to fish migration in the system, and isolates about 3 to 5 miles of suitable spawning habitat from migrating adults." This statement shows a lack of knowledge about the watershed, lack of research, speculation with no supporting data or studies, and questionable communication with Stanford scientists that have worked with the Steelhead Task Force for over a decade to identify migration barriers throughout the watershed. The HCP does not identify any referenced document or study, identifying where the extremely low 3-5 mile number came from, but the HCP and DEIS need to quantify, if possible this estimate, and DEIS must correct this inaccuracy. The DEIS repeats this incorrect statement without its own analysis. As noted, approximately 18 miles of historic spawning and rearing habitat occurs upstream of the dam with at least 2.5 of those stream miles currently submerged and buried underneath Searsville Dam, Reservoir, and sediment deposits. Most of this historically accessible habitat is perennial and native rainbow trout, descendants of the historic sea-run steelhead population above the dam, persist in at least seven tributary stream.

2.15

Section 3.2.10

The 2006 Jones and Stokes report cited in the DEIS (4-30) listed the following key finding related to factors limiting steelhead in San Francisquito Creek: "Searsville Dam is a complete barrier to adult migration and cuts off approximately one-third of the upper watershed to steelhead access." Searsville Dam blocks all life stages of steelhead from the largest tributary in the watershed (Corte Madera Creek). The HCP (p.59) states: "Searsville Dam does not provide for the upstream or downstream passage of fish. Steelhead have been isolated from their historical spawning and rearing habitat in Corte Madera and Sausal creeks since the dam was constructed in 1892."

Smith and Harden (2001) note that Searsville Dam "dam blocks steelhead from accessing the watershed's largest tributary (Corte Madera Creek) and a large percentage of spawning and rearing habitat in the watershed. Due to the high quantity and adequate quality of spawning and rearing habitat upstream of the dam, fish passage upstream of Searsville Dam should be investigated. The height of the dam and limited amount of flow makes a fish ladder alternative highly unfeasible" (p.65).

Freyberg and Cohen (2001) add that, "Searsville Dam, of course, is a barrier to steelhead

migration" and "it is likely that some steelhead did use upstream reaches as well. Thus, there is interest in removing Searsville Dam in order to restore steelhead" (Freyberg and Cohen 2001, p. 27).

The occurrence of a long-term and self-sustainable wild rainbow trout population above the dam attests to the adequate spawning and rearing habitat conditions upstream of the dam. In addition, adult steelhead have been observed jumping against the concrete dam in recent times and observed blocked below the dam historically. See the steelhead population section of this report. This direct take of steelhead at the Searsville Diversion Dam must be included in the detailed analysis of the entire Searsville Diversion Dam Facility in the DEIS. The DEIS must analyze, with supporting data, how the Searsville Diversion Dam Facility, Reservoir, and continued operation play a primary role in limiting steelhead migration and survival in the watershed.

2.16
Section 3.2.32

<u>Searsville Dam negatively impacts habitat and migration for Covered Species</u>
The HCP (p.40) states: "Habitat loss and fragmentation are the main threats to western pond turtle", that "development in the riparian zone is a significant problem", that "human-altered landscapes in areas within several hundred yards of a creek occupied by pond turtles will likely adversely affect turtle survival", and that "introduced predators" (including non-native fishes and bullfrogs) "prey on eggs, hatchlings, and juveniles." In addition, the HCP states "Alteration of hydrologic regimes by dams may also threaten western pond turtles (Reese and Welsh 1998)".
The current distribution is identified in the HCP and "from Searsville Dam to the downstream edge of Stanford's boundary." This distribution and above quoted issues with fragmentation and development in the riparian zone suggest that Searsville Dam may be a major factor limiting turtle migration upstream of the dam and past the reservoirs. In addition, western pond turtles identified in the HCP upstream of the dam over the last 20 year, but not observed recently may be fragmented from the population below the dam. In addition, the dam and reservoir submerged and buried historic wetland ponds and habitat and replaced those areas with a "human-altered landscape" and artificial reservoir full of non-native predatory species that prey on western ponds turtles. The remaining, current population of western ponds turtles therefore occurs below Searsville Dam and Reservoir, where non-native species are allowed to proliferate and disperse downstream where they can compete with and prey on listed turtles. The dam and reservoir are also altering habitat conditions downstream where the turtles occur and where climate projections combined with continued dam operations indicate surface flows and habitat size is expected to decrease. It is apparent that the highly altered dam and reservoir are "main threats" to western pond turtle survival.

2.17
Section 3.2.11

The HCP (p.45) states that "loss of habitat and the subsequent isolation of formerly interacting populations are the most problematic factors on the San Francisco Peninsula." It appears that the Garter Snake may benefit from improved migratory access along the stream as the HCOP identifies it as potential habitat. The HCP and DEIS acknowledge similar threats to red-legged frogs and Searsville Diversion Dam and it's operations are also causing similar negative impacts to red-legged frogs with respect to alteration of habitat, water quality, migration, and spread of non-native predatory species.

2.17 cont'd

The DEIS and HCP acknowledge recent use of habitat upstream of Searsville Dam by several Covered Species and adequate habitat for future occurrence. The dam is a major migration barrier to red-legged frogs, western pond turtles, and garter snakes attempting to migrate upstream and may be a primary factor limiting occurrence upstream in recent years and preventing population expansion. These Covered Species may also be migrating downstream over the dam and can be killed or injured in the fall down the 65-foot concrete block face of the dam along with the native rainbow trout. The HCP and DEIS fail to discuss the impacts of the Searsville Diversion Dam Facility on migration of these Covered Species, adequacy of the screening on the Searsville Diversion intake piping, migration over the spillway and down the face of the dam, and migration limitations caused by water quality alterations and non-native predators in the artificial habitat of Searsville Reservoir. The analysis must also include the physical constraints and risks to these Covered Species on being able to migrate over or around the Searsville Diversion Dam, including leaving the aquatic environment and attempted migration upstream around the steep terrestrial environment. 2.17 cont'd

Presentation summaries for the SF Bay Steelhead Symposium (2001), reinforce the biological importance of ensuring adequate migration for steelhead and benefits from removing Searsville Dam. Mr. Dennis McEwan, from the California Department of Fish and Game, states that steelhead "recovery must focus on re-establishing linkages within populations by restoring access to upper watershed reaches." Dr. Jerry Smith, Fisheries Biologist with San Jose State University, states: "Removal of Searsville Dam would create more potential habitat in the upper, reasonably-wet watershed."

The Searsville Diversion Dam Facility and operations alter surface flows

Low and dry flow conditions negatively impact Covered Species

The HCP (p.35) states: "Perhaps the primary limiting factor for steelhead in this portion of their range is the low amount of water present in the system during the annual dry season and during periods of drought" and that during "most year, fairly extensive portions of the system dry out." Low water conditions, and the absence of surface flow, is a limiting factor that is exacerbated by water diversions and withdrawals and migration barriers, such as Searsville Dam, that prevent steelhead from being able to access perennial headwater streams where adequate summer flows occur. Most of the reaches that dry out in the San Francisquito Creek watershed are mainstem reaches downstream of diversions and some isolated reaches of small, ephemeral tributaries to the larger perennial creeks. 2.18 Section 3.2.10

The Searsville Diversion Dam Facility alters stream flow

Stanford consultants Balance Hydrologics (1996) showed (Table B-1) through field studies conducted in 1995 and 1996 that the Searsville Diversion Dam Facility and its associated Reservoir, trapped sediment accumulation, and constructed causeway are impacting surface flows on Corte Madera Creek. The data shows that the sediment accumulation and constructed causeway dam on Corte Madera Creek, which extends 2.19 Section 3.2.32

from the reservoir upstream, has altered surface flows and appears to be causing surface flows on Corte Madera Creek to go subsurface. Sediment aggradation at the creek inlets to reservoirs is known to cause surface flows to go subsurface underneath the reservoir trapped deposits. Table B-1 shows that surface flows were always observed at the two survey locations on Corte Madera Creek upstream of Searsville Reservoir during all times (August, November, December, January), but that no surface flows were recorded for Corte Madera Creek at the reservoir-impacted causeway dam during November and December (no recording for August, but also presumed to have no flows at that drier time). Surface flows upstream of the causeway, where reservoir-induced sediment accumulation also occurs, were also absent on November 29, 1995. On the same day surface flows were reported in Corte Madera Creek at the next upstream and nearby site as well as several miles upstream at the Westridge Bridge. This data clearly shows that perennial flows in Corte Madera Creek disappear in the drier months as the creek encounters sediment deposition caused by the Searsville Diversion Dam and Reservoir. Stanford's HCP does not provide adequate flow data to assess changes caused by the Searsville Diversion Dam and Reservoir to surface flows and impacts to Covered Species. The DEIS does no analysis of impacts from the Searsville Diversion Dam Facility on creek inflows or even the proposed water diversion and downstream flow measures over the Searsville Diversion dam's regulating spillway (which was inappropriately requested to be omitted from analysis).

2.19 cont'd

2.20

Section 3.2.32

<u>Searsville Diversion Dam significantly alters migration conditions downstream</u>

The 2006 Jones and Stokes report cited in the DEIS (4-30) listed the following key finding related to factors limiting steelhead: "Partial barriers to downstream migration also exist and are often exacerbated by low or non-existent flows." The DEIS must assess how the operations and proposed water withdrawals at the Searsville Diversion Dam alter downstream hydrology and impact steelhead migration at downstream anthopogenic barriers and natural "critical riffles". This assessment must consider that downstream flows are reduced in volume and duration due to proposed water diversions lack of adequately determined bypass flows, evaporation from the reservoir, absence of flows after the reservoir drops below the spillway, and lack of releases during reservoir filling with initial rainy season flows. All of these factors reduce adequate flow conditions and duration of flows for inmigrating and outmigrating steelhead to be able to migrate past downstream partial barriers and undefined (in both the HCP and DEIS) critical riffles on San Francisquito Creek.

2.21

Section 3.2.32

<u>Proposed water diversion and downstream release measures stop downstream flows</u>

The DEIS (5-10) and HCP acknowledge that there are "periods where there is no overflow at Searsville Dam." As shown below, stream flows upstream of Searsville Dam and Reservoir persist in Corte Madera Creek during periods where Searsville Dam prevents downstream overflow at the spillway. The DEIS must assess the interruption of surface flows above and below the Searsville Diversion Dam and Reservoir and impacts to Covered Species.

2.22

Section 3.2.32

<u>Stanford's other "water diversions" were required to provide adequate bypass flows</u>

The DEIS states: "With regards to the "Lake" water system, the water diversions at Los Trancos and San Francisquito creeks are already subject to steelhead by-pass flow operations required by the CDFG and NMFS, and the HCP would incorporate these operational protocols." Similarly, for Stanford's third "water diversion" at the "Searsville Diversion", The HCP should have proposed (but did not) and NMFS' DEIS should have required (but did not) steelhead bypass flows as required by CDFG and NMFS at both other water diversions directly impacting listed Critical Habitat and threatened steelhead.

2.23

Section 3.2.18

<u>The Searsville Diversion measure proposed in the HCP is totally inadequate</u>

Despite Stanford requesting that the presence of the Searsville Diversion Dam not be included or analyzed in the HCP and DEIS, the HCP proposes coverage for the water diversion attached to, and reliant upon, the Searsville Diversion Dam. Proposed operational measures for water diversion at Searsville Dam are described in the HCP as follows; "For purposes of this HCP, between October 1 and April 30 of each years, Stanford will not divert water to the standpipe if the surface elevation of Searsville Reservoir drops to more than 1 foot below the spillway." This makes no sense. Firstly, the statement proves the direct relationship and connectivity of the proposed water diversion and the "presence of Searsville Dam". Secondly, this would allow for water diversion down to and below the dam's spillway causing a lack of regulated surface flows to downstream Critical Habitat and listed species. Finally, their is no analysis of this reduction in water on downstream Covered Species or requirements for adequately determined bypass flows for listed species, habitat, and adequate migration. This comes only one year after extensive studies and agreements to adequately modify and provide bypass flows and fish passage at their other two water diversions on Los Trancos and San Francisquito Creeks with NMFS. It is unbelievable and terribly disturbing that after years of negotiations and studies between Stanford and NMFS, that resulted in implementing bypass flows and fish passage improvements at Stanford's other water diversions, and celebrating these accomplishments, that Stanford has proposed and the federal agencies are set to allow the dismissal of ensuring similar actions are taken at Stanford's remaining water diversion facility with even greater negative impacts to steelhead and other Covered Species.

2.24

Section 3.2.23

<u>The HCP incorrectly claims "no affect" from Searsville Diversion on Covered Species</u>

The HCP (p.56) states: "Manipulation of water levels caused by the diversions (at Searsville Diversion Dam) will not affect western pond turtles, red-legged frogs, or garter snakes found downstream of the dam because the diversion amount is small relative to the natural creek flow." The HCP fails to substantiate with quantitative data how this definitive statement of no affect can be made. It is clear that the dam and reservoir alter downstream water quality, quantity, surface flow duration, and other alterations of the downstream hydrology and habitat. There is no analysis of the proposed water diversion and downstream overflows in the HCP or DEIS to adequately determine impacts on downstream habitat, combined with projected climate, on Covered Species.

2.25

Section 3.2.32

<u>The HCP incorrectly states "insubstantial" effect of the Searsville Diversion on steelhead</u>

The HCP (p.56) states: "Potential downstream effects to steelhead due to water diversions could possibly occur during the period when there is water overflowing the

(Searsville) dam. These potential effects, possible fluctuating water levels and flow rates, are insubstantial due to the large amount of water flowing in the creek (mean cfs per month for San Francisquito Creek as measured at the USGS gage located near the intersection of Junipero Serra Boulevard and Alpine Road during the rainy season of December through April ranges from 27cfs to 78 cfs)." This is not even close to an adequate assessment of data or impacts, and does not support a claim of "insubstantial" effects to steelhead. The most significant negative impacts from proposed water diversions and inadequate downstream releases would be during the lower flow periods at the margin of adult and smolt migration, and as the proposed diversion lowers the reservoir elevation below the dam's spillway, extending the duration and amount of low flow water and exacerbating dewater conditions. The DEIS fails to assess these negative impacts of the proposed water diversion and downstream flows directly influenced by the presence and operation of Searsville Dam and its spillway configuration.

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<u>The HCP does acknowledge negative "effects" of the Searsville Diversion</u>
The HCP (p.56) does acknowledge "potential downstream effects" of the Searsville Dam diversion, but then dismisses them as "insubstantial" with no adequate analysis and tries to draw from a totally inadequate comparison of mean and monthly winter flows at a gaging station many miles downstream and after the other two significant tributaries in the watershed have already joined the mainstem of San Francisquito Creek. This information tells us nothing about the Searsville Diversion Dam's impacts on critical and limiting late-spring, summer and fall flows and nothing about impacts to lower Corte Madera Creek immediately downstream of the diversion dam, San Francisquito Creek from below the Corte Madera Creek confluence downstream, water quality, surface flow duration during summer months, low suspended sediment releases from the reservoir, migration at critical riffles, and assessment of impacts to outmigration of smolts (including those from the Bear and Los Trancos Creek tributaries that are impacted by flows and the negative "effects" below Searsville Dam and lower Corte Madera Creek. As described in the DEIS (5-60), the Santa Clara Valley Water District is developing a Three Creeks Habitat Conservation Plan that rightly acknowledges the negative impacts of their dams and reservoirs on steelhead and is proposing to "improve streamflow and stream temperatures below District reservoirs on steelhead and salmon streams." The HCP must provide and the DEIS must require detailed data and analysis to support these unfounded "insubstantial" claims for downstream effects and cite NMFS' own extensive literature on significant downstream effects of diversion dams on steelhead, including NMFS' own assessment of diversion dams for the above discussed SHEP states that "these activities and current diversion affect steelhead" and where they required fish passage and downstream bypass flows.

<u>Flows through cracks and joints in the dam is not a sufficient downstream flow measure</u>
The HCP (p.56) continues to state: "During the period when there is no overflow, the amount of water flowing through the dam is fairly constant and not affected by the amount of water being diverted." This statement of "no affect" is not substantiated with any data or analysis to support it and fails to acknowledge important considerations. Of particular importance with regards to downstream surface flow is how the Searsville Dam diversion impacts the timing and duration of low-flow conditions downstream that limit

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steelhead migration, the timing and duration of no water spilling over the dam downstream, the degree of reservoir surface elevation drop and subsequent early season rainfall and inflow needed to refill the reservoir (and associated lack of downstream flow during that refilling time), and the nature of the "leaks" in the dam and data to show their "fairly consistent" flow. In addition, the "leaks" described in the dam are not an adequate, manageable, or acceptable means of by-pass flows below a dam. The HCP and DEIS must quantify the flow of water "through" the dam and analyze this impact on Covered Species and Critical Habitat downstream. In addition, the HCP does not describe how water flows through the dam, however, as reported in this letter, cracks reportedly caused by earthquakes are known to leak water downstream.

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Observations of the dam and these leaks over the past two decades have shown that they often do not release an unobservable amount of flow and mainly keep some concrete blocks wet and sometimes the downstream scour pool with a shrinking amount of water until next winters flow. As observed many times and again during a tour of Searsville Dam on August 11, 2010, the downstream scour pool had shrunk considerably and there was no surface flow leaving the pool downstream in Corte Madera Creek. The exposed scour pool is becoming eutrophic and non-native fish were observed in the degraded water. On this same day, upstream of the dam and reservoir, Corte Madera Creek was flowing cool and clear with approximately 2 cfs and abundant native rainbow trout observed (pers. obs. Stoecker, Workman, Wegner). Page 57 of the HCP states that "steelhead are present in the pool immediately downstream of the (Searsville) dam...") The lack of by-pass flows and degraded water quality downstream of the dam violates CDFG Code section 5937 requiring dam operators to keep downstream fish in good condition as well as causing direct take of steelhead and other Covered Species and their identified habitat.

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<u>Water rights and Searsville Diversion use are unclear</u>

The HCP and DEIS fail to discuss quantitatively what exactly Stanford's water rights and diversion right are at this diversion facility. One of the most knowledgeable scientists on the operations of Searsville Dam, Stanford Professor, David Freyberg, and the Administrative Director of Stanford's Jasper Ridge Biological Preserve, Philippe Cohen, state: "As noted above, one of the two discharge pipes is connected to the (non-potable) campus irrigation and fire protection distribution system, and for many years Stanford exercised its water right to divert from Corte Madera Creek/San Francisquito Creek at this point. The diversion point was transferred downstream to an infiltration gallery on San Francisquito Creek near the Stanford Golf Course in 1998 because of sedimentation of the inlet valve and the opportunity to divert water of higher quality. Thus, Searsville Lake is now no longer used as a water supply. (p. 3)" Freyberg and Cohen goes on to state that Searsville Reservoir "was operated as a water supply reservoir for irrigation and fire protection until 1998..." (p. 4). "Because the only outflows from Searsville Lake are through flow over the spillway, leakage through and under the dam, evaporation, and perhaps groundwater seepage, the water surface elevation under current operating conditions (no stop logs, no diversions) is relatively stable, varying on the order of 1-2 m (3-7 ft) between peak flood stage and low water at the end of the dry season" (Freyberg and Cohen 2001, p. 31). The above statements from two of Stanford's most involved

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employees with Searsville Dam, describe that the Searsville Diversion was not in use from at least 1998 to 2001 and expectedly longer since the writing of the 2001 report, which does not mention any plans to resume diversions from the dam. The HCP fails to provide clarity about the historic and present use of the diversion and this information is critical to provide and for the DEIS to thoroughly review and assess.

Similarly, their are disparities in water rights information provided in the HCP and from other sources, including Stanford Archival research and publications. California Water Law contains distinct differences between pre and post 1914 water rights, with pre 1914 water rights receiving increased rights or protections in some cases. Stanford's HCP states: "In 1914, Stanford University acquired the dam (Searsville) and water rights from the Spring Valley Water Company" (HCP 3.1.3 Searsville Reservoir p.58). However, the Stanford Historical Society publication by Regnery (1991) states: "In 1919, the Spring Valley Water Company and the Stanford University Board of Trustees agreed to rescind their 1887 agreement and to substitute a new Indenture and Agreement. According to the 1919 agreement, the Spring Valley Water Company released to the Trustees of Stanford University the (Searsville) dam and reservoir and the water rights..." (Regnery 1991 p. 125 from Deeds 104, p. 572). In 1920, Stanford raised the dam by 3.5 feet and this "required that another indenture with the water company be negotiated in 1920 to obtain title to about 134 acres that would be inundated..." (Regnery 1991 p. 125).

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The HCP and DEIS fail to provide clarity about the above statements that Searsville Diversion had ceased for multiple years and water rights were transferred downstream. The HCP and DEIS fail to , and must, provide detailed original documents and detailed about the historic and current data related to the acquisition and use of this water right and diversion facility. The HCP and DEIS must explain disparities in the HCP claim of 1914 water rights and Regnery's citations of 1919 and 1920 water rights, the history and agreement of the stated water right transfer downstream, provide detailed water diversion agreements and records at both described downstream and Searsville Diversion facilities, and correct disparities in the statement within the HCP and DEIS. We understand that extensive, long-term water diversion records for the Searsville Diversion have been kept by Stanford. We request that Stanford provide, and the DEIS analyze in detail, the historic use, current use (if any), and proposed future impacts of diversions, or lack of diversions on habitat and Covered Species. We also request that Stanford provide to NMFS for inclusion in a revised EIS and their records, any records of disuse and duration of the Searsville Diversion and all legal documentation of water rights and permits for the described diversion transfer to the downstream infiltration gallery. We also request that the Agencies obtain and review all information related to any physical or operational modifications or changes that may have been made to the Searsville Diversion Dam Facility since the first federal listing of downstream species and reported disuse of the Searsville Diversion in 1998.These disparities in water rights, water diversion use, potential modifications to resume water diversion, and reported water right transfers must be thoroughly analyzed and determined by experts in the Agencies before any serious assessment or proposals for the Searsville Diversion, Dam, and Reservoir can be made.

<u>DEIS fails to adequately assess and mitigate for Searsville Diversion Dam altered flows</u>

The above information shows that the Searsville Dam is an integral part of the proposed Searsville water diversions and downstream release measures in the HCP and that the dam and larger Searsville Diversion Dam Facility are having a significant negative impact to hydrologic conditions in the watershed. Adequate downstream bypass flows for Covered Species have never been determined or implemented at Searsville Dam and downstream flows are not being regulated to maintain downstream habitat and wildlife in good condition. As the reservoir elevation drops below the spillway there is a cessation of downstream flows for Covered Species. The HCP proposes coverage for water diversion operations that divert water to a foot below the spillway of Searsville Dam considerably reducing the downstream flow duration and amount and causing a lack of downstream flows and often dewatering of Corte Madera Creek. This lack of adequately established bypass flows for listed species violates State DFG law and constitutes take of Covered Species. The DEIS fails to assess these impacts and State and Federal Agencies must require adequately determined bypass flows at the Searsville Diversion Dam. As described in this letter, the proposed dredging operations would also be expected to significantly reduce downstream flows through additional summer drawdown of the reservoir, need for prolonged winter reservoir filling duration, dredging operation water requirements, any proposed (but not described in the HCP and DEIS) sluicing techniques, and general cleaning, road wetting, and other dredging operations requiring water.

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With multiple forms of direct take of steelhead and other Covered Species occurring at the Searsville Diversion Dam Facility (injury, impaired essential behavior patterns, blocked migration, reduced access to spawning locations, reduced spawning gravels downstream of the dam, reduced flows and habitat for rearing, altered migration ability downstream of the dam, altered prey availability and reduced shelter) it is extremely troubling that these impacts are not adequately assessed, mitigated for, or recognized as clearly impacted from Covered, Proposed, and incorrectly omitted actions resulting form the Searsville Diversion Dam Facility and operations. The DEIS must address these unacceptable deficiencies.

The Searsville Diversion Dam alters water quality

The combined presence of the artificial Searsville Reservoir, along with proposed water diversions, lack of adequate bypass flows, and major new dredging operation, have had and would continue to have considerable negative impacts to the water quality of lower Corte Madera Creek and the entire mainstem San Francisquito Creek, Covered Species, listed Critical Habitat, and San Francisco Bay.

<u>Water quality is reduced because of Searsville Reservoir</u>

"Searsville Lake on Jasper Ridge, created by a dam in 1891, was supposed to be a source of water for San Francisco. It didn't work out" (Lund and Gullard 2003).Regnery (1991) describes that when the "Portola (later renamed Searsville) Reservoir water, which had been eagerly expected to supply the University's water needs, finally flowed through the pipe, it was yellow- with a muddy residue -and had an unpleasant odor, due to decaying vegetation. It was generally concluded that the odor was caused by decaying vegetation

in the reservoir." Freyberg and Cohen (2001) state: "Searsville Lake water has never used as a potable supply because of high turbidity and color, combined with an unpleasant smell and taste" (p. 3). Early caretakers of Searsville Dam and Reservoir reportedly did not drink the poor quality water of the reservoir and instead "carried potable water from the spring in a tunnel on the opposite side of the dam" (Regnery 1991 p.120). Natural springs in the vicinity of the dam contained higher quality water than the altered reservoir water. The poor water quality caused by the reservoir was unexpected and resulted in the reservoir not being used for it's intend potable water purpose.

It is critical to note that the construction of Searsville Dam and continued operation today is responsible for the reservoir-caused poor water quality not the creeks feeding it. Upstream nutrients, suspended sediments, and organic material historically were transported and flushed along the creek to the SF Bay during high flows and then flowed clear as spring turned to summer. As shown below, this is the time that the reservoir becomes eutrophic and water quality decreases. Prior to the construction of Searsville Dam upstream creeks near the town of Searsville where advertised as places for people to come and "drink of the crystal water as it gushes from the spring" (Regnery 1991). Another article from the San Mateo Times-Gazette notes of the pre-dam streams: "We are well supplied with pure mountain water conducted in pipes from Alambique Creek, to this place (the town of Searsville)." (Lund and Gullard 2003). The high quality water that drew visitors to the town of Searsville to drink also provided high quality habitat for the natural wetland ponds and fishing. The artificial warm-water habitat caused by the construction of Searsville Dam and Reservoir, to everyone's dismay, caused the stagnation and eutrophic conditions that reduced the water quality in the reservoir, diversion, and downstream that persists today.

Temperature alterations

The 2006 Jones and Stokes report, cited in the DEIS (4-30), listed the following key finding related to factors limiting steelhead in San Francisquito Creek: "Spring and summer stream temperatures in San Francisquito Creek can reach levels high enough to cause egg and fry mortality." Notice that this statement and the report findings do not identify such temperature impairment for the Los Trancos Creek tributary, which was studied in that effort. Searsville Dam impacts downstream water quality to the entire mainstem of San Francisquito Creek. Tributaries upstream of Searsville Dam and Reservoir, such as Bear and Corte Madera Creeks, do not have identified temperature elevations leading to egg and fry mortality.

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The HCP (p.58) states: "The Searsville Dam also creates a warm-water lacustrine environment that was not found in the system historically..." This statement acknowledges the shift from historic cold-water habitat to artificial warm-water habitat and resulting altered water quality both upstream and downstream of the dam where altered reservoir water is conveyed over the dam's spillway downstream. The DEIS fails to analyze this past, present, and future activity within the Cumulative Effects analysis section of the report or acknowledge the connection between proposed Covered Activities in the HCP and alterations to water quality in the creek. .

As Searsville Reservoir has become more filled in with sediment and shallower water quality in the reservoir and water released downstream for Covered Species is being altered. Stanford Freyberg and Cohen correctly notes that "...too much shallow habitat could lead to detrimental temperature elevation and fluctuation, excess emergent and floating vegetation, and excess algal growth" (Freyberg and Cohen 2001, p. 31). The reservoir has become even more filled in a shallower since this 9 year old report and the excess vegetation at the reservoir brings up another critical impact on water quality; eutrophication.

The Searsville Diversion Dam Facility negatively impacts surface water temperature in Corte Madera Creek and Searsville Reservoir and likely downstream. Stanford consultants Balance Hydrologics (1996) showed (Table B-1) through field studies conducted in 1995 and 1996 that water temperatures in Corte Madera Creek, just upstream from its inflow to Searsville Reservoir were consistently colder than the Reservoir itself during surveys conducted on the same day from August 1995 to mid-December 1996. Summer/Fall surface flows during this time were also reduced from upstream on Corte Madera Creek to the reservoir-impacted area at Searsville Reservoir. On August 31, 1995, surface flows and water temperatures of 20.8C were observed on Corte Madera Creek at the "Cooper" location, upstream of the reservoir, and the reservoir recorded a temperature of 23C. On November 29th, 1995 water temperature in Corte Madera Creek at the Cooper site measured 11.3C and Searsville Reservoir measured 14.1C. On December 14th 1995, water temperature in Corte Madera Creek measured 9.5C and Searsville Reservoir measured 14.6C. These measurements show a clear and significant increase in water temperatures from the free-flowing Corte Madera Creek into the Searsville Dam caused Reservoir. While no data was provided for temperature readings downstream of the dam, it is assumed that no water was spilling over the dam or released downstream during the August and November measurements (based on review of USGS flow data and Table B-1) and that the stagnant creek downstream of the dam had elevated temperatures (if water was even present) and was not the cool temperatures recorded for Corte Madera Creek, just upstream.

The DEIS identifies "pool temperature" as one of the "factors affecting steelhead survival" (DEIS 4-30). As described in the DEIS (5-60), the Santa Clara Valley Water District is developing a Three Creeks Habitat Conservation Plan that rightly acknowledges the negative impacts of their dams and reservoirs on steelhead and is proposing to "improve streamflow and stream temperatures below District reservoirs on steelhead and salmon streams." The DEIS must analyze, with supporting data (not provided in the HCP or DEIS), how the Searsville Diversion Dam Facility, Reservoir, and operation impact water temperatures and quality above and below the dam, especially during periods when the dam and diversion operations are not spilling water over the dam. The Searsville Diversion Dam operation have a clear impact on water quality and connectivity from the free-flowing creeks feeding it upstream to the water released or left stagnant downstream of the dam. We want to make clear that we do not accept the notion that somehow adequate downstream bypass flows are not needed once the reservoir drops below the dam's spillway. The reservoir holds water all year long and the physical characteristics of the dam, intake piping, and water diversion operations

result in seasonal cessation of water flowing over the spillway of the dam. Likewise, the described multiple-level reservoir intake piping and downstream blow-off valves and piping suggest that the Searsville Diversion Facility could and should be providing adequate bypass flows downstream already, even after the reservoir surface has dropped below the spillway.

Eutrophication in Searsville Reservoir alters water quality

USGS (2010) includes several descriptions of the term 'eutrophication' or 'eutrophic' on their website, which include; "The process by which a body of water acquires a high concentration of nutrients, especially phosphates and nitrates. These typically promote excessive growth of algae. As the algae die and decompose, high levels of organic matter and the decomposing organisms deplete the water of available oxygen, causing the death of other organisms, such as fish" (Art 1993). "When the effects are undesirable, eutrophication may be considered a form of pollution" (National Academy of Sciences 1969). Eutrophic conditions are "...associated with wide swings in dissolved oxygen concentrations and frequent algal blooms" (Committee on Environment and Natural Resources, 2000).

The United Nations Environment Program website (2010) states the following: "Eutrophication is one of the most widespread environmental problems of inland waters...In shallow lakes and where plant production is high, deoxygenation of the sediment and water occur frequently too. Such conditions kill fish and invertebrates. Moreover, ammonia and hydrogen sulfide originated from bacterial activity can be released from sediments under conditions of anoxia, and their concentrations can rise to levels which adversely affect plants and animals as they act as poisonous gases. Phosphorus and ammonia may also be released into the water, further enriching it with nutrients." In addition, "the low oxygen concentration may degrade water quality downstream of the lake or reservoir, particularly downstream of reservoirs with short retention times... Some particular type of algae, which grow in highly nutrient enriched lakes and reservoirs (blue-green algae or cyanobacteria), release in the water very powerful toxins which are poisonous at very low concentrations. High concentrations of nitrogen in the form of nitrate in water can also cause public health problems." Eutrophication in reservoirs "can block light to submerged plants and produce large quantities of dead organic matter that can lead to low oxygen concentrations and the emission of unpleasant gases such as methane and hydrogen sulfide due to its decomposition or decay. Shifts in the abundance of, and significant reduction in diversity of species (biodiversity) of aquatic organisms within a lake or reservoir may also be caused by eutrophication. This results from the changes in the water and food quality together with decreased oxygen concentration which often alter the composition of the fish fauna from more to less desirable species." The DEIS fails to address teh issue of eutrophication in Searsville Reservoir, impcats to Covered Species, Critical Habitat downstream, water pollution, health risks, and impacts to biodiversity and shifts from native to non-native aquatic species.

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The HCP (p.35) states: "Throughout the system, eutrophic runs and pools are not uncommon by the end of summer. In portions of the creek immediately downstream from

Searsville Dam, the water becomes tainted with a naturally occurring heavy load of decaying plant material, resulting in coffee-colored water by the end of summer." Eutrophic runs and pools are, in fact, uncommon in most of the "system", even during the end of summer. Eutrophic conditions are rare in the tributary streams to San Francisquito Creek (Corte Madera upstream of Searsville Dam, Bear Creek, and Los Trancos Creek). These tributaries maintain cool flows and have well-developed riparian canopies. In several decades of observations in the watershed, I have never observed eutrophic conditions in these tributary streams. However, the remainder of the above quote is accurate about eutrophication in the "system", below the Searsville Diversion Dam, and especially in the Reservoir.

Like most reservoirs that occur in the lower elevations of California and are rich in nutrients, Searsville Reservoir undergoes the process of eutrophication as temperatures elevate. This process is well know to occur in reservoirs and ponds and promotes a proliferation of plant life, such as algae, which reduces the dissolved oxygen content of the water and dramatically alters water quality. This process can lead to dramatically increased water temperatures and reduced water quality. As the quote states, these eutrophic conditions downstream of Searsville Dam, combined with the lack of adequate water releases from the Covered Activities of water diversion and spillway operations, cause downstream water quality to decline. The tainted, coffee-colored water observed below the dam is not "naturally occurring" as stated in the HCP and the "heavy load of decaying plant material" can be partially, if not fully, attributed to the impacts of Searsville Dam and Reservoir. As noted elsewhere in this report, tributary creeks to Searsville Reservoir flow clear into the reservoir when the eutrophic conditions.

<u>The Searsville Diversion Dam Facility alters water turbidity downstream</u>
In discussing the hypothetical and future complete filling of Searsville Reservoir with sediment, Stanford's consultant Balance Hydrologists (1996) states: "The lake (Searsville Reservoir) presently remains turbid often for a week or two after a storm; overflows from the lake keep clouding San Francisquito Creek, which otherwise tends to clear up a few days after a storm. Some benefit to steelhead and other aquatic biota may be expected by reduced turbidity persistence" (p.55). This statement shows the clear negative impacts of the Searsville Diversion Dam Facility on water quality both within the reservoir and released into downstream Critical Habitat where direct take of Covered Species is occurring. This elevated turbidity occurs during periods when Stanford proposes to be diverting water and allowing turbid overflows. This taking of listed species is a combined result of the integral and dependent components of the Searsville Diversion Dam Facility (dam, reservoir, and diversion) and proposed water diversion and downstream release measures, which rely on the presence and operation of Searsville Dam. Increased and prolonged turbidity caused by releases from Searsville Dam are expected to have major limiting effects on steelhead and other Covered Species and constitutes direct take as defined.

The National Marine Fisheries Service (1996) states the following:
"Sigler et al. (1984) reported that chronic turbidity in streams during emergence and rearing of steelhead affects the numbers and quality of fish production. In general, effects of sedimentation on salmonids are well documented and include: clogging and

abrasion of gills and other respiratory surfaces; adhering to the chorion of eggs; providing conditions conducive to entry and persistence of disease-related organisms; inducing behavioral modifications; entombing different life stages; altering water chemistry by the absorption of chemicals; affecting useable habitat by scouring and filling of pools and riffles and changing bedload composition; reducing photosynthetic growth and primary production; and affecting intergravel permeability and dissolved oxygen levels (Koski and Walter 1978) (Appendix A). Increased turbidity decreases photosynthesis of aquatic plants and can clog the respiratory surfaces and feeding mechanisms of aquatic animals. Turbidity results when fine silt, part of the overall sediment transport, remains suspended for long periods of time. Turbidity causes light to be scattered and absorbed, reducing light penetration and thus diminishing or even eliminating aquatic plant growth. Loss of aquatic plants leads to the loss of associated snails and aquatic invertebrates and serve as a food source for young fish. Turbidity generally reduces feeding by fish even if there is an abundance of prey (Noggle 1978). Some salmonid species have complex reproductive and social behaviors that depend on visual signals which may be obscured in turbid waters (Berg and Northcote 1985)."

The DEIS fails to assess the past, present, and future impacts of the Searsville Diversion Dam caused turbidity released downstream by the presence of Searsville Diversion Dam and HCP-covered spillway operation on Covered Species and habitat quality. The DEIS also fails to include adequate analysis of turbidity impacts caused by the proposed dredging operation.

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<u>Proposed operation and maintenance of the water diversion alters water quality</u>
The HCP (56) states: "Flushing the pipes/valves at the base of the dam could have short-term effects on downstream water quality, which could adversely affect any steelhead or red-legged frogs that are located immediately adjacent to the pipe downstream of the dam." The HCP (p.94) states: "Prior to flushing of Searsville Diversion pipes/valves, the Conservation Manager will conduct a visual survey immediately adjacent to the pipe downstream of the dam and relocate any Covered Species that could be affected by the flushing activity." This flushing activity is not adequately described to understand quantitatively assess impacts to Covered Species. These water quality impacts would extend downstream further than "immediately adjacent to the pipe" and this impact must be quantified. Proposed flushing schedules, operational limitations, amount and duration of flushing water and suspended sediment, and exact location of flushing fall-out must be identified and assessed. In addition, a visual survey of the creek reach prior to flushing will not be able to identify many of the Covered Species, especially egg, larval, and juvenile phases. The HCP and DEIS fail to provide essential data and describe surveying methodologies to be used to effectively identify Covered Species or to adequately minimize and assess impacts to Covered Species.

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<u>Proposed dredging of Searsville Reservoir would alter water quality</u>
The HCP (p.61) states: "Transporting the dredging equipment and offloading it into the reservoir could harm or kill red-legged frogs, western pond turtles or garter snakes, or displace them from the area. Turbidity resulting from the dredging could affect egg masses, and release of hydrogen sulfide could reduce oxygen levels in the reservoir

affecting frog tadpoles and metamorphosis." The DEIS fails to quantify the impact of dredging on water quality alterations in Searville Reservoir and downstream. In addition to the potential deadly water quality alteration noted above, dramatically increased turbidity would release increased nutrients and increase eutrophic conditions. Elevated water temperature, increased evaporation, further reductions in dissolved oxygen, and other negative impacts to water quality and quantity are expected to result. While dredging operations are said to occur during times when no water is spilling over the dam, these operations dramatically alter the quality of water within the reservoir and water that spills over the reservoir when the reservoir spills again in the Fall or Winter. Alterations to the water that leaks through the dam is also not assessed in the HCP or DEIS.

<u>The proposed HCP would negatively impact water quality</u>
The proposed action of the HCP is said to provide benefits related to "biological resources, and water quality" (DEIS 1-5). By not adequately addressing the impacts of the Searsville Diversion Dam, Reservoir, proposed dredging, water diversion, and spillway operations, the DEIS fails to acknowledge the past, present, and future negative impacts to water quality and thus biological resources. There is no analysis or discussion on the impacts the reservoir has on downstream flows, water temperatures, dissolved oxygen, pH, nutrient loading, and other critical water quality parameters. The shrinking reservoir and proposed dredging actions are expected to increase nutrient dispersal in the reservoir, which will impact algal growth, eutrophication effects, and water quality released downstream.

The DEIS fails to assess the impacts of the Searsville Diversion Dam Facility on altering water quality to downstream Critical Habitat and Covered Species. The Searsville Diversion Dam Facility alters water quality due to temperature elevation in the reservoir, reservoir induced-eutrophic algae blooms and altered water chemistry, reductions in downstream Spring, Summer, and Fall flows caused by the proposed spillway operation of the dam, water diversion, and lack of adequate bypass flows measures which alter water quality, dam-caused operations of the spillway releases of altered and warmer Summer surface water from the reservoir downstream, and reservoir-impacted transport of decaying plant material and fine sediments downstream. The DEIS fails to provide quantitative data or assess these water quality alterations caused both directly and indirectly by the Searsville Diversion Dam Facility both downstream and in the reservoir. By omitting the presence of Searsville Diversion Dam, the HCP and DEIS also fail to acknowledge the direct association between the physical characteristics of the dam and spillway and Covered operations that determine downstream releases of altered water quality. The operations of the proposed reservoir dredging are also not assessed for the resulting high level of water quality alteration both in the reservoir and downstream.

The Searsville Diversion Dam Facility negatively impacts habitat conditions

For the many reasons outlined below, the Searsville Diversion Dam Facility has significantly altered habitat conditions along the entire length of San Francisquito Creek and lower Corte Madera Creek for almost 120 years. The proposed HCP would continue

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and likely escalate these negative impacts in the face of proposed dredging operations and projected climate change impacts downstream of the dam. The HCP fails to adequately mitigate and the DEIS fails to adequately assess or require effective mitigation of these impacts. In addition to assessing current conditions in detail, the DEIS must also assess past and future effects within the required Cumulative Effects analysis. 2.37 cont'd

Searsville Dam has dramatically altered sediment and wood transport downstream
Sediments of various sizes (boulders, cobbles, gravels, sand, silt, clay) and woody debris have critical historic and current roles in providing high quality habitat downstream of Searsville Diversion Dam. The Diversion Dam, resulting reservoir, water diversion operations, and ineffective downstream water release operations continue to prevent many of these beneficial materials from transporting below the dam. This has resulted in major historic and continuing negative impacts to downstream habitat. These impacts are not discussed in sufficient detail or adequately assessed in the HCP and DEIS.

The 2006 Jones and Stokes report cited in the DEIS (4-30) listed the following key finding related to factors limiting steelhead: "The lack of key habitat features such as boulder and cobble aggregations, large woody debris jams, root wads, and backwater habitat limit both winter and summer rearing habitat, with winter productivity more impaired than summer." Searsville Dam traps all boulders and cobbles, as well as large woody debris, and has dramatically reduced input of these key habitat features downstream in Corte Madera Creek and the entire length of San Francisquito Creek for over a century and continues to do so today. In addition, riparian vegetation, root wads, and occurrence of backwater habitats are all impacted by the presence of the dam and reservoir and altered sediment transport and hydrology. The DEIS must analyze these impacts using the abundant, even NOAA authored, scientific literature related to such impacts. These impacts have had and continue to have an enormous impact on stream habitat conditions for the entire length of San Francisquito Creek and listed steelhead, red-legged frog, and pond turtle. It should also be noted that large woody debris, boulders, cobbles, root wads, and backwater channels are all present with rainbow trout populations. 2.38 Section 3.2.32

The 2006 Jones and Stokes report cited in the DEIS (4-30) listed the following key finding related to factors limiting steelhead: "The loss of complex pool habitat used by over-wintering and over-summering juvenile steelhead is primarily the result of low recruitment of boulder and woody debris, the building blocks of complex habitat, from the upper watershed." This statement is exactly correct and the boulders and woody debris from the largest tributary of the "upper watershed" have been trapped in Searsville reservoir for almost 120 years, unable to contribute to the identified reaches in Critical Habitat for steelhead. These impacts effect other Covered Species and riparian and aquatic habitat quality for lower Corte Madera and the entire length San Francisquito Creek. These impacts are also felt at the mouth of the creek and wetland habitats of the SF Bay. The DEIS fails to state that one of, if not the, primary reasons for this low recruitment is due to the fact that Searsville Dam and Reservoir have trapped all boulders (and cobbles and gravels), and most large woody debris, coming from the watershed's largest tributary (Corte Madera Creek), or assess these long-term impacts. 2.39 Section 3.2.32

The DEIS (5-75) states: "Reduced winter streamflows would likely have the greatest impact on San Francisquito Creek as the limiting factor for steelhead productivity is overwintering habitat (Jones and Stokes 2006). Reduced winter flow means less recruitment of the boulders and large woody debris that create complex overwintering habitat. In addition, lower flows means less scouring action and lower rates of fine sediment removal from the creek pools. Lowering recruitment of materials and less scouring action result in less overwintering habitat."

The over-century-old presence of Searsville Dam has likely been, and continues to be, the single greatest limiting factor to boulder and large woody debris recruitment to Critical Habitat on lower Corte Madera Creek and the entire mainstem of San Francisquito Creek. Continued operation of the dam and reservoir as proposed in the HCP ensure that this major limiting factor to steelhead and other Covered Species and their habitat continues. The DEIS fails to analyze reductions in boulders and large woody debris and the negative impacts to downstream habitat and Covered Species in relation to Searsville Diversion Dam operations and climate change forecasts, quantitatively describe their impacts, and ensure their impacts are mitigated. Adding to our serious concern about the analytical rigor of the DEIS document are the following two sentences page 5-75; "Steelhead management includes the addition woody debris to San Francisquito Creek, which would improve overwintering conditions. In this way, the effects of global climate change on the Proposed Action would be reduced." The notion that the undescribed addition of woody debris to San Francisquito Creek will somehow reduce the widespread and dramatic effects of climate change predictions to the creek, in a meaningful way, is absurd and not supported with any data. The DEIS must be realistic in these statements and also describe that the missing large woody debris, boulders, and cobbles occur upstream of, and are trapped by, the Searsville Diversion Dam. In addition, the DEIS must acknowledge the fact that abundant and high quality overwintering and oversummering habitat, with native rainbow trout, occurs upstream of the impassable Searsville Dam and it is not the lack of overwintering habitat in the watershed that is the most limiting factor to steelhead, but rather the impassable Searsville Diversion Dam that prevents them from accessing the habitat upstream and being confined to the downstream habitat degraded by the dam.

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Stanford's consultant NHC (2001) states that with hypothetical lowering or filling of Searsville Reservoir, "delivery of large woody debris from upstream of Searsville Lake will commence" and that "addition of large woody debris (LWD) is generally beneficial for steelhead, California red-legged frog, and other species with aquatic life stages..." (p.6). The HCP and DEIS fail to assess the cumulative effects of the large woody debris reductions to Covered Species habitat caused by the Searsville Diversion Dam and Reservoir.

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<u>Searsville Dam and Reservoir prevent spawning gravels from reaching Critical Habitat</u>
In discussing potentially limiting factors to steelhead, the HCP (p.35) lists "the general paucity of suitable spawning sites". The HCP (p.61) states: "Searsville Reservoir is filling with sediments and some areas downstream may be gravel-deficient as a result."

Stanford's consultant Balance Hydrologics noted that bedload sediments from Corte Madera Creek make up 10-20% of the total mass of sediment discharge into the reservoir and that gravels are a portion of the sediment (Freyberg and Cohen 2001, p. 17). These critical spawning gravels are being prevented from transporting downstream where their noted lack of abundance is a key limiting factor for steelhead spawning. The DEIS fails to assess the past, present, and future cumulative effect of this impact on both steelhead and other Covered Species.

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<u>Searsville Diversion Dam operations may be increasing downstream erosion</u>
In discussing the altered sediment transport downstream of Searsville Dam, Freyberg and Cohen state: "The dramatically reduced sediment flux may have contributed to the geomorphic changes in the San Francisquito Creek channel that have been observed in a number of reaches. (Freyberg and Cohen 2001 p.iii)" Freyberg and Cohen goes on to state that significant "bank sloughing" and erosion have occurred and that "such changes are not unexpected after dam construction" (Freyberg and Cohen 2001, p. 25). The dam and reservoir have reduced the transport of courser sediments and spawning gravels downstream and appears to be causing downstream bank erosion as is common with sediment-starved "hungry water" downstream of reservoirs. The impacts of the dam, reservoir, and diversion facility on downstream habitat alterations and potentially increased erosion and bank have not been addressed in the HCP and DEIS. The DEIS must assess this altered sediment flux and impacts to covered species, downstream erosion, and claims in the HCP and DEIS that the HCP could reduce erosion in the creek.

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"No matter whether open water is maintained at Searsville and/or Searsville Dam is altered or removed, the sediment flux into San Francisquito Creek below the dam will increase in the future" (Freyberg and Cohen 2001). The HCP and DEIS fail to assess future projections for sediment transport below the dam as part of the cumulative effects analysis. The HCP and DEIS should include detailed information about the various expected impacts of no action or the proposed dredging on downstream habitat, Covered Species, and community safety. The DEIS fails to address safety issues related to the anticipated alteration of sediment flow downstream of the dam.

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Stanford Freyberg and Cohen state that Searsville Dam traps an estimated 93% of sediment inflow (Freyberg and Cohen 2001, p. iii). The impacts of this finer, 7% of sediment passing over the dam must be discussed and analyzed in the HCP as this is a function of both the reservoir and entire Searsville Diversion Dam facility, including proposed water diversion, downstream releases at Searsville Dam and dredging operation, including the relationship to the dam and spillway configuration. Freyberg acknowledges that "reservoir sediment management alternatives have impacts well beyond the immediate vicinity of Searsville Dam and Lake. (p. iii)" Proposed new and major dredging impacts will, as stated, have major impacts well beyond the dam and must be assessed for the lower watershed, and impacts to Covered Species.

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<u>Searsville Diversion Dam impacts prey for Covered Species</u>
The DEIS identifies the "loss of diversity and abundance of invertebrate prey species" as one of the "factors affecting steelhead survival" (DEIS 4-30). Scientific literature shows

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that dams can reduce invertebrate species richness in streams. Griffith et. al. (2010) state: "Naturally functioning aquatic systems provide many ecological and human benefits. Restoration of these environments has a high potential to improve these ecological and human benefits. Dam removal sets in motion physical and chemical changes above and below the dam site. Many of these changes result in ecological changes. Bottom samples showed significantly lower invertebrate species richness in the pond (reservoir) above the dam than below the dam in Holts Creek. Invertebrate species richness was similar in Holts Creek above and below the mouth of the dam." Following dam removal, "invertebrate richness data suggest we may see an increase in richness above the dam after connectivity is restored." The DEIS must analyze, with supporting data, how the Searsville Diversion Dam Facility, Reservoir, operation, proposed dredging, and water withdrawals and lack of bypass flows impacts prey items for Covered Species.

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Searsville Dam negatively impacts the transport of beneficial sediment downstream

The 2006 Jones and Stokes report cited in the DEIS (4-30) listed the following key finding related to factors limiting steelhead: "Deposition of fine sediment onto cobbles and gravels reduces the quality of over-wintering and over-summering habitat." Stanford's consultant Balance Hydrologics constructed a sediment budget for water year 1998 and found that of the 201,000 metric tons of sediment that entered Searsville Reservoir, "13,300 metric tons [of sediment] passed over the dam and downstream in Corte Madera Creek and San Francisquito Creeks" (Freyberg and Cohen 2001, p. 18). While the larger, and beneficial, boulders, cobbles, and gravels are trapped by the reservoir and dam, the fine, and less beneficial, sediments are still allowed to transport downstream. The HCP and DEIS fail to assess the impacts of the Searsville Diversion Dam and Reservoir to downstream sediment transport. The DEIS must assess how deposits of "fine sediments", including decayed plant material and algae from the reservoir, on cobbles and gravels in San Francisquito Creek is influenced by the altered hydrology, water quality, and duration of summer flows as relates to the altered conditions caused by the Searsville Diversion Dam and Reservoir. The HCP proposes the continuation of Searsville Diversion Dam operations trapping beneficial substrates and woody debris and allowing less beneficial and potentially harmful fine substrates to negatively impact already reduced cobbles and gravels for spawning and rearing.

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The Searsville Diversion Dam Facility promotes the spread of non-native species

"The (Jasper Ridge) Preserve does provide significant conservation benefit to the region, but it is not operated as a refuge for native plants and animals" (HCP p.20).

Non-native species negatively impact Covered Species

The DEIS (4-30) identifies "competition and predation by non-native fish" as one of the "factors affecting steelhead survival". This section needs to include non-native amphibians, such as bullfrogs, and crustaceans, such as crawfish that thrive and breed in the artificial warmwater of Searsville Reservoir. The HCP (p.31) states: "... loss of habitat and the introduction of non-native species that compete with or prey upon both adult and larval red-legged frogs are much more significant to the fate of the red-legged frog." The

HCP goes on to state: " The introduction of non-native species is also to play a role in the spread of disease...", one of which "has been linked to numerous amphibian declines across the world" and is "considered a major threat." Stanford's Freyberg and Cohon (2001) accurately state: "Certainly, there are real benefits to removing habitat supporting non-native species and restoring habitat for native and threatened species" (p. 30). Stanford's HCP proposes no such removal of artificial reservoir habitat supporting non-native species or significant restoration of that habitat to a native state.

Searsville Diversion Dam and Reservoir are the source of non-native species

"Neither Searsville Reservoir or Felt Reservoir provide habitat for native aquatic species of conservation concern due to the presence of bullfrogs and abundance of non-native fishes" (HCP 9.27). Searsville Reservoir's artificial habitat hosts, provides breeding habitat for, and allows for the dispersal of (over the Searsville Diversion Dam's uncontrolled spillway) "a number of non-native species, including non-native fishes, crustaceans, and amphibians. Non-native fishes include, large mouth bass, sunfish species, black crappie, bullhead, mosquitofish, rainwater killifish, golden shiner..." The "non-native fish species are confined to areas in and ... below Searsville Lake, implying that... the Lake is their primary source" (Launer and Spain, 1998) (Freyberg and Cohen 2001, p. 27). These non-native species in the reservoir are not confined and operation and configuration of Searsville Diversion Dam (including covered downstream flow measures) allow for their dispersal downstream to Corte Madera Creek, the entire San Francisquito Creek mainstem, and to all Critical Habitat and Covered Species occuring there. "Searsville Lake provides apparently ideal habitat for the swamp crayfish and appears to be the source for there crayfish in the system. (Freyberg and Cohen 2001, p. 28) "Bullfrogs are abundant in Searsville Lake...(Freyberg and Cohen 2001, p. 28). "Bullfrogs are concentrated within the first 1000 meters downstream from Searsville Dam" (NHC 2001 Appendix C p.2). "Breeding habitat for bullfrogs and Louisiana red-swamp crayfish in Searsville Reservoir" (NHC 2001 p.7). Freyberg and Cohen correctly summarize there thoughts about the non-native species in Searsville Reservoir by stating that several non-native "fish species, both crayfish species, and bullfrogs are known to be detrimental to steelhead and red-legged frogs. Any modification to the Searsville regime must include among its goals the reduction in influence of these non-natives on protected species. (Freyberg and Cohen 2001, p. 28)" Stanford's own consultants stated in 2001 that reducing or elimination the Searsville Reservoir habitat "has a net long term benefit to habitat conditions for both red-legged frogs and steelhead downstream of the dam due to a reduction passage of these predatory species over the dam" (NHC 2001 p. 7). The HCP (p.35) even acknowledges that it is "assumed that Searsville reservoir is the primary source of non-native fishes in the system."

I have personally observed non-native fish species, while observing and conducting snorkeling surveys as far downstream as just upstream of the El Camino Road crossing (pers. obs. Stoecker 1985 to 2008). It is presumed that these non-native fish species migrate or are periodically flushed downstream the entire length of San Francisquito Creek and negatively impact listed species throughout their range on the mainstem.

HCP does not propose adequate mitigation for non-native species

Objective 4.2 of the HCP (p.15) states: "Eliminate or reduce non-native species that are impairing California red-legged frog reproduction or survival." Objective 5.2 and 6.2 state the same objective due to non-native species "impairing" steelhead and western pond turtle. Objective 7.3 also acknowledges that non-native species could impair San Francisco Garter snake. Despite the good intensions of the above statements, the HCP fails to propose, and the DEIS fails to require, an effective non-native eradication plan and by not addressing their primary source of reproduction and dispersal at Searsville Reservoir, other limited efforts will not be successful in eliminating non-native species and their negative effects.

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As part of the Cumulative Effects analysis, the DEIS must analyze and assess the critical role that Searsville Reservoir and the Searsville Diversion Dam's spillway and proposed operation has played as the historic source for exotic fish plantings, continued role as the most expansive artificial habitat that these invasive species are able to survive in, reproduce, and spread to downstream habitats in San Francisquito Creek. As mentioned in the DEIS (1.2 Net Effect) monitoring and collection efforts could help to remove non-native species at specific and piecemeal locations, but provides no details about how this would be successful implemented, anticipated effectiveness, and especially how Searsville Reservoir is the main source of invasive species and how that issue will be addresses by proposed expansion and continuation of the reservoir with dredging. The meagerly described non-native removal efforts would not be effective or sustainable as long as Searsville Reservoir continues to harbor, produce, and allow the spread of non-native species downstream. Each year, as flows spill over the dam, non-native species of fish and bullfrogs will be able to spread downstream and repopulate any reaches were they were removed. The HCP and DEIS must quantify a timely, realistically-funded, and effective plan to eliminate non-native fish species and reduce other non-native species from Stanford lands and eliminate the artificial habitat supporting these harmful non-native species and dramatically altering flow and habitat in the San Francisquito Creek watershed. The HCP and DEIS fail to propose any significant action to limit the occurrence or dispersal of non-native species from Searsville Reservoir and the DEIS fails to analyze and require effective mitigation for this taking of listed species. The DEIS must also describe in detail how the Searsville Diversion Dam configuration and operation, proposed diversion and downstream flow measures, and Reservoir are promoting and dispersing non-native species and quantify these impacts on Covered Species. The DEIS should include requirements for elimination of the artificial habitat supporting non-native species and detailed plans for eradication of the non-native fish species and reduction in other species such as bullfrogs.

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The Searsville Diversion Dam and Reservoir destroyed unique native habitat

Regnery (1991) describes that prior to the construction of Searsville Dam, in the vicinity of the town of Searsville, the "San Andreas Fault Zone bisected the (Lloyd's) farm, and in the midst of the farm was a sag pond, "Lloyd's Pond". As Searsville Dam was being built in 1891, "Spring Valley Water Works employed a crew of men systematically to clear the lake bed expected to be covered by water, to remove plants, trees" and the

historic wetland ponds "known as Lloyd's and Hoopers ponds, were purposely drained by means of a steam pump-engine" (Regnery 1991 p.114). In 1920, Searsville Dam was raised an additional 3.5 feet and this caused the additional flooding of creeks and wetlands. This dam raising required that Stanford raise the elevation of Portola Road and that a "number of acres of willow trees will be removed" and the natural wetland areas across Portola Road "will be flooded by the increased waters" (Regnery 1991 p. 126).

The HCP and DEIS completely fail to discuss the loss of unique habitat that has been buried and submerged by the dam, reservoir, and upstream deposited sediment. As part of the cumulative effects analysis it is critical for the DEIS to identify and quantify the historic and ecologically unique wetlands and riparian habitat that was buried by Searsville Dam and Reservoir. An estimated 2.5 miles of five different streams and riparian forests, as well as multiple wetland ponds were destroyed, submerged, buried, or impacted by the dam and reservoir. The DEIS fails to discuss these impacts on Covered Species and should identify pre-dam and pre-reservoir habitat conditions and assess how removal of Searsville Dam could restore miles of currently buried streams, extensive riparian forests and adjacent wetland habitats, unlike the artificial, warmwater, degraded water quality of the unsustainable Searsville Reservoir. Dam removal could increase the amount of highly productive wetland habitat that these historic riparian zones provide.

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The HCP fails to meet the requirements of Section 10(a)(2)(B)

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The DEIS (2-3) states "Section 10(a)(2)(B), provides that the Services (NMFS, USFWS) shall issue an ITP if the Services find, after opportunity for public comment, that: (Bullet Point 4) the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild;" The overwhelming evidence provided within this letter and referenced documents show that the proposed HCP will likely appreciably reduce the likelihood of the survival and recovery of the species in the wild. The HCP proposes to not open up any additional historic habitat for steelhead, would result in continued and likely exacerbated negative impacts to water quality and quantity downstream of Searsville Dam, would not effectively eliminate or eradicate non-native species or their source in Searsville Reservoir, would continue to deprive and negatively alter Covered Species habitat in Corte Madera and San Francisquito Creek below Searsville Dam, and lead to the compounding of increased water temperatures, reduced flows, and prolonged drying downstream of Searsville Dam caused by impacts from the dam and the projections for climate change. Furthermore, forecasted increases in fires and possible major sediment transport event combined with possible dam failure, over the 50-year life of this HCP, present a serious possibility for extirpation of Covered Species occurring below Searsville Dam. The HCP fails to show adequate protection of Covered Species in light of these escalating negative impacts and safeguards for these devastating possibilities.

In addition, another bullet point in this section is not met; "the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking." As noted the applicant's HCP does not even proposed adequate bypass flows at the

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Searsville Diversion (as was required by NMFS at the other two applicant-owned water diversions), any improvements to degraded water quality spilling over Searsville Dam from the reservoir, eradication of non-native fish species and their artificial habitat, fish passage at the Searsville Diversion (as was required by NMFS at the applicants Los Trancos Diversion Dam), and other meaningful and practicable minimization measures. As such, the Services must decline the proposed HCP as written and require the applicant to address and fix the numerous forms of take identified either through the HCP process or independent of the HCP process.

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Proposed dredging would have significant negative impacts to Covered Species

Dredging operation specifics are not adequately described

The HCP proposes major, new, and possibly sustained dredging of sediments from Searsville Reservoir. This proposal is not regular ongoing operation and maintenance and it's impacts would have major biological, social, safety, and legal impacts not addressed in the HCP or DEIS. The HCP and DEIS are severely lacking in detailed information about the briefly stated and unspecific dredging operation described in the HCP: "During the life of the HCP, Stanford may initiate dredging in order to maintain the year 2000 capacity of the reservoir. The initially preferred method will involve a floating suction dredge with the sediments slurried through a pipeline to agricultural lands downstream for drying and processing. If reservoir bottom conditions prevent suction dredging, a secondary method may involve transporting large equipment on barges to locations in the reservoir. A second barge may be needed to hold the container filled with dredged sediment, and this material would then be transported off-site for disposal. Dredging will be conducted during periods when no water is passing over the dam. Some of the dried sediments may be reused for agricultural purposes on Stanford lands, and the remained would be used elsewhere at Stanford or hauled away to a landfill" (p.58).

The proposed dredging operation is not described in sufficient detail in the HCP or DEIS to know what is being proposed. While the proposed dredging appears to focus on removal of older sediment deposits in the lower part of the reservoir system near the dam and away from established wetland vegetation, Stanford's Freyberg and Cohen state that "it is conceptually possible to achieve zero net sediment accumulation while "fresh" sediment is accumulating in upstream portions of the reservoir and "older" sediment is being removed from portions of the reservoir closer to the dam. Such a pattern is not sustainable over the long term, however, and the depth distribution in particular is unlikely to continue to meet performance criteria" (Freyberg and Cohen 2001, p. 34). The DEIS fail to describe how prolonged and sustained the dredging operation would be.

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Freyberg and Cohen (2001) note that with sediment dredging and disposal from Searsville Reservoir, "impacts of transportation, whether by slurry or truck, are likely to be severe" (p. v). The HCP and DEIS fail to adequate quantify the impacts of proposed dredging and must provide detailed data related to the type of dredging proposed and expected impacts to habitat, water quality, water flows, Covered Species, air quality, traffic, noise, and other issues affecting the local community.

The HCP fails to include data from Stanford's Freyberg and Cohen (2001) that estimates, on average, roughly 30,000 cubic meters of sediment per year (approximately 3270 12 cubic yard truckloads per year) would need to be removed and transported out of the reservoir if there is to be no net accumulation of sediment in the reservoir (Freyberg and Cohen 2001, p. 35). The HCP and DEIS fail to quantify the exact type of sediment dredging operations proposed, amount of material to be removed, annual dredging details, location of dewatering and storage, transportation details, detailed long-term costs, and impacts to local roads, air quality, traffic, and other environmental safety considerations. These details must be provided and assessed in the DEIS.

With regards to dredging of the reservoir, Stanford's Freyberg and Cohen (2001) estimated that approximately 7.4 acres of land per year would need to be used to dewater and process the average annual amount of sediment inflow to the reservoir. They note that "impacts of transportation, whether by slurry or truck, are likely to be severe" and that "an average annual dredging or 30,000 cubic meters of sediment...yields a rough cost of $180,000/yr - $600,000/yr" (Freyberg and Cohen 2001, p. 50). These estimates do not include additional sediments accumulated between 2000 and the present, increased costs since then, or "the particular challenges of removal from Jasper Ridge Biological Preserve" or processing beyond the preserve as indicated. If Stanford intends to include dredging as part of the HCP discussion or Covered Activities within, the HCP and DEIS must include detailed plans, environmental impacts (including air pollution, noise, traffic impacts, water impacts, equipment details), costs, and acknowledgement that the Searsville Diversion Dam is responsible for, and an integral part of, the activity. 2.52 cont'd

<u>Dredging would have significant negative impacts to Covered Species</u>

The HCP (p.61) states: "Transporting the dredging equipment and offloading it into the reservoir could harm or kill red-legged frogs, western pond turtles or garter snakes, or displace them from the area. Turbidity resulting from the dredging could affect egg masses, and release of hydrogen sulfide could reduce oxygen levels in the reservoir affecting frog tadpoles and metamorphosis. Suction in the shallow water along the edges could dislodge or suffocate egg masses, suffocate frog tadpoles, and displace or harm red-legged frogs, pond turtles, or garter snakes." Increased turbidity could lead to increased release of nutrients into the reservoir and resulting increases in water temperatures and eutrophic conditions. These conditions can impact downstream water availability, quality, and duration of flows. Dredging would also draw down the reservoir during summer months and require additional inflows to fill the reservoir back up to the point where it is spilling over the dam and providing flows downstream, thus reducing the amount and duration of flows downstream and limiting the effectiveness of early season adult steelhead migration and prolonged low water conditions and surface flow drying downstream in late fall. The DEIS fails to acknowledge negative impacts from dredging downstream of Searsville Reservoir and on Covered Species including steelhead, which are not discussed as being impacted. 2.53 Section 3.2.35 2.54 Section 3.2.35

Freyberg and Cohen (2001) state that "any scheme for maintaining some open water surface at Searsville Lake will require attention to its impacts on species of special

concern, most especially the federally-listed steelhead rainbow trout and California red-legged frogs. (p. v)" The HCP and DEIS fail to provide detailed data and analysis related to proposed dredging operations and impacts to these and other Covered Species, downstream habitat, and habitat upstream of the dam. The HCP and DEIS seemingly discount negative impacts of the dredging on steelhead or downstream habitat and flows despite this statement above. Freyberg and Cohen (2001) states: "Therefore, any actions at Searsville Lake altering the delineated habitat are regulated under the Clean Water Act, Section 404(a)... (p. v)" The DEIS fail to adequately discuss requirements of the Clean Water Act, Army Corps, and other potential permitting requirements related to this new dredging operation, and must clarify this relationship and requirements. We believe that this new and massive dredging proposal would require Stanford to apply for an Army Corps permit, among others, and completely separate permitting process with multiple federal, state, and local agencies involved.

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<u>Proposed dredging operations in Searsville Reservoir will alter downstream flows</u>
As described and cited elsewhere in this report, the surface elevation of Searsville Reservoir typically drops below the dam spillway by a couple of meters over the course of the summer as claimed water withdrawals, evaporation, and other factors associated with the Searsville Diversion Dam Facility, as well as natural factors, reduces capacity. The proposed dredging operation would have major impacts to downstream surface flow which are not quantified or discussed at all in the HCP or DEIS. Dredging operations would result in the removal of sediment from Searsville Reservoir and this would expectedly result in the reduction of the reservoirs water level at the same time and increased water storage capacity of the reservoir. This action directly alters the sediment and water association with Searsville Diversion Dam. This connection again requires that the dam be adequately assessed as part of the dredging proposal as the dredging alterations to the reservoir will impact the hydraulic and sediment impacts on the dam and resulting structural considerations. The other direct impact of dredging is the fact that dredging is expected to reduce downstream surface flows in Critical Habitat. The dredging operation's reduction in reservoir sediment, lowering of the reservoir's water elevation, and increased capacity of the reservoir will require additional creek inflow and time to fill the reservoir back up to the dam's spillway and allow downstream surface flows to resume with the onset of winter rains. This would result in prolonged duration of no flows spilling over the dam and a later start to surface flows each year that dredging occurred. This impact is expected to prolong downstream low water and drying conditions, water quality, and habitat conditions in Critical Habitat and reduce steelhead migration opportunities downstream during the early rain and flow events of the winter. Because the HCP does not commit to a specific type of dredging machinery or quantify this activity in a meaningful way, it is impossible to assess other factors associated with the operation and impacts. However, certain types of dredging operations, and maintenance of this type of machinery and associated transportation equipment (cleaning, slurring, water trucks for road traffic, etc.), usually require considerable water use. The HCP and DEIS fail to assess the impacts of proposed dredging on water quality upstream and downstream of the dam, surface flows downstream of the dam, or additional water use requirements of the dredging operation. A detailed description and quantifiable

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analysis of the proposed dredging operation and impacts to Covered Species, along with detailed cost estimates for the life of the HCP, must be included in the DEIS. 2.56 cont'd

In discussing options for maintaining open water at Searsville Reservoir, Freyberg and Cohen (2001) had the following statement that shows the clear connection between the dam, reservoir, sediment management, and impacts to regional communities and ecosystems. "The final complexity arises from the fact that most, if not all, reservoir sediment management alternatives have impacts well beyond the immediate vicinity of the Searsville Dam and Lake" (Freyberg and Cohen 2001, p. 34). The proposed dredging plan in the HCP is a "sediment management alternative", as described by Freyberg and Cohen (2001), and correctly noted above, to "have impacts well beyond the immediate vicinity of Searsville Dam and Lake". The HCP and DEIS fail to define and thoroughly assess the impacts of the proposed dredging on Covered Species upstream and downstream of Searsville Diversion Dam or require adequate mitigation for this impact.

Searsville Diversion Dam Facility exacerbates projected climate change conditions 2.57

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As noted in the DEIS (5-74 to 5-75), climate change is expected to increase temperatures, prolong droughts, reduced total rainfall, reduced stream flow, and increase the risk of fire. The DEIS also states that lower spring and summer creek flows would reduce the number of smolts able to leave a watershed, particularly in arid systems that dry back in most water years. These affects appear to be happening now and are expected to be well underway over the course of this 50-year proposed HCP. San Francisquito Creek mainstem dries up in the lower reaches during summer months and its hydrology is altered by multiple surface water diversions and groundwater well withdrawals. The DEIS states that the "San Francisquito Creek watershed would likely experience the increased temperatures, particularly in summer, and generally reduced streamflows..." The proposed HCP does not adequately address or mitigate for these projected impacts related to climate change on the stream environment or survival of Covered Species. The most effective action that scientists are recommending to safeguard highly migratory species, such as steelhead, in the face of climate change, is to provide unimpeded migratory access within their range. This means providing access to blocked habitat in their watershed to the cool, perennial flows generally associated with headwater streams. The best strategy for protecting migratory fish like steelhead from projected increases in fires from climate change, and resulting erosion, is also to ensure unimpeded migration within the watershed so aquatic species can avoid fire impacted stream reaches and seek protection in reaches less impacted by fires. For example, if much of the Bear Creek tributary burned and major erosion resulted, the best protection for steelhead in this tributary is to be able to migrate downstream and up a different tributary that did not burn and thus avoid those impacts.

The proposed HCP does not include any new access to perennial headwater streams blocked by migration barriers, and in fact, proposes a reduction in steelhead habitat, reduced flows below Searsville Dam with no established bypass flows, negatively impacted water quality below Searsville Dam and Reservoir, and periodic dewatering of

creek reaches for Covered Activities. The DEIS fails to analyze the severe implications of continued operation of Searsville Dam in light of climate change predication over the course of the proposed 50 year HCP. As noted already, the impassable dam prevents steelhead from accessing the largest tributary in the watershed where numerous perennial streams flow cool all summer long under coniferous forests in largely protected open space preserves. These perennial reaches provide the best hope for sustaining aquatic species in the face of climate change. Downstream, in currently occupied Critical Habitat, the Searsville Diversion Dam and Reservoir will continue to heat up stream flows in the reservoir and reduce downstream flows with expected temperature increases, reduced year-round flows and prolonged low water and dewatering. The cumulative impact of the Searsville Diversion Dam Facility, proposed dredging, water diversion, and lack of adequate bypass flows are expected to decrease water quality and quantity on lower Corte Madera Creek and the entire length of San Francisquito Creek downstream. Evaporation of critical flows will continue in the reservoir, and possibly increase at the reservoir with increased temperatures, eutrophic conditions, altered water chemistry, continued reduction in habitat complexity, and prolonged drought. Cumulative effects of the dam and reservoir would be expected to further decrease downstream surface flows, reduce duration of mainstem migration opportunities to and from the Bay, and potentially enhance stream conditions for non-native species proliferation and eutrophication. The combined impact is expected to have major negative impacts to Covered Species and compromise long-term survival. The DEIS fails to adequately discuss or assess many of these critical issues. In the face of climate change predictions, the proposed HCP would likely result in the further reduction of available wetted habitat, further increases in water temperature downstream of the dam, further reductions in habitat quality, further reductions surface flows, continued reductions in habitat complexity, sediment, and woody debris recruitment, and likely improved conditions for non-native warm-water adapted predatory species. For these reasons, we believe that the HCP is biologically inadequate to address climate change and long-term Covered Species protection and persistence and the DEIS fails to recognize and adequately assess the severity of the combined negative impacts stemming from the Covered Activities and proposed operation of the Searsville Diversion Dam Facility.

The Searsville Diversion Dam Facility is a significant safety liability

While the DEIS states that the "primary geologic hazards within the study area include the potential for earthquake induced ground shaking" and "dam failure" the DEIS then fails to conduct an even cursory analysis of this identified "primary hazard" (4.1.1.1). The USGS (2007) states: "Dam Failure- Earthquake shaking can cause dams to fail, potentially causing catastrophic downstream flooding and reduced water supplies." A picture in the document shows an unnamed local dam with the caption, "Cracks in the top of this dam were caused by the 1989 magnitude 6.9 Loma Prieta earthquake" (USGS 2007). It is well documented that dams degrade over time. It is not known what the current structural condition of Searsville Dam is because it has been 42 years since the Division of Safety of Dams (DSOD) has inspected the foundation, toe, and groins of the dam (DWR 2007). The DSOD 2007 report for Searsville Dam states: "The plunge pool at

the downstream toe was dewatered in 1968 to evaluate the downstream toe and foundation. It has been approximately 40 years since this inspection was performed and approximately 117 years since the construction of this dam. The dam has aged and undergone few earthquakes since then. In light of above mentioned reasons, it would be prudent to dewater the pool and observe the downstream toe, groins and foundation conditions with field branch personnel and geology branch" (DWR 2007 p.2). Stanford is responsible for coordinating this inspection with DSOD. As the dam and concrete continue to age, and experience additional earthquakes, the structural integrity of the dam will be reduced over time. The active San Andreas Fault run adjacent to Searsville Reservoir, which occurs directly adjacent to the highest "Very Violent" shaking severity level on map Shaking Intensity Figure for the Peninsula-Golden Gate San Andreas Quake Magnitude 7.2. (ABAG 1999).

The DEIS states: "Three major active branches of this fault system (San Andreas Fault Zone), the San Andreas Fault, the Hayward Fault, and the Calaveras Fault, are located close enough to Stanford to produce strong seismic ground motion in the study area" and that "the San Andreas Fault system has been mapped passing through the western-most portion of Jasper Ridge Biological Preserve in the vicinity of Sausal Creek and Searsville Reservoir" (DEIS 4.1.1.2). The USGS (2007) states that "We know large and damaging earthquakes are certain to occur in the future" and that "at least eight faults in the Bay Area are capable of producing earthquakes of magnitude 6.7 or larger. Such quakes can kill and injure many people and cause substantial damage to buildings, roads, bridges, and utilities." USGS (2007) states that there is a "62% probability for one or more magnitude 6.7 or greater earthquakes from 2003 to 2032" in the "San Francisco Bay region". This is less than half way into the proposed duration of the HCP. The USGS states: "Many critical facilities in the Bay Area will likely experience damaging earthquake shaking in the next 30 years" (from 2003 report) and describes how some facilities were "built in the 1950's before the use of modern seismic-safety standards." Searsville Dam is almost 120 years old with no seismic safety upgrades known or described in the HCP. Regnery (1991) accounts that immediately after the 1906 earthquake, the Searsville Dam caretaker examined the dam and "noticed a crack of about a finger's width on the east side" and later the "crack was patched, and it has been watched and repacked, but a small amount of water seeps through it. Others have offered reassurance by saying that it is an "expansion crack" (p. 121). Following the 1906 earthquake, the Searsville Dam caretaker "observed a curious phenomenon for several days: big bubbles of gas-six or eight inches in diameter-came to the surface of the lake; and when they broke, they left traces of oil" (Regnery 1991 p.121). The Division of Safety of Dams also reports that three vertical cracks appear on the face of the Searsville Dam and have been observed since the 1930's (DWR 2007). At least part of the described water leaking "through" Searsville Dam in "joints" appears to be from earthquake-influenced cracking in the dam and connection to bedrock, which were not part of the dam's design. The DEIS must investigate cracking and the overall structural integrity of Searsville Dam now and projected for the next 50 years.

The average lifespan of a dam is reported, by Stanford's own National Performance of Dams Program, to be "40 years" and Searsville Dam is 120 years old (NPDP 2010).

Dams are known to degrade over time. It is not known what the current structural condition of the dam. As the dam and concrete continue to age, experience additional earthquakes, and as the reservoir fills in and transported sediment potentially scours the dam, the structural integrity is expected to be reduced over time. The DEIS fails to discuss and assess the potential safety risks associated with seismically induced failure of the over-century-old Searsville Dam as well as the potential for the Searsville Diversion Dam Facility to elevate the regional earthquake risk of reservoir-induced-seismicity. This public safety issue must be addressed in detail in the DEIS.

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The DEIS fails to adequately assess safety risks with the Searsville Diversion Dam
The DEIS states: "None of the Minimization Measures or monitoring would require earth-moving of the scale that could trigger a geologic hazard or adversely affect soil resources" (DEIS 5-1). "Conservation Program activities would not induce a geologic event or cause slope instability, erosion, or soil failure, and therefore would not have an adverse effect on resources that are vulnerable to geologic or seismic events" (DEIS 5-2). These quotes and others in Section 5.0 of the DEIS contain definitive and speculative statements about serious safety risks and in some cases fail to adequately describe or analyze proposed dredging operations at Searsville Reservoir, reservoir fluctuation impacts on potential reservoir-induced-seismicity, dam failure inundation analysis, earthquake safety of Searsville Dam, and continued operations of the Searsville Diversion Dam Facility for the 50 year life of the proposed HCP. This section must analyze the entire Searsville Diversion Dam Facility, as well as proposed diversion and overflow measures, dredging operations, relation to dam safety, dam failure inundation data and implications, location adjacent to the San Andreas Fault and associated faults (see Map on page 4-66), liquefaction and earthquake-induced landslides noted adjacent to the dam and within the reservoir (see Map on page 4-64), and the historic, current, and future impacts of Searsville Dam and Reservoir on reservoir-induced-seismicity (RIS).

Section 5.0 of the DEIS be rewritten and eliminate such unsupported statements as; "the Proposed Action provides a benefit related to geologic hazards and soils." As noted on page 5-60 of the DEIS, the Santa Clara Valley Water District is preparing a Three Creeks Habitat HCP that acknowledges future "dam safety upgrades" that will be needed at their facilities and this DEIS should also acknowledge that over the next 50 years of the proposed HCP Searsville Dam would likely require major dam safety upgrades. The DEIS should quantify when major dam retrofits, upgrades, failure might be expected and what the estimated costs would be to address such scenarios over the next 50 years.

Personal safety liability
At least two, and possibly more, deaths are known to have occurred from people falling off of Searsville Dam. Regnery (1991) reports that in 1897, "either the force of water or the slippery surface of the concrete caused Duerst to lose his balance and fall about 40 feet, crushing his skull and drowning in the pool below" (p. 118). Again, in 1899, a "15-year-old student from Sacramento slipped on the moist, slick surface (of Searsville Dam) and fell to his death" (Regnery 1991 p.114). This safety liability continues to this day with regular visitors and tours across the dam as well as researchers and maintenance crews regularly crossing and accessing the dam. Trespassers are also known to enter

Jasper Ridge Biological Preserve and climb the face of the dam and cross the crest of the dam. The DEIS fails to address the safety liability of the dam or any current safety measures in lace.

As part of the document's cumulative effect analysis of past, present, and future actions, the DEIS must assess in great detail the safety of Searsville Dam and projected major earthquake risk over the next 50 years, and other risks associated with the dam. This assessment must include the structural condition and design of the dam, comparison of the design to current earthquake standards at dams, associated geology, relation to the adjacent San Andreas Fault, dam failure inundation impacts to downstream communities, dam failure impacts to downstream habitat and Covered Species survival, and historic, current, and future regional earthquake threats from reservoir-induced-seismicity at Searsville Reservoir.

The Searsville Diversion Dam Facility impacts flooding

Upstream flooding risks caused by Searsville Diversion Dam will increase in the future
Stanford's Freyberg and Cohen (2001) note that "aggradation of sediment" in the reservoir, caused by Searsville Dam, is "exacerbating flooding for about 20 residences along Family Farm Road" (p. iv). "Field observations, in addition to the bathymetric data for 1996-2000 make it clear that substantial sediment has accumulated and is continuing to accumulate above the crest elevation [of the dam] in the delta areas" (Freyberg and Cohen 2001, p. 17). Freyberg and Cohen describe the construction of a causeway in 1929, "which was essentially a small, non-engineered dam constructed across the upstream portion of the reservoir in an attempt to localize sedimentation upstream of it" (Freyberg and Cohen 2001, p. 21). In discussing the mitigation measures already completed to minimize flood damage on Family Farm Road, Freyberg and Cohen state that, "these measures provide relatively short-term flood damage mitigation in the face of continuing aggradation on Corte Madera Creek alluvial fan and floodplain." Moffatt and Nichol Engineers (2003) state: "Flooding in the vicinity of Family Farm Road has become more problematic in recent years. Sediment deposition and floodplain aggradation on the Corte Madera alluvial fan, alluvial plain, and Searsville Lake delta has increased the flood risk to adjacent properties. The floodplain aggradation will continue, further aggravating the degree of flood risk." Freyberg and Cohen (2001) acknowledge that one option for "[L]ong-term mitigation of this problem could require.... removing Searsville Dam. (p.iv)" Freyberg and Cohen go on to identify "removing the reservoir by removing the dam" as one possible "long-term damage mitigation" option. "Upstream of the reservoir, there needs to be a careful analysis of how flooding along Family Farm Road will be affected with or without dam lowering" (Freyberg and Cohen 2001, p. 50).

The HCP and DEIS fail to provide the above and additional detailed information or assessment about the extent of this sediment accumulation above the dam crest, rate and upstream expansion of accumulation, expected future upstream impacts on flooding and habitat, impacts of the constructed causeway, quantify pre-dam conditions, identify current and future flooding hazards caused by the dam, describe recent measures taken to

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reduce flooding upstream, quantify how this safety issue will evolve over the course of the next 50 years of this permit, measures already taken to reduce the flooding and safety issues caused by the dam and reservoir, already implemented project effectiveness, and detailed plans to mitigate this risk to upstream residents. This analysis must also include an analysis of all cumulative effects related to the past, present, and future proposed actions related to flooding and their impacts to Covered Species and habitat upstream and downstream of the dam. The HCP and DEIS also fail to assess the above cited findings that dam removal may be the most effective long-term solution to this and other mentioned safety hazards. Along with all of the biological benefits, analysis of the noted long-term dam removal solution to upstream flooding must be assessed as a viable alternative to increase public safety and ensure Covered Species survival in the face of climate change predictions to downstream habitat availability, water quality, and surface flows.

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Searsville Dam presents a dam failure inundation risk downstream

Please see additional discussion above in the earthquake and safety risk comment section. The Stanford University Medical Center (SUMC) Facilities Renewal and Replacement Draft EIR (SUMC 2010) states that: "The SUMC Sites are in a dam inundation zone from failure of the Searsville Dam. Searsville Reservoir is the major reservoir in the San Francisquito Creek watershed. Searsville Reservoir does not provide protection from flooding because it does not have an outlet works and cannot be operated as a flood control facility. Storm water runoff can only drain out of the reservoir by flowing over the spillway at the crest of the dam. Since the reservoir level cannot be lowered, it does not provide any flood storage or attenuation once it is filled by seasonal rains." The DEIS should assess in detail what dam failure would entail for downstream communities in terms of inundation, but also in terms of projected mass sediment flushing from the reservoir, potential for mass sediment release to cause the creek to jump it's bank during a high flow event, expected threat to human life, and impacts to Covered Species, Critical Habitat, and potential elimination of downstream wildlife populations.

While the Searsville Diversion Dam Facility exacerbates flooding upstream and represents a catastrophic safety hazard downstream, the facility itself was never built nor operated to provide any flood protection benefits downstream. Stanford's Freyberg and Cohen describe it this way; "Because of its ungated overflow spillway and lack of lower-level outlets into Corte Madera Creek, Searsville Dam provides almost no flood water storage or peak flow reduction downstream" (Freyberg and Cohen 2001 p. iii). A well designed dam removal and sediment management plan could have significant benefits to downstream flood protection, would eliminate upstream flooding issues related to the dam, and eliminate dam failure and other safety hazards associated with the dam. The DEIS must consider and assess the flooding implications of continued operation of the Searsville Diversion Dam Facility, potential scenarios over the next 50 years, and impacts to public safety and Covered Species protection.

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Other social and environmental impacts of the Searsville Diversion Dam Facility

The DEIS (5-16) fails to include and adequately analyze air quality, noise, traffic, and waste (sediment) impacts from the proposed dredging operation for Searsville Reservoir and briefly described potential proposal along Corte Madera Creek to make major channel alterations upstream of the reservoir. Dredging equipment, heavy equipment, sediment transport, truck loads on public roads, resulting air quality and noise impacts are not sufficiently described and must be assessed for the 50 years of this proposal. The channel grading and modification options mentioned should be clarified and explained in detail with concurrent assessment in the DEIS of impacts to Covered Species and habitat, as well as required permitting for such work. The DEIS should also quantify and analyze the long-term costs and above-mentioned impacts of expected Searsville Diversion Dam Facility maintenance, repairs, dredging, channel alteration, possible seismic upgrades, environmental upgrades, and retrofitting expected to occur over the next 50 years of this proposed HCP.

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Environmental Justice

The DEIS (5-59) does not address the issue of environmental justice as related to the Searsville Diversion Dam Facility. As shown above, the proposed HCP includes retention of a nearly 120 year old dam, of undetermined structural integrity, adjacent to an active earthquake fault, with considerable safety hazard risk. The ABAG (2010) Dam Failure Inundation Map shows that dam failure at Searsville Dam would devastate the lower reaches of the San Francisquito Creek watershed and notably the lowest reaches; including Menlo Park, Palo Alto, and East Palo Alto. The DEIS should assess the safety and risk factors in relation to Searsville Dam with a minimum 50 year projection as it relates to environmental justice issues in all downstream areas and communities.

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Collaboration is needed to address the Searsville Diversion Dam Facility

The HCP and DEIS fail to adequately commit Stanford University coordination with San Francisquito Creek watershed flood protection and restoration efforts outside of the Stanford Campus. Stanford's Freyberg and Cohen end there Executive Summary for the report *Maintaining Open Water at Searsville Lake* by stating, "it is clear that any scheme for the sustainable maintenance of open water at Searsville must be integrated into the overall management plan for the flood-damage mitigation and habitat maintenance and restoration in San Francisquito Creek" (Freyberg and Cohen 2001 p. vi). "The challenge of sustainably maintaining open water surface at Searsville Lake must be considered within the larger context of management issues confronting Stanford University and the communities of the San Francisquito Creek watershed" (Freyberg and Cohen 2001, p. 23).

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Despite the attention drawn, and requests made, in letters during the HCP scoping process, almost 4 years ago (excerpts below and full letters included in the DEIS Appendix A), the NMFS and USFWS fail in the DEIS to adequately address direct, indirect, and cumulative impacts caused by the Searsville Diversion Dam and Reservoir and have failed to require actions to minimize or mitigate these impacts, including requiring adequate bypass flows and fish passage. It is extremely troubling that the two

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federal agencies that wrote this DEIS have ignored these requests and even such basic duties as including an analysis of Searsville Dam as a "past" action under the required Cumulative Effects analysis in a DEIS. The level of analytical rigor put into researching, collecting data, analyzing, and crafting effective mitigation for this HCP is severely lacking. During the four years that went by since these letters below were written, NMFS could have been working with Stanford to conduct the necessary studies to determine adequate bypass flows, fish passage alternatives, and ways to reduce the other negative impacts caused by the Searsville Diversion Dam (as was done in preparation of and for the implementation of modifications to the Los Trancos Diversion Dam and successful SHEP program). Local, regional, state, and national groups are looking to the NMFS and USFWS to show leadership in proactively protecting and restoring our endangered species and working collaboratively with all relevant stakeholders to address complex issue that in the end impact us all and find solutions that we believe will be in our mutual best interest.

Letter from Trish Mulvey, San Francisquito Watershed Council, to NOAA and USFWS, dated October 9, 2006 states: "Searsville Dam and Reservoir should be included as essential habitat conservation elements that are covered in the Stanford HCP- including assessment of removal of the dam."

Letter from Matt Stoecker, Biological Consultant and San Francisquito Watershed Council's Steelhead Task Force founder, to NOAA and USFWS, dated October 4, 2006 states: "To be effective, the HCP must address this facility (Searsville Dam and Reservoir) and its impacts on the San Francisquito Creek watershed and ecosystem." "The HCP should outline a specific plan and timeline for Stanford to work with interested watershed stakeholders to: a) compile baseline dam and reservoir conditions, b) develop and analyze Searsville dam removal alternatives, and c) develop and implement a final design plan that will protect native species, improve habitat conditions, and provide effective, unassisted steelhead passage to and from upstream habitat."

Letter from Steve Rothert, California Director for American Rivers, to NOAA and USFWS, dated October 31, 2006 states: "Searsville Dam and Reservoir is listed as one of facilities associated with Stanford University's operations. As such, the environmental analysis conducted under NEPA in preparation of an HCP must identify the direct, indirect, and cumulative impacts of this facility on listed species." (Please see the rest of this letter for additional ESA requirements and requests relating to analysis of bypass flows, dam modifications, fish passage, and dam removal)

Removal of Searsville Diversion Dam can provide enormous benefits

Searsville Dam and Reservoir have significant negative impacts

As noted earlier, Stanford's consultants (NHC 2001) report the drastic effects of dams on Critical Habitat and Covered Species to include; interrupting "the longitudinal continuity of habitat and migration paths for organisms, and alter the flux of water, sediment, organic debris, and nutrients in rivers, in many cases changing seasonal and long-term

flow patterns", in addition to, creating "major discontinuities in fish migration paths, which fish ladders can at best only partially rectify (because even if adult passage is possible, juveniles may be unable to safely pass downstream). Reservoirs interrupt riparian corridors... Dams also alter nutrient flux through rivers, trapping nutrients and transforming organic material in reservoirs. Probably the best-documented effects, however, are effects of dams on sediment supply and flow regime in downstream reaches" (p.8).

Mr. Dennis McEwan, from the California Department of Fish and Game states: "Ecological restoration should improve physical and biological processes, habitat functions, and linkages to allow necessary expression of ecological and evolutionary heritage. Because of their location at the margin of the range, California steelhead have a tremendous resiliency to environmental variation and perturbation. However, this resiliency is absolutely contingent upon them having access to upper reaches and tributaries, and reestablishing access through dam removal or modification..." (SF Bay Steelhead Symposium 2001). Mr. McEwan goes on to states that "recovery must focus on re-establishing linkages within populations by restoring access to upper watershed reaches."

Dr. Jerry Smith, Fisheries Biologist with San Jose State University, states: "Removal of Searsville Dam would create more potential habitat in the upper, reasonably-wet watershed" (SF Bay Steelhead Symposium 2001). Smith and Harden (2001) also recognize the limitations of fish ladder alternatives for Searsville Dam, stating that the "height of the dam and limited amount of flow makes a fish ladder alternative highly unfeasible" (p.65). However, Smith and Harden (2001) state: "Due to the high quantity and adequate quality of spawning and rearing habitat upstream of the dam, fish passage upstream of Searsville Dam should be investigated.

The San Francisquito Watershed Council identified Searsville Dam as blocking the most steelhead habitat of any barrier in the watershed and the Center for Biological Diversity and Center for Ecosystem Management and Restoration has identified the dam as one of the most limiting factors to steelhead in the South San Francisco Bay. The Preserve harbors numerous non-native species that are dependent on the artificial Searsville Reservoir and spread to compete with and prey upon native species. The Preserve has a unique opportunity to promote the preservation of native species and become a model for watershed restoration and good land stewardship.

The removal of Searsville Reservoir would effectively eliminate or reduce the artificial habitat that supports most non-native fish species in the watershed (as well as bullfrog habitat) and would eliminate or dramatically reduce their numbers quickly and effectively. Dam removal should be discussed as an effective means by which to eliminate most of these non-native species and significantly reduce others. Dam removal has the potential to turn the unsustainable, artificial, reservoir habitat into restored stream habitat, riparian forest habitat, wetland habitat, and upland habitat.

Freyberg and Cohen (2001) acknowledge that one option for "[L]ong-term mitigation of this problem could require.... removing Searsville Dam. (p.iv)" Freyberg and Cohen go on to identify "removing the reservoir by removing the dam" as one possible "long-term damage mitigation" option. "Upstream of the reservoir, there needs to be a careful analysis of how flooding along Family Farm Road will be affected with or without dam lowering" (Freyberg and Cohen 2001, p. 50)

Stanford University's Jasper Ridge Biological Preserve website states: "[D]am removal...does hold the potential for significantly enhancing riparian habitat and restoring steelhead trout runs through the Preserve and to the upper watershed. So unlike lowering the dam, removing Searsville Dam could potentially provide a net gain to the Preserve" (JRBP 2010).

In addition, much of the established riparian vegetation at the upper end of Searsville Reservoir that provides beneficial habitat can remain with multiple dam removal alternatives. This analysis should also include a detailed analysis of historic coho salmon use in the watershed, potential high quality coho salmon habitat in the wetland areas submerged by the dam and reservoir, and future restoration potential with dam removal and expected improvements to habitat and flow conditions in the watershed.

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The removal of Searsville Dam can improve wildlife migration, water quality, water flows, habitat conditions, reduce or eliminate non-native species, eliminate ongoing dredging needs, eliminate dam failure risk and inundation, eliminate upstream flooding caused by the dam, potential to improve flood protection downstream, and restore Jasper Ridge Biological Preserve to a native preserve.

The DEIS fails to include essential data and adequate analysis of critical issues related to the presence, operation, and maintenance of the Searsville Diversion Dam Facility. The HCP and DEIS inappropriately separate the presence of the dam from Covered Activities that rely on and include the dam itself. The DEIS fails to adequately assess the many negative impacts to Covered Species and human safety outlined in this letter. Inadequate mitigation measures are proposed to ensure the continued survival and persistence of the Covered Species and we feel that implementation of this HCP would be extremely detrimental to their survival. All of these species utilize and rely on water and the streams and wetland environments of Stanford land. They migrate along these flowing arteries throughout our watershed and region. Stanford's water supply has had a huge negative impact on these species for over a century. Recently some of the water system has been upgraded to benefit listed species and Stanford. Searsville Dam remains the lone antiquated and not updated water diversion that is have devastating impacts to the aquatic environment and larger watershed ecosystem. This HCP and DEIS fail to address and mitigate this and other critical issues impacting the health of the entire San Francisquito Creek watershed, Stanford lands, and local communities. We look forward to considering a new approach.

INDIVIDUAL DEIS COMMENTS

1-1 Paragraph 3
The DEIS states that "...only undeveloped lands provide habitat for the (listed) species" This statement is incorrect. Listed species occur along developed lands, especially within riparian areas along the stream banks of San Francisquito Creek, the Webb Ranch lease, nursery lease along lower Los Trancos Creek, and other residential lease and mixed-use areas adjacent to the top of the streambank.

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2-6 Second Paragraph, Searsville Dam
The DEIS states that "Searsville Dam and Reservoir are located on San Francisquito Creek." Searsville Dam and Reservoir are not located on San Francisquito Creek, but rather the Dam occurs on Corte Madera Creek and the Reservoir occurs on, and has buried portions of, Corte Madera, Sausal, Dennis Martin, Alambique, and other smaller streams.

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Flood Control Capabilities of the Dam-
The DEIS states that, "The dam was built in 1982 and has trapped a significant amount of silt, reducing its flood control capacity." The word "silt" does not accurately describe the diverse types of sediment (boulders, cobbles, gravels, sand, silt) and woody debris trapped behind the dam. The above quote also incorrectly states that the trapped silt is "reducing its flood control capacity". This statement shows a clear lack of knowledge about the dam and reservoir. Searsville Dam was not built to, nor has it ever been operated to, provide flood control capabilities. The reservoir has lost water storage capacity, but not any "flood control" capacity.

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Figure 3-1- Management Zones Map
This and other maps showing the different Management Zones (1-4), include Zones 1 and 2 adjacent to riparian areas and Zone 1 along streams. At Searsville Dam the maps show an approximately 0.1 mile wide (according to the scale provided on the map legend) area defined as Zone 4 across the dam and downstream. The HCP and DEIS fail to delineate the Management Zone boundaries with enough textual or visual detail to understand where some of these exact boundaries occur. The DEIS should provide additional detail on Management Zone Boundaries and in particular ensure that Zone 1 occur along the entire stream all the way to the base of the dam.

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4.2.2.3 Western Pond Turtle
"They are found...from Searsville Dam to the downstream edge of Stanford's boundary" and have been "historically found along the marshier areas of Searsville Reservoir", however, "there have been no recent records from the reservoir". In addition, I have observed and photographed western pond turtles in Corte Madera Creek, just upstream of the Jasper Ridge Boundary twice in the mid 1990's and once in the early 2000's.

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4-30 Third Paragraph
A note about the 2006 Jones and Stoked report cited in the DEIS. As noted in the DEIS, the geographic scope of this study was very limited and did not include the upper

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mainstem of San Francisquito Creek or it's two largest sub-watersheds (Corte Madera Creek and Bear Creek) and thus does not represent a detailed watershed–wide habitat assessment or limiting factors analysis. This limitation was acknowledged and discussed at several San Francisquito Watershed Council's Steelhead Task Force meetings before the study began, with recognition of funding constraints and sole County (Santa Clara Co.) geographic scope limitations. As such, many of us on the Steelhead Task Force, as well as the report authors, concluded that the study missed assessing much of our watershed's most important habitat reaches and most limiting factors to steelhead. The Steelhead Task Force focused our efforts on what we, and the resource agencies, believed to be the most limiting factor to San Francisquito Creek steelhead; migration barriers. Searsville Dam is the largest migration barrier in the watershed and blocks or submerges approximately 18 miles of historically accessible steelhead habitat. 2.74 cont'd

The 2006 Jones and Stokes report, cited in the DEIS (4-30), listed the following key finding related to factors limiting steelhead: "The lack of key habitat features such as boulder and cobble aggregations, large woody debris jams, root wads, and backwater habitat limit both winter and summer rearing habitat, with winter productivity more impaired than summer." Searsville Dam traps all boulders and cobbles as well as large woody debris and has reduced input of these key habitat features from the entire length of San Francisquito Creek for over a century and continues to do so today. In addition, riparian vegetation, root wads, and occurrence of backwater habitats are all impacted by the presence of the dam and reservoir and altered sediment transport and hydrology. The DEIS must analyze these impacts using the abundant, even NOAA authored, scientific literature related to such impacts. Such impacts have had and continue to have an enormous impact on stream habitat conditions for the entire length of San Francisquito Creek and listed steelhead, red-legged frog, and pond turtle. It should also be noted that upstream of the dam, large woody debris, boulders, cobbles, root wads, and backwater channels are present with rainbow trout populations. 2.74 cont'd

4-31 First Paragraph
The DEIS must state that these non-native fish species identified below Searsville Dam come from the reservoir, are allowed to spill over the dam, reproduce in the reservoir, spread downstream from the reservoir, and are well studied stillwater species that rely on the presence of the reservoir's artificial stillwater habitat to survive and perpetuate in the watershed. This section should include other non-native species such as bullfrog and crayfish. The DEIS must analyze the impact of these exotic species on listed native species and their relationship to the dam and reservoir, as well as how current operations at the dam allow for the spread of these species downstream and the resulting resource competition and predation. Mitigation measures to eliminate the non-native fish and reduce bullfrog habitat should be identified with realistic costs estimates. 2.75

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4-31 Second Paragraph
The DEIS states; "Stanford water diversion facilities act as partial barriers to steelhead migration and movement within Stanford-adjacent stream reaches." This statement is incorrect. The DEIS should state that Searsville Dam is a water diversion facility that is a complete barrier to steelhead migration. Figure 4-9 on page 4-71 shows "Searsville 2.76

Section 3.2.32

Diversion" clearly noted as one of the "diversion" facilities of the "Lake" Water System. Only the Los Trancos Diversion Dam, Lagunita Diversion Dam, and San Francisquito Pump Station faculties are partial barriers. 2.76 cont'd.

5-11 Last Paragraph
The DEIS states: "Ongoing Stanford operations do not adversely affect surface or groundwater quality, modify groundwater quality or recharge, increase the risk of damage caused by flooding, or lead to the violation of applicable Federal, State, or local laws. The operations are currently regulated in a manner that protects water quality." The DEIS continues on page 5-12 third paragraph: "The ongoing Covered Activities have not had an adverse effect on surface, drinking, or groundwater quality, and have not significantly increased the risk of damage caused by flooding. The continuation of these activities would not adversely affect hydrology or water quality."

These above combined statements constitute perhaps the most unsubstantiated, absurd, and dangerous language in the entire DEIS. Page 5-64 of the DEIS states that "The gradual increase in impervious surfaces due to development in the watersheds has resulted in flooding problems in portions of the San Francisquito Creek watershed..." Stanford's impervious footprint in the watershed is large, and ongoing operations and maintenance of these areas is part of the cumulative effects of past actions and current operations. The DEIS must quantify how the ongoing operation and maintenance of hundreds of acres of impervious surface, multiple surface water diversions, groundwater wells/pumps, and water quality issues resulting from Searsville Reservoir do not adversely affect surface and groundwater quality. This is an unbelievable statement to read in a federal environmental document and again leads to serious concerns about the analytical rigor that went into its preparation. In addition, the DEIS fails to show how operations do not adversely increase the risk of damage caused by flooding. Also, see above comments related to Searsville Dam and downstream safety hazards. In addition, it is well document that operations at the Searsville Diversion Dam and Reservoir have had, and continue to cause, flooding issues upstream and off of Stanford lands, putting upstream landowners at risk of flooding and impairing vehicle access. Contrary to the above statements made in the DEIS, the ongoing presence and operation of the Searsville Diversion Dam Facility does appear to violate several applicable laws including CDFG Codes cited and others included in the letter submitted by Shute, Mihaly, and Weinberg. The DEIS also fails to adequately address how climate change over the next 50 years of this proposed plan is expected to impact water quality and quantity issues below Searsville Dam as described previously. The DEIS must analyze how climate change predications are expected to impact water in the San Francisquito Creek watershed, listed species, and habitat conditions and in relation to proposed continuation of activities over the 50 year life of the proposed HCP.

2.77
Section 3.2.22

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Section 3.2.32

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Section 3.2.34

2.80
Section 3.2.32

5-65 Second Paragraph
See above comments in this letter related to this DEIS language about no adverse effect on flooding.

5-71 Second Paragraph, Second and Third Sentence

2.81
Section 3.2.12

2.81 cont'd.

The DEIS should describe here that currently new, natural flood control projects are being built that provide dramatically improved habitat conditions for steelhead, red-legged frogs and other species. In addition to the example on the Guadalupe River, other projects are combining the removal of obsolete dams, with improvements to downstream channel capacity at confined bridges and culverts, as well as improved water diversion facilities to restore miles of historic habitat, restore submerged wetlands for peak flow retention, provide exceptional rearing habitat for steelhead and coho salmon, and safeguard downstream communities and water supplies. Completed and planned dam removal projects on the Rogue River, Elwha River, Ventura River, and others across the country are showing that dam removal, ecosystem restoration, improved flood protection, reduced liability, and reliable water supply can all be attained in a well-planned, collaborative project with agency support and with abundant public and also private funding opportunities.

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5-78 Table 5-6 Comparison of Alternatives, First row "Geologic Hazards and Soils"
See above comments related to geologic hazards at the Searsville Diversion Dam Facility. All three descriptions for these alternatives should be rewritten and reanalyzed with regards to described potential geologic hazards associated with the continued operation and maintenance of Searsville Dam and Reservoir, including landslides, liquefaction, reservoir-induced seismicity, dam failure inundation data, and current and future structural integrity of the dam.

2.83

Section 3.2.29

6-1 Persons and Organizations Consulted
It is particularly concerning that so much readily available information and involved groups and individuals were not referenced or contacted in the preparation of this DEIS. The list of contacted people includes someone from Friends of Corte Madera Creek in Marin County and does not include any of the dozens of individuals and groups that comprise(d) the former San Francisquito Watershed Council, CRMP, Steelhead Task Force or the current groups focused on the creek and restoration including San Francisquito Watershed Project, Acterra, San Francisquito Joint Powers Authority, American Rivers and Beyond Searsville Dam. In addition, key people from Stanford, Center for Ecosystem Management and Restoration, Center for Biological Diversity, DFG, USGS, local governments, and other participants in almost two decades of watershed council activities are not listed. The Peninsula Conservation Center and Acterra have many unreferenced documents that would have added greatly to this document, its accuracy, and the preparers understanding.

STANFORD HCP COMMENTS FOR INCLUSION IN DEIS COMMENTS

2.84

Section 3.2.26

Page 25 Non-native Aquatic Species
As described above, the artificial stillwater of Searsville Reservoir is where most or all of these non-native fish species were introduced, persist, spawn, and disperse from into adjacent creeks. The HCP fails to adequately address the serious threat posed by these non-native species and source population at Searsville Reservoir.

Page 32 Top Right Paragraph
The HCP states that, "returning adults (steelhead) can be 15 to 25 inches in total length". The adult female steelhead we (San Francisquito Watershed Council and DFG) transported from a drying pool below the CALTRANS culvert on the Bear Gulch Creek tributary in early 2000 measured 31 inches. Jim Johnson, the former Stream Keeper for the San Francisquito Watershed Council, noted adult steelhead in the watershed up to 40 inches in length (Johnson Undated Report).

2.85
Section 3.2.10

Page 35
The HCP (p.35) states: "There is no direct evidence that the steelhead population reproducing in the San Francisquito watershed has declined in the last 100 years or is declining at the present time."
This statement is absurd. First of all, 100 years ago most of the watershed was still recovering from the almost complete removal of old growth redwoods and other trees from it's headwaters and habitat conditions were already severely altered. Secondly, Searsville Dam had already been blocking the largest spawning and rearing tributary in the watershed for almost 20 years, effectively reducing the tributary habitat by over one third. In addition, other barriers, such as old saw mills and water diversions on Bear Creek were blocking some of the best habitat in other tributaries. Searsville Dam, Bear Gulch Diversion Dam, and others had been removing water from the watershed for over a decade. There are few records in existence, and maybe none relating to steelhead numbers, about the watershed before major habitat alterations began to occur more than 150 years ago. The Agencies must contact the Center For Ecosystem Management and Restoration (Gordon Becker) as well as Stoecker Ecological (Matt Stoecker) to obtain the enormous amount of data related to historic steelhead and coho in the San Francisquito Creek watershed and the south San Francisco bay. The DEIS is seriously lacking in referenced and assessed salmonid data for the watershed.

2.86
Section 3.2.10

Page 57 Creek Monitoring Facilities
While the HCP and DEIS do not adequately assess the impacts of Searsville Dam and Reservoir on Covered Species and downstream habitat, there are existing creek monitoring facilities in various locations within the watershed (with access to records), resource agencies, and others to analyze data relating to flows and even water quality, that would be helpful for Stanford. For example, Stanford and Palo Alto operate creek monitoring devices upstream of Searsville Dam on Corte Madera Creek, on Bear Creek, on Los Trancos Creek, and multiple locations on San Francisquito Creek. The longstanding USGS gauging station also has decades of flow data. A detailed analysis of these monitoring devices' data should be conducted to gain understanding of possible impacts from the Searsville Diversion Dam's operations as well as provide adequate analysis for the HCP and DEIS.

2.87
Section 3.2.32

Page 58 Fifth Paragraph
The HCP again states: Searsville Dam is a barrier to fish migration in the system, and isolates some 3 to 5 miles of suitable spawning habitat from migrating adults." See previous information about estimated habitat quantity blocked by the dam.

2.88
Section 3.2.10

Page 58 Footnote 4
The HCP (p.58) states: "Despite this siltation, Stanford has been able to continue diversions at Searsville Dam by adjusting the operation of the water diversion to more efficiently divert water into the conveyance and distribution system during higher flow periods in winter and spring." The HCP and DEIS must show detailed records of all completed modifications and changes to the Searsville Dam diversion facility, including dates, costs, type of construction, and resulting impact on the diversion facility, operations, and any changes to diversion capability and alterations to dam height, overall configuration, water release and diversion controls, and flashboard operation.

2.89
Section 3.2.34

Page 59 Felt Reservoir
The HCP states that "recent system upgrades allow for water from... Searsville Reservoir to be moved to Felt Reservoir." The DEIS must include detailed information about when these upgrades occurred, what was upgraded to allow this capability, what modifications, if any, were made at Searsville Dam and Diversion infrastructure and what the upgrades mean to diversion capabilities and operations at the Searsville Diversion Dam facility and downstream Covered Species. The DIES must ascertain, if recent modifications to the Searsville Diversion Dam Facility were legally permitted and when they were made. As noted in the section above on Searsville Diversion Dam Facility, Stanford experts state that the Searsville Diversion was not being used from at least 1998 to 2001 due to sediment issues. In addition, the recent upgrades to divert water from Searsville Diversion to Felt Lake need to be considered in relation to above stated water rights discrepancies and adequate permitting for such actions. The DEIS must describe in detail these above discussed issues related to water rights, water transfers, operation and physical modifications, and permitting compliance.

2.90
Section 3.2.16

Page 94
The HCP does not propose any exclusionary fencing at Felt Reservoir to promote the establishment of riparian vegetation along the edge of the reservoir. Cattle grazing currently is allowed along the entire perimeter of the reservoir and therefore no riparian trees or vegetation are allowed to become established. Well-planned exclusionary fencing at Felt Reservoir, with adequate cattle access to water, could create a unique and biologically rich ecosystem for several of the Covered Species and other wildlife. We would like to make clear, that we view Felt Reservoir as a well-positioned, off-stream water storage facility and support it's continued operation and even possible expansion to offset potential storage capacity loss with the possibility of removing Searsville Dam.

2.91
Section 3.2.16

Page 125
NOAA Fisheries should require that the described installation of a stream flow gauge on Corte Madera Creek immediately downstream of Searsville Dam be expanded to include a water quality component that gauges water temperature, dissolved oxygen, nutrient levels, and other key water parameters impacting habitat for Covered Species. The same parameters should be measured at the gage on Westridge Bridge upstream of Searsville Dam to assess reservoir modifications to water quality.

2.92
Section 3.2.22

Page 132
The HCP estimates annual incidental mortality of juvenile steelhead to be 120 individuals or up to 8% of the population and that loss of steelhead habitat would be 2000 feet. Additionally, "the HCP would allow a maximum of 600 feet of creek to be dewatered in a single year" (page 136). This proposal is unacceptable and will put steelhead at risk. The HCP proposed no expansion of steelhead habitat size by allowing fish passage upstream of the impassable Searsville Dam and adequately determined bypass flows, but rather high mortality rates and a reduction of habitat size as well as the periodic dewatering of already susceptible water impacted areas.

2.93
Section 3.2.10

Page 136
The HCP states: "Based on the best available data, the number of juvenile steelhead annually resent during the summer filed season at Stanford over the last decade has ranged from 1,500 to 9,000 individuals." The HCP and DEIS fail to include adequate data or methodologies used to estimate populations sizes and ranges.

2.94
Section 3.2.10

The HCP states that annual "electrofishing is estimated to collect up to 2,000 juvenile steelhead" (HCP page 136) and collection mortality may be up to 90 juveniles or 6% of the population. Collection activities associated with the monitoring program are too high and pose a serious risk to steelhead in areas with impacted habitat and water quality especially during summer flows (as described); the time of year when they are most susceptible to harm from collection efforts.

2.95
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Page 136
The HCP states that "water diversion structures and their operations could result in the take of steelhead. While this take has not been observed, and the population has continued to thrive in the existing environment, it is possible that diversion and operations could strand steelhead, increase rate of predation, or inhibit dispersal. It is estimated that the diversion operations wit the SHEP operating protocols could result in the annual incidental mortality of 20 juvenile steelhead. Incidental mortality associated with maintenance of these diversion facilities is included in the estimates associated with dewatering described above." Many of the statements made in the above paragraph are false. The statement acknowledges expected take at "water diversion structures and their operations", however, the HCP and DEIS fail to include Stanford's identified water diversion structure at Searsville Dam (whose diversion activities are proposed for inclusion in the HCP). Take at Searsville Dam has been observed from adult "salmon" blocked below the dam in the earliest years of it's operation (see other observation information described in this letter) to adult steelhead observed by this author jumping against the dam in the mid 1990's. In addition, the HCP states and staff at Jasper Ridge have also noted, that steelhead are regularly observed in the scour pool below the dam, which becomes isolated and strands steelhead, inhibits dispersal, and contains non-native predatory fish species. Steelhead populations are not known to "thrive in the existing environment" on Corte Madera Creek downstream of the dam, where water quality is highly impacted by Searsville Reservoir, water releases are modified or prevented at Searsville Dam, dispersal is inhibited or prevented, and non-native predatory fish spilling over from Searsville Reservoir are most abundant. Incidental mortality estimates

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Section 3.2.32

associated with the Searsville Diversion Dam are not considered or included in the HCP or DEIS. This major omission in assessing Stanford's water diversion facilities renders mortality estimates low and incomplete. Mortality of steelhead and other Covered Species associated with the Searsville Diversion Dams operations and maintenance must be evaluated and included in any assessment of water diversion facility impacts. Other direct and indirect negative impacts associated with the Searsville Diversion Dam Facility described in this letter are not included in this HCP or DEIS and must be an integral part of such environmental documents and proposed HCP for Covered Species utilizing creeks below the diversion facility.

2.96 cont'd

Page 136 The HCP states, "Monitoring activities will result in incidental mortality but will provide information important to the conservation of the species. Overall, the HCP will improve and protect steelhead habitat, and likely increase the population of steelhead at Stanford." The HCP shows an excessively high potential rate of steelhead mortality (the 8% mortality annually does not include the extensive and omitted assessment of the Searsville Diversion Dam Facility), proposes an actual decrease in available habitat, and shows no data estimating the stated, "likely" increase in population size.

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Page 139
The HCP states that the Army Corps's Notice of Intent for the San Francisquito Creek Feasibility Study initiated by the JPA "identified several potential alternatives that could affect Stanford lands, including the construction of new detention basins, modification to Searsville dam, or the removal of Searsville dam."

The 2008 NMFS Biological Opinion for the SHEP states: "Stanford, in coordination with NMFS and the California Department of Fish and Game, has developed an operating plan with fish bypass flows for San Francisquito Creek Pump Station and Los Trancos Creek Fish Ladder and Diversion Structure that provides suitable instream flow conditions for threatened CCC steelhead below each facility."

No such suitable operating plan with fish bypass flows is proposed in the HCP or required in the DEIS and thus suitable instream flow conditions are not met downstream of the Searsville Diversion Dam Facility.

The 2008 NMFS Biological Opinion for the SHEP states: "During 2005, NMFS conducted field studies on San Francisquito Creek" and in February of 2006 completed the report "*An assessment of bypass flows needed to protect steelhead below Stanford University's water diversion facilities on Los Trancos Creek and San Francisquito Creek*." This report was integral in the development, permitting, and implementation of the now celebrated Stanford University Steelhead Habitat Enhancement Project (SHEP). As was accomplished with this successful SHEP project, a similar study, in collaboration with the California Department of Fish and Game, should be carried out for the Searsville Diversion Dam in order to calculate suitable bypass for proposal prior to any requests for coverage of this structure. With this letter, we request that NMFS and DFG collaborate with Stanford to conduct a similar bypass flow assessment in a timely manner

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Section 3.2.34

independent of outcomes for the HCP process, but definitely prior to any agreements related to the Searsville Diversion Dam.

Other Comments-

Felt Reservoir- There is not mention in the HCP of enhancing the ecosystem benefits of Felt "Lake" Reservoir for Covered Species such as frogs, turtles, and maybe eventually salamanders. This reservoir is currently grazed to waters edge by cattle and exclusionary fencing of large portions of the reservoir could support riparian vegetation and productive habitat, while still allowing adequate watering access for cattle. The HCP and DEIS should assess native riparian vegetation and wetland restoration benefits at the Felt Reservoir.

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Section 3.2.16

Lagunita Diversion Dam
As described in the Implementing Agreement for the Stanford University Habitat Conservation Plan dated April 2010, we agree with the statements on page 11 that: "removing the dam and existing fishway, concrete weir, and apron between the abutments, and restoring the creek to a more natural configuration would best improve juvenile and adult CCC steelhead passage." We request that this effort, which began before the HCP process, continue as planned and independently from the HCP process.

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Section 3.2.34

Other Barriers
The HCP and DEIS fail to identify and discuss several known partial migration barriers on Stanford lands and discussed in the Steelhead Task Force meetings with Stanford staff for years. These include; the concrete low-flow crossing over San Francisquito Creek in Jasper Ridge Preserve just downstream from the Bear and Corte Madera Creek confluence, recently emerged grade control type structures upstream of the golf-cart crossing that was removed, and possibly the Bonde Weir (if Stanford Lands are part of this barrier just downstream of the railroad crossing). While the first two are not serious barriers during most flows, they may limit migration opportunities, especially when considered cumulatively with other partial barriers. The Jasper Ridge in-stream crossing also represents a possible mortality issue for a variety of life stages for Covered Species in San Francisquito Creek, which is not addressed in the HCP and DEIS.

2.101

Section 3.2.22

Comments from Jeff Miller, Center for Biological Diversity

The concept of Stanford earning mitigation credits through preserving, managing, and enhancing habitat that it already owns and should already be managing for ecological values is flawed. This approach creates no net benefit to the affected listed species nor does it create new habitat, unless enhancement projects dramatically increase habitat value. The end result, after Stanford completes build-out of its 180 acres of proposed development, is net loss of at least 30, and possibly up to 150 acres (15 acres of development in Zone 1; 30 acres in Zone 2: 105 acres in Zone 3) of habitat for listed species, and fragmentation of remaining suitable habitat.

2.102

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These lands are under no threat of development, other than by Stanford. The EIS tries to downplay the impact of development and loss of 180 acres of covered species habitat, by calculating the percentage of habitat lost, but any habitat loss for these species is significant. It is unlcear whether the habitat enhancements in the HCP will make up for the habitat loss in terms of population numbers. The attempt to equate not destroying some of the highest value habitat and putting it in reserves with "creating" new habitat for the affected species is misleading.

2.103

Section 3.2.2

To provide meaningful mitigation, compensation for impacts to special-status species habitat should consist of protecting through purchase or conservation easement privately owned lands under threat of development with habitat value for special status-species, at a minimum of a 1:1 ratio. Given their well-documented problems with funding, monitoring and long-term management, mitigation banks should not be used. High value habitat and migration corridors on Stanford land should also be preserved, not an either/or situation with preserving on-site habitat or preserving off-site habitat. The alternatives section should include an alternative that both preserves high value habitat and migration corridors on Stanford land as well as purchase of or conservation easement on private lands in the region for habitat loss, at a robust mitigation ratio.

Any Stanford lands put into permanent conservation easements must be managed for special-status species habitat and ecosystem values in perpetuity, thus the EIS must describe a dedicated funding and monitoring program and who will be responsible for ensuring this outcome.

2.104

Section 3.2.23

The EIS inappropriately proposes Stanford be able to use previously created and enhanced breeding ponds for CTS in the CTS Reserve area for mitigation credits for future development that will impact CTS habitat. It is unclear whether these ponds were created as mitigation for past Stanford activities that impacted CTS. The EIS references the CTS management agreement signed with USFWS and CA Fish and Game in 1998. Stanford has a long history of take of CTS at Lake Lagunita for example. It should be clarified whether these

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Section 3.2.6

ponds were created and enhanced as mitigation for past practices, and Stanford's past efforts to lessen take and mismanagement of CTS habitat should not be used as mitigation for future development that will harm CTS.

2.105 cont'd

The concept of assigning relative habitat value to "zones" based on whether they are permanently occupied by covered species is deeply flawed. For species such as the CTS, CRLF, SFGS, and WPT, which migrate seasonally from wetlands and breeding areas to uplands, preservation of upland habitats and migration corridors can be as important as preservation of breeding habitat. Loss of or fragmentation of uplands or migration corridors, regardless of their relative habitat value, can result in extirpation of these species. For example, construction in Zones 2 or 3 that blocked migration of any of these species into uplands hibernation habitat could impact the species locally. Zones 2 and 3 contain significant migration corridors and uplands habitat for CRLF, CTS, SFGS, and WPT, and almost all of the Zone 2 and 3 lands are well within the known dispersal distances for these species from the creek corridors in Zone 1. The EIS does not adequately evaluate loss or degradation of dispersal and migration corridors or connectivity between breeding and uplands habitats for these species.

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Section 3.2.37

The discussion in the EIS of intergrades of SFGS with red-sided garter snake should not be used to downplay impacts to SFGS habitat in the HCP. The USFWS will determine whether the southern San Mateo County snakes are considered part of the listed SFGS population. Given that there are only 7 viable breeding populations in existence, any SFGS on Stanford lands are significant to the overall conservation of the species. The draft Recovery Plan for the SFGS identifies Stanford lands as important for potential reintroduction of SFGS and recovery of the species.

2.107

Section 3.2.9

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REFERENCES

The HCP and DEIS do not adequately review and assess important information in the following documents:

ABAG 2007 Shaking Potential Map website- Association of Bay Area Governments http://www.abag.ca.gov/bayarea/eqmaps/mapsba.htmlEarthquake

ABAG 2010 Dam Failure Inundation Hazard Map for Palo Alto/Stanford. Association of Bay Area Governments Source 1995 http://www.abag.ca.gov/cgi-bin/pickdamx.pl

Balance Hydrologics, Inc. 1996 Sedimentation and Channel Dynamics of the Searsville Lake Watershed and Jasper Ridge Biological Preserve, San Mateo County, California. Prepared for Jasper Ridge Biological Preserve, Stanford University

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Fong, D. 2004 Summer Stream Habitat and Fish Surveys for Upper West Union Creek (Draft), 1996-2001 Golden Gate National Recreation Area. Prepared for the National Park Service, Golden Gate National Recreation Area, Division of Natural Resorce Management and Science. January 2004

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Johnson J. 1996 (presumed) A Brief Summary of Salmonid Observations on West Union Creek and Bear Gulch, Woodside, California 1992-1996

Moffat and Nichols Engineers 2003, Letter to Amy Hutzel, California State Coastal Conservancy, Comments on Sediment Impact Study Report San Francisquito Creek, Searsville Lake M&N File No: 4928-03 March 27, 2003

NPDP 2010. National Performance of Dams Program, Department of Civil and Environmental Engineering, Stanford University http://npdp.stanford.edu/index.html

NHC 2001 Searsville Lake Sediment Impact Study. Northwest Hydraulic Consultants, Inc. Balanace Hydrologics, Inc. H.T. Harvey & Associates Jones and Stokes Dr. Matt Kondolf Dr. Jerry Smith. Submitted to: Stanford University June 2001

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SF Bay Steelhead Symposium 2001 Salmon and Steelhead in Your Creek: Restoration and Management of Anadromous Fish in Bay Area Watersheds, Presentation Summaries 2001

SFWC 2002 San Francisquito Watershed Council Barrier Spreadsheet, Updated from Salmonid Migration Barriers/Impediments in the San Francisquito Creek Watershed, San Francisco Bay, CA M. Stoecker (2000-2002) Updated by Stoecker 2010

SUMC 2010 Stanford University Medical Center Facilities Renewal ad Replacement Draft Environmental Impact Report, Prepared for the City of Palo Alto May 2010 SCH # 2007082130

Smith J. and Harden D. 2001 Adult Steelhead Passage in the Bear Creek Watershed Prepared for the San Francisquito Watershed Council. Supported by a grant from the California Department of Fish and Game July 2001

Stoecker M. 2002 San Francisquito Creek Watershed Steelhead/Rainbow Trout (*O. mykiss*) Observations and Distribution 1999-2001. For WMI Stream Reach Summaries" for San Francisquito Creek

United Nations Environment Programme (2010) http://www.unep.or.jp/ietc/publications/short_series/lakereservoirs-3/1.asp

USGS 2007 Putting Down Roots in Earthquake Country- Your Handbook for the San Francisco Bay Region. With major funding from California Earthquake Authority. U.S. Department of Interior

USGS 2010 http://toxics.usgs.gov/definitions/eutrophication.html

Watershed Management Initiative 2003 Volume One Unabridged Watershed Characteristics Report Chapter 7 Natural Settings Prepared for the Santa Clara Basin Watershed Managment Initiative by Watershed Assessment Subgroup August 2003.

Center for Ecosystem Management and Restoration

Comments for the Stanford University Habitat Conservation Plan
Draft Environmental Impact Statement (HCP DEIS)

June 28, 2010

Prepared by
Gordon Becker, M.S., Certified Fisheries Professional
for Matt Stoecker, Beyond Searsville Dam
and Steve Rothert, American Rivers

This letter contains comments on the April 2010 document, "Draft Environmental Impact Statement for Authorization for Incidental Take and Implementation of the Stanford University Habitat Conservation Plan." Please note that comments are provided in two parts: General Comments and Detailed Comments. The General Comments comprise the basis of my understanding that the DEIS is legally inadequate. I recommend that BSD request the DEIS be withdrawn, revised, and rereleased rather than finalized from its current form.

3.1
Section 3.2.18

General Comments

1. Treatment of Searsville.
The project involves operating Stanford's Searsville Diversion Dam Facility, including the integrated water diversion, bypass flows, and potentially major and ongoing dredging to allow for increased storage (i.e., maintenance) and Stanford is seeking authorization of such activities for 50 years. Therefore, the impacts of operating the diversion dam must be analyzed in the HCP EIS. Such impacts include (but are not limited to) blocking steelhead and other Covered Species access to habitat, altering downstream hydrology and water quality in San Francisquito Creek, introduction, perpetuation, and dispersal of exotic species, degrading downstream habitat, dewatering, and other direct and indirect take of Covered Species.

3.2
Section 3.2.32

The draft EIS does not discuss these impacts, provide minimization measures, or otherwise address operation and maintenance of Searsville Dam. This is a fatal flaw that cannot be corrected through a typical process of finalizing the draft by

responding to comments. The EIS should be withdrawn, rewritten to address the impacts of operating and maintaining Searsville Dam, and rereleased with an adequate comment period. 3.2 cont'd.

2. Format.
Over many years, environmental review under NEPA has come to follow a relatively standard approach wherein effects are enumerated, their potential significance is evaluated against stated standards of significance, minimization measures are applied, and a determination of the severity of the resulting effect is made. (The HCP itself attempts to lay out many of its effects in an easy-to-follow structure consisting of a brief effect summary statement and an accompanying numerical designation.) Many standards of significance are provided through NEPA, and it is common practice to expand these standards to reflect the unique circumstances surrounding a particular proposed project. In the case of the Stanford HCP, standards would be expected to include stewardship goals relating to the university's important role in regional conservation.

The draft EIS abandons convention in favor of confusing, incomplete, and altogether inadequate narratives providing insufficient information to allow for review of effects and their degree of significance. Again, this EIS flaw cannot be corrected through a response to comments approach to preparing the final EIS. The EIS must be withdrawn, restructured and rewritten, and rereleased with an adequate comment period.

3. Quality of analysis.
The current draft EIS reflects a level of analytical rigor that is entirely inadequate, to the point where the document's conclusions can only be deemed arbitrary. For example, the draft EIS contains the following statement:

"Ongoing Stanford operations do not adversely affect surface or groundwater quality, modify groundwater quality or recharge, increase the risk of damage caused by flooding, or..." (p. 5-11)

This statement is not true and it goes without saying that operations do indeed have effects, as acknowledged in the HCP. (See, for example "Maintenance of the Searsville Diversion," p. 57; "Potential Effects of Water Reservoirs on the Covered Species", p. 61; “Potential Effects of Agricultural Uses on the Covered Species," p. 76; "Potential Effects of Equestrian Uses on the Covered Species," p. 79; etc.)

Effects must be noted, minimization measures applied, and final levels of significance determined against reasonable standards. The draft EIS should be withdrawn, rewritten to provide adequate environmental review, and rereleased. It should be an embarrassment that the USFWS and NMFS, or their consultants, produced a draft EIR of such poor quality, and the agency staff and/or consultants preparing the April 2010 report should not be part of the team that rereleases the draft EIS for the sake of reliability.

4. Attainment of mitigation credits.
The HCP and its environmental review rely on mitigation credits to minimize the environmental effects of the Covered Activities. However, it is inappropriate to provide mitigation credits for activities that should be part of the HCP or are otherwise required or expected to occur. Only expenditures outside of Stanford's normal purview (e.g., off-campus fish passage barrier removals) should earn mitigation credits. Further, such credits should not be used to allow activities inconsistent with conservation goals under any circumstances.

3.3
Section 3.2.2

In particular, it is inappropriate to credit Stanford for maintaining creeks properly. This is expected and should not be viewed as mitigation for operation of Searsville Dam, developing property, or other Covered Activities. The draft EIS should be withdrawn, rewritten, and rereleased to reflect only appropriate accreditation for mitigation purposes.

5. Staffing of the Conservation Program Manager position.
The HCP and its associated EIS rely heavily on the Conservation Program Manager to "...review activities that could result in take of Covered Species, and recommend modifications that will reduce or prevent take" (p. 3-5). Many activities must be reviewed by the manager, and this review is set forth as a minimizing measure repeatedly. (For example, the DEIS notes fish passage barrier modifications will receive "...review by the Conservation Program Manager to reduce impacts to water quality and covered species" (p. 5-10).)

As structured, the EIS should not use Conservation Program Manager involvement as this basis for lowering the level of significance of effects or preventing them entirely. Unless the position can be realistically viewed as impartial, such involvement is meaningless. We suggest that the EIS not rely on the participation of an individual as an effect evaluation criterion or as a minimizing measure. If, however, the rereleased EIS continues to rely on the actions of a Conservation Program Manager, the position must be staffed independent from the university.

3.4
Section 3.2.3

6. Stream channel management and restoration.
The HCP is an appropriate process through which to establish riverine/riparian conservation and restoration goals, and its EIS should evaluate the effects of implementation. On the contrary, the HCP reflects an ad hoc approach to erosion control, flood control, and fish passage barrier modification to which the draft EIS ascribes less than significant effects. The project and the analysis of its effects do not incorporate quantitative goals or measures.

3.5
Section 3.2.22

The HCP should be modified to reflect progressive stream corridor management policies including restoration of channel reaches to both carry flood flows and provide habitat values, while maintaining long-term stability. Similarly, passage barriers should be prioritized for modification and a commitment made to specific fixes and schedules. The revised HCP should be evaluated against quantitative

3.6
Section 3.2.22

3.7
Section 3.2.22

3.8
Section 3.2.18

measures of conservation and restoration on Stanford property stream areas. The rereleased draft EIS may be adequate if it provides meaningful review standards for stream management actions, and determines appropriate minimization measures for ongoing Covered Activities. 3.8 cont'd.

7. Streamflow information and impact analysis.
Although Stanford's Covered Activities include water diversion and modification of natural hydrographs, the draft EIS is completing lacking in quantitative information about these activities and impacts. Such information is essential in relation to flooding impacts, and it is particularly critical to evaluating effects on covered species, including steelhead. 3.9 Section 3.2.18

The draft EIS must be withdrawn, rewritten, and rereleased to provide detailed, quantitative information necessary to review the effects of water management activities on land use, hydrology, and biological resources. Specifically, the effects of Searsville Dam, Reservoir, and diversion facility and its associated management activities on natural stream hydrology and habitat must be clearly delineated in a quantitative manner.

8. Cumulative impacts analysis.
The draft EIS notes that the analysis of cumulative effects uses a broader study area than the analysis of direct effects. In the case of effects on steelhead, this broader study area is deemed to include other San Francisco Estuary watersheds with steelhead resources, including several in Marin County. This section of the draft EIS is inadequate in that it neglects to evaluate cumulative impacts in the San Francisquito Creek watershed, which is the relevant context to the HCP. The HCP and draft EIS fail to include and assess many reports and important data related to steelhead in the San Francisquito Creek watershed and cites incorrect, inappropriate or unsubstantiated data from the HCP. Further, additional watersheds of import to San Francisquito Creek steelhead are inappropriately selected and should be redefined to include major South Bay basins. 3.10 Section 3.2.12

The draft EIS should be withdrawn, rewritten, and rereleased to provide reviewers with an understanding of San Francisquito Creek watershed's steelhead populations, their status and trends, threats, and efforts to conserve and restore them. The HCP should recognize the relationship between Stanford's activities (including operating Searsville Dam, Reservoir, and diversion) and the San Francisquito Creek steelhead run. The draft EIS should clearly state minimization measures that make the HCP compatible with an overall program to restore steelhead throughout the watershed. 3.11 Section 3.2.10 3.12 Section 3.2.22

Specific Comments

p. 2-6, ¶ 2. As proposed, the HCP would authorize on-going operation and maintenance at Searsville Dam for 50 years. This timeline is inconsistent with 3.13 Section 3.2.18

steelhead recovery goals in the Bay Area and the wider region. Minimization measures must be applied as part of the HCP appropriately, therefore, including immediate and sufficiently-funded study of the potential for removing the dam. 3.13 cont'd.

p. 3-5, ¶ 2. As structured, the position of Conservation Program Manager is too critical to the success of the conservation program to be staffed by Stanford directly. Just as non-profits hold easements, essentially in the public trust, this position holds the responsibility for HCP conservation and should be staffed by a non-profit organization not directly beholden to Stanford University. 3.14 Section 3.2.3

Table 3-2. It is inappropriate to provide mitigation credits for activities that should be part of the HCP, such as riparian enhancement. Only expenditures outside of Stanford's normal purview, such as off-campus barrier removals, should earn mitigation credits. Such credits should not be used to allow activities inconsistent with conservation goals under any circumstances. 3.15 Section 3.2.2

In particular, it is inappropriate to credit Stanford for maintaining creeks properly. This is mitigation for operation of Searsville Dam and developing property, not above-the-call altruism. Off-campus projects should more appropriately produce mitigation credits.

p. 4-30. The draft EIS notes that a limiting factors analysis found wintering habitat to be the primary factor limiting steelhead. Wintering habitat is decreased by flood control activities such as clearing debris from streambeds, alteration of the natural hydrograph, and changes to riparian and channel substrate conditions. Each of these changes occurs from Stanford's ongoing activities such as operating Searsville Dam, maintaining stream channels, and pursuing development. The draft EIS is deficient in that it does not cite the related impacts or mitigate them adequately. 3.16 Section 3.2.12

p. 4-31, ¶ 4. Non-native fish are present for several miles downstream from Searsville Dam due to its operations and reservoir. This impact must be cited and mitigated through the HCP and its draft EIS. 3.17 Section 3.2.26

Table 4-1. Consistency with creek protection policies suggests foregoing development in riparian corridors, yet the HCP includes Covered Activities in riparian areas. It also indicates that mitigation credits are inappropriate for expected stream corridor restoration efforts that are required to address the effects of previous development and operations, and mismanagement of stream resources. 3.18 Section 3.2.2

Section 5.1.3. Standards of significance need to be clearly stated. Effects of the Proposed Action must be determined as quantitatively as possible and evaluated against standards. This entire section uses a broad brush, essentially meaningless approach to dismissing potential impacts of existing operations and future development. No quantitative information is provided by which to measure effects and the adequacy of proposed mitigation. 3.19 Section 3.2.22

p. 5-9 - 5-10. The draft EIS analysis reflects an *ad hoc* approach to erosion control and a feasibility-based approach to barrier removal. Further, conservation goals set forth here are not measurable. The HCP must commit to a review of channel stability and a program to address erosion while maintaining habitat benefits. Similarly, barriers should be prioritized and a detailed commitment made to specific fixes and timely schedules.

3.20 Section 3.2.22

3.21 Section 3.2.22

p. 5-11, ¶ 1. The draft EIS credits the HCP with prohibiting development in the creek corridor in perpetuity. However, figure 5-1 indicates that 20-30 acres of Zone 1 lands could be developed immediately adjacent to proposed conservation easements, and some Zone 1 areas include creek reaches unprotected by conservation easements. Zone 2 and Zone 3 areas similarly depict possible development without corresponding creek protection. Figure 5-1 indicates real potential for development affecting creek corridors. Additional minimization should be provided in the form of an enforceable setback requirement from all creeks in the HCP study area and universal avoidance of development in or near any creek in the HCP area.

3.22 Section 3.2.2

p. 5-11, ¶ 2. There is no discussion of the impacts of diversion or hydrologic alterations produced by the operation of Searsville Dam in the draft EIS. These topics must be discussed in light of effects on steelhead habitat and habitat of other covered species.

3.23 Section 3.2.32

Draft EIS readers are referred to Chapter 3 and Appendix A of the HCP for a discussion of specific operational measures related to the Searsville water diversions. In HCP Chapter 3, the Searsville complex is considered "an integral part of the landscape" (p. 59). We reject this characterization as nonsensical and request that it be removed. Salmon and steelhead recovery plans do not consider dams to be an integral part of the landscape, and fish passage and determined bypass flows must be considered when reviewing the effects of dams on steelhead and salmon populations.

3.24 Section 3.2.32

Further, Chapter 3 does not characterize hydrologic alteration produced by the dam on downstream reaches. This effect must be analyzed and mitigated appropriately. Such mitigation is not provided in the Minimization Measures noted in Section 4.2.1 of the HCP.

3.25 Section 3.2.18

The single Searsville Dam Measure listed in Section 4.2.1 of the HCP commits to a study of the technical feasibility of fish passage alternatives within ten years and at a cost not to exceed $100,000. As mentioned by Stanford's own consultants (NHC 2001) fish passage modifications to large dams are undesirable due to cost, inefficiency, and other considerations. This minimization measure should be replaced with one that commits to a detailed analysis of alternatives for removing the dam in a timely manner, with ecosystem and public safety benefits included, and with vastly greater funding made available. In particular, the feasibility study should examine potential water supply, sediment management, and flood impacts of

3.26 Section 3.2.18

various dam removal options. This study should be undertaken under the auspices of a collaborative stakeholder group including Stanford, relevant agencies, downstream communities, and environmental advocates. The Biological Opinion for the SHEP includes a "conservation recommendation" (Appendix A, p. 47) mirroring this sentiment. 3.26 cont'd

Appendix A of the HCP describes the Steelhead Habitat Enhancement Project (SHEP), which notably covers operations at the Los Trancos Diversion Dam and San Francisquito Creek Pump Station diversion downstream from Searsville but not Searsville Diversion Dam operations. Indeed the word Searsville does not appear in Appendix A with the exception of the suggestion that fish passage be restored at the dam (p. 47). Thus, bypass flows at Searsville are not accounted for in the HCP or in the draft EIS or any of its referenced documents. We consider the draft EIS is legally inadequate until such time as it is withdrawn, effects of Searsville Dam are analyzed and mitigated, and the draft rereleased for public comment. 3.27 Section 3.2.32 3.28 Section 3.2.18

p. 5-11, last ¶. The statement that ongoing operations do not adversely affect surface water quality is unsupported and obviously incorrect. Specifically, ongoing operations include impounding streamflow at Searsville Dam. Downstream water releases have altered water quality including temperature, nutrient content, and dissolved oxygen levels. The dam also creates “hungry” water with low sediment loads, leading to decreased habitat quality downstream. Importantly, the denial of any adverse effect on water quality reflects a tone in the draft EIS of lazy and unprofessional dismissiveness that is expected to be purged from the rereleased draft. The draft EIS must evaluate the effect of operating Searsville Dam and other operations on water quality, including temperature, sediment transport, duration of surface flows, dissolved oxygen, and reservoir-induced changes in nutrient content. 3.29 Section 3.2.32

p. 5-12, ¶ 2. The statements in this paragraph fail to identify what “obstructions” are being discussed or quantify anything of meaning related to reducing flood risk. The paragraph should be deleted. 3.30 Section 3.2.22

p. 5-12, ¶ 3. Again, to say that Covered Activities have no adverse effects on water quality is clearly incorrect and inappropriate. This paragraph should be rewritten to state the degree of the effect and, if possible, quantifiably substantiate that the effect is less than significant. 3.31 Section 3.2.22

p. 5-12, ¶ 5. This paragraph dismisses impacts of future development beyond the GUP by saying, "it likely would be subject to similar mitigation measures." This basis is insufficient to dismiss the effects as adequately mitigated. The draft EIS must attempt to state the effects and provide adequate and enforceable minimization measures. 3.32 Section 3.2.13

p. 5-31, ¶ 6. This impact statement claims no land use effects because the nature of the land uses are not changing. This is not a valid basis for dismissing effects, and the statement should be rewritten to compare land use effects with standards of 3.33 Section 3.2.24

significance, describe minimization measures, and provide a determination of the post-minimization effects significance. For example, development and maintenance activities in and near creeks should be evaluated against the policies listed in Table 4-1. The draft EIS must address the inconsistency of the Covered Activities with these policies. 3.33 cont'd

p. 5-48, ¶ 2. The draft EIS uses estimates of the "steelhead population." The size of the steelhead population is unknown, and attempts to play down the severity of incidental mortality ("0.33 to 2 percent") using population size are inappropriate. As noted in the Biological Opinion for the SHEP, "Little information is available regarding steelhead on the mainstem of San Francisquito" (NMFS 2006, p. 19). 3.34 Section 3.2.10

The measure of the effects of the Covered Activities should be made in the degree to which the activities are inconsistent with providing the greatest possible amount and quality of steelhead habitat. Section 5.2.1 includes the goal, "Maintain or improve hydrologic and terrestrial conditions that presently support steelhead and increase the chance of long-term persistence for the local steelhead population." This is the standard to which the effects of the Covered Activities should be measured. Higher quality information should be referenced (see, for example, Leidy et al. 2005) and improved interpretation of the status of the population should be provided in the HCP and the draft EIS. 3.35 Section 3.2.10

p. 5-65 The draft EIS discusses the relationship of Covered Activities and Minimization Measures, including conservation easements, to the efforts of the Corps and the JPA to study flood control. The HCP and its draft EIS should promote the undertaking of a collaborative study related to the feasibility of removing Searsville Dam. Such collaboration is recommended by NMFS in the Biological Opinion attached in Appendix A and reinforced by Stanford University scientists and regional restoration advocates. 3.36 Section 3.2.18

The HCP must analyze and minimize the effects of the Covered Activities independently of other efforts occurring elsewhere in the watershed. 3.37 Section 3.2.19

p. 5-71 - 5.72. The cumulative effects analysis provided in the draft EIS as related to steelhead is critical to the draft EIR and is perhaps the poorest portion of this environmental document. When the draft is withdrawn and rewritten, this section should describe what is known about the steelhead population of the San Francisquito Creek watershed, factors limiting to the population, how cumulative (past, present, and future) activities in the watershed are likely to affect the population, and how the HCP can be used to support watershed-wide efforts toward restoration. Our organization would be happy to assist in crafting the revisions to this EIS section. 3.38 Section 3.2.12

Admirably, the draft EIS seeks to broaden the geographic scope of its analysis of steelhead effects but little logic appears to have been applied to the exercise. Other watersheds most likely to be important to the steelhead population of the San Francisquito Creek watershed are Stevens Creek, the Guadalupe River, and Coyote 3.39 Section 3.2.12

and Alameda creeks. Our organization offers its assistance in improving this section of the draft EIS and providing additional data related to the steelhead resources of the watershed and the region. 3.39 cont'd

From: Gallagher, Kathleen M [kmgallagher@menlopark.org]
Sent: Monday, May 17, 2010 9:35 AM
To: Stanford.HCP@noaa.gov
Subject: Questions regarding Stanford's HCP and Menlo Park reservoirs in the Woodside Horse Park area

Hello Gary-I'm following up on a voicemail I left for you last week regarding Stanford's HCP and its impact on the City of Menlo Park's 2 reservoirs in the Woodside Horse Park area where Menlo Park has property leases. I have read the HCP documents and have not found language that clearly details what, if any, impacts there are for Menlo Park to maintain and operate these reservoirs. I would like to discuss the specifics of any impacts of the HCP. Can you please email me the areas of the HCP that outline any impacts? I'd like to discuss this with you tomorrow 5/18 or Wed 5/19, what time works best for you? Thanks and looking forward to speaking with you. | 4.1 Section 3.2.24 |

Kathleen Gallagher
City of Menlo Park
Interim Environmental Programs Manager
650-483-9097

CITY OF MENLO PARK

ENGINEERING DIVISION

701 LAUREL STREET, MENLO PARK, CA 94025
(650) 330-6740 / FAX (650) 327-5497

FAX COVER

DATE: 7/15/10 **NUMBER OF PAGES (INCL. COVER):** 3

TO: GARY STERN - SF BAY REGION SUPERVISOR

FAX NUMBER: 707- 578-3435

FROM: KENT STEFFENS, PUBLIC WORKS DIRECTOR, CITY OF MENLO PARK

IF YOU EXPERIENCE DIFFICULTY WITH THIS TRANSMISSION, PLEASE CALL (650) 330-6740.

COMMENTS:

SUBJECT: STANFORD HCP COMMENTS.

PLEASE FIND OUR COMMENT LETTER ENCLOSED FROM THE CITY OF MENLO PARK. IF QUESTIONS CALL US AT 650-483-9097.

THANK YOU
CITY OF MENLO PARK
KENT STEFFENS

Y:\EngDiv\Standards\FORMS\Engineering fax coversheet.doc

CITY OF MENLO PARK

701 LAUREL STREET, MENLO PARK, CA 94025-3483
www.menlopark.org

July 15, 2010

Mr. Gary Stern
San Francisco Bay Region Supervisor
Southwest Region, National Marine Fisheries Service
National Oceanic and Atmospheric Administration
777 Sonoma Avenue, Room 325
Santa Rosa, CA 95404

Subject: City of Menlo Park's comments regarding Stanford University's Habitat Conservation Plan (HCP)

Dear Mr. Stern,

The City of Menlo Park's staff reviewed the Draft Environmental Impact Statement for Authorization for Incidental Take and Implementation of Stanford University Habitat Conservation Plan (HCP) and has two areas of concern. The first concern is in the Woodside Horse Park area where Menlo Park maintains and operates two reservoirs on land leased from Stanford. Staff reviewed the HCP to ensure that new requirements would not restrict Menlo Park's ability to maintain and operate the two reservoirs or restrict access to the area adjacent to our lease holdings for reservoir maintenance purposes. Staff discussed the City's reservoir maintenance procedures with one of the HCP officials, Sheila Larson, Senior Staff Biologist of the United States Fish and Wildlife Service. Staff was assured by Ms. Larson that that the reservoirs are located in Zone 3 where the HCP minimization measures would not restrict the City from necessary reservoir maintenance and operations. Ms. Larson stated one exception could include reservoir maintenance weed abatement work and recommended non-poisonous weed control (e.g. mowing or 'weed whacking') instead of poisonous weed control use.

5.1
Section 3.2.24

Mr. Gary Stern
Subject: City of Menlo Park's Comments Regarding Stanford University's Habitat Conservation Plan (HCP)

Page 2

The other area of concern is within the Webb Ranch area since this area has been identified by the San Francisco Creek Joint Powers Authority as one of the best potential sites for upstream San Francisquito Creek flood detention basins. Menlo Park staff discussed this issue with you and was assured that the HCP would not restrict or interfere with the development of flood detention basins in the Webb Ranch area if the San Francisco Creek Joint Powers Authority chose to develop flood detention basins in the Webb Ranch area in the future.

5.2
Section 3.2.30

We've included the assurances that staff has received from HCP officials regarding our two areas of concern in this letter to document the responses we've received. Please direct any questions to our interim Environmental Programs Manager, Kathleen Gallagher at (650) 330-6764. Thank you for the opportunity for the City of Menlo Park to provide comments regarding the HCP.

Sincerely,

for Kent Steffens
Deputy City Manager
City of Menlo Park

City of Palo Alto
Public Works Department

August 30, 2010

Mr. Gary Stern
National Marine Fisheries Service
777 Sonoma Avenue, Room 325
Santa Rosa, CA 95404

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Operations
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Regional Water Quality Control
650.329.2598
650.494.3531 fax

Subject: Comments on Draft Environmental Impact Statement for Stanford University Habitat Conservation Plan

Dear Mr. Stern:

City of Palo Public Works and Planning staff have reviewed the Draft Environmental Impact Statement (EIS) prepared for the authorization for incidental take and implementation of the Stanford University Habitat Conservation Plan (HCP) and hereby submit the following comments on behalf of the City of Palo Alto.

Staff disagrees with the statements in the EIS that "sufficient information is not currently available to include flood reduction as a Covered Activity" (Page 2-5) and that the proposed adoption of the EIS and approval of the HCP "would not have a significant adverse effect on regional flood reduction as a result of either implementation of the Conservation Program or placement of a conservation easement in the San Francisquito Creek watershed" (Page 5-11). In early 2009, the San Francisquito Creek Joint Powers Authority (JPA) retained engineering consultant Phillip Williams and Associates to examine potential areas suitable for the detention of floodwaters in the upper watershed during major storm events. The consultant's July 2009 Alternatives Analysis Report identified three specific such sites immediately adjacent to San Francisquito Creek on Stanford University lands and is available online at http://sfcjpa.ehclients.com/documents/alternatives%20analysis.pdf). These sites lie within areas classified as Zone 1 or Zone 2 in the HCP, areas in which development is to be avoided to the maximum extent feasible, and lie partially within the proposed conservation easement. We believe that placement of a permanent conservation easement on these detention sites without any mention of the potential future modification of the sites would significantly constrain their future use for flood reduction purposes.

6.1
Section 3.2.30

P.O.Box 10250
Palo Alto, CA 94303

Although the 2009 Alternatives Analysis Report provides a relatively small amount of information regarding the scope of the potential detention sites, it does identify three specific locations and basin sizes that could and should be documented in the HCP and addressed in the EIS. Staff believes that Stanford and the US Fish and Wildlife Service have unduly given the issue short shrift by only mentioning it in a few brief paragraphs in response to scoping comments made by several interested parties and not even mapping the specific detention locations identified in the Alternatives Analysis Report. The concept of upstream detention has been developed to a sufficient degree and has enough public support and potential public safety benefits to merit a more robust discussion in the environmental assessment of the HCP. By amending the HCP to include the construction of the one or more of the potential detention basins as a Covered Activity and modifying the EIS to assess some of the related challenges, impacts, and benefits to protected species, these documents could serve to lay the groundwork for future detailed analysis of a specific flood reduction project. Therefore, staff requests that the HCP and the EIS be modified to document and assess the three potential detention sites and to describe how flood reduction goals could be effectively implemented in concert with the overall conservation goals of the HCP.

6.2
Section 3.2.30

Thank you for the opportunity to comment on the Draft EIS for the Stanford University HCP. The City of Palo Alto looks forward to a substantive response to the issues raised in this letter in the final environmental document.

Sincerely,

Glenn S. Roberts
Director of Public Works

Curtis Williams
Director of Planning and
Community Environment

Sent by mail and e-mailed to Stanford.HCP@noaa.gov

cc: City Council
Jim Keene
Steve Emslie
Julie Caporgno
Mike Sartor
Len Materman, SFC Joint Powers Authority
Jean McCown, Stanford University

From: Brian Schmidt [brian@greenfoothills.org]
Sent: Thursday, July 08, 2010 5:26 PM
To: Gary.Stern@noaa.gov; SWR.StanfordHCP@noaa.gov
Cc: mattstoecker@mac.com; 'Gordon Becker'
Subject: Request additional time for comments on the Stanford HCP

From: Brian Schmidt [mailto:brian@greenfoothills.org]
Sent: Thursday, July 08, 2010 11:30 AM
To: 'Brian Schmidt'; 'Ginger Holt'; 'jhagan@haganlaw.com'; 'Carol Espinosa'; 'Lennie Roberts'; 'Ginger Holt'; 'Peter Drekmeier'; 'jsegall@mac.com'; 'Richard Harris'; 'hufty@mac.com'; 'hearnbo@redshift.com'; 'davids@Acterra.org'; 'nagle@animats.com'; 'daveymob@sbcglobal.net'; 'Rob CAUGHLAN'; 'susanbeeg@aol.com'; 'wewranch@msn.com'; 'cynthia@greenfoothills.org'; 'info@greenfoothills.org'; 'mike.bushue@oracle.com'; 'Rob Decker'; 'Mattman41@hotmail.com'; 'mulvey@ix.netcom.com'; 'Shani Kleinhaus'
Subject: Stanford Strategy Group - HCP Extension Request

Dear Gary,

The Committee for Green Foothills supports the request by Beyond Searsville Dam (BSD) for a 45-day extension of time to comment on the Stanford Draft EIS and HCP. In addition to the reasons given by BSD (attached below), we note that comments are due on the Stanford Medical Center Draft EIR for the City of Palo Alto by the end of the month, straining resources for organizations and agencies that monitor Stanford developments. More substantive and useful comments can be given if the two deadlines are separated by more time.

7.1
Section 3.2.1

Regarding the HCP, there appears to be little or no discussion of the relationship to and analysis done in the Stanford Sustainable Development Study (Study) that was finalized just last year. The implication of the Study's 25-year projection to the year 2035 is that there will be little need to impact endangered species habitat, and therefore Stanford's projection of 50-150 acres of habitat disturbance allows too much take. Given that Stanford prepared both the Study and the draft HCP, there is no reason why the HCP and its EIS fail to consider the Study. Similarly, the minimal habitat encroachment allowed beyond the Academic Growth Boundary under the current GUP, applicable for the 2000-2025 period, belies the claim that 1 to 3 acres of habitat disturbance annually will be required. While the areas protected by the Academic Growth Boundary do not represent the entire habitat area, much of the remaining habitat has existing or proposed protection that at least limit encroachment (the Lake Lagunita vicinity) or is in areas where less development is feasible (San Mateo County portions). Stanford's requested take coverage based on obsolescent historical levels therefore exceeds both recent years and Stanford's own projections.

7.2
Section 3.2.15

7.3
Section 3.2.15

7.4
Section 3.2.15

We request additional time to do our own calculations of the effect and necessity for parts of the HCP and to consider the EIS analysis.

Sincerely,
Brian Schmidt
Legislative Advocate
Committee for Green Foothills
(650) 968-7243

Hi Gary,

Our Beyond Searsville Dam Board of Directors and expert review team are requesting that the comment deadline for the Draft EIS for Stanford's HCP be extended by 45 days due to the massive scope of this proposed HCP, absence of essential quantitative data that needs to be incorporated into the DEIS, and our need to include an enormous amount of biological and hydrologic data and analysis that is not included in either HCP/DEIS. As mentioned at the public meeting, we will be retrieving and including a massive amount of data from many sources that are not even referenced in either HCP/DEIS. This task is making the deadline unfeasible for us to adequately provide the critical information lacking in these reports by the proposed July 15th deadline.

We hope that you will agree with us that the unique and extensive nature of this proposal warrants an additional 45 days to sufficiently address this complex and wide reaching DEIS/HCP and carry out the request for additional data that you made from me at the public comment meeting.

Thank you for your timely reply,

Matt Stoecker

Director

Beyond Searsville Dam

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(650) 380-2965

CC'd

BSD Board of Directors;

Steve Rothert

Jeff Miller

Danna Breen

Gordon Becker

COMMITTEE FOR GREEN FOOTHILLS

August 30, 2010

Sheila Larsen
Gary Stern
Fish and Wildlife Service and
National Marine Fisheries Service

Re: Comments on the Draft EIS and HCP/ITP for Stanford University

Dear Sheila and Gary:

Committee for Green Foothills (CGF) submits the following comments on the Draft EIS (DEIS) and HCP/ITP (HCP) for Stanford University:

I. Relationship to Searsville Dam and operations

The EIS, on pages 3-24 and 3-25, discusses an alternative that covers modifications to Searsville Dam and Reservoir for Flood Control, and concludes that this alternative was rejected from further consideration because no specific modifications have been evaluated for feasibility, and there is a large array of flood control measures that the Army Corps and the JPA will be analyzing and considering in the future. The EIS does not discuss an alternative that covers modifications to Searsville Dam and Reservoir for the purpose of benefitting steelhead. The HCP (Section 1.3, page 11) states that future structural changes to the dam could be covered by an addendum to the HCP.

Potential removal or modifications of Searsville dam to allow fish passage, while potentially beneficial for fish, could also have potentially adverse impacts to steelhead downstream of the dam due to increased sedimentation of the main stem of San Francisquito Creek. The large sediment load that originates in the Corte Madera Creek sub-watershed currently accumulates in large part behind the dam. Searsville Lake and associated marshes and riparian areas provide habitat for species that would be greatly altered if the dam were removed. These unknown impacts, particularly to aquatic avian species and bats, could outweigh the benefits of increased spawning and rearing habitat for steelhead upstream of the dam. Downstream sedimentation associated with removal or modification of Searsville and potential increases in flood hazards in East Palo Alto, Palo Alto, and Menlo Park is another complex issue that must be carefully studied and thoroughly evaluated. 8.1 Section 3.2.18

CGF supports a comprehensive study of options for Searsville Dam and Lake in collaboration with Stanford and other stakeholders. Such a study should include analysis of beneficial and adverse impacts to species as well as downstream flood hazards. CGF does not oppose inclusion of a sufficiently-comprehensive study in this HCP, even recognizing that such a study would necessarily delay the HCP. CGF further believes, however, that a comprehensive study could also be done as an amendment to the HCP/ITP. 8.2 Section 3.2.18

II. The HCP and DEIS fail to address the Stanford Sustainable Development Study

The wholesale failure to include discussion or analysis of the Stanford Sustainable Development Study (Sustainability Study) constitutes a significant oversight in the HCP and environmental review. Stanford authored both the Sustainability Study and the Draft HCP, making the oversight particularly jarring. Correcting this oversight will require significant rewriting of the HCP and EIS to reflect the Sustainable Development Study's conclusions about the amount of campus development that will be needed to occur beyond the Academic Growth Boundary (AGB). 8.3 Section 3.2.15

The land outside the AGB and subject to the Sustainability Study analysis is likely to contain the majority of habitat potentially affected by the HCP, so conclusions in the Sustainability Study about level of anticipated development should weigh heavily on the assessment of anticipated impacts from the HCP. Historically, the level of development of Stanford land in San Mateo County has been quite small – most development occurred in Santa Clara County. The vast majority of habitat in Santa Clara County is outside the AGB. Important exceptions occur in the vicinity of San Francisquito Creek and Lake Lagunita, but both of those areas will be subject to special restrictions in the HCP.

The Sustainability Study analysis covers approximately half the time period of the proposed HCP, also making it highly determinative of projections for the second half of the HCP time period. There is no reason for assuming a sudden explosion of development after the current General Use Permit and Sustainability Study analysis end, so the best practice would be to rely on these existing analyses to project outward for an additional 25 years.

III. The HCP and DEIS overestimate the amount of habitat that Stanford may want to impact

HCP and DEIS should examine actual habitat development rates under the GUP for purposes of projecting future needs. The DEIS states that under the existing GUP, Stanford "could" develop up to 30 acres of potential habitat. DEIS at 3-2. No citation is given for this statement, and the GUP in any event is not the final word on new development at Stanford. To assess future habitat development rates based on the GUP, the HCP should instead examine what acreage of habitat has been developed in the nearly 10 years that the GUP has been in place. 8.4 Section 3.2.13

The 180-acre estimate double-counts the 30 acres for the GUP. As discussed below, the projection of 50-150 acres of anticipated development overstates the existing trends and contradicts Stanford's own analysis. Even if the trend of 1-3 acres annually were correct, however, that would cover the time period and geographic area of the GUP. There is no analysis supporting the conclusion that Stanford would damage habitat at its pre-GUP rate, and then in addition to that impact, would destroy another 30 acres through the GUP. The already-inflated and incorrect 150 acre estimate of habitat impact forms a ceiling. 8.5 Section 3.2.13

The Sustainability Analysis estimates significant constraints on future development that need to be included the HCP analysis. To our knowledge, the Sustainability Study is left unmentioned in the HCP and DEIS, especially its conclusion that essentially no development need occur beyond the AGB in Santa Clara County. While it is not binding, the Sustainability Study is Stanford's own analysis of future impacts that it should not ignore simply because it is not currently discussing the sustainability of development patterns. 8.6 Section 3.2.15

The Sustainability Study indicates the level of impact on acreage beyond the AGB should be near zero for the 25 years covered by the Study, and the HCP impact levels should be adjusted to the reflect that fact. The Sustainability Study further indicates a likely constrained level of development in other habitat areas and constrained development in the area beyond the AGB after 2035. No evidence has been provided for a different trend in the future than the trend anticipated by Stanford itself in its own study. That trend should be extended forward to cover the period of the HCP.

Simply put, the HCP and DEIS provided an incorrect trend line for anticipating future habitat development that would require a permit. It has not provided a habitat development rate for recent years under the GUP, nor has it included the constraints on development that Stanford itself acknowledged in the Sustainability Study. Reduced impact figures should therefore be included as constraints on the terms of the HCP. 8.7 Section 3.2.13

IV. Stanford's authority over the land trust significantly reduces the trust's ability to do its job and avoid conflicts of interest. 8.8 Section 3.2.23

The land trust that is to be the recipient of conservation easements from Stanford needs to be completely independent of Stanford and ready (if needed) to even bring legal action against Stanford to enforce the easements, yet Stanford is given authority to set up the trust with no details on how that will happen. Establishment of a trust directed in whole or even in part by persons receiving paychecks from Stanford would create irreconcilable conflicts of interest, as Stanford's ability to exercise control over its employees could influence whether the trust could exercise its legal obligation to protect the conservation easements. Disclaimers that "Stanford would never do such a thing, even 50 years from now" are wholly irrelevant, whether such disclaimers are accurate or not. The conflict of interest exists regardless of good intentions. 8.8 cont'd

The trust also needs sufficient resources to monitor and defend the easements that it owns. This could include litigation both litigation and ability to call on independent scientific expertise. The land trust needs to be adequately funded by Stanford[1], and run by worthy people nominated by Stanford in advance of approval, who are not Stanford employees, and who appoint their own replacements so that Stanford has no subsequent appointment power. 8.9 Section 3.2.23

V. Additional issues

CGF provides the following short-but-important comments:

The HCP needs to integrate and work with downstream impacts of San Fracisquito Creek on endangered species. The San Francisquito Creek flood control project in particular should be discussed in the HCP as an opportunity for potential cooperation. 8.10 Section 3.2.30

The HCP needs further specificity in describing areas that are to be preserved away from the riparian zones. 8.11 Section 3.2.2

Undevelopable areas placed under conservation easements should not be credited to Stanford as mitigation for development elsewhere. In particular, streambeds are essentially undevelopable. Stanford will never have an opportunity to develop those areas and creation of conservation easements therefore does nothing to mitigate impacts elsewhere. The conservation easements should have to extend an additional distance away beyond streambeds to include areas that have some potential for development in order to act as real mitigation. 8.12 Section 3.2.2

As the red-sided garter snake habitat is unprotected and increasingly likely to be destroyed south of Stanford, it is also likely that intergrade garter snakes at Stanford will increasingly belong to the San Francisco garter snake gene pool and should be treated as a listed species. 8.13 Section 3.2.9

[1] One possibility is a funding agreement with Stanford that allows the trust to obtain funding from Stanford for consultants and even to oppose the university, such as in an enforcement action. This agreement would have to be clear in that there could be no possibility for Stanford to evade its responsibilities, and also requires a truly independent trust to function.

Conclusion.

We urge the HCP and DEIS be revised to reflect the comments in this letter.

Please contact us with any questions.

Sincerely,

Brian A. Schmidt
Legislative Advocate, Santa Clara County

Lennie Roberts
Legislative Advocate, San Mateo County

County of Santa Clara

Department of Planning and Development
Planning Office

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August 30, 2010

Gary Stern
San Francisco Bay Region Supervisor
National Marine Fisheries Service,
777 Sonoma Avenue, Room 325
Santa Rosa, CA 95404

Subject: Stanford HCP

Dear Mr. Stern:

The Santa Clara County Planning Office appreciates the opportunity to review the Draft Environmental Impact Statement (DEIS) and the proposed Stanford University Habitat Conservation Plan (Stanford HCP). The County of Santa Clara is very interested in the Stanford HCP conservation program and implementation measures as it relates to long-term protection of the covered species. The County is particularly interested in the management and mitigation of any impact to the California Tiger Salamander (CTS) as it relates to the County approved 2000 General Use Permit (GUP) that governs all development on Stanford University campus within unincorporated Santa Clara County.

Background

In evaluating planned development of lands at Stanford University and potential impacts upon CTS, the GUP and the Stanford Community Plan (SCP) have specific requirements for CTS and habitat protection.

GUP Requirements:
In evaluating CTS, the GUP contains several conditions related to habitat protection easements over Lake Lagunita and upland areas, the requirement to create CTS breeding ponds and establish occupancy for 3 years, and standard project conditions for development in the CTS Management Zone. In lieu of adhering to these conditions for protection of CTS, the GUP allows reliance upon an HCP as follows: *"the conditions related to the "California Tiger Salamander shall be superseded by any subsequent HCP approved by the USFWS so long as the HCP provides as much habitat value and protection for the CTS as the (GUP) Conditions of Approval."*

Stanford Community Plan Requirements:
The SCP requires an HCP (page 100, Attachment B) if CTS becomes listed (Threatened Species) and if development is proposed in habitat area per the CTS

Map (SCP Figure 6.1, Attachment B). There are several SCP policies ensuring protection of habitat, monitoring requirements, and an implementing measure that requires "long-term habitat protection measures in appropriate locations as mitigation for development..." The supporting text states: "the primary tools to protect prime habitat are long-term conservation easements and creation of new salamander habitat through the addition of new viable breeding ponds."

Review Comments

CTS habitat measures within the GUP focus on protection of CTS within established habitat in and around Lake Lagunita and adjacent foothills. The proposed HCP focuses on long-term comprehensive conservation of CTS habitat within newly created breeding habitat in the foothills area, while maintaining Lake Lagunita for a period of 50 years.

The County reviewed the DEIS and HCP to determine how the HCP compares with the requirements/protections of the GUP, and to determine if the HCP provides as much habitat value and protection for the CTS as the GUP Conditions of Approval.

Staff of the Planning Office and Stanford University have met to clarify and modify certain sections of the proposed HCP to ensure that the HCP will provide at least as much habitat value and protection for the CTS as are provided by the GUP conditions of approval. The agreed to text changes that accomplish this objective may be found in Attachment A. The County believes incorporating the changes listed in Attachment A would improve the HCP and would assure the HCP satisfies the GUP condition of approval #J.9. For this reason, the County hereby requests the USFWS and NMFS incorporate the recommended revisions.

9.1

Section 3.2.19

Alternatively, if these changes are not incorporated into the HCP, Stanford University may be required to adhere to both the GUP CTS requirements in addition to the HCP conservation program.

Additional Comments

While reviewing the proposed HCP, the County retained a third party professional biologist to comment on the HCP. The biologist (Brian Pittman, CWB) provided a letter to the County with analysis, comments, and recommendations that are based on his professional experience and technical training. These comments do not directly represent the position of the County with respect to the HCP, as the County is only tasked with evaluating the HCP within the context of the conditions established under the GUP. However, as the comment letter raises several points worth considering with respect to CTS habitat protection and best management practices, we are providing this to you for your consideration. The letter is included as Attachment C.

Please contact me at (408) 299-5747 for any clarification or questions on the review comments in this letter.

Sincerely,

Rob Eastwood, Senior Planner

Department of Planning and Development

Attachments:

Attachment A:	Draft Text Changes to Address Santa Clara Conty Comments on the Draft Stanford HCP
Attachment B:	Page 100 of the Stanford Community Plan with discussion regarding the California Tiger Salamander
Attachment C:	Letter dated August 19, 2010, addressed to Kavitha Kumar, Santa Clara County Dept. of Planning & Development from Brian Pittman, CWB, of ESA Biological Resources

cc

Eric Tattersall
Chief, Conservation Planning and Recovery Division
Fish and Wildlife Service
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
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Charles Carter
Director, Land Use & Environmental Planning
Stanford University
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Attachment A

DRAFT TEXT CHANGES TO ADDRESS SANTA CLARA COUNTY COMMENTS ON DRAFT HCP

SCC Comment: Clarify that the Lagunita operations plan is an annual requirement

(page 60) Lagunita operations plan

On April 1*of each year*, the flow of San Francisquito Creek and status of California tiger salamanders in and around Lagunita will be assessed, and Stanford will exercise professional judgment whether to continue, reduce, or cease diversions to Lagunita.

SCC Comment: Potential isolation of foothills by development around Lagunita

(page 118) Central Campus CTS Monitoring and Management Plan

This Central Campus CTS Monitoring and Management Plan will consist of the following: [Note: insert the following bullet as the 6th bullet in the list – This is the same language that is used to describe the no-build requirements for the CTS Reserve on page 116]

- Continue to operate Lagunita consistent with the Lagunita operations plan described in Section 3.1.3.
- *Development, such as academic buildings, residential dwelling units, or commercial buildings, will be prohibited in the Lagunita area that is shown on Figure 5-1.* [1] *Utilities and other general infrastructure improvements that would not adversely affect the tiger salamander habitat and tiger salamander dispersal may be placed within the Lagunita area. However, these improvements will be reviewed by the Conservation Program Manager, and if necessary, the Conservation Program Manager may impose use conditions and restoration measures.*

SCC Comment: Breeding Pond Success Criteria

(page 103) Establishment of Mitigation Accounts

During the life of the HCP, Stanford can earn additional credits that will be held in the Riparian Accounts by permanently preserving additional habitat and by enhancing and/or creating

[1] *If the HCP is amended or authorization is otherwise granted by the Service and CDFG to allow development within the Lagunita area, Stanford will ensure that a minimum of three breeding ponds in the CTS Reserve have achieved the success criteria described in Section 4.3 before such development occurred.*

ATTACHMENT 'A'
Pg 1 of 4

additional habitat. Likewise, Stanford will earn credits by permanently conserving habitat in the CTS Reserve, and these credits will be held in the CTS Account. Specifically, Stanford will earn 1 credit for each additional acre of riparian habitat or upland California tiger salamander/garter snake habitat that it permanently preserves, and 25 credits for each acre of permanently preserved tiger salamander breeding habitat. *"Breeding habitat," for purposes of earning mitigation credits, is defined as a pond that supports successful California tiger salamander reproduction 3 years within a 6-year period (excluding years of below average rainfall)[2] and includes metamorph dispersal habitat within 50 feet of the pond.*

(page 111) Permanent land preservation within the CTS Reserve will be credited towards the CTS Account. Stanford may enhance tiger salamander habitat at any time, and has already constructed eight new *potential* breeding ponds. *During the period 2005-2010, Stanford experienced average or above average seasonal rainfall during 5 of those 6 years. In that time California tiger salamanders bred successfully four times in Pond #1, twice in Pond #5, and once in Pond #2 (Figure 2-4). Pond #1 therefore meets the definition of "breeding habitat."* However, no credits will be awarded for these enhancements until a permanent conservation easement is recorded over the habitat. The boundary of the CTS Reserve is shown on Figure 4-5.

(page 162 – References)

Launer, Alan. 2010. Ponds constructed in the Stanford foothills in 2003: summary of conservation activities and annual monitoring 2003-2010.

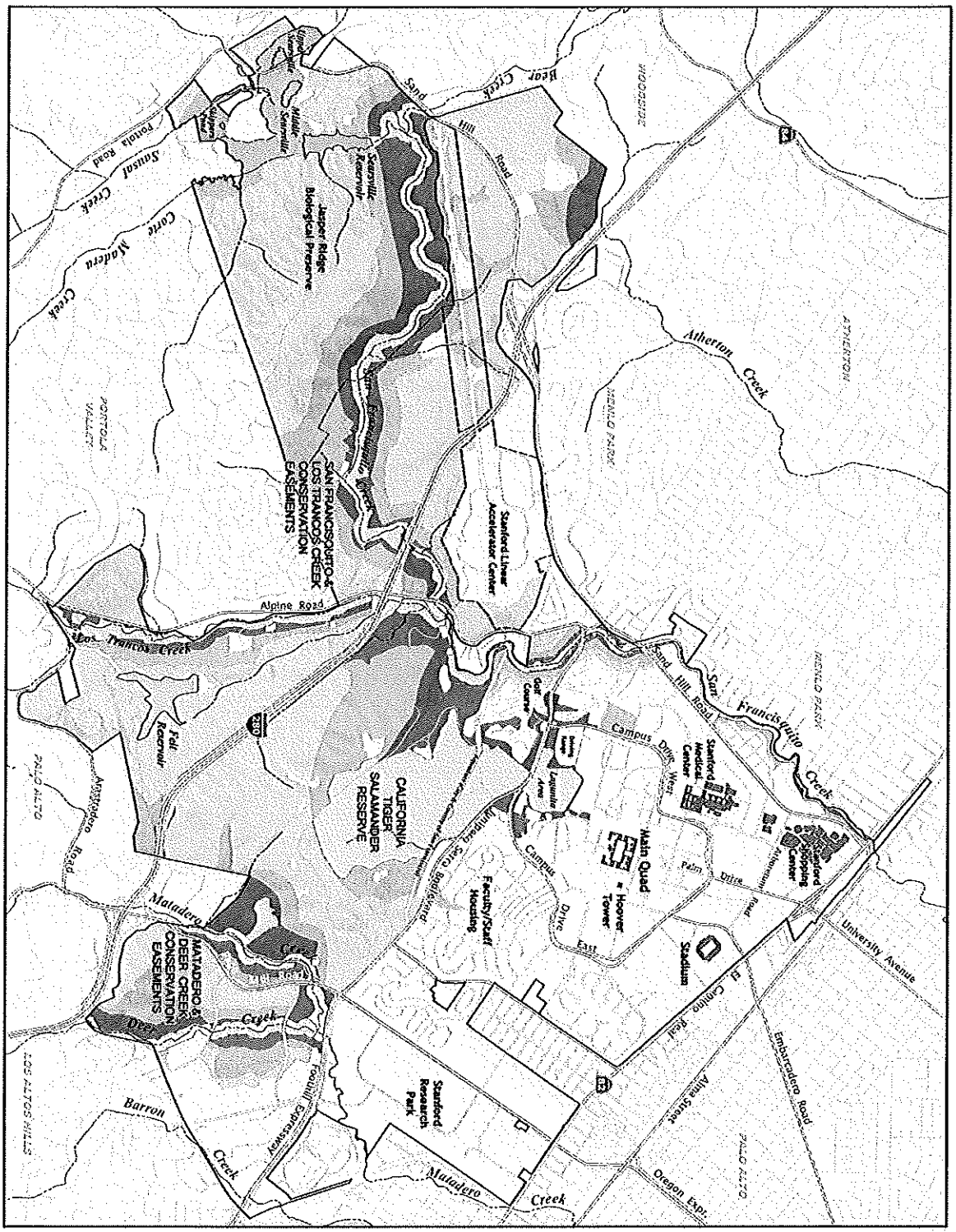
SCC Comment: Clarify that when term of HCP expires, the ITP will expire.

(page 143) 6.2 TERM OF PERMIT

Stanford is seeking incidental take permits from the Service and NOAA Fisheries with terms of 50 years. The incidental take permits issued under Section 10(a)(1)(B) of the ESA and the associated HCP would be in effect for a period of 50 years from the date of issuance of the permits by the Service and NOAA Fisheries. *Upon expiration of the incidental take permits, Stanford will not have take authorization under the ESA. However,* prior to permit expiration, Stanford may apply to renew the incidental take permits and associated HCP, and rollover its unused credits. Stanford anticipates that it may seek renewals of up to 10 years, subject to mutual review and agreement by the parties. To give the parties adequate time to review and process permit renewals, the parties will initiate the permit renewal review 5 years prior to the expiration of the initial 50-year period, and 1 year prior to the expiration of any renewal. Fifty years was chosen as the permit duration because it is a reasonable timeframe for Stanford to forecast its operational and infrastructure needs, as well as to anticipate future development that

[2] *With the approval of the Service and CDFG, Stanford may exclude years with average or above average rainfall from this calculation if rainfall patterns resulted in a situation where successful reproduction would not be expected to occur.*

could affect Covered Species habitat. As discussed in Section 1.1, Stanford has more than 120 years of hindsight and experience in operating the University, and forecasting its future needs. Moreover, the University will continue to operate well beyond the 50-year term of the permit. The 50-year timeframe is also expected to be necessary to use up the credits that Stanford will earn from its initial preservation of 360 acres of habitat and other habitat enhancements.


Stanford University Habitat Conservation Plan
Possible Location of Assumed Development
Zone 1, 20-30 acres could be developed within zone
Zone 2, 25-45 acres could be developed within zone
Zone 3, 35-105 acres could be developed within zone
No Build Areas
CTS No Build areas for term of HCP
Conservation Easement
Note: Assumed development cannot occur in either the CTS No Build areas or the Conservation Easements
hectare
100
acres
Graphic Scale
1 Inch = 0.5 Miles
0 0.25 0.5 0.75 1
Miles
Stanford University Planning Office
Date Printed: August 24, 2006
Figure 5-1
Sand Hill Road
Alpine Road
Los Trancos Creek
Portola Road
Corte Madera Creek
Searsville Reservoir
Jasper Ridge Biological Preserve
SAN FRANCISQUITO & LOS TRANCOS CREEK CONSERVATION EASEMENTS
Stanford Linear Accelerator Center
Atherton Creek
Bear Creek
Sand Hill Road
Francisquito Creek
Campus Drive West
Campus Drive East
Palm Drive
Main Quad
Hoover Tower
Stadium
Faculty/Staff Housing
Stanford Shopping Center
University Avenue
El Camino Real
Alma Street
Embarcadero Road
Oregon Expy
Stanford Research Park
Matadero Creek
Barron Creek
Foothill Expressway
Arastradero Road
Page Mill Road
Foothill Expressway
CALIFORNIA TIGER SALAMANDER RESERVE
MATADERO & DEER CREEK CONSERVATION EASEMENTS
Felt Reservoir
Golf Course
Stanford Medical Center
Lagunita Area
ATHERTON
MENLO PARK
PORTOLA VALLEY
PALO ALTO
LOS ALTOS HILLS

long-term commitment to the preservation of environmentally significant areas, particularly in the foothills.

The question of what habitat areas are "sensitive" and most in need of protection is not a simple one. Habitats for some special-status species under state or federal law are clear candidates for protection. Such habitats at Stanford include Lake Lagunita, other breeding ponds, and the upland habitat (undeveloped land within 500 meters of breeding sites) for the California tiger salamander. It also includes the creeks and their riparian surroundings which support steelhead and red-legged frogs. While much of this habitat area is located in the foothills which will remain largely undeveloped, some areas around Lake Lagunita on the north side of Junipero Serra Boulevard are within the Academic Growth Boundary (AGB). This area is viable salamander habitat and should be considered a sensitive area for management purposes.

While location of development and activities outside of the most sensitive habitat areas is important, appropriate management within already developed areas and in locations used for agriculture and recreation is also critical to the protection of species and habitats. For example, there is concern about the effects of recreational activity in the foothills in terms of erosion and effects on habitat and wildlife. Unlimited access to the creeks in these areas could pose a threat to the special status species in such aquatic environments. Resource management of some of these areas can be particularly challenging in areas that are not directly controlled by the University, such as on agricultural leaseholds on undeveloped lands.

California Tiger Salamander

Measures to protect habitat for the CTS under the Community Plan will minimize development in the most crucial habitat areas over the long term. These areas are undeveloped lands within 500 meters of CTS breeding sites, without intervening development that fully blocks salamander access. Specifically, existing prime habitat includes Lake Lagunita and its undeveloped environs and the Lower Knoll, with undeveloped lands south of JSB also serving as important habitat (See Figure 6.1 – California Tiger Salamander Habitat). While the Driving Range is adjacent to the lake, recreational activities have prevented it from acting as prime salamander habitat.

The primary tools to protect prime habitat are long-term conservation easements and creation of new salamander habitat through addition of viable breeding ponds. The AGB itself is an important tool for CTS habitat protection in that it will prevent development in some portions of the CTS habitat area.

If the CTS is listed as a threatened or endangered species by the U.S. Fish and Wildlife Service in the future, Stanford will be required to obtain incidental take authorization and prepare a Habitat Conservation Plan if any development or activities that affect the salamander are proposed.

The policies associated with this strategy emphasize both avoidance of disturbance to sensitive habitat areas and mitigation of any impacts that do occur.

100

ATTACHMENT B

California Tiger Salmander Habitat Areas

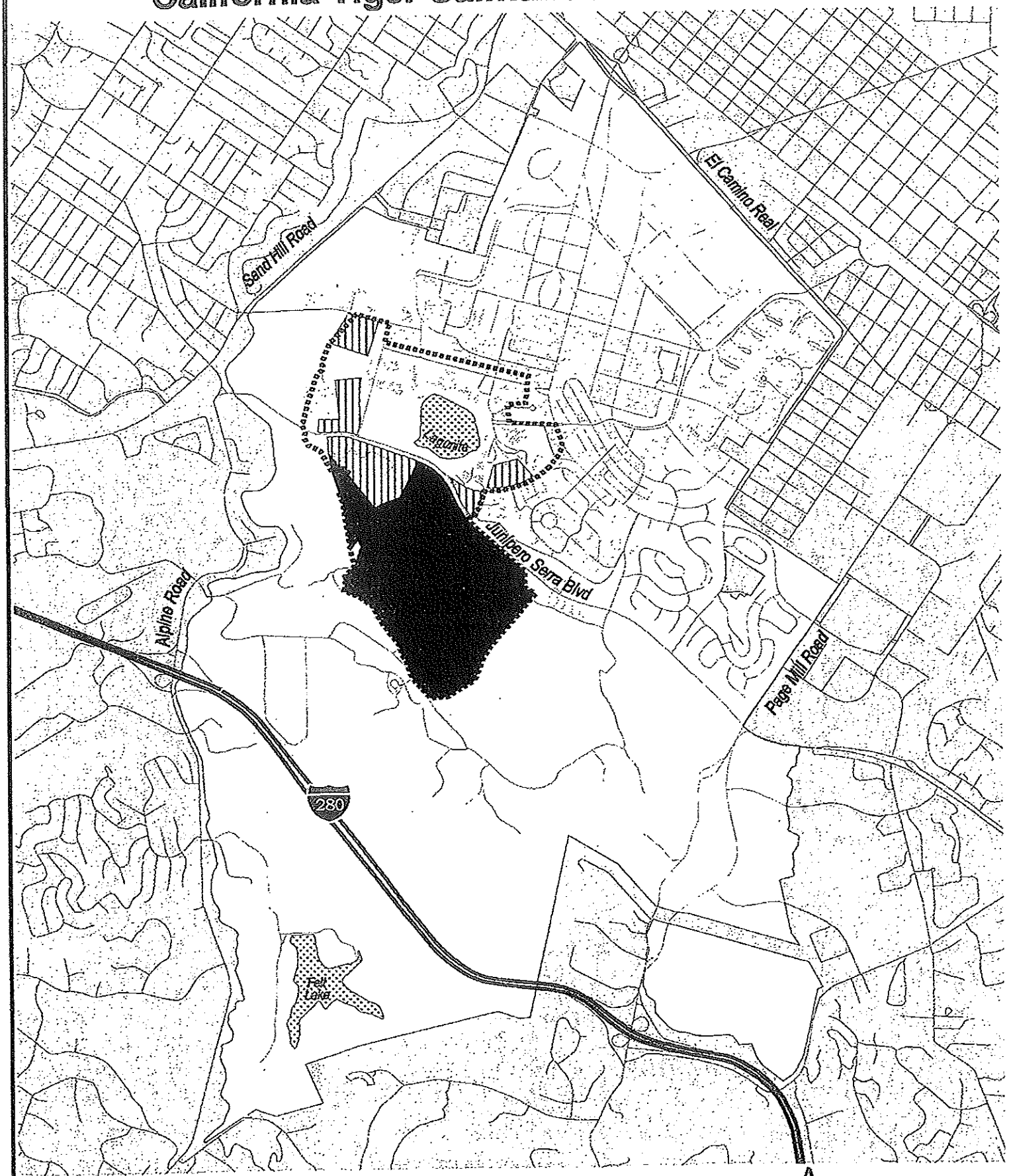


Figure 6.1

Policies

SCP-RC 3
Assure the protection of habitats for special status species in approving the location and design of new development. Avoid habitat areas for these species in the location of development whenever feasible.

SCP-RC 4
Protect and maintain habitats, natural areas, and wildlife corridors in development and redevelopment.

SCP-RC 5
Protect habitat areas through use of the Open Space and Field Research, Special Conservation, and Campus Open Space land use designations, and through use of the Academic Growth Boundary. If land use designation changes or AGB relocation is proposed, conduct detailed studies for presence of special status species and their habitat prior to decision making.

SCP-RC 6
Require Stanford to mitigate any impacts on special status species or other biological resources that result from land use and development through:

a. Mitigation measures that have proven to be effective which shall be implemented prior to commencement of site preparation and construction activities as appropriate.

b. Mitigation measures such as provision of new habitat areas which shall be monitored and, if necessary, revised over time to ensure the viability of these measures as mitigation.

SCP-RC 7
Maintain and restore riparian buffer zones along creeks as described in Santa Clara County General Plan policy R-RC-37.

SCP-RC 8
Monitor and evaluate the recreational use of sensitive habitat areas and limit if necessary the recreational use of areas supporting significant, but less sensitive, natural resources.

Implementation Recommendation

SCP-RC (i) 3
Establish guidelines for review and approval of research and teaching activities in habitat areas, particularly in those areas which support special-status species.

SCP-RC (i) 4
Develop and implement a program for monitoring and managing recreational activities in the foothills with regard to the habitat impacts of these activities.

SCP-RC (i) 5
Participate in the preparation and implementation of a Habitat Conservation Plan for Stanford lands, if such an effort is initiated by Stanford or the U.S. Fish and Wildlife Service.

SCP-RC (i) 6
Require long-term habitat protection measures in appropriate locations as mitigation for development in habitat areas that support special-status species or that are protected through local, state, or federal regulations.

SCP-RC (i) 7
Require replacement of trees greater than 12 inches in diameter which are removed at a 1:1 ratio of replacement to removed trees. For oaks which meet this criteria, require relocation of trees or replacement at a 3:1 ratio.

SCP-RC (i) 8
Develop guidelines for the location, siting and review of proposed construction projects that minimize impacts to natural resources.

SCP-RC (i) 9
Identify opportunities to conserve water used for irrigation and other purposes in order to limit use of water from creeks.

Strategy #3: Encourage and Promote Habitat Restoration

Just as protection of existing natural resources is a critical element to successful resource conservation planning, so too is habitat restoration. After well over 200 years of occupation by European settlers and their descendents, and more than 8,000 years of occupation by Native Americans, Santa Clara County, including the Stanford area, has been modified significantly by humans. Habitat loss, habitat fragmentation, and habitat modification have all occurred on a large scale in the region, with most changes occurring in the last 150 years. For example, the Stanford foothills, which are considered an important natural resource, are primarily comprised of non-native grasses and have been substantially altered through cattle grazing. Both foothill areas and flatlands in areas surrounding Stanford lands have been extensively developed.

Habitat restoration is also a potential mitigation measure for development in sensitive habitat in other locations.

The policies associated with this strategy encourage continued habitat restoration as part of a comprehensive approach to habitat preservation and management.

ESA Biological Resources

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August 19, 2010

Kavitha Kumar
County of Santa Clara
Dept of Planning and Development
70 W. Hedding St., 7th fl EW
San Jose, CA 95110

Subject: Review of the Stanford University Habitat Conservation Plan

Dear Ms. Kumar:

This letter provides my comments on the Stanford University Habitat Conservation Plan (HCP), particularly relative to the adequacy of the document to identify and address potential threats to the California tiger salamander (CTS) (*Ambystoma californiense*) during the 50-year permit period. Several deficiencies were identified in the document to this regard, particularly in the lack of conservation and restoration efforts that will be applied to Lake Lagunita, which is the keystone to long-term CTS persistence at Stanford University and on the entire San Francisco Peninsula.

Lands North of Junipero Serra Avenue are Undervalued in the HCP

A recurring theme in the HCP is the discounting of aquatic and upland habitat values in areas located north of Junipero Serra Blvd (JSA). This is evidenced in multiple ways, but is particularly apparent relative to:

- the baseline habitat values of Lake Lagunita in terms of CTS productivity and the quality of surrounding grasslands and oak located north of JSA are not represented in the HCP;
- the HCP dismisses habitat values at the Driving Range, which provides a key habitat connectivity linkage to undeveloped grasslands and oak woodlands near the Red Barn and Equestrian Center, along portions of the golf course and golf course driving range, and near Electioneer Road;
- the lack of long term conservation commitments (easements) over Lake Lagunita in favor of land conservation in areas that are relatively distant from this prime breeding site;
- the tightly drawn definition of the Lagunita Area that does not include oak woodlands surrounding the golf course driving range and continuing west to Campus Drive.

Each of these topics is considered in detail below.

ATTACHMENT 'C'

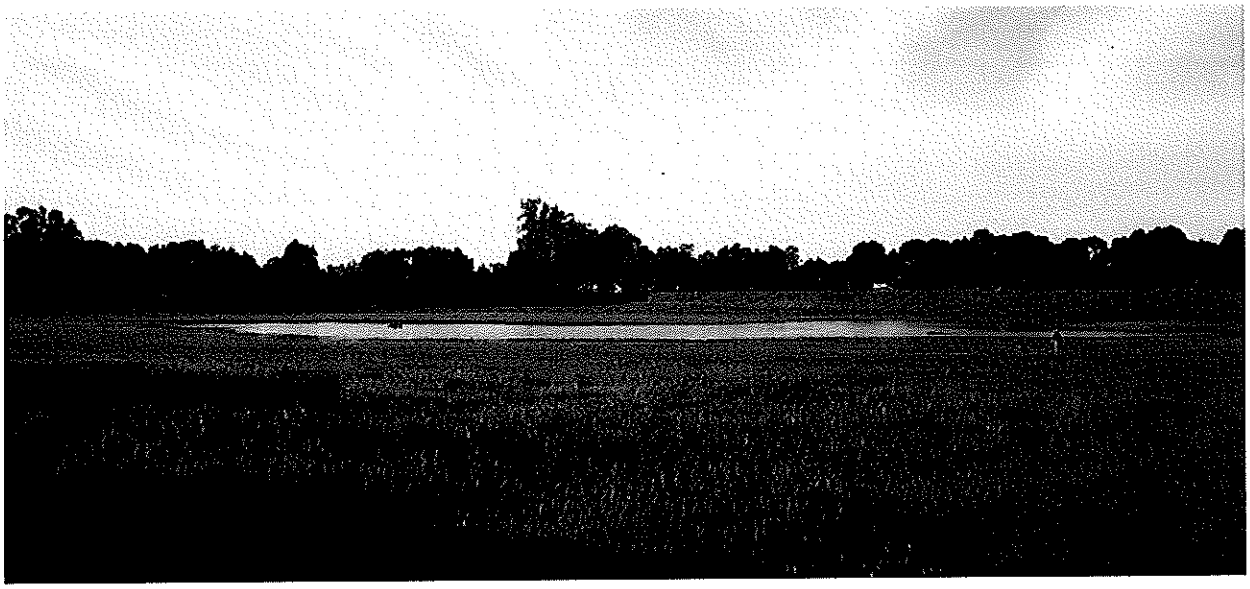
ESA Biological Resources

Kavitha Kumar
August 19, 2010
Page 2

Baseline Habitat Value of Lake Lagunita and Lands Located North of JSA

Presumably CTS breeding sites were historically available at Stanford prior to its development and existed in and near the basin that now comprises Lake Lagunita. The ponded character of this site was presumably the reason for the original siting of Lake Lagunita at this location. While it is important that the long-term CTS conservation strategy focus on alternative breeding sites in the future California Tiger Salamander Reserve, as identified in the HCP, it is also important to acknowledge and recognize that prime aquatic habitat for CTS has historically been provided by large vernal pools and not artificial ponds. The tendency to push the CTS population into small artificial stock ponds as a long-term replacement for vernal pool habitat, as summarized in the January 2010 California Department of Fish and Game (2010) *A Status Review of the California Tiger Salamander*, "presents an appearance of stability that is more apparent than real." The sheer size of Lake Lagunita and its enormous potential to support CTS breeding is not discussed in the HCP. As an example of the productivity of large pools, in 2009 I performed a CTS aquatic survey at a similar, though much smaller (0.5-acre) breeding site in Alameda County and identified 2,500 individual CTS larvae. This type of massive breeding potential, with thousands of metamorphs moving into upland areas during optimal breeding years, has certainly helped maintain the Stanford CTS population through decades of urban encroachment. By comparison, if the created ponds become fully functional, their output would be a fraction of the CTS production that Lake Lagunita provides. The HCP should acknowledge the anticipated long-term CTS population recruitment from created ponds *and* Lake Lagunita in terms of potential CTS production and anticipated future variability in production during wet and drought years.

10.1
Section 3.2.6



The vast size and high quality upland and aquatic habitat values for CTS are evident in this March 2010 photograph of Lake Lagunita. Such habitat values cannot be replaced and should be conserved and enhanced in the long-term CTS management strategy.

ESA Biological Resources

Kavitha Kumar
August 19, 2010
Page 3

The HCP's definition and identification of accessible and usable CTS upland habitat relies on the analysis presented in the 2000 Stanford University General Use Permit (GUP) and Stanford University Community Plan. As identified in Figure 4 of the GUP, a 500-meter (1,640 foot) buffer area was drawn to reflect the developed portions of the campus that were presumably accessible to California tiger salamander. This was interpreted as a linear distance originating at the edge of Lake Lagunita at full capacity. The presence of curbs, buildings, landscaping, turf and areas were considered unusable to CTS and thus excluded from the 500-meter CTS Management Zone identified in the GUP.

The HCP continues use of the same 500-meter habitat area defined in the GUP and defines the same areas as the GUP as "inaccessible" habitat. The continued use of maps from the CTS Management Zone identified in 2000 overlooks upland habitat values for CTS in areas north of JSA and does not incorporate recent insights into CTS movement and habitat use, or incorporate the modern (post-federal listing) USFWS position in defining CTS upland habitat and the effective mitigation of effects to such habitat. By current USFWS standards, a distance of 1.0 km from breeding ponds is more typically used when identifying potential impacts to CTS and their upland habitat. Using this current standard, many areas located north of JSA and in particular the "rough" areas on the golf course (west of Lake Lagunita) and areas east of Fremont Road and Oak Road, and north of Searsville Road should require mitigation under the credit program. The USFWS should justify the continued use of 500-meters as the cutoff in defining upland impacts to CTS, particularly given the extreme vulnerability of the Stanford CTS population and exceedingly important role of upland CTS habitat for this population. The explanation should justify why a 0.5 km impact assessment buffer is appropriate for the particularly jeopardized Stanford CTS population, whereas healthy, somewhat remote CTS populations without upland habitat restrictions typically receive a 1.0 km impact assessment buffer.

10.1 cont'd

The Essential Role of the Golf Course Driving Range for CTS Movement

The Golf Course Driving Range serves to provide a key habitat connectivity linkage to undeveloped grasslands and oak woodlands located north of JSA, and in particular those undeveloped areas near the Red Barn and Equestrian Center, along portions of the golf course and golf course driving range, and near Electioneer Road. The HCP interprets the driving range as already developed, and as such any future change in its use would not require mitigation using the CTS credit system. The HCP does not officially recognize (in the Setting, Covered Activities/Impacts or Impact/Take Assessment sections) that the driving range provides a key movement and habitat connectivity function to CTS. For this reason, the driving range receives no protection in the HCP other than a single operational provision that golf ball collections will not occur on rainy winter/spring evenings. The HCP fails to recognize the essential role in CTS movement provided by the driving range, and its value in maintaining connectivity to lands located north of JSA and west of Lake Lagunita. The continued use of this site as a driving range is essential to maintaining the use of all the undeveloped areas located west and north of the driving range. Such habitat areas that are mistakenly not considered CTS habitat by the HCP include the "rough" edges, golf course fairways, the undeveloped fringe of the equestrian center, and undeveloped grasslands further

10.2
Section 3.2.6

ESA Biological Resources

Kavitha Kumar
August 19, 2010
Page 4

10.2 cont'd

north. Due to the local importance of the area in terms of CTS habitat connectivity, the driving range should be formally in the HCP as a "No Build Area" for the 50-year term of the Incidental Take Permit. The development of this area, which is presently permitted without mitigation by the HCP, would render perhaps more than 50 to 100 acres of habitat located north of JSA inaccessible and unusable to CTS, a classic case of habitat fragmentation. The USFWS should justify why the habitat values at the driving range were excluded from the HCP, and similarly explain why mitigation would not be required to develop this important area.

Long-term Conservation Easements

Two basic problems were identified with the California Tiger Salamander Reserve, as identified in the HCP. First, the physical boundary of the CTS Reserve does not include the most important upland and aquatic habitat to CTS, which are the areas mapped as the Lagunita Area in the HCP and immediately adjacent to Zone 1 (green) areas identified in HCP Figure 5-1. The USFWS should justify why the HCP does not provide permanent protection or enhancement of the Lagunita Area, especially given that with relatively few habitat enhancement the long-term management requirements the productivity of this area would be significantly reduced over the current condition. While the HCP discusses habitat enhancement actions for the created CTS breeding ponds, such measures are not specifically provided for the Lagunita Area. The need for such enhancement measures is discussed later in this letter.

10.3
Section 3.2.6

Another identified issue is that the HCP conservation strategy relies excessively on the protection of relatively remote lands in the CTS Reserve to facilitate development in the immediate vicinity of Lake Lagunita. To remedy this situation, the development of CTS habitat located north of JSA should be mitigated in a separately tabulated "North of JSA CTS Account" with credits specifically applied to a conservation easement at the Lagunita Area. This account would be tabulated separately from the presently defined "South of JSA CTS Account" to better connect impacted areas to mitigation areas. Presently, the HCP facilitates the development of some of the most valuable lands to CTS, allowing compensation in areas that are greater than 1.0 mile distant. The HCP needs to promote a greater physical connection between areas that are impacted and those that are protected, especially in and near the Lagunita Area.

The USFWS should explain why the HCP excludes the most valuable CTS conservation lands at Stanford, those areas within the Lagunita Area, from the long-term conservation easement; particularly when the best available science indicates that conservation of the Lagunita Area is crucial to continued CTS survival at Stanford. The USFWS should also clarify how the single area CTS Account system would protect habitat better than the two part CTS Account system (i.e., North of JSA/South of JSA) proposed above.

Need for CTS Barriers and other Measures to Mitigate Traffic and Development Impacts

Implementation of the HCP will facilitate the construction of new buildings and infrastructure that will increase vehicle traffic on JSA and Campus Drive West, which will presumably increase CTS mortality. Vehicle

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collisions are likely the principal source of CTS mortality at Stanford. As such, the HCP should identify existing traffic on roads that account for most CTS fatalities and specific take avoidance measures should be provided to address the increased vehicle mortality threat from permitted development.

10.4
Section 3.2.6

Few attempts are made by the HCP to minimize CTS losses by migration onto the main campus. The retrofitting of some at-grade infrastructure features such as grates is provided in Section 5; however, the HCP does not go so far as to require new features that would stop or minimize migratory losses. Feasible mitigation measures that should be included in the HCP include the creation of CTS migration barriers (e.g., simple concrete curbs) to route CTS to specific road crossing locations such as the created underground tunnels at JSA. Also, such curbs could be built on the north and east side of the Lagunita Area to minimize species losses when individuals migrate into the main campus and down sewer drains. A similar strategy was successfully implemented at the Southwest CTS Preserve in the City of Santa Rosa, where an isolated CTS breeding area and associated upland habitat was encircled by a concrete curb to prevent losses into storm drains and the adjacent neighborhood. The USFWS should justify why such proactive measures to minimize CTS losses were not included in the HCP.

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Section 3.2.6

Enhancement Opportunities at Lake Lagunita

A stated biological goal of the HCP is to reduce CTS reliance on Lagunita, which requires supplemental water and regular maintenance. This goal is largely achieved through the reliance upon created ponds in the CTS Reserve. As a result of this Reserve focus, the HCP does not require specific habitat enhancement measures at Lake Lagunita that could improve CTS habitat conditions such as the lake's ability to retain water. The lake has historically been subject to intensive recreational use and management activities that were not conducive to CTS use. As an example, in a tradition dating to 1898, the "Big Game" Bonfire historically occurred each November/ December on the lake bottom until 1993 when this practice was halted to protect CTS. The long-term effects of this consumptive recreational use and the associated continued introduction of large amounts of organic debris and other materials to the lake bottom permeability is not known. However, based on the discussion in the HCP, there seems to be a problem with the lake's ability to retain water, which creates associated problems for steelhead in San Francisco Creek due to the need for water withdrawals during critical periods.

The known history of the these and similar damaging uses should be described in the HCP to better frame existing conditions and assist in identifying mitigation for potential problems. At a minimum, a focused geological study (e.g., analysis of soil cores) should be performed at Lake Lagunita to examine the source of current water losses and to provide potential solutions to improve water retention. The results of this study should inform habitat enhancement recommendations for Lake Lagunita, which would benefit from the removal of accumulated top layers or the addition of a clay lining (e.g., addition of bentonite clay). Such a study would benefit steelhead, California red-legged frog and western pond turtle populations in San Francisquito Creek. An associated biological study should be performed at Lake Lagunita to identify habitat improvement recommendations for CTS. This study and the associated soil improvement recommendations should be added as

10.6
Section 3.2.6

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a Covered Activity in the HCP. Presently, such analyses are only required as HCP contingency measures (see below).

10.6 cont'd

The USFWS should state why such studies were not included as part of the HCP, and why the overall CTS enhancement strategy bypasses obvious habitat improvement opportunities at Lake Lagunita.

Contingency Measures in the HCP

Were the population to become critically imperiled at Stanford (e.g., if breeding were not documented in 3 or more consecutive years), the contingency measures provided in the HCP are inadequate. The contingency plan relies solely upon state and federal funds that aren't readily available and would require substantial time to request. In the meantime, the CTS population could be on the brink of extirpation and the response may come too late to help. There may be a better than 10 percent chance that this situation could occur during the next 50 years, particularly in the uncertain face of climate change and projected sustained drought periods. Under such a scenario, the HCP would rigidly maintain its focus on the enhancement and conservation lands south of JSA without specific enhancements at Lake Lagunita. The HCP contingency language to confront such a scenario is not reassuring:

> "In some cases, new management techniques may be essential to assist in maintaining the Covered Species populations but Stanford cannot implement the new techniques without raising the overall cost of managing the San Francisquito/Los Trancos Easement, Matadero/Deer Easement, CTS Reserve or Central Campus CTS Management Area. In such cases, the new management techniques may be implemented, but only if funding sources (e.g., state or federal funds) are obtained such that the overall costs of implementing the HCP area not increased." (Section 4, pg. 121)

It seems that enhancements to critical CTS breeding habitat at Lake Lagunita will only be performed if specifically required by the USFWS due to the threat of imminent CTS extirpation, and then only if outside funding is available. A better option would be to tie key Lake Lagunita improvements into current permitted development under the HCP. The present approach puts the future of the CTS population at risk by ignoring current enhancement opportunities, while simultaneously allowing enormous development (and enhancement funding) opportunities on immediately adjacent lands.

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Section 3.2.6

The USFWS should explain why the Stanford HCP is not required to set aside a contingency fund that would eliminate the response time in requesting state or federal funding. Similarly, since the HCP states the contingency response would only occur following the infusion of uncertain outside funding, the USFWS and Stanford should clearly state how they might respond to a CTS population emergency in the absence of such required funding.

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Miscellaneous Comments on the HCP

1. Section 3 of the HCP repeatedly asserts that the Covered Activities individually "may not result in take." However, these same activities are identified in Section 5 as contributing to "take" on a project-level basis. Section 3 should be updated to reflect that species "take" will occur on a project-level basis and is not limited to the cumulative effects of the HCP. 10.8 Section 3.2.6

2. The HCP should identify whether or not the historic and continued use of groundwater in and near Lake Lagunita has contributed to the low water table at this location, a situation that impedes lake ponding and the sustained retention of water through the CTS breeding season. The HCP does not identify whether the extreme depth of current wells is attributed to exhaustion of shallow depth wells. The overdrafting of shallow wells may have contributed to the relatively deep water table at Lake Lagunita. 10.9 Section 3.2.22

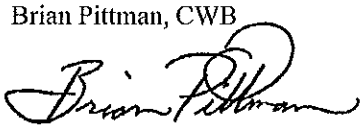
3. Section 5 does not take credit for the beneficial effect of adding supplemental water to Lake Lagunita. 10.10 Section 3.2.22

4. The HCP does not address coverage for CTS "take" under the California Endangered Species Act (CESA). It would be helpful to clarify the CESA permitting process in the HCP and what discussions Stanford has had with CDFG. 10.11 Section 3.2.4

Thank you for this opportunity to comment on the Stanford HCP. If you have any questions about this assessment please contact me at your earliest convenience.

Sincerely,

Brian Pittman, CWB



GUADALUPE - COYOTE
RESOURCE CONSERVATION DISTRICT
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August 30, 2010

Mr. Gary Stern
SF Bay Team Supervisor
National Marine Fisheries Service, Southwest Region
777 Sonoma Avenue, Room 325
Santa Rosa, California 95404

Fax number (707) 578-3435

Ms. Sheila Larsen
Senior Staff Biologist
United States Fish and Wildlife Service
2800 Cottage Way, Room W-2605
Sacramento, California 95825

RE: Draft Environmental Impact Statement for Authorization for Incidental Take and Implementation of the Stanford University Habitat Conservation Plan and Implementing Agreement, April, 2010.

Dear Ms. Larsen and Mr. Stern:

Thank you for the opportunity to submit comments on the Draft Environmental Impact Statement (DEIS) for the Leland Stanford Junior University ("Stanford") application to take certain federally protected species under provisions of the Federal Endangered Species Act. In reviewing this application that addresses the potential environmental consequences that may occur if the application is approved, we find that environmental support data for this application are deficient.

The areas with which we are especially concerned include the steelhead fishery and the dependability of support flows in Los Trancos Creek and San Francisquito Creek; the Western pond turtle, California red-legged frog, and California tiger salamander habitat (wetlands and riparian); range management protocols on the 8000 acre Stanford University campus; water supply percolation potential in San Francisquito Creek and Lake Lagunita; water conservation measures and native habitat communities preservation; wetlands delineation in San Francisquito Creek and Matadero Creek watersheds encompassing ponds and riparian corridors associated with Deer, Los Trancos, Matadero and San Francisquito Creeks; and campus wildlife corridors and vistas.

We are unable to find historical and present base flow data for Los Trancos and San Francisquito Creeks in this DEIS, and are therefore unable to assess impacts that the Stanford lake water source diversions for campus irrigation (as depicted in Figure 3-2) will have on the resident steelhead. In Table 5-1, estimated incidental mortality of individual steelhead is assessed at 120 annually, out of a population of 1500. What will be the cause of this take? Will dryback, insufficient flow, or high streamflow temperatures degrade health and the survival lifecycle of steelhead? Will blocking migration or removing upstream

11.1 Section 3.2.22

11.2 Section 3.2.10

spawning gravels affect steelhead and their habitat? Over a fifty-year period, without improved water resource management, will steelhead exist in San Francisquito Creek, and to what extent? 11.2 cont'd.

What have been the most recent steelhead counts after installation of the massive Los Trancos fish ladder? Counts before and after installation should be documented. Reportedly, Fish & Game's Patricia Anderson, found Los Trancos/tributary still had viable runs of steelhead before Stanford "upgraded" Los Trancos's diversion. 11.3 Section 3.2.10

Are steelhead making it upstream of this diversion facility? In a good water year, like 2010, are steelhead to be found in the five miles of Los Trancos Creek extending farther west in Santa Clara County to Black Mountain? There should be support field data in this DEIS to give credibility to estimated incidental take of steelhead. 11.4 Section 3.2.10

According to 2000 USGS gage data, Searsville Lake has a capacity of 952 acre-feet and diversions of about 800 acre-feet each year are diverted from Los Trancos for irrigation on Stanford University Campus. Where are levels of amended Los Trancos diversion flows to Felt Lake canal documented in the DEIS? Will this mean depletion of low Los Trancos and San Francisquito Creek summer flows to a degree that will impact the steelhead fishery? What will be low-flow conditions in drought years? Is this scenario assessed as a "take of federally protected species incidental to otherwise lawful activities"? Stanford claims diversions for irrigation of campus are based on pre-1914 riparian rights, according to a separate submittal to NOAA and California Water Resources. Submittal(s) which purport to document Stanford water rights should be included in this DEIS. 11.5 Section 3.2.22 11.6 Section 3.2.36

Removal of the Searsville Dam has not been adequately analyzed in the Stanford DEIS/HCP. Analysis should include restoration of steelhead to their ancestral habitat, revival of submerged wetlands, assessment of natural flood protection benefits, and downstream safety risks, for current and likely future scenarios. 11.7 Section 3.2.33

USGS gage data notes that "low flow affected by wastewater from Stanford Linear Accelerator" groundwater flows, pumped to San Francisquito Creek, would need to be assessed for temperature and volume—which may be a critical factor in drought or summer low stream flow conditions and for possible creation of unseasonal attraction flows for incoming steelhead. This should also be represented in base stream data referenced in the DEIS, as evaluation is impossible otherwise. 11.8 Section 3.2.22

In the 2007 San Francisco PUC Facilities Upgrade DEIR it states that Stanford plans to provide 1.9 mgd of lake water sources for irrigation of Stanford Campus. This lake water resource is water diverted from Los Trancos and San Francisquito Creeks to Felt Lake and Searsville Reservoir. In a separate submittal to NOAA and State Department of Water Resources Stanford has claimed diversions to these lakes for irrigation purposes are based on pre-1914 riparian rights. 11.9 Section 3.2.36

On Figure 6 of Conditions of Approval for Stanford University General Use Permit (12-12-00) by Santa Clara County, it shows half of campus in Santa Clara County to be in the Matadero Creek watershed. Wouldn't the above be an interbasin transfer of Los Trancos and San Francisquito Creeks' water to Matadero Creek watershed and not be considered permissible use under riparian rights? Shouldn't this translate into a mandate that half of

diverted water to lakes for irrigation be returned to beneficial instream uses in Los Trancos and San Francisquito Creeks? What is the new base flow?

Regarding Table 5-1 and Table 5-2 Summary of Estimated Incidental Mortality of Individuals and Estimated Loss of Zone 1 and 2 Habitat for California red-legged frog, California tiger salamander, Western Pond Turtle and San Francisco Garter snake, biological support data on existing habitat caliber and location is deficient. We can find no option in the DEIS for alternative land management protocols that might avoid impacts to species. Is there an alternatives analysis that we missed? Wetlands hydrology and connectivity of wildlife corridors are essential to the health and well being of endangered species and need to be an element in the biological assessment. Where is the wetlands delineation mapping and does it reflect species wildlife corridor management zone(s)? What protective protocols and legal mandates are to be found in conservation easements?

11.10 Section 3.2.7

11.11 Section 3.2.37

11.12 Section 3.2.23

It is accepted practice in Santa Clara County that, to retain genetic integrity, only native species of plants of the watershed should be used in revegetation and landscape design. This plant list should be included in this HCP and possibly with some direction as to reliable providers. Species might even differ slightly between the San Francisquito Creek and Matadero Creek watersheds.

11.13 Section 3.2.26

There should be a list of invasive plants that are known to degrade habitat—and that should thus be avoided— for federally protected species for which this HCP is designed. For instance phragmites is an invasive in Palo Alto's baylands and should certainly not be recommended for revegetation.

11.14 Section 3.2.26

The Biological Impact Assessment of the Foothills Fire Management Plan, of January 8, 2009, Prepared for the City of Palo Alto reviews Special-status Species by Habitat Type and Treatment Location with Protection Measures, and incorporates details specific to these species that Stanford needs to incorporate in its DEIR. In particular they give a more detailed assessment of habitat types and vegetation in foothills and rangeland surrounding the Stanford Campus and locate species such as the Western pond turtles at Searsville Lake. Is there any reason that this Foothills Fire Management Plan should not be incorporated into Stanford's HCP and DEIS?

11.15 Section 3.2.17

There are riparian setback guidelines that need to be incorporated into this HCP. Santa Clara County asks for a 100-foot setback from the top of bank of perennial creeks—such as San Francisquito, Los Trancos and Matadero Creeks—within the urban service area, a 150-foot setback outside the urban service area, and a 200-foot setback where the slope of terrain adjacent to the creek is over 30 degrees. Such criteria need to be adhered to regardless of conservation easement language.

11.16 Section 3.2.4

It is a concern that the management group to which Stanford delegates administration of its conservation easements might not realize it is subject to Santa Clara and San Mateo County General Plan guidelines as well as California and Federal regulatory review. Wording of these conservation easements should be included in both the text of the HCP and the Implementing Agreement in order to avoid inconsistencies and non-compliance with CEQA and other environmental law. It is also a concern that this conservation management body not be composed of people who owe their jobs to Stanford—or graduates their loyalty to the University. Biological integrity of conservation

11.17 Section 3.2.23

11.18 Section 3.2.23

lands should not be compromised by potential loyalties to other than the conservation ethic. How can this be assured? 11.18 cont'd

Riparian setback criteria are particularly important for Los Trancos and San Francisquito Creeks in order to provide adequate SRA habitat critical for steelhead and sustaining cooler summer stream flows. For instance the recreation trail Stanford is building along San Francisquito Creek might be permissible in San Mateo County but would it conform to the riparian corridor setback of Santa Clara County? We believe it might not. Riparian impacts should be addressed consistently under the most strict guidelines and standards of local agencies— municipalities and counties—so that lenient regulations do not prevail in one area of Stanford lands and development, where more stringent regulations apply in other areas. 11.19 Section 3.2.4

Another aspect of regulatory compliance and coordination needs to be evident in grazing management. It is said that Stanford has a good contractor at present in control of grazing. But has Stanford documented this management plan with baseline criteria of residual biomass to be retained on hillsides, and with an adaptive management scale for wet and dry years? Can this present seemingly successful range best management plan be included in this HCP and DEIS? Can this include Stanford coordination with City of Palo Alto's Foothills Fire Management Plan? 11.20 Section 3.2.21

In the Habitat Conservation Plan table of contents, lists in Appendices B, Recommended Best Management Practices for Management of Animal Waste Compost and Sediment on Creeks, includes Table 2 an Approved List of Plants for Vegetated Buffers. Is it appropriate for the list to have a number of salt tolerant plants? Are they native to the watershed? Please delete 'phragmites', a highly invasive plant that City of Palo Alto is spending thousands of dollars to eradicate in its baylands. This is a ten-year-old list and needs updating. 11.21 Section 3.2.26

Also please list as required references: "Horse Keeping A Guide to Land Management for Clean Water" prepared by Council of Bay Area Resource Conservation Districts in partnership with the USDA Natural Resources Conservation Service, and their Dryland Pasture for Horses, Horse Paddocks, Conservation Measures to Reduce Non-point Source Pollution at Horse Facilities, Horse manure Management, Controlling Yellow Starthistle, Composting Horse Manure, and Photographic Monitoring for Equestrian Facilities. 11.22 Section 3.2.22

Regarding geology, where is the Stanford Fault located on campus? It should be shown on the appropriate map. 11.23 Section 3.2.20

A map should also clearly delineate the "confined" and "unconfined" zones of groundwater on Stanford lands. Section 4.1.3.2 describes the "unconfined zone" (where groundwater recharge can occur) at Stanford as "relatively small, consisting of a swath of land between the main quad and Junipero Serra Boulevard, stretching west to Sand Hill Road and east to Stanford Avenue". This is the narrow band that historically contained water channels and percolation ponds, such as Lake Lagunita, to supply the deep underground aquifer for Palo Alto. The "confined zone" where water cannot move from the ground surface to the aquifer appears to be relatively large on Stanford lands. Delineation of these groundwater areas is important as it may impact placement of mitigation, ponds, etc. 11.24 Section 3.2.22 11.25 Section 3.2.22

Where is percolation for aquifer supply to be accomplished in this HCP and DEIR? Figure 3-2 illustrates Los Trancos and San Francisquito Creek stream flow bypasssing prime downstream natural percolation reaches; Lake Lagunita only seems to be managed to hold water from rain events. Where is percolation to deep aquifers now expected to occur? What is the California Department of Water Resources review of this plan?

11.26 Section 3.2.22

11.27 Section 3.2.22

11.28 Section 3.2.19

In the Santa Clara County General Use Permit granted to Stanford University in 2000, a requirement stated that "within twelve months of GUP approval Stanford shall prepare and submit to the County Planning Office for review and approval a Water Conservation and Recycling Master Plan which will identify measures for reducing potable water use on campus. Measures included in the plan may be required as conditions of approval for proposed building projects....The plan shall address: a. Mechanisms for use of recycled water for turf and landscaping irrigation," etc.

11.29 Section 3.2.22

Where in this HCP and DEIS is this water conservation and recycling master plan included? To what degree will this return stream flows to San Francisquito Creek? To what degree will it restore percolation to deep drinking water aquifers? The GUP should also be an included document in the DEIS.

11.30 Section 3.2.13

DEIS Figure 2-2 depicts primary watershed basins: Matadero Creek and San Francisquito Creek. The smaller watershed portions that are within Stanford lands should also be depicted on a map. A better definition of "basin" would also help in understanding whether basin refers to a watershed or to a species protection area in the DEIS.

11.31 Section 3.2.22

11.32 Section 3.2.22

Biological resources addressed in this Santa Clara County GUP also mandated wetlands delineation, habitat protection easements for the tiger salamander, qualified biologist to survey for special status plants, breeding raptors and migratory birds, oak woodland restoration and mitigation habitat, and five year mitigation monitoring. The lack of designation of wildlife corridors within and through the Stanford Campus is a critical deficiency in this HCP and DEIS. The HCP and DEIS have inherent conflicts with the General Use Permit approved in December 2000 by Santa Clara County which permits over a thousand housing units in designated 'conservation lands' of West Campus stable site and Lake Lagunita area where wildlife corridors and wetland connectors might be realized. Can this conflict be clarified?

11.33 Section 3.2.37

11.34 Section 3.2.14

There is also no mention made of university student recreation utilization of hillside or creek trails, of use of equestrian stable and riding ring facilities, of the driving range and golf course, or of any water related activities that used to be available on Lake Lagunita. An undergraduate university, such as Stanford will likely provide leisure recreation for students as well as competitive facilities for equestrian and golf events. Where is the recreation element in the HCP/ DEIS with evaluation of its anticipated impact on federally protected species for the next fifty years? How can conflicts between student recreational use and habitat conservation of these lands be avoided? What alternatives can be devised to separate recreation and wildlife use along stream corridors and in general campus use? Shouldn't this deserve an entire chapter in the HCP / DEIS?

11.35 Section 3.2.28

11.36 Section 3.2.28

Consideration of Stanford as a location for an essential part of the equestrian element in any bid for the summer Olympics should be given some evaluation in the

11.37 Section 3.2.28

document. This is bound to be an exciting reality in the next fifty years and the HCP/DEIS needs to include it. | 11.37 cont'd

It is important that Stanford coordinate with San Mateo and Santa Clara Counties in every aspect of this HCP, along with State and Bay Area regulatory agencies and the US Corps of Engineers. A watershed is not a watershed without a flood control project in its fifty-year future. | 11.38 Section 3.2.28

Is the Appendix B "Habitat Conservation Plan" the *revised* HCP as shown on the Stanford website as of August 30, 2010? | 11.39 Section 3.2.19

Stanford's #1 institutional goal is "Maintain land use flexibility." In view of the legal restrictions associated with the Founding Grant—which are cited as the basis for the need to retain future land use flexibility (HCP, Sec. 1.5)—Stanford's Founding Grant should be an included document in the DEIS. The importance of goals—both institutional and biological—to the DEIS and HCP makes inclusion of such a document mandatory. | 11.40 Section 3.2.29

HCP Objective 2.5 (continue to supply water to Lagunita to allow metamorphosis of larval CTS) should be qualified by the requirement that the timing, method and amount of optimal water supply be included, so that conservation and monitoring of the objective will be effective. | 11.41 Section 3.2.6

It is our request that a five or seven year review mechanism be incorporated into this HCP. | 11.42 Section 3.2.31

Thank you again for the opportunity to comment on the Stanford University HCP/DEIS,

Sincerely,

Guadalupe-Coyote Resource Conservation District
Lawrence Johmann, Chair

SAN FRANCISQUITO CREEK
Joint Powers Authority
www.sfcjpa.org

East Palo Alto, Menlo Park, Palo Alto, San Mateo County Flood Control District, and the Santa Clara Valley Water District

August 30, 2010

Mr. Eric Tattersall
Chief, Conservation Planning and Recovery Division
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825

Mr. Gary Stern
National Marine Fisheries Service
777 Sonoma Avenue, Room 325
Santa Rosa, CA 95404

Subject: Comments on the Stanford University Habitat Conservation Plan Draft Environmental Impact Statement

Dear Mr. Tattersall and Mr. Stern:

I have reviewed the Draft Environmental Impact Statement (DEIS) for Authorization for Incidental Take and Implementation of the Stanford University Habitat Conservation Plan, and have the following comments on behalf of the San Francisquito Creek Joint Powers Authority (SFCJPA), the regional government agency empowered to protect and enhance the San Francisquito Creek watershed and the communities within it.

I disagree with the statement in the DEIS that "sufficient information is not currently available to include flood reduction as a Covered Activity" (Page 2-5). In 2009 the SFCJPA hired an environmental engineering firm experienced in these matters to study potential areas suitable for the upstream detention of floodwaters during major storm events. That consultant determined that specific sites adjacent to the Creek could be utilized for this purpose. With their 2009 summary report (see http://sfcjpa.ehclients.com/documents/alternatives%20analysis.pdf), the substantial information gathered for the report, and other data amassed by multiple agencies, there is sufficient available information to include flood reduction as a Covered Activity in the HCP. 12.1 Section 3.2.30

I also question the statement on page 5-11 of the DEIS that regional flood reduction will be addressed by "all of the stakeholders in the region, not just Stanford. Therefore, possible regional flood reduction activities, such as modifications to Searsville Dam, the construction of off-stream detention sites, or regional-flood-reduction-related widening of San Francisquito Creek, are not Covered Activities." This quote rightly indicates that Stanford has a responsibility to participate in regional flooding solutions. In addition, the previously mentioned consultant's report found that, among all landowners in the watershed, Stanford is uniquely able to support flood prevention activities through floodwater detention on lands now classified as Zone 1 or Zone 2 in the HCP. 12.2 Section 3.2.30

Also on Page 5-11, the DEIS states "While the HCP does not expressly cover any future regional flood reduction activities, it does not inhibit regional flood reduction planning." Because the threat of flooding here has increased since a 1998 flood damaged 1,700 properties, and flood reduction planning has been a U.S. Army Corps of Engineers (Corps) activity here since 1941, and Stanford's Trustees expressed support for flood protection measures following a 1955 flood that damaged Stanford and other properties, what is needed now is "activity." Thus, we request that the sentence within the DEIS quoted here be changed to state "The HCP expressly covers regional flood reduction activities." 12.3 Section 3.2.30

Also on page 5-11, the DEIS states "The HCP protects 270 acres of the most biologically valuable portions of San Francisquito and Los Trancos creeks by placing conservation easements over them. This is a small fraction of the 45-square-mile watershed, and would not preclude the Corps and JPA from identifying viable, and possibly less environmentally sensitive, places to build flood reduction improvements."

While it is true that the HCP protects a small fraction of the watershed and Stanford land, the previously mentioned July 2009 study determined that the only viable flood detention facilities within the watershed are adjacent to the Creek on Stanford lands (and thus at least partially within the proposed conservation easement). Thus, we disagree with the suggestion that the Proposed Action would not have a significant adverse effect on regional flood reduction as a result of implementing the Conservation Program or the placement of a conservation easement. 12.4

Section 3.2.30

Page 5-65 of the DEIS states "The conservation easements could complicate, but not prevent, the acquisition of Stanford's land by the Corps or JPA if proven necessary as part of a flood reduction project. Such acquisition is already difficult because, Stanford's Founding Grant prohibits Stanford from selling its lands donated by the Stanford family." The purchase of Stanford land as part of a flood reduction project is not being contemplated, and thus there would be no change of ownership to affect a possible conservation easement. Currently, there are many diverse uses of Stanford's land; its potential use as a floodwater detention facility would benefit the region without requiring that the existing land uses of these sites be substantially altered. 12.5

Section 3.2.30

Finally, I do not agree that we can be sure that the adoption of the DEIS and approval of the HCP "would not have a significant adverse effect on regional flood reduction as a result of either implementation of the Conservation Program or placement of a conservation easement in the San Francisquito Creek watershed." (Page 5-11). The HCP's Proposed Action would make the construction of a flood reduction facility within the conservation easement much more difficult, and thus it is important that the HCP positively affirm the potential use of lands adjacent to the Creek for this purpose. 12.6

Section 3.2.30

The concept of upstream detention has been developed to a sufficient degree and has enough public support and potential public safety benefits to merit amending the HCP to include the potential construction of the one or more detention basins as a Covered Activity and to merit modifying the DEIS to assess the resulting positive and negative impacts to protected species. It is important that these changes be made so that both documents describe and assess how the federal government's and the region's flood reduction activities can be implemented in concert with, rather than harmed by, the vital conservation goals of the HCP. 12.7

Section 3.2.30

Thank you for the opportunity to comment on the DEIS for the Stanford University HCP. I look forward to an EIS and an HCP that incorporate the substantive issues raised in this letter.

Sincerely,

Len Materman
Executive Director

July 9, 2010
Eric Tattersall, Chief
Planning and Recovery Division
Fish and Wildlife Service
Sacramento, CA 95825
RE: Stanford University Habitat Conservation Plan

Dear Mr. Tattersall:

The League of Women Voters of South San Mateo County commends Stanford University for its Habitat Conservation Plan, a 50 year framework to promote conservation and plan for future land use. It is intended to protect endangered species habitat in exchange for incidental take of land with lesser habitat value for a variety of development purposes, thus establishing a mitigation credit system. Over a 50 year period, approximately 180 acres or 4% of the almost 5000 acres will be developed.

The League of Women Voters believes that areas of unique natural resources should be maintained in uses which would preserve them. Open space has a value of its own, not to be viewed as a holding zone for future development. Open space provides a buffer and refuge for wildlife near more developed areas. If habitats deemed of lesser value are to be developed priority should be given to academic or research uses in or near the University core, thus protecting open space further away. Conservation easements should be established to protect major creek habitat,watersheds, and scenic corridors.

13.1
Section 3.2.14

13.2
Section 3.2.2

It appears that a separate, non-profit land trust organization will be formed to hold the conservation easements and to monitor implementation of the HCP. In order to ensure transparency the trust should be completely independent of Stanford University and have broad based community representation. All deliberations should be open to the public. A substantial trust should be funded by the University to ensure viability over time.

13.3
Section 3.2.23

13.4
Section 3.2.23

Page 140 of the HCP proposal states “It is unknown whether mitigation will make up for the lost functions and values of the existing habitat. Therefore, the precise impact of cumulative future growth is unknown.” Precisely because of that concern there needs to be clear criteria for incidental take and close scrutiny of the mitigation process. as well as close oversight by regulatory and permitting agencies and a watchful public.

13.5
Section 3.2.23

Sincerely,

Jamie Shepard, Board President

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August 30, 2010

Gary Stern
San Francisco Bay Region Supervisor
National Marine Fisheries Service
777 Sonoma Ave., Room 325
Santa Rosa, CA 95404

Dear Mr. Stern:

Re: Stanford Habitat Conservation Plan/Draft Environmental Impact Statement

This firm represents Beyond Searsville Dam on matters related to the Searsville Diversion Dam Facility operated by Stanford University. We submit these comments on the adequacy of the Habitat Conservation Plan ("HCP") and draft environmental impact statement ("DEIS") for Stanford University. As detailed below, we do not believe the HCP includes adequate measures to avoid the unlawful take of threatened Central California Coast steelhead trout and the DEIS does not adequately address impacts to steelhead trout from the operation of the Searsville Dam and other facilities operated by Stanford. Therefore, the HCP should not be approved and the DEIS should not be adopted until both are revised to fully meet the requirements of law.

I. The HCP and Implementing Agreement Fail to Meet the Requirements of the ESA.

Section 9 of the ESA and its implementing regulations prohibit any person from "taking" a threatened or endangered species. 16 U.S.C. §1538(a)(1); 50 C.F.R. § 17.31. A "person" includes private parties as well as local, state, and federal agencies. 16 U.S.C. § 1532(13). "Take" is defined broadly under the ESA to include harming, harassing, trapping, capturing, wounding, or killing a protected species either directly or by degrading its habitat sufficiently to impair essential behavior patterns. § 16 U.S.C.

1532(19). The ESA not only bans the acts of parties directly causing a take, but also bans the acts of third parties whose acts bring about the taking.

Congress created two "incidental take" exceptions to section 9's take prohibition. One of these exceptions is found in section 10 of the ESA. Section 10 of the ESA, 16 U.S.C. §1539, authorizes the Secretary of the Interior to permit activities otherwise prohibited under the ESA's Section 9 "take" provisions under certain very limited circumstances. The Secretary has largely delegated this authority to the FWS. Take may be authorized under Section 10 through issuance of an incidental take permit for activities carried out in accord with an approved HCP. 16 U.S.C. §1539(a). Section 10(a)(1)(B) authorizes the FWS to issue private parties and state and local governmental entities take permits for "any taking otherwise prohibited by section 1538(a)(1)(B) [section 9] of this title if such taking is incidental to and not the purpose of the carrying out of any otherwise lawful activity." 16 U.S.C. § 1539(a)(1)(B).

Before issuing a take permit, NMFS must make certain findings including: (1) the taking will be incidental to an otherwise lawful activity; (2) the applicant will, to the maximum extent practicable, minimize and mitigate the impact of such taking; (3) the applicant will insure that adequate funding for the conservation plan will be provided; (4) the taking will not appreciably reduce the likelihood of the survival and recovery in the wild; (5) an [*sic*] all other measures required by NMFS have been met; (6) NMFS has received the necessary assurances that the HCP will be implemented. ESA § 10(a)(2)(B), 16 U.S.C. § 1539(a)(2)(B); 50 C.F.R. § 222.22(c)(2).

Section 10(a)(2)(A) Requirements

A permit applicant must prepare and submit to the FWS a habitat conservation plan ("HCP"). 16 U.S.C. § 1539(a)(1)(B). An HCP must contain specific measures to "conserve," the species which includes providing for the recovery of the species. At a minimum, the ESA and implementing regulations require all HCP's to include the following: (1) a complete description of the activity sought to be authorized; (2) the names of the species sought to be covered by the permit, including the number, age and sex of the species, if known; (3) the impact which will likely result from such taking; (4) what steps the applicant will take to monitor, minimize, and mitigate those impacts; (5) the funding that will be available to implement such monitoring, minimization, and mitigation activities; 6) the procedures to be used to deal with unforeseen circumstances; and (7) what alternative actions to such taking the applicant considered and the reasons why such alternatives are not being utilized. 16 U.S.C. § 1539(a)(2)(A)(i)-(iv); 50 C.F.R. §§ 17.22, 17.32. NMFS cannot issue an incidental take

permit if the HCP does not contain this information. 16 U.S.C. § 1539(a)(2)(A). The HCP fails to meet these requirements in several ways.

A. The HCP Improperly Excludes Searsville Dam and Measures Necessary to Avoid Take from the Dam.

14.1
Section 3.2.33

Among its most significant failings is the omission from the HCP of a major element of Stanford's water supply system – the operation and presence of Searsville Dam. Instead, the HCP proposes to cover routine maintenance and operation of the Dam, while at the same time excluding coverage for the Dam itself. HCP at 59. In addition, the HCP proposes to cover the water diversion facilities connected to, and dependent on, the dam as well as reservoir produced by the dam with proposed major dredging operations within the reservoir. Such a tactic runs afoul of the requirement that an HCP provide a "complete description" of the activity sought to be authorized. 16 U.S.C. §1539 (a)(2)(A)(i). It is, moreover, nonsensical. It is not practical to divorce the presence of the Dam from the attached diversion facilities and reservoir – for which the HCP seeks coverage. Nor does it make any sense to allow for take coverage for such activities as flushing of the Dam and dredging the reservoir, while at the same time ignoring the presence of the Dam itself. Were it not for the Dam, no water diversion facility or reservoir would exist and no flushing, dredging, or other maintenance activities would be required. The HCP cannot provide for coverage of some elements of the water supply system created by the Searsville Dam while at the same time ignoring other integral elements of that system. See *Crutchfield v. U.S. Army Corps of Engineers*, 154 F. Supp. 2d 878, 900-905 (E.D. Va. 2001) (holding that the Army Corps improperly segmented a necessary water source from analysis of a wastewater treatment plant).

14.2
Section 3.2.33

14.3
Section 3.2.33

Moreover, by deliberately excluding the presence of the Dam from the HCP, Stanford continues to leave itself open to take liability under section 9 of the Endangered Species Act. *Loggerhead Turtle v. County Council of Volusia County* (11th Cir. 1998) 148 F.3d 1231, 1246. The Dam results in take both through direct harm to steelhead and other Covered Species – such as injury caused by interference with spawning and migration – and through adverse modification of critical habitat. San Francisquito Creek has been designated as critical habitat for California Central Coast steelhead. The Dam adversely modifies critical habitat in San Francisquito Creek in ways that cause actual harm to steelhead by blocking fish passage, significantly modifying flows, altering temperatures, altering water quality, increasing non-native species, and altering habitat quality in San Francisquito Creek watershed and the natural evolution of San Francisquito Creek. See comments of Matt Stoecker and Gordon Becker submitted on behalf of Beyond Searsville Dam.

14.4
Section 3.2.18

The HCP admits that the Dam blocks suitable spawning habitat for steelhead, but fails to acknowledge to true extent of this loss. For example, the HCP asserts that the Dam blocks access to 3-5 miles of spawning and rearing habitat upstream, when estimates of historically available spawning and rearing habitat indicate that the number is much higher – on the order of 18 miles of habitat is blocked above the Dam. See Stoecker Comments. Such modification of critical habitat causes actual harm to the natural behaviors of steelhead, including migration, reproduction, and rearing, and should be addressed by the HCP.

14.5
Section 3.2.10

B. The HCP Fails to Include Mitigation Measures and Alternatives Designed to Mitigate Impacts to the Maximum Extent Practical.

By excluding Searsville Dam, the HCP fails to show that it has mitigated the impacts of ongoing operating of the Stanford water system to the maximum extent practicable, as required by the ESA. 16 U.S.C. § 1539(a)(2)(B). In *National Wildlife Federation v. Babbitt ("Natomas")* (9th Cir. 2000) 128 F. Supp. 2d 1274, the U.S. District Court found that the Fish and Wildlife Service had violated the ESA in its adoption of an HCP for development in the Natomas Basin by failing to consider mitigation measures or alternatives that would involve greater mitigation than that called for in the HCP. *Id.* at 1292-93.

The HCP here suffers from a similar defect. Indeed, none of the alternatives includes a plan that would call for more mitigation. See HCP at 157-58. This failing is particularly significant with respect to the operation of Searsville Dam since it is clear that an alternative geared at reducing take from the dam to the maximum extent practicable would reduce the incidence of take from the on-going operation of the Stanford water supply system. Stanford's own SHEP program and SCVWD Proposed HCP both include fish passage and bypass flows for the Los Trancos Creek Diversion Dam and the San Francisquito Creek Pumping Station. For example, a new fish ladder was built at the Los Trancos Diversion Dam and bypass flows for steelhead were established for both facilities. Neither is proposed for Searsville Dam or evaluated in the HCP.

Nor does the provision of a minimal amount of funding to study the feasibility of fish passage alternatives at Searsville Dam constitute adequate mitigation or even commitment to implement any of the actions identified. Simply studying the feasibility of mitigation is not mitigation. Moreover, there is no commitment to implement any changes necessary to accommodate fish passage in the absence of substantial modifications to the Dam itself or provide adequate bypass flows, improved water quality and habitat, and reduction in non-native species impacts caused by

14.6
Section 3.2.18

Searsville Diversion Dam complex. As such, the Dam will continue to operate and continue to result in the take of steelhead without any mitigation, let alone avoidance of take to the maximum extent practical. 14.6 cont'd.

C. The HCP Should Include An Alternative That Requires Compliance with State Laws Designed to Protect Public Trust Resources in San Francisquito Creek and Its Watershed. 14.7 Section 3.2.18

The HCP should also evaluate an alternative that includes the removal and/or modification of Searsville Dam to comply with the requirements of California law – most specifically, the public trust doctrine and Fish and Game Code sections 5901, 5931 and 5937. Under California law, all water rights are subject to the public trust doctrine, which protects both the recreational and ecological values of California waterways. *See, e.g., Marks v. Whitney* (1971) 6 Cal.3d 251, 259-60. The in-stream values in San Francisquito Creek, including its steelhead population, and other Covered and non-Covered Species, fish, recreational and scenic enjoyment, are clearly public trust resources. The California Supreme Court has held that California water law is an integration of both the public trust and appropriative right systems. *Nat'l Audubon Soc'y v. Superior Court* (1983) 33 Cal.3d 419, 425-26. In certain circumstances, the use of water under a prior claim of right must yield to the need to protect public trust interests. *El Dorado Irrig. Dist. v. St. Water Res. Control Bd.* (2006). Thus, Stanford's water right is subject to the public trust doctrine and an alternative requiring Stanford to protect public trust resources within San Francisquito Creek and its watershed is not only feasible, it is legally mandated.

Similarly, California Fish and Game Code section 5901 prohibits the maintenance of any dam that blocks fish passage upstream or downstream. Section 5930 and 5931 require the Department of Fish and Game to review dams throughout the state and if it determines that the dam does not provide sufficient fish passage, to require the dam operator to provide sufficient fish passage. The HCP and draft EIS themselves admit that there is no fish passage around Searsville Dam and that it blocks access to miles of spawning and rearing habitat for steelhead. Under state law, Stanford would be required to remedy this situation; the HCP should acknowledge this fact in determining whether to include such modifications to the Searsville Dam.

Even without fish passage around the dam, section 5937 requires Stanford, as the operator of the Searsville Dam, to release sufficient water through the Dam to maintain fish in good condition below the Dam. It is apparent that the current diversion operations and flows through the Dam fail to meet this standard. See Stoecker Comments. The HCP, however, fails to include flow modifications from Searsville Dam

that would reduce the take of steelhead to the maximum extent practical, while requesting coverage in the HCP of water diversions that have never been assessed for impacts to downstream Critical Habitat and Covered Species.

II. The Draft EIS fails to Meet the Requirements of NEPA.

14.8
Section 3.2.32

The draft EIS for the draft HCP fails to fulfill the statutory and regulatory mandates of the National Environmental Policy Act ("NEPA"). The purpose of NEPA is to "promote efforts which will prevent or eliminate damage to the environment and biosphere." 42 U.S.C. § 4321. NEPA's fundamental purposes are to guarantee that: (1) agencies take a "hard look" at the environmental consequences of their actions before these actions occur by ensuring that the agency carefully considers "detailed information concerning significant environmental impacts," *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989); and (2) agencies make the relevant information available to the public so that it "may also play a role in both the decision-making process and the implementation of the decision." *Id; See also,* Stoecker Comments (elaborating on recommendations by NMFS and Stanford's own scientist for a collaborative process to address fish passage at Searsville Dam.)

NEPA emphasizes "coherent and comprehensive up-front environmental analysis" to ensure an agency "will not act on incomplete information, only to regret its decision after it is too late to correct." *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1216 (9th Cir. 1998), cert. denied, 527 U.S. 1003 (1999) quoting *Marsha v. Oregon Natural Resources Council*, 490 U.S. 360, 371 (1989); *see also Foundation on Economic Trends v. Heckler*, 756 F.2d 143, 157 (D.C. Cir. 1985) ("The NEPA duty is more than a technicality; it is an extremely important statutory requirement to serve the public and the agency *before* major federal actions occur.") (emphasis in original).

14.8 cont'd

A. The Draft EIS Fails To Adequately Define the Project and Analyze Its Impacts.

1. The draft EIS should include an analysis of impacts from the Searsville Dam.

NEPA also requires federal agencies to analyze the direct, indirect, and cumulative impacts of the proposed action. 42 U.S.C. § 4332(C); 40 C.F.R. §§ 1508.7, 1508.8. Cumulative impacts include the "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably

foreseeable future significant actions." 40 C.F.R. § 1508.7(a). Direct effects are caused by the action and occur at the same time and place. *See id.* § 1508.8(a). Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. *See id.* § 1508.8(b). Both include "effects on natural resources and on the components, structures, and functioning of the affected ecosystems," as well as "aesthetic, historic, cultural, economic, social, or health [effects]." *Id*. NEPA also requires an EIS to "inform" decision-makers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment." 40 C.F.R. § 1502.1. Furthermore, throughout the EIS, the agency is required to "insure the professional integrity, including scientific integrity," of its discussions and analyses. *Id*. § 1502.24.

Here, the draft EIS omits analysis of the impacts of an essential part of the project – the Searsville Dam itself and other critical components of the entire Searsville Diversion Dam facility. Draft EIS at 5-48 (discussing impacts to steelhead from ongoing operations related to bridge repairs, creek bank stabilization and other instream Covered Activities.) Although the Dam is an integral part of Stanford's water supply system – for which Stanford seeks coverage under the HCP – the draft EIS ignores entirely the impacts of the Dam. Such impacts include blockage of fish passage, modification of the natural hydrograph, habitat alterations, and the fostering of conditions that support predatory non-native species occurrence and dispersal. See attached comments of Gordon Becker and Matt Stoecker. Treating the Dam as part of the natural environment, rather than as an integral part of the project for which Stanford seeks take coverage finds no support in NEPA law. *Crutchfield*, 154 F. Supp. 2d at 900-905; 40 C.F.R. § 1502.4(a) ("[P]arts of proposals which are related to each other closely enough to be, in effect, a single course of action shall be evaluated in a single impact statement.").

Even if the Dam itself were not an integral part of the water supply system, and therefore part of the project, the draft EIS must evaluate the cumulative impacts of other past, present and future activities that affect the same physical environment. *Or. Nat'l Resources Council v. Marsh*, 52 F.3d 1485, 1489 (9th Cir. 1995) (requiring the Army Corps to analyze in its EIS the cumulative impacts of two preexisting dams in conjunction with a proposed third one); 42 U.S.C. § 4332(C); 40 C.F.R. §§ 1508.7, 1508.8. Here, the Dam is clearly a past, present and future activity that affects Covered Species and its impacts must be evaluated in the draft EIS – even if it is not included in the ITP and HCP. Due to the dam's age and 50 year proposed HCP, future cumulative impacts must include assessment of retrofitting, removal, and projected safety and earthquake risks. See Stoecker Comments.

14.9
Section 3.2.32

The draft EIS however does not include any analysis of impacts from Searsville Dam. The analysis of impacts that is included in the draft EIS is conclusory and unsupported by any evidence. For example, the draft EIS concludes that ongoing operations of the Stanford campus do not adversely affect water quality. Draft EIS at 512. This conclusion cannot be true as Searsville Dam, and other elements of the water supply system alter downstream flows, affect water quality, and modify habitat in San Francisquito Creek and even cause major eutrophic conditions to occur at Searsville Reservoir. See comments of Stoecker and Becker.

14.10
Section 3.2.22

2. The Draft EIS fails to adequately analyze impacts from elements of the Searsville system that are included in the HCP.

14.11
Section 3.2.35

In addition to its failure to adequately analyze the direct and cumulative impacts of the Searsville Dam, the draft EIS fails to include an adequate analysis of impacts that it purports to address. For example, as detailed in the comments of Matt Stoecker, dredging of the Searsville Reservoir will have substantial impacts that are not addressed in the draft EIS. These impacts include land-based impacts, such as a staging area, transportation impacts, water quality impacts, and alteration of downstream flows.

3. The Draft EIS does not adequately describe the Project setting.

14.12
Section 3.2.10

Without an accurate description of the environment to be affected by the HCP, the draft EIS cannot adequately analyze and mitigate the impacts of the Project. As detailed in the Stoecker comments, the draft EIS fails to include complete and accurate information about the current and historical condition of steelhead in the Project area. At a minimum, NOAA should consult the extensive database materials compiled by the Center for Ecosystem Management and Restoration regarding steelhead trout and coho salmon in the Bay Area and the San Francisquito Creek watershed. NOAA should also confirm that Stanford has a valid water right to divert water from the Searsville Reservoir and that it has not made any modifications to its use of water over the years.

14.13
Section 3.2.36

B. The Draft EIS Fails to Analyze A Reasonable Range of Project Alternatives and Mitigation Measures.

The draft EIS also fails to consider mitigation measure to minimize the environmental impacts of the proposed action. 40 C.F.R. § 1502.14 (alternatives and mitigation measures); 40 C.F.R. § 1502.16 (environmental consequences and mitigation measures). The alternatives analysis is the "heart of the environmental impact statement." 40 C.F.R. § 1502.14; see also Alaska Wilderness Recreation & Tourism Ass'n v. Morrison, 67 F.3d 723, 730 (9th Cir. 1995); Dubois v. U.S. Dep't of Agriculture,

102 F.3d 1273, 1286 (1st Cir. 1996). NEPA requires a "detailed statement," 42 U.S.C. § 4332(2)(C), that is sufficient to "foster informed decision-making and informed public participation." The agency must "rigorously explore and objectively evaluate all reasonable alternatives." 40 C.F.R. § 1502.14(a); see also 42 U.S.C. §§ 4332(2)(C)(iii) & (E); Muckleshoot Indian Tribe v. U.S. Forest Serv., 177 F.3d 800, 814 (9th Cir. 1999) ("Muckleshoot") ("A 'viable but unexamined alternative renders [the] environmental impact statement inadequate.'") (citation omitted). Moreover, the EIS must discuss the reasons for omitting any unexamined alternatives. 40 C.F.R. § 1502.14(a).

Here the draft EIS fails to include a sufficient range of alternatives to the proposed project and it fails to discuss the alternatives that are analyzed at a sufficient level of detail. Most notable, is the draft EIS's failure to include a single alternative that calls for more protection of the environmental resources that are and will be affected by the on-going operation and expansion of the Stanford campus. Instead, the draft EIS appears to treat the on-going operation of the Stanford campus as part of the environmental baseline and assumes that this activity will continue unabated into the future. Based on these assumptions, the draft EIS concludes that the Incidental Take Permit combined with the HCP will actually confer an environmental benefit, and is therefore superior to the other alternatives considered. See e.g., Draft EIS at 5-36 – 5-44. The HCP proposes no expansion of available habitat for steelhead and actually would result in a decrease in habitat size.

14.14

Section 3.2.34

Regardless of whether issuance of the ITP and adoption of the HCP will be an improvement over existing efforts to mitigate for the loss of endangered species caused by Stanford's operations, which is not supported in the HCP, a realistic assessment of the benefits and costs of the proposed project requires an analysis of an alternative that would do more to mitigate for the adverse impacts associated with the take of endangered species. Indeed, such an alternative is required before NMFS and FWS can make the determination that it has implemented measures that will reduce impacts to endangered species to the maximum extent practical. *Natomas*, 128 F. Supp. 2d at 1292-93.

With respect to the operation of Searsville Dam, such alternatives would include alternatives that include the Dam in the ITP and the HCP, and that impose measures to minimize its impact on Covered Species to the maximum extent feasible. Some of these measures, such as effective fish passage or changes to flows below the Dam to minimize its impacts on steelhead, should already be required by state law, including Fish and Game Code sections 5901, 5931 and 5937 and the public trust doctrine.

In addition, NMFS should look at alternatives that would provide for fish passage upstream of Searsville Dam and removal of the Dam altogether as fish passage modifications at the dam and flow improvements alone do not address issues caused by the reservoir such as reduced water quality, reduced habitat conditions, and dispersal of non-native species, plus the many safety liability issues discussed by Stocker. See Coalition for Canyon Pres. v. Bowers, 632 F.2d 774, 784 (9th Cir. 1980) (finding an alternative for an expanded two-lane highway reasonable where it was "a recognized feature of highway design and that use of such lanes could improve traffic capacity"). 14.15 Section 3.2.18

Decommissioning of dams has also been implemented more frequently in recent years, and with obsolete dams is becoming a preferable alternative to the ongoing operation, liability, retrofitting, and long-term costs of a dam, such as Searsville, that is antiquated and fails to incorporate any of the measures necessary to protect endangered species.

C. The Draft EIS Must Be Revised and Recirculated. 14.16 Section 3.2.18

The foregoing deficiencies in the draft EIS go to the heart of NEPA's requirements and cannot be remedied in a final EIS. Rather, the entire document should be revised to comply with the requirements of NEPA and recirculated for public review and comment. See e.g., *State of California v. Block*, 690 F.2d 753, 770-72 (9th Cir. 1982) (agency must prepare supplemental EIS to evaluate project alternative); see also *Dubois v. Dept. of Agriculture*, 102 F.3d 1273, 1291-93 (1st Cir. 1996).

Thank you for your consideration of these comments.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP

Ellison Folk

Gary Stern
August 30, 2010
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TOWN of PORTOLA VALLEY

August 30, 2010

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Conservation Planning and Recovery Division
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Stanford.HCP@noaa.gov

Subject: Draft Environmental Impact Statement For Authorization for Incidental Take and Implementation of the Stanford University Habitat Conservation Plan - **Document Identifier - Stanford HCP**

Gentlemen:

The Town of Portola Valley has reviewed the above referenced DEIS and submits the following comments:

Other Species Important to Habitats

The emphasis in the plan is entirely with respect to the five federally listed species and their habitats. Species, however, do not live in isolation from other species. It would appear that the habitat descriptions should include other species that in effect support the endangered species. Ignoring these other species can lead to degradation of habitats and losses of species.

15.1
Section 3.2.5

Inattention to Rare or Endangered Plants

The habitat descriptions do not include rare or endangered plants. While these are not animals, they should be protected and we believe the HCP should go beyond the constraints attendant to the five animals listed and give attention to these plants.

15.2
Section 3.2.5

While most of the plant species are located on the Jasper Ridge Biological Preserve, one species, *Dirca occidentalis* or Western Leatherwood, is known to grow outside of the Preserve on Stanford lands.

Control of Invasive Species

Invasive species are a major concern on Stanford lands as well as surrounding areas, including the Town of Portola Valley. It would appear that in order to preserve the habitats for the five listed species, the HCP should address the control of invasive species in those areas with more detailed plans and review of progress made in the control of invasive species.

15.3
Section 3.2.26

Portola Valley is very concerned about the control of invasive species both in the town and on adjoining lands. Because of this concern, the town suggests that consideration be given to awarding mitigation credits as part of the HCP for major efforts by Stanford to control invasive species, especially in areas of particular biological concern.

15.4
Section 3.2.26

Prohibition of Planting of Invasive Species

Portola Valley would like to see Stanford adopt as part of the HCP a program that would preclude the planting of invasive or potentially invasive species anywhere on Stanford lands and especially in habitats for endangered species. Lists of invasive species and potentially invasive species are readily available.

15.5
Section 3.2.26

Cal-IPC, the California Invasive Plant Council, has published the California Invasive Plant Inventory of February 2006. This list of invasive plants is available on line at Cal-IPC.org. All plants on this list and all plants considered for this list should be avoided in Stanford Plantings.

Continuing Evaluation of the 50-year HCP

The town has concerns that the 50-year term of the HCP may be overly long since it is not possible to anticipate changes in habitats or identification of other endangered species. We realize that the plan does include provisions for annual review and modifications where necessary. We urge that this process of review be shared with affected communities such as the Town of Portola Valley.

15.6
Section 3.2.31

Page 3

Messrs. Tattersall and Stern
August 30, 2010

Maintenance of Minimum Flow Rates on San Francisquito Creek and Los Trancos Creek

Stanford's water rights allow for water diversion from these creeks. These diversions should be limited or curtailed during droughts to maintain a minimum flow of water to support the endangered species. Plants on the Stanford Campus should be drought tolerant and native to minimize the need for water diversion.

15.7
Section 3.2.36

15.8
Section 3.2.26

Aspects of the HCP relevant to Portola Valley

The town is pleased with the proposed conservation easement that will be placed on Los Trancos Creek, the dividing line between the town and Santa Clara County. The creek forms one side of the town's Alpine Road Scenic Corridor and its preservation is of benefit to the town.

15.9
Section 3.2.2

The town is also pleased with the proposed conservation easement on San Francisquito Creek since the creek borders a good section of the Alpine Rd. approach to the town outside of the town limits. Also, a significant part of the creek corridor is visible from the easterly part of the town. The easement should preclude any new road (or bridge) crossings of the creek.

We appreciate the opportunity to submit these comments.

Sincerely,

B. Stephen Toben, Mayor

California State Council Trout Unlimited
P.O. Box 3237
Santa Rosa, CA 95402

June 28, 2010

Mr. Gary Stern, Supervisor
San Francisco Bay Region
National Marine Fisheries Service

Dear Mr. Stern:

Trout Unlimited of California is a 501 3(c) non-profit volunteer organization with 10,000 members. We are a grassroots-based organization dedicated to protecting, reconnecting, restoring, and sustaining California's diverse wild trout, salmon, and steelhead fisheries and their watersheds.

Our organization feels that it is imperative that the Beyond Searsville Dam Organization be granted an additional 45 days extension so that their Board of Directors and team of experts are able to more fully review Stanford's Habitat Conservation Plan and associated Draft EIS for Covered Species: Steelhead trout, red legged frog, San Francisco Garter snake, tiger salamander, and western pond turtle.

16.1

Section 3.2.1

Thank you for your consideration.

Kent MacIntosh

Grassroots organizer-Northern California
Trout Unlimited of California
kentmac@sonic.com

Subject: Fix Stanford's Habitat Plan to Address Searsville Dam
From: Gail Caswell <sunshine4kid@yahoo.com>
Date: Sat, 03 Jul 2010 05:34:29 -0400 (EDT)
To: SWR.StanfordHCP@noaa.gov

Stanford University's Habitat Conservation Plan should be revised to include a detailed analysis of Searsville Dam. Federal resource agencies should ensure that the conservation plan contains a collaborative investigation into the removal of Searsville Dam, restoration of steelhead to their ancestral habitat, revival of submerged wetlands, assessment of natural flood protection benefits, and downstream safety risks. 17.1 Section 3.2.18

Dam removal could lead to a more sustainable Stanford and safer surrounding communities. The dam area within Jasper Ridge Biological Preserve offers one of the most important dam-removal and ecosystem-restoration opportunities in the country. Stanford has an opportunity to show scientific leadership, land stewardship and commitment to campus-wide sustainability.

Unfortunately, Stanford's Habitat Conservation Plan and the associated Draft Environmental Impact Statement are insufficient due to significant biological and legal inadequacies and the improper exclusion of Searsville Dam operations. These documents show a lack of commitment by Stanford to adequately protect endangered species, regional habitat quality and long-term community safety. The documents fail to meet the requirements of the Endangered Species Act and violate state public trust laws.

Please withdraw the Draft Environmental Impact Statement and conservation plan , revise it to comply with federal and state laws and incorporate previously excluded data and facilities, and re-circulate it for public review. In addition, I ask that that the comment period for the draft Environmental Impact Statement be extended by 45 days so that the community and conservation groups will have adequate time to compile comments and the extensive supporting information left out of these documents. 17.2 Section 3.2.1

I urge Stanford to evaluate and consider removal of Searsville Dam in a manner that is beneficial to protecting creekside communities and watershed health. 17.3 Section 3.2.18

Thank you.

Gail Caswell
839 Post St. #208
San Francisco, CA 94109
US

From: Susan Culliney [susan.culliney@gmail.com]
Sent: Thursday, August 19, 2010 6:46 PM
To: SWR.StanfordHCP@noaa.gov
Subject: Comments for Stanford HCP for Searsville Dam

Hi,

I am in favor of removing the Searsville Dam. The Jasper Ridge Advisory Committee (http://jrbp.stanford.edu/watershed.php) notes that part of the benefit of having the Searsville Dam is to study the ecology of the reservoir. However, I believe the true research opportunities lie with the dam removal. By taking baseline data of all kinds, tracking differences as the dam is removed, and monitoring how the ecosystem returns to its natural state, researchers will have an invaluable opportunity to study both how dams alter natural habitats and how the typical objectives identified in dam removal projects (return of certain species, sustainable hydrology, removal of sediment) are best achieved.

18.1
Section 3.2.18

Thanks for considering my opinion.

Sincerely,

Susan Culliney

Susan Culliney
M.S. Candidate
Colorado State University
Fish, Wildlife and Conservation Biology
Fort Collins, CO 80523

From: Pat Haines [pat@pathaines.com]
Sent: Sunday, August 29, 2010 12:55 PM
To: SWR.StanfordHCP@noaa.gov
Subject: Removal of Searsville Dam

To Whom It May Concern,
I'm a resident of Ladera, a sub-division in Portola Valley. It seems that Mr. Cohen and Mr. Freyberg are calling for more information about removing the dam, and then not agreeing to do the study that would yield the information that they seek. In addition, the flooding issue seems like a red herring: the dam is silted in already and beyond that, the dam was originally designed for San Francisco drinking water, not flood control. Removing the dam does mean that downstream mitigations need to be put in place. But it makes no sense to keep a dam that has outlived its original purpose.

19.1

Section 3.2.18

I think Stanford should take an environmental leadership position on this issue and include the removal of the dam in its study. Only then can a real decision be made.

19.2

Section 3.2.18

Best regards,
Pat Haines

From: Amos Hausman-Rogers [ahausmanroge@wesleyan.edu]
Sent: Monday, August 30, 2010 4:50 PM
To: SWR.StanfordHCP@noaa.gov
Subject: Stanford HCP comments

Hi.
I would like to submit my comments regarding Stanford's Habitat Conservation Plan. My name is Amos Hausman-Rogers, I interviewed folks from Stanford and Beyond Searsville Dam for an article about the comment deadline.
http://www.baycitizen.org/environment/story/stanfords-struggle-over-removing-dam/

With my in-depth look into the complex issues surrounding the Searsville Dam, I am able to boil down my comments as follows:

20.1
Section 3.2.18

1. I would like to see the dam removed

2. I believe including a full dam-removal investigation in the Habitat Conservation Plan now would hinder the expedient completion and implementation of the HCP.

3. I believe Stanford has an obligation to include the dam and its effects on native species and native habitat health in its Habitat Conservation Plan for the next 50 years.

4. I believe Stanford has an obligation to mitigate for those effects, now and henceforth.

5. When Searsville Dam fills up with silt, as it surely will in the next 50 years, I would like to see a process begin whereby Stanford, with federal regulatory oversight, is obligated to research effective solutions to the problem, including dam removal.

Thank you for your time.

Amos Hausman-Rogers
Oakland, CA

Habitat Conservation Plan and EIR/EIS

For Stanford U Habitat Conservation Plan

Public Information Workshops and Open House

Date: 5/25/10

Please fill out the following so we can be sure to keep you on our mailing list and to document the author of comments received. Thank you.

Name: Steve Kennedy

Address: POB 51852 Palo Alto, CA 94303

Organization: Vegetation Mgmt Video Project Committee

Please provide us with your written comments on the Draft HCP or EIR/EIS.

21.1

Section 3.2.26

I am concerned that the Stanford EIS does not mention streamside vegetation alterations caused by the relentless invasion of non-native plant species including garden variety English ivy and slender false brome (grass)

I will reject an EIS that confuses preservation and neglect. I demand an EIS that includes botanical habitat stewardship along the entire creek corridor.

Written Comments are due on :

FIELD SUPERVISOR
U.S. FISH AND WILDLIFE SERVICE
2800 COTTAGE WAY W-2605
SACRAMENTO, CA 95825-1846
FAX (916) 414-6712

SIGNATURE:

(Use back of form if you would like to provide more information)

Mr. Gary Stern, SF Bay Supervisor
National Marine Fisheries Service, Southwest Region
777 Sonoma Avenue, Room 325
Santa Rosa, California 95404 Gary.Stern@noaa.gov

August 30, 2010

Ms. Sheila Larsen, Senior Staff Biologist
United States Fish and Wildlife Service
2800 Cottage Way, Room W. 2605
Sacramento, California 95825 Sheila_Larsen@fws.gov

RE: Draft environmental Impact Statement for Authorization for Incidental Take and Implementation of the Stanford University Habitat Conservation Plan

Dear Ms. Sheila Larsen and Mr. Gary Stern,

In regards the application from the Leland Stanford Junior University (Stanford) Board of Trustees for permits under the federal Endangered Species Act of 1973, as amended (ESA), to take certain federally protected species incidental to otherwise lawful activities, with the potential environmental consequences as outlined in the Draft EIS and HCP, I request consideration and inclusion of the following elements:

~ Base biological survey data is not provided on the covered species as to caliber and extent of habitat or present numbers of individuals observed. Therefore impacts of proposed 'take' are indeterminate; 22.1 Section 3.2.7

~ Delineation of wetlands and range of refugia is not sufficiently mapped for covered species, or for other species that support them, nor are the migratory wildlife corridors of species addressed; 22.2 Section 3.2.37

~ Vegetation that sustains the covered species is not detailed, nor are the seasonal or drought and dry year variables that might cause alterations in types of habitat, within and possibly extending outside HCP area; 22.3 Section 3.2.8

~ Maintenance of vegetation needs specific protocols for open range, foothills, oak woodland savanna, riparian corridor, marsh, ponds or seeps to assure protection of covered species habitat in HCP; 22.4 Section 3.2.8

~ Biological Impact Assessment for Foothills Fire Management Plan, Palo Alto, January 8, 2009 and the district's fire management plan need to be compatible with and incorporated into Stanford DEIS and HCP; 22.5 Section 3.2.17

~ Invasive species of animals and plants need to be identified and a management and monitoring plan for their control should be outlined for 50 year life of this HCP in order to protect covered endangered species; 22.6 Section 3.2.26

~ Wildlife corridors for covered endangered species need to be mapped in undeveloped HCP foothill lands as well as extending to and through suburban 'game preserve' campus to ensure gene pool connectivity; 22.7 Section 3.2.37

~ Groundwater and unconfined aquifer zones need to be illustrated on full map of 8000 acre campus in order to assess interrelationship with wetlands and riparian habitat of HCP and covered endangered species; 22.8 Section 3.2.22

~ Delineated wetlands, Lake Lagunita, San Francisquito, Los Trancos, Matadero, and Deer Creek corridors and watersheds should be assessed as to their percolation potential and contribution to aquifer water supply; 22.9 Section 3.2.22

~ Base flows for Los Trancos and San Francisquito Creeks need documentation in HCP as to historic flows, long term USGS gage flows, and flows since new Los Trancos Creek diversion on daily/monthly data basis, ie not median or average daily/monthly assessment, and this could be included as Appendix A addendum; 22.10 Section 3.2.22

~ Non-inclusion of the suburban, flatland portion of Stanford Campus in this DEIS and HCP constitutes a segmentation or piecemealing of possible project impacts on habitat for the five federally listed species and therefore integrity of NEPA mandate for avoidance of impact is not assured and cumulative impacts on and inherent contradictions with Santa Clara County's Stanford General Use Permit cannot be assessed in HCP; 22.11 Section 3.2.13

~ The Santa Clara County's Stanford General Use Permit, Figure 6 showing Matadero Creek's watershed to cover half of Stanford campus and receiving San Francisquito Creek landscape irrigation diversions, needs State Water Resource review as to qualification of latest upgrade under riparian water rights allocation law? 22.12 Section 3.2.36

~ Correlation of Santa Clara County GUP development scenarios with conservation corridors and mandated sensitive habitat protection protocols for covered species should be included in this DEIS and HCP? 22.13 Section 3.2.15

~ Santa Clara County Riparian corridor setback criteria for San Francisquito, Los Trancos, Matadero and Deer Creek needs to be detailed in this DEIS and HCP and reflected in conservation easement language; 22.14 Section 3.2.4

~ HCP is deficient in designation of conservation easement lands and conservation easement language. To say this can be determined at future time and without corroborative support biological data is a deficiency. The Santa Clara County GUP asks for their choice of biologists to conduct environmental assessments at appropriate seasonal time of review for individual development proposals. Such criteria need apply here? 22.15 Section 3.2.2

These constitute a brief summary of my concerns with the scope of this DEIS /HCP. I will attempt to elaborate and hopefully clarify my review in the subsequent pages.

The Species covered in this HCP under Federal Incidental Take Permits, California red-legged frog (Rana aurora draytonii), California tiger salamander (Ambystoma californiense), San Francisco garter snake (Thamnophis sirtalis tetrataenia), Steelhead (Central California Coast DPS) (Onchorhynchus mykiss), and Western pond turtle (Actinemys marmorata) constitute a limited list for a unique 8000 acres of rangeland. 22.16 Section 3.2.5

This DEIR does not appear to fully evaluate the element of 'take' due to loss or degradation of habitat of these species, nor does it include habitat for possible species of Golden Eagle, Tri-colored blackbird and White-tailed kite historically observed to forage and nest in Stanford campus foothills, or with the possible reestablishment of the Bay checkerspot butterfly in Stanford's serpentine grasslands habitat. 22.17 Section 3.2.5

With a 50-year lifespan, shouldn't this HCP cover both past and foreseeable future wildlife habitat and refugia needs? In light of climate change and the degree to which global warming may alter seasons, temperatures, rainfall intensities and storm patterns, shouldn't a 5 to 7 year review be included? (The Santa Clara County HCP includes provisions for a major review of its HCP every 5 to 7 years.) What ESA accommodation is provided for in the permit regarding identification of new endangered species? 22.18 Section 3.2.31

This application for incidental take permits pursuant to Section 10(a)(1)(B) of the ESA would authorize incidental take of ESA listed species on all of Stanford's lands, 8000 acres, "although only undeveloped lands provide habitat for the species". "Approximately 40 percent of the land has been intensively developed with urban facilities...including an 18-hole golf course and golf driving range."

The characterization of suburban academic Stanford campus as so 'intensely developed' as to preclude viable habitat is unsubstantiated by any review of biological data. And, to eliminate it from this DEIS would appear to be in conflict with environmental laws about avoidance of impact, cumulative impacts of piecemealing of projects and of segmenting river systems. 22.19 Section 3.2.8

This introductory statement by the DEIS seems to be contradicted by 'covered activities' for incidental take of the HCP as found in Section 1.4 which lists: 22.20 Section 3.2.8

- Ongoing operations of the University, including maintaining, renewing and necessary development of the campus (e.g., landscape; facility maintenance; civil, energy and communications infrastructure; fire suppression),
- Academic activities as mandated by the Founding Grant of the University,
- Operation and maintenance of water supplies and water supply facilities,
- Recreational activities
- Future development associated with the Santa Clara County 2000 General Use Permit and other development which may occur under future permits from Santa Clara and San Mateo counties and the cities and towns of Palo Alto, Menlo Park, Woodside, and Portola Valley.

In addition, the incidental take permit will cover activities carried out by Stanford lessees under Certificates of Inclusion. These activities include:

- Equestrian facilities
- Agricultural activities
- Commercial and institutional activities
- Operation of civil, energy, and communications infrastructure

The HCP does not cover major structural changes to Searsville Dam by the University that may be needed to respond to the loss of reservoir capacity from continued sedimentation to Searsville Reservoir. Any modifications to the dam are currently speculative and any future changes could be covered by an addendum to the HCP.

HCP also does not cover biocide use, although it does provide minimization measures for biocide use. 22.21 Section 3.2.19

This list triggers a deluge of concerns that I will try to reference as succinctly as possible.

Though the Western pond turtle was not a listed species at time of the recent excavation of Felt Lake to restore its historic capacity, so did not qualify for incidental take review, what measures were taken to relocate the turtles temporarily to sustainable wetlands habitat, and to revegetate Felt Lake refugia? Was any opportunity afforded the public or regulatory agencies to review or comment on this project? What species of Western pond turtles were found at Felt Lake? Were there juveniles as well as adults? 22.22 Section 3.2.11

How many Western pond turtle males, females and juveniles are to be found at Searsville Reservoir? What measures will be incorporated in this Habitat Conservation Plan to insure that this native species of Western pond turtle is conserved with appropriate wetlands and upper bank refugia, protection of migratory corridors (do Western pond turtles navigate past diversion structure on Los Trancos Creek?) and protocols that preclude invasive non-native species, such as sliders, being introduced into habitat? (Palo Alto Foothills Fire Management Plan has more Western pond turtle biological data than HCP?) 22.23 Section 3.2.11

Wildlife corridors are not identified in this DEIS of HCP and they are a basic requirement of habitat for all endangered species listed, both as seasonal migratory need for species interaction and gene pool exchange and for sustainable uplands bank as well as shaded aquatic and wetlands riparian refugia. All the previous 'covered activities' list has the capability of impacting the integrity of wildlife corridors, both marginally and significantly, but such impact cannot be addressed or avoided (as per NEPA Law and Guidelines) if a wildlife corridor is not identified. This is a serious deficiency in DEIS and HCP. These wildlife corridors should be evident on and from the 'game preserve' campus into the foothills. 22.24 Section 3.2.37

Recreational activities of the academic community are not reviewed in regards equestrian and hiking trails on campus and into these foothills. The safety and accessibility of such recreation trails should be planned so as to avoid impacting the integrity of riparian and wildlife corridors. With 8000 acres at their disposal, 22.25 Section 3.2.28

22.25 cont'd.

this should not be too difficult a task. If this is to be a 'covered activity' it needs to be in evidence in the text of support biological data and mapped in an appropriate campus activities figure.
Golf cart and bike trails need to be shown also in relation to traffic connectors and wildlife corridors.

The Red Barn, stables and riding ring have provided historic recreation for which Leland Stanford's stock farm was noted, but in consideration of the 50 year life span of this HCP it is inevitable that this facility be an important consideration in the equestrian element of a Summer Olympics. This would mandate a scope of facilities and accessibility to events in the foothills that would be wise to consider in this planning document at this time. As Frederick Law Olmstead planned the space and vistas of the Stanford campus, it is critical for this HCP to honor his vision and preserve the farm's oak woodland savanna as it survives healthily impressive in and around the Red Barn, and stables, and riding ring.

22.26
Section 3.2.28

It is, however, with some consternation that I find in the covered activities for incidental take list the "Future development associated with the Santa Clara County 2000 General Use Permit" which allows 600 faculty, staff and graduate housing units to be placed on this oak savanna and historic stable site. This is prime habitat, historic, recreationally and aesthetically irreplaceable, sustains wetlands habitat (for tiger salamander and red-legged frog?) and lies over the San Francisquito Subarea water supply's unconfined aquifer and percolation zone. This use or misuse of natural resources of the region should necessitate a full EIR and this permitted incidental take be disallowed. Where is regulatory rationale?

22.27
Section 3.2.14

This brings us to the listed 'covered activity' of the operation and maintenance of water supplies and water supply facilities and Figure 3.2 Lake Water Sources for which incidental take is to be permitted. In June of 2006 Stanford University, in reference to its Steelhead Habitat Enhancement Project and diversion activities, particularly on Los Trancos Creek, cited exercising its combined use of pre-1914 and riparian rights in appropriation of streamflow from San Francisquito and Los Trancos Creeks for the purpose of campus irrigation with a supply of 1.9 mgd.

The HCP review of increased stream flow diversion from San Francisquito and Los Trancos Creeks and the modified Los Trancos fish ladder and diversion structure is after the fact and I would ask what level of public notice and regulatory review was undertaken at the time of permitting and what review is still acceptable for consideration?

22.28
Section 3.2.22

In respect to riparian rights I would question beneficial uses of and level of stream flow diversion, the detention in lakes outside unconfined aquifer zones, the bypass of natural channel percolation and instream critical habitat by piped delivery to irrigate campus partially in San Francisquito's watershed.

The pre-1914 appropriative water rights were understandably appropriate for beneficial uses for the operation of the stock farm and educational institution. The Searsville Reservoir that Stanford was able to purchase from Spring Valley Water Company (?) was most fortunate, until Hetch Hetchy water was available for the campus. The open ditch diversion of San Francisquito water to Lake Lagunita served multiple purposes in that it provided wetlands habitat in the ditch, a source of campus irrigation water, and a recreational water feature that also served to replenish the well and underground aquifer supply.

The present lake water source and delivery system, as presented in HCP Figure 3-2, excludes majority of the associated beneficial instream uses that historically this San Francisquito Creek flow provided. It is therefore necessary that this HCP prove the remaining level of stream flow will support optimal conditions in critical wetland refugia and riparian habitat for health and well-being of covered species. What is base level of flow in Los Trancos and San Francisquito, seasonally and in wet and dry years?

22.29
Section 3.2.22

Both State and local governments are mandating greater use of recycled water for irrigation purposes and for the use of native, and drought tolerant plants in landscaping. Does recycled water pose any risk to the

22.30
Section 3.2.22

22.30 cont'd

covered species? Are many of the covered species living in or passing through central campus? What benefits would there be to these stream systems in reduced diversions and increased base flows?

In regards Table 5-1 and Table 5-2 Summary of Estimated Incidental Mortality of Individual and Estimated Loss of Zone 1 and Zone 2 Habitat for California red-legged frog, California tiger salamander, San Francisco garter snake and Western pond turtle, biological support data on existing habitat caliber and location is deficient. What are present population numbers for covered species? Is it possible to assess impacts of numbers estimated in take if existing numbers are unknown? Are there options for alternative land management protocols that might avoid impacts to species in DEIS? Is there an alternatives analysis? Wetlands hydrology and connectivity of wildlife corridors is essential to perpetuation of a viable population of these particular endangered species but biological surveys, done seasonally, need to be incorporated in this DEIS and HCP to provide integrity to professional analysis.

22.31 Section 3.2.7

22.32 Section 3.2.7

22.33 Section 3.2.37

It was evident in the biological opinion on steelhead that fish counts conducted previously, as by Anderson of Fish and Game, gave resource agencies a biological base for evaluation of stream flow management and the upstream reach and survival capability of steelhead in Los Trancos Creek. Since installation of the latest fish ladder and diversion weir there appears to be no fish monitoring or counts of migratory steelhead activity in this watershed? Where is the regulatory monitoring plan? What is the steelhead count for above and below Los Trancos fish ladder diversion? How does this data compare with steelhead activity in previous years of Anderson monitoring? How does it compare with other steelhead streams in Bay Area?

22.34 Section 3.2.10

It might be mentioned here that a local fishery expert expressed doubt that steelhead would be inclined to continue up such an extensive box of concrete, as this latest fish ladder presents, as they are aware of scenery through which they swim upstream and instinct tells them that such continuous, unchanging scenery of concrete might be a dead end and that they will turn around and return downstream.

As I am unable to find the conservation easement language in these documents or in the implementing agreement what is the level of protection of critical habitat granted covered species? Pink conservation areas along creek corridors should be protected under riparian setback criteria found in general plans of the respective cities and counties? Santa Clara County asks for a 100 foot setback from top of bank of perennial creeks, such as San Francisquito, Los Trancos, and Matadero Creeks, within service areas, a 150 foot setback outside urban service areas, and a 200 foot setback where slope of terrain adjacent to a creek is over 30 degrees. Such criteria need to be adhered to regardless of conservation easement language. Would this be the case in implementing this Stanford HCP? A concern has been expressed that the management group to whom Stanford delegates administration of its conservation easements would not be Stanford staff or tied to Stanford economically and that they be thoroughly cognizant of local municipal, county, regional, state and federal regulatory and environmental law and guidelines.

22.35 Section 3.2.2

22.36 Section 3.2.23

Another aspect of regulatory compliance and coordination needs to be evident in grazing management, control of invasives and in fire management, and their best management practices and protocols need to be detailed in this DEIS and HCP. Though their foothills and range grazing is well managed at the present, Stanford should document these management plan elements and the baseline residual biomass found to be best suited to the animals, to the fire department, and to retaining native grass habitat

22.37 Section 3.2.21

In regards native species best suited for campus and industrial landscape, it is recommended to include particular species propagated from the San Francisquito and Matadero Creek watersheds. To obtain and promote appropriate vegetation please refer to the Acterra nursery native plant list, and do delete the invasive phragmites from Table 2 of Appendix B ‘s Approved List of Plants for Vegetated Buffers.

22.38 Section 3.2.26

Though the range of this DEIS and HCP covers federally endangered listed species it neglects to detail physical locations and the plants of that habitat that best contribute to species health and survival. Also

22.39 Section 3.2.5

22.39 cont'd

there should be documentation of the biodiversity of a habitat in regards adjacent delineated wetlands, as well as rare and endangered plants and associated wildlife that contribute to the caliber of refugia.. Western pond turtles and tiger salamanders need dirt banks for laying nests and steelhead need woody debris in stream channels and stream summer temperatures cooled by shaded riverine aquatic habitat. Are some of the particular habitat needs better addressed in Fire Management's plan than in this HCP?

22.40
Section 3.2.26

Then, Stanford has to include an invasives management plan to insure that protected species' critical habitat is not overwhelmed before anyone notices. The maxim is a stitch in time saves nine. If there is any doubt, please ask for cost to City of Palo Alto in trying to remove phragmites from.their baylands. Invasive plants should be avoided in all aspects of campus landscaping and lists relative to individual watersheds are available from both Santa Clara and San Mateo counties.

Thank you for the opportunity to comment on this Stanford DEIS and HCP.

Sincerely,

Libby Lucas,
174 Yerba Santa Ave.,
Los Altos, CA 94022 JLucas1099@aol.com

PS If you would like to receive copies of referenced data such as Santa Clara County's General Use Permit I will post them by surface mail, but do not do so at this time as presume you already have them in hand. The Santa Clara Valley Water District's map of the unconfined aquifer zone is important source data. The CNPS list of native grasses and Acterra's list of native plants specifically suited to San Francisquito and Matadero Creek watersheds should be in an appendix to this HCP. Then do have all up to date appropriate Resource Conservation District publications which might be included in Appendix B. Lastly, the San Mateo and Santa Clara County brochures on invasives should be in the HCP along with the Palo Alto Foothills Fire Management Plan of January 8, 2009.

Thank you again for all considerations of our region's resource management guidelines. County and city staffs, and environmental agencies and volunteers work continually to preserve these exceptional lands for now and for posterity and are anxious to support regulatory resource agencies in ensuring the integrity of this DEIS and HCP process.

From: Donna Mackowski [dwmackling@yahoo.com]
Sent: Monday, August 30, 2010 3:53 PM
To: SWR.StanfordHCP@noaa.gov
Subject: searsville dam

We are residents of Portola Valley and are concerned about the issue of the Searville Dam. The dam is a man made structure that has outlived any use it might have had in the past. The water behind the dam harbors many non-native species. It impedes the natural riparian flow and does not allow migratory fish upstream.

We feel the dam should be removed and let nature take its course. 100 year floods can be mitigated by downstream protection. There a re federal funds available for its demolition and removal. 23.1 Section 3.2.18

We think that overall public opinion would support removal of the Searsville Dam and enhance the reputation of Stanford as an environmentally responsible institution.

Sincerely,
Donna and Marty Mackowski

June 1, 2010

Dear Chief Tattersall,

I am writing to comment on the Stanford HCP. Stanford's proposed building concerns me in many ways--any time humans insert themselves into an area by way of roads, buildings, and their mere presence, it disrupts the wildlife of that area and sometimes destroys it permanently. With several threatened species on Stanford's land as well as a vast treasure trove of other native flora and fauna, it seems to me that Stanford should confine its future building to areas which are already built up, leaving the surrounding areas as they are or in a restored state. Instead, it seems they are determined to build into sensitive areas and are only concerned with skirting their obligation to conserve the California lands they are lucky enough to own, offering to save parts of the land through the goodness of their hearts only so long as they can go ahead and mess up the rest as they'd like. As a resident of San Francisco, I am constantly told of the necessity of "infill", the raising of the density of population so as to benefit the city. I suggest that Stanford adopt this concept as well, leaving the lands around undeveloped while voluntarily restoring any damage out of a sense of obligation to this singular parcel of land and its future. The reason that land is so valuable is because it's in stark contrast to the surrounding areas which have been paved and developed--to continue this development is madness. I urge you to decline to support Stanford's attempt to do an end-run around its responsibilities.

24.1
Section 3.2.14

Sincerely,
Susan McDonough

From: bk1492@aol.com
Sent: Saturday, July 17, 2010 8:40 AM
To: SWR.StanfordHCP@noaa.gov; gary.stern@nmfs.gov; eric_tattersall@fws.gov; sheila_larsen@fws.gov; theresa_conant@fws.gov; alexandra_pitts@fws.gov
Subject: public comment on federal register - a 50year permit is outrageous -

i ooppose any 50 year permit. i think a 2 year permit is too much. those species are listed to be protected. i see no reason for stanford to not protect them. nothing has been advanced as to why they need to murder and kill those species. i oppose this plan. stanford should go back to the drawing board and learn to live with the rest of america.
jean public 15 elm st florham park nj 07932

25.1
Section 3.2.27

ANIMAL PROTECTORS ARE NEVER GIVEN OUTREACH OF ANY KIND

[Federal Register: July 15, 2010 (Volume 75, Number 135)]
[Notices]
[Page 41157]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr15jy10-37]

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

RIN 0648-XX52

Stanford University Habitat Conservation Plan; Extension of Comment Period

AGENCIES: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce; Fish and Wildlife Service, Interior (DOI).

ACTION: Notice; extension of comment period.

SUMMARY: The National Marine Fisheries Service and the U.S. Fish and Wildlife Service, are extending the comment period for our joint request for comments on the Stanford University Habitat Conservation Plan (Plan), the Draft Environmental Impact Statement (DEIS) for Authorization of Incidental Take and Implementation of the Plan, and the Implementing Agreement (IA). As of July 2, 2010, we have received comments from four organizations and individuals requesting that the comment period be extended by 45 days. In response to these requests, we are extending the comment period for an additional 45 days.

DATES: We must receive any written comments on the DEIS, Plan, and IA by August 30, 2010, at 5 p.m. Pacific Time.

ADDRESSES: Comments concerning the DEIS, Plan, and IA can be sent by U.S. Mail or facsimile to:

1. Gary Stern, San Francisco Bay Region Supervisor, National Marine Fisheries Service, 777 Sonoma Avenue, Room 325, Santa Rosa, CA 95404; facsimile (707) 578-3435; or
2. Eric Tattersall, Chief, Conservation Planning and Recovery Division, Fish and Wildlife Service, Sacramento Fish and Wildlife Office, 2800 Cottage Way, Room W-2605, Sacramento, CA 95825; facsimile (916) 414-6713.

Comments concerning the DEIS, Plan, and IA can also be sent by email to: Stanford.HCP@noaa.gov. Include the document identifier: Stanford HCP.

FOR FURTHER INFORMATION CONTACT: Gary Stern (NMFS), 707-575-6060, or Sheila Larsen (USFWS), 916-414-6600.

SUPPLEMENTARY INFORMATION: We are extending the comment period for our jointly issued Stanford University Habitat Conservation Plan, a DEIS for Authorization of Incidental Take and Implementation of the Plan, and IA. On April 12, 2010, we opened a 90-day public comment period via a Federal Register notice (75 FR 18482). We then made a correction to our comment period closing date via a May 18, 2010 (75 FR 27708), notice. A public meeting was held at Stanford, CA on May 25, 2010. As of July 2, 2010, we received comments from four organizations and individuals requesting an extension of the comment period by 45 days. In response to requests from the public, we now extend the comment period for an additional 45 days. The comment period will now officially close on August 30, 2010, at 5 p.m. Pacific Time.

Background

For background information, see our April 12, 2010, notice (75 FR 18482).

Document Availability

Copies of the DEIS, Plan, and IA are available on the NMFS Southwest Region website at http://swr.nmfs.noaa.gov or the U.S. Fish and Wildlife Service's Sacramento Fish and Wildlife Office Website at http://www.fws.gov/sacramento/.

Alternatively, the documents are available for public review during

regular business hours from 9 a.m. to 5 p.m. at the National Marine Fisheries Service's Santa Rosa Office and the U.S. Fish and Wildlife Service's Sacramento Fish and Wildlife Office (see ADDRESSES). Individuals wishing copies of the DEIS, Plan, or IA should contact either of the Services by telephone (see FOR FURTHER INFORMATION CONTACT) or by letter (see ADDRESSES).

Additionally, hardcopies of the DEIS, Plan, and IA are available for viewing, or for partial or complete duplication, at the following locations:

1. Social Sciences Resource Center, Green Library, Room 121, Stanford, CA 94305.
2. Palo Alto Main Library, 1213 Newell Road, Palo Alto, CA 94303.

Dated: July 12, 2010.
Therese Conant,
Acting Chief, Endangered Species Division, Office of Protected Resources, National Marine Fisheries Service.
Dated: July 9, 2010.
Alexandra Pitts,
Deputy Region Director, Pacific Southwest Region, U.S. Fish and Wildlife Service.
[FR Doc. 2010-17298 Filed 7-14-10; 8:45 am]
BILLING CODES 3510-22-S, 4310-55-S

From: Carolyn A. Rogers [carolyn@deertown.com]
Sent: Saturday, August 28, 2010 11:42 AM
To: SWR.StanfordHCP@noaa.gov
Subject: Stanford HCP : Remove the damn dam

Remove the Searsville Dam - and if not removal - then the study towards removal -

26.1
Section 3.2.18

obviously it is expensive - tricky - complex - but it needs to come out!

Lets figure out a way to do it wisely.
thanks

Carolyn A. Rogers

Portola Valley

Carolyn A. Rogers
carolyn@deertown.com

650-303-7220 cell
650-529-0888 home

From: marilyn walter [mwalt851@sbcglobal.net]
Sent: Sunday, August 29, 2010 8:17 PM
To: SWR.StanfordHCP@noaa.gov
Subject: Searsvile Dam

Sirs: Why does the dam have to be COMPLETELY removed at ONE time? Cannot the University start dredging and removing the sludge and at the same time start slowly removing the dam by opening holes in the dam for water to gradually start draining Searsville Lake? Please consider this solution which could be carried out over time.

27.1
Section 3.2.18

Thank you for your consideration of this matter,

Marilyn J. Walter
20 Coyote HIll
Portola Valley, CA 94028

From: marilyn walter [mwalt851@sbcglobal.net]
Sent: Sunday, August 29, 2010 8:23 PM
To: SWR.StanfordHCP@noaa.gov
Subject: Searsville Dam

Sirs: The Steelhead are suffering because of this outmoded and unnecessary dam. If Stanford would start
slowly dredging the sediment from the lake, and at the same time, open some holes in the dam so that water could slowly drain from the lake, it would not flood anything.
Please ask them to do so, as good neighbors and conservationists.

Thank you for your attention to this matter,
Marilyn J. Walter
20 Coyote Hill
Portola Valley, CA 94028

Dear Mr. Stern:

28.1
Section 3.2.1

On behalf of the California Sportfishing Protection Alliance, I support the request by Matt Stoecker and his colleagues to extend by 45 days the comment period for the DEIS on the Stanford University Habitat Conservation Plan. The issues raised by the DEIS and the proposed HCP are extensive, technical, and complex.

Mr. Stoecker and his team are serious, accomplished technical professionals who seek to fill important information gaps as well as to provide analysis. The public interest in creating a robust record in this proceeding is enormous. Having grown up in Palo Alto, and having spent considerable time in the affected watersheds, I can attest that the opportunities for managing a robust ecosystem, including restoration and expansion of the existing steelhead population in the midst of limited development, are excellent.

It is in the interest of all, including the University and local residents, to do a complete and thorough job in evaluating all the opportunities and issues that an HCP presents. Please allow Mr. Stoecker and the highly committed coalition that he has assembled the time to provide their best evidence.

Thank you for your consideration.

Yours,

Chris Shutes
Water Rights Advocate
California Sportfishing Protection Alliance

Subject: Extension of Stanford HCP DEIS Comment Deadline
Date: Tue, 15 Jun 2010 10:11:27 -0700
From: Matt Stoecker <matt@stoeckerecological.com>
To: Gary Stern <Gary.Stern@noaa.gov>
CC: Jeff Miller <jmiller@biologicaldiversity.org>, Gordon Becker <becker@cemar.org>, Steve Rothert <srothert@americanrivers.org>, Danna Breen <pvlily@aol.com>

Hi Gary,

Our Beyond Searsville Dam Board of Directors and expert review team are requesting that the comment deadline for the Draft EIS for Stanford's HCP be extended by 45 days due to the massive scope of this proposed HCP, absence of essential quantitative data that needs to be incorporated into the DEIS, and our need to include an enormous amount of biological and hydrologic data and analysis that is not included in either HCP/DEIS. As mentioned at the public meeting, we will be retrieving and including a massive amount of data from many sources that are not even referenced in either HCP/DEIS. This task is making the deadline unfeasible for us to adequately provide the critical information lacking in these reports by the proposed July 15th deadline.

29.1
Section 3.2.1

We hope that you will agree with us that the unique and extensive nature of this proposal warrants an additional 45 days to sufficiently address this complex and wide reaching DEIS/HCP and carry out the request for additional data that you made from me at the public comment meeting.

Thank you for your timely reply,

Matt Stoecker

Director
Beyond Searsville Dam
3130 Alpine Road Suite #288-411
Portola Valley, Ca. 94028
www.BeyondSearsvilleDam.org <http://www.BeyondSearsvilleDam.org>
info@BeyondSearsvilleDam.org <mailto:info@BeyondSearsvilleDam.org>
(650) 380-2965

CC'd

BSD Board of Directors;

Steve Rothert, California Director, American Rivers
Jeff Miller, Center for Biological Diversity
Danna Breen, Creeks Committee, Town of Portola Valley
Gordon Becker, Center for Ecosystem Management and Restoration

Subject: Request for Extension of Stanford HCP DEIS Comment Deadline
Date: Mon, 28 Jun 2010 21:13:42 -0700
From: Jeff Miller <jmiller@biologicaldiversity.org>
To: 'Gary Stern' <Gary.Stern@noaa.gov>
CC: 'Matt Stoecker' <matt@stoeckerecological.com>
References:
<C9DA10C7-1DD0-40BF-A06D-C0046A5BFB8B@stoeckerecological.com>
<4C25405C.8060806@noaa.gov>

Hi Gary - the Center for Biological Diversity would also like to ask for an extension of the comment deadline for the Draft EIS for Stanford's HCP for 45 days, due to the many endangered species issues and the absence of critical information regarding impacts to endangered species habitats in the Draft EIS.

30.1
Section 3.2.1

- Jeff

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3.0 Response to Comments

3.1 Topic Areas

The responses have been grouped into common topic areas, because many commenters submitted similar questions or statements that they could be addressed by one response. The topic areas are listed alphabetically below:

45-day Comment Period Extension
Conservation Easements/Mitigation Accounts
Conservation Program Manager
Coordination with Other Laws and Regulations
Cover Other Species
Covered Species – California Tiger Salamander
Covered Species – Estimating Take/Alternatives to Avoid Take
Covered Species – Habitat Information
Covered Species – San Francisco Garter Snake
Covered Species – Steelhead
Covered Species – Western Pond Turtle
Cumulative Effects Analysis
Development – General Use Permit (GUP)
Development – Stanford's Future Development
Development – Sustainable Development Study
Felt Reservoir
Foothills Fire Management Plan
Form Letters and Related Comments Regarding Searsville Dam and Reservoir
General
Geologic Hazards, Seismicity, Soils
Grazing
Hydrology, Water Quality and Groundwater
Land Trust
Land Use
Management Zones
Non-native Species (and Native Revegetation)
Permit Term
Recreational Impacts on Covered Species
References
Regional Flood Planning
Review and Reporting
Searsville Dam and Reservoir – Baseline Information and Cumulative Effects
Searsville Dam– Relationship with Lake Water System
Searsville Dam and Reservoir – General Comments
Searsville Reservoir – Dredging
Water Rights
Wildlife Corridors

3.2 Comment Responses

Responses are organized below alphabetically by topic area. The full text of the comments received is presented on each topic area and the Services response follows. The Services also made a number of changes in the FEIS in response to public comments. Volume I contains the full text of the FEIS and Appendix B contains the Final HCP. Revisions and key changes to the EIS and Final HCP are summarized in Sections 2.7 and 2.8 of Volume I of the FEIS.

3.2.1 45-day Comment Period Extension

Comments

Comment 7.1: The Committee for Green Foothills supports the request by Beyond Searsville Dam (BSD) for a 45-day extension of time to comment on the Stanford Draft EIS and HCP. (*Brian Schmidt, Legislative Advocate, Committee for Green Foothills*)

Comment 16.1: Our organization feels that it is imperative that the Beyond Searsville Dam Organization be granted an additional 45 days extension so that their Board of Directors and team of experts are able to more fully review Stanford's Habitat Conservation Plan and associated Draft EIS for Covered Species: Steelhead trout, red legged frog, San Francisco Garter snake, tiger salamander, and western pond turtle. (*Kent MacIntosh, Grassroots Organizer-Northern California, Trout Unlimited of California*)

Comment 17.1: I ask that that the comment period for the draft Environmental Impact Statement be extended by 45 days so that the community and conservation groups will have adequate time to compile comments and the extensive supporting information left out of these documents. (*Emailed Form Letters*)

Comment 28.1: On behalf of the California Sportfishing Protection Alliance, I support the request by Matt Stoecker and his colleagues to extend by 45 days the comment period for the DEIS on the Stanford University Habitat Conservation Plan. The issues raised by the DEIS and the proposed HCP are extensive, technical, and complex. (*Chris Shutes, Water Rights Advocate, California Sportfishing Protection Alliance)*

Comment 29.1: Our Beyond Searsville Dam Board of Directors and expert review team are requesting that the comment deadline for the Draft EIS for Stanford's HCP be extended by 45 days due to the massive scope of this proposed HCP, absence of essential quantitative data that needs to be incorporated into the DEIS, and our need to include an enormous amount of biological and hydrologic data and analysis that is not included in either HCP/DEIS. As mentioned at the public meeting, we will be retrieving and including a massive amount of data from many sources that are not even referenced in either HCP/DEIS. This task is making the deadline unfeasible for us to adequately provide the critical information lacking in these reports by the proposed July 15th deadline.

We hope that you will agree with us that the unique and extensive nature of this proposal warrants an additional 45 days to sufficiently address this complex and wide reaching DEIS/HCP and carry out the request for additional data that you made from me at the public comment meeting. (*Matt Stoecker, Director, Beyond Searsville Dam)*

Comment 30.1: The Center for Biological Diversity would also like to ask for an extension of the comment deadline for the Draft EIS for Stanford's HCP for 45 days, due to the many endangered species issues and the absence of critical information regarding impacts to endangered species habitats in the Draft EIS. (*Jeff Miller, Conservation Advocate, Center for Biological Diversity*)

Response

A 45-day extension of the public comment period for the DEIS was granted, and a notice was published in the Federal Register on July 15, 2010 (75 FR 41157). This extended the original 90-day comment period end date from July 15, 2010 to August 30, 2010.

3.2.2 Conservation Easements/Mitigation Accounts

Comments

Comment 2.102: The concept of Stanford earning mitigation credits through preserving, managing, and enhancing habitat that it already owns and should already be managing for ecological values is flawed. This approach creates no net benefit to the affected listed species nor does it create new habitat, unless enhancement projects dramatically increase habitat value. The end result, after Stanford completes build-out of its 180 acres of proposed development, is net loss of at least 30, and possibly up to 150 acres (15 acres of development in Zone I; 30 acres in Zone 2: 105 acres in Zone 3) of habitat for listed species, and fragmentation of remaining suitable habitat. (*Matt Stoecker, Director, Beyond Searsville Dam)*

Comment 2.103: These lands are under no threat of development, other than by Stanford. The EIS tries to downplay the impact of development and loss of 180 acres of covered species habitat, by calculating the percentage of habitat lost, but any habitat loss for these species is significant. It is unclear whether the habitat enhancements in the HCP will make up for the habitat loss in terms of population numbers. The attempt to equate not destroying some of the highest value habitat and putting it in reserves with "creating" new habitat for the affected species is misleading. To provide meaningful mitigation, compensation for impacts to special-status species habitat should consist of protecting through purchase or conservation easement privately owned lands under threat of development with habitat value for special status-species, at a minimum of a 1:1 ratio. Given their well-documented problems with funding, monitoring and long-term management, mitigation banks should not be used. High value habitat and migration corridors on Stanford land should also be preserved, not an either/or situation with preserving on-site habitat or preserving off-site habitat. The alternatives section should include an alternative that both preserves high value habitat and migration corridors on Stanford land as well as purchase of or conservation easement on private lands in the region for habitat loss, at a robust mitigation ratio. (*Matt Stoecker, Director, Beyond Searsville Dam)*

Comment 3.3: The HCP and its environmental review rely on mitigation credits to minimize the environmental effects of the Covered Activities. However, it is inappropriate to provide mitigation credits for activities that should be part of the HCP or are otherwise required or expected to occur. Only expenditures outside of Stanford's normal purview (e.g., off-campus fish passage barrier removals) should earn mitigation credits. Further, such credits should not be used to allow activities inconsistent with conservation goals under any circumstances. In

particular, it is inappropriate to credit Stanford for maintaining creeks properly. This is expected and should not be viewed as mitigation for operation of Searsville Dam, developing property, or other Covered Activities. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam)*

Comment 3.15: Table 3-2. It is inappropriate to provide mitigation credits for activities that should be part of the HCP, such as riparian enhancement. Only expenditures outside of Stanford's normal purview, such as off-campus barrier removals, should earn mitigation credits. Such credits should not be used to allow activities inconsistent with conservation goals under any circumstances. In particular, it is inappropriate to credit Stanford for maintaining creeks properly. This is mitigation for operation of Searsville Dam and developing property, not above-the-call altruism. Off-campus projects should more appropriately produce mitigation credits. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration,* on *behalf of Beyond Searsville Dam)*

Comment 3.18: Table 4-1. Consistency with creek protection policies suggests foregoing development in riparian corridors, yet the HCP includes Covered Activities in riparian areas. It also indicates that mitigation credits are inappropriate for expected stream corridor restoration efforts that are required to address the effects of previous development and operations, and mismanagement of stream resources. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam)*

Comment 8.11: The HCP needs further specificity in describing areas that are to be preserved away from the riparian zones. (*Brian Schmidt and Lennie Roberts, Legislative Advocates, Committee for Green Foothills)*

Comment 8.12: Undevelopable areas placed under conservation easements should not be credited to Stanford as mitigation for development elsewhere. In particular, streambeds are essentially undevelopable. Stanford will never have an opportunity to develop those areas and creation of conservation easements therefore does nothing to mitigate impacts elsewhere. The conservation easements should have to extend an additional distance away beyond streambeds to include areas that have some potential for development in order to act as real mitigation. (*Brian Schmidt and Lennie Roberts, Legislative Advocates, Committee for Green Foothills)*

Comment 13.2: Conservation easements should be established to protect major creek habitat, watersheds, and scenic corridors. (*Jamie Shepard, Board President, League of Women Voters)*

Comment 15.9: The town is pleased with the proposed conservation easement that will be placed on Los Trancos Creek, the dividing line between the town and Santa Clara County. The creek forms one side of the town's Alpine Road Scenic Corridor and its preservation is of benefit to the town. The town is also pleased with the proposed conservation easement on San Francisquito Creek since the creek borders a good section of the Alpine Rd. approach to the town outside of the town limits. Also, a significant part of the creek corridor is visible from the easterly part of the town. The easement should preclude any new road (or bridge) crossings of the creek. (*B. Stephen Toben, Mayor, Town of Portola Valley)*

Comment 22.15: HCP is deficient in designation of conservation easement lands and conservation easement language. To say this can be determined at future time and without

corroborative support biological data is a deficiency. The Santa Clara County GUP asks for their choice of biologists to conduct environmental assessments at appropriate seasonal time of review for individual development proposals. Such criteria need apply here? (*Libby Lucas)*

Comment 22.35: As I am unable to find the conservation easement language in these documents or in the implementing agreement what is the level of protection of critical habitat granted covered species? Pink conservation areas along creek corridors should be protected under riparian setback criteria found in general plans of the respective cities and counties? Santa Clara County asks for a 100 foot setback from top of bank of perennial creeks, such as San Francisquito, Los Trancos, and Matadero Creeks, within service areas, a 150 foot setback outside urban service areas, and a 200 foot setback where slope of terrain adjacent to a creek is over 30 degrees. Such criteria need to be adhered to regardless of conservation easement language. Would this be the case in implementing this Stanford HCP? (*Libby Lucas)*

Response

Consistent with the Services' Handbook for Habitat Conservation Planning and Incidental Take Permitting Process (61 FR 63854, December 2, 1996, pg. 3-19), the applicant included mitigation actions that are: (1) based on sound biological rationale; (2) are practicable; and (3) are commensurate with the impacts. Stanford, as the section 10 applicant, has the discretion to choose the mitigation program it wishes to include in the HCP. The role of the Services is to determine whether that mitigation program meets the issuance criteria of the ESA and implementing regulations.

As described in Section 4.3 of the HCP, Stanford would: (1) establish mitigation accounts with mitigation lands and mitigation credits at the outset of HCP implementation; and (2) continuously track the utilization of such mitigation credits over time. The three proposed conservation areas that will be managed for the benefit of the covered species under the mitigation accounting system include: (1) San Francisquito and Los Trancos Creek Basin (HCP Figure 4-3); (2) Matadero and Deer Creek Basin (HCP Figure 4-4); (3) California Tiger Salamander Basin (HCP Figure 4-5). Conservation easements will be recorded within each of the areas (i.e., accounts) to benefit Covered Species and their habitat. The HCP also establishes monitoring and management plans for each of these three conservation areas. Adaptive management has also been incorporated into the HCP's monitoring and management actions to respond to new information during the permit term. Table 5-3 of the FEIS presents a summary of the anticipated effects and benefits of each monitoring and management plan.

The proposed mitigation credit system provides Stanford with an incentive for improving conditions for Covered Species on-site and implementing enhancement projects that go beyond the requirements of Federal, state and local regulations. Activities presented in Table 4-2 of the HCP are examples of preservation and enhancement actions that may receive mitigation credits and the Services believe these actions exceed traditional mitigation measures and existing regulatory requirements. For example, removing existing structures within riparian zones and re-planting the site with native vegetation is eligible for mitigation credits. Removal of off-campus fish passage barriers is also listed on Table 4-2 and eligible for mitigation credits. Prior to conducting any restoration or enhancement project for mitigation credits, the HCP requires Stanford to submit a plan to

the Services for review and approval. Mitigation credits may be withdrawn from the accounting system at a particular ratio to offset permanent habitat losses (see HCP Table 4-3). The Services believe that the mitigation accounting system will be an appropriate and effective conservation strategy for offsetting the impacts of future development on Stanford's lands.

The HCP provides protection for the vast majority of riparian areas, creek banks, and creek beds on Stanford's lands through conservation easements (San Francisquito Creek/Los Trancos Easement and the Matadero Creek/Deer Easement). Riparian conservation easements will be permanent designations and are described in Sections 4.3.1 and 4.3.2 of the HCP. The riparian easements will be actively managed in perpetuity for the benefit of the Covered Species. No new permanent structures may be erected on lands covered by the riparian conservation easements, with few exceptions, such as research-related structures and new bridges. A non-profit land trust organization will be formed to hold the conservation easements established by the HCP, as described in Section 6.3.3 of the HCP.

With regard to comments suggesting that mitigation credits should only be provided for activities outside of Stanford's "normal purview," the proposed Conservation Program would not award credits for minimization and avoidance measures that Stanford undertakes on a day-to-day basis. Only conservation actions that provide some additional benefit to the Covered Species are awarded credits. For example, new California tiger salamander (CTS) ponds that demonstrate successful CTS reproduction will earn mitigation credits when the ponds are preserved through a perpetual conservation easement. Actions such as this, and other restoration and enhancement measures that Stanford can earn credits for, are beyond a landowner's normal purview. These enhancements are designed to increase the functions and values of the Covered Species habitat and will create a net increase in the acreage of CTS and red-legged frog breeding habitat.

With regard to comments that recommended requiring Stanford to preserve or enhance off-site habitat, an alternative to the proposed HCP that would entail all off-site mitigation was explored, as described in Section 7.3 of the HCP and Section 3.4.5 of the FEIS. Under the "off-site mitigation" alternative, no easements to protect the Covered Species would be placed on Stanford's lands and the enhancement activities presented in Table 4-2 of the HCP would not occur on Stanford's lands. This approach would not meet several of the HCP's biological goals and objectives, because there would be no enhancement or improvements for Covered Species on Stanford's lands. Conservation measures would be implemented to avoid and minimize impacts associated with new campus development and other Covered Activities, but "off-site mitigation" could result in a greater loss of habitat on Stanford's lands over the 50-year permit term. This approach may be particularly damaging to CTS, because Stanford's lands support the only remaining CTS population on the Peninsula. This CTS population has important conservation values that need to be preserved and enhanced to increase the likelihood of the long-term persistence at Stanford. The Conservation Program also recognizes that off-site enhancements, such as the removal of partial in-stream barriers outside of Stanford's lands, would benefit the Covered Species, and therefore awards mitigation credits for off-site enhancements.

HCP Figure 5-1 and DEIS Figure 3-5

Comment

Comment 3.22: p. 5-11, paragraph 1. The draft EIS credits the HCP with prohibiting development in the creek corridor in perpetuity. However, Figure 5-1 indicates that 20-30 acres of Zone 1 lands could be developed immediately adjacent to proposed conservation easements, and some Zone 1 areas include creek reaches unprotected by conservation easements. Zone 2 and Zone 3 areas similarly depict possible development without corresponding creek protection. Figure 5-1 indicates real potential for development affecting creek corridors. Additional minimization should be provided in the form of an enforceable setback requirement from all creeks in the HCP study area and universal avoidance of development in or near any creek in the HCP area. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam)*

Response

The comment pointed out that Figure 5-1 in the HCP shows portions of San Francisquito Creek as unprotected in a riparian conservation easement. Within the boundaries of the Stanford campus, one large unprotected area adjacent to San Francisquito Creek corresponds to approximately 33 acres of privately owned residences across from the Stanford Golf Course. This area, commonly referred to as Happy Hollow, is not owned by Stanford and is not part of the HCP. In addition, areas on San Francisquito Creek and Los Trancos Creek under the Interstate 280 (I-280) right-of-way are owned by the State of California. Please note that Figure 5-1 of the HCP and Figure 3-5 in the FEIS has been revised to illustrate more clearly that the San Francisquito/Los Trancos conservation easement abuts the I-280 crossing at the upstream and downstream side. These sites are not categorized as Zone 1 or protected by conservation easements because these locations are not owned by Stanford.

The commenter is correct in that not all Zone 1 areas would be protected by conservation easements and some Zone 2 and 3 areas occur very close to creek channels. The creek easements would protect riparian areas from development within 70-400 feet of the creek channel depending upon whether Stanford owns both sides of the creek and the presence of existing improvements. Along the lower portion of San Francisquito Creek, the conservation easement and Zone 1 areas are very narrow primarily because existing development has significantly encroached into the stream channel.

The commenter is concerned that new development in Zones 1, 2, 3, and 4 lands that are in close proximity to creek channels will affect the creek corridor. As described in Section 4.2 of the HCP, Stanford will implement measures to avoid and minimize effects to Covered Species from future development in Zones 1 and 2, and development in these areas must be mitigated through the accounting system. The Services believe these measures will be protective of Covered Species and their habitat, and additional creek setbacks and universal avoidance of development in or near any creek in the HCP area are not necessary. It is important to note that the issuance of the Incidental Take Permits (ITPs) by the Services do not authorize any specific development at Stanford or alter the need for local land use entitlements, which may include riparian setback requirements or

other minimization measures to reduce the effects of a specific development project on riparian and creek resources. Moreover, although the ITPs, if issued, would authorize the loss of 20-30 acres of Zone 1 habitat and 25-45 acres of Zone 2 habitat from future development, not all of this future loss of habitat will occur near creeks, because large portions of Zones 1 and 2 are located in upland areas.

3.2.3 Conservation Program Manager

Comments

Comment 3.4: [T]he EIS should not use Conservation Program Manager involvement as this basis for lowering the level of significance of effects or preventing them entirely. Unless the position can be realistically viewed as impartial, such involvement is meaningless. We suggest that the EIS not rely on the participation of an individual as an effect evaluation criterion or as a minimizing measure…[T]he actions of a Conservation Program Manager [must] be staffed independent from the University. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Comment 3.14: p. 3-5, paragraph 2. Just as non-profits hold easements, essentially in the public trust, this position [Conservation Program Manager] holds the responsibility for HCP conservation and should be staffed by a non-profit organization not directly beholden to Stanford University. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Response

Stanford, as the permittee, will be responsible for implementing the HCP and the terms and conditions of the associated permits and Implementing Agreement (IA). Stanford has proposed to facilitate the implementation of the HCP, including the day-to-day implementation of the Conservation Program, through a Conservation Program Manager. It is not the individual serving as Conservation Program Manager that will reduce the effects of the Covered Activities on the Covered Species; it is the implementation of the Conservation Program.

More information about the Conservation Program Manager is included in section 4.6 of the Final HCP, including a requirement that "Prior to the implementation of the HCP, Stanford will provide the Service and NOAA Fisheries with resumes for the Conservation Program Manager and any assistant Conservation Program Manager(s) for approval." The Services believe this measure combined with regular reporting to the Services will ensure that Stanford, through the Conservation Program Manager, is properly and effectively implementing the HCP. In addition to reporting to the Services, the Conservation Program Manager will report to the land trust's board of directors on a bi-annual basis. Section 6.3.3 of the Final HCP describes the land trust's role in holding the Conservation Easement deeds and monitoring Stanford's compliance with the Monitoring and Management Plans for the easement areas. During the term of the HCP and associated permits, the Services will have primary responsibility for determining whether Stanford is complying with the terms of the HCP and the conservation easement deeds dedicated pursuant to the HCP. If Stanford is not in compliance, the Services will have

the authority to suspend, revoke, and enforce the terms of the HCP and the associated permits in accordance with the IA and Federal law.

3.2.4 Coordination with Other Laws and Regulations

California Endangered Species Act (CESA)

Comment

Comment 10.11: The HCP does not address coverage for CTS "take" under the California Endangered Species Act (CESA). It would be helpful to clarify the CESA permitting process in the HCP and what discussions Stanford has had with CDFG. *(Brian Pittman, ESA Biological Resources, on behalf of Santa Clara County*)

Response

Pursuant to the CESA, CTS was declared a candidate for listing in February 2009 and a status review was initiated by the California Department of Fish and Game (CDFG). Based on the results of the status review, California listed CTS as a Threatened species in August 2010. Therefore, the CTS was not a state listed species when the Draft HCP and DEIS were released in April 2010. However, the Final HCP and Section 4.2.2.2 of the FEIS have been revised to recognize the listing of the CTS under CESA. Although the HCP is a Federal permitting document, Stanford may use this HCP as the basis to obtain a "Consistency Determination" from CDFG under Section 2080.1 of Fish and Game Code. Section 2080.1 allows an applicant who has obtained a Federal section 10(a) ITP to notify CDFG that the applicant has been issued a Federal ESA take permit and request a determination as to whether the Federal document is "consistent" with CESA. If CDFG determines the Federal permit is not consistent with CESA, the applicant must apply for a state ITP under Section 2081(b) of the Fish and Game Code. Stanford has worked with CDFG during the development of this HCP and coordination between Stanford and CDFG continues.

Clean Water Act

Comment

Comment 1.2: We recommend that the Final Environmental Impact Statement (FEIS) provide additional information on the potential interface between the HCP and Section 404 of the Clean Water Act (CWA). The DEIS states that Stanford lands "contain seasonal and perennial wetlands," but that because the "exact location of future development is still unknown, Stanford does not know if its future development might result in fill of wetlands or other aquatic resources regulated under the CWA." The FEIS should describe how jurisdictional wetlands will be identified over the permit term, and how FWS, NMFS and Stanford will coordinate with the U.S. Army Corps of Engineers to ensure that any development covered by the HCP complies with the permit requirements of Section 404 of the CWA. (*Kathleen Goforth, Manager, Environmental Review Office, U.S.EPA*)

Response

Issuance of ITPs from the Services does not relieve Stanford from obtaining appropriate permits from the USACE under Section 404 of the CWA. Prior to proceeding with future development, Stanford must utilize existing USACE protocols for identifying seasonal and perennial wetlands regulated under the CWA, and request verification from the USACE for delineations and jurisdictional determinations. Stanford will submit applications or provide preconstruction notices to the USACE in connection with future development projects proposed by Stanford that are subject to the USACE's jurisdiction, including projects that are included in the HCP as Covered Activities. Although the incidental take of listed species associated with Covered Activities would already be permitted in the Services' ITPs, the USACE continues to have an obligation to consult with the Services pursuant to section 7 of the ESA. These section 7 consultations between the USACE and the Services would determine if Stanford's proposed action was consistent with the HCP and ITPs, and the consultation would also ensure Covered Activities are in compliance with Section 404 of the CWA. Section 2.4 of the FEIS has been revised to describe the relationship between HCP Covered Activities and permit requirements of Section 404 of the CWA.

Riparian Areas

Comments

Comment 11.16: There are riparian setback guidelines that need to be incorporated into this HCP. Santa Clara County asks for a 100-foot setback from the top of bank of perennial creeks such as San Francisquito, Los Trancos and Matadero Creeks-within the urban service area, a 150-foot setback outside the urban service area, and a 200-foot setback where the slope of terrain adjacent to the creek is over 30 degrees. Such criteria need to be adhered to regardless of conservation easement language. (*Lawrence Johman, Chair, Guadalupe-Coyote Resource Conservation District*)

Comment 11.19: Riparian setback criteria are particularly important for Los Trancos and San Francisquito Creeks in order to provide adequate SRA habitat critical for steelhead and sustaining cooler summer stream flows. For instance the recreation trail Stanford is building along San Francisquito Creek might be permissible in San Mateo County but would it conform to the riparian corridor setback of Santa Clara County? We believe it might not. Riparian impacts should be addressed consistently under the most strict guidelines and standards of local agencies- municipalities and counties-so that lenient regulations do not prevail in one area of Stanford lands and development, where more stringent regulations apply in other areas. (*Lawrence Johman, Chair, Guadalupe-Coyote Resource Conservation District*)

Comment 22.14: Santa Clara County Riparian corridor setback criteria for San Francisquito, Los Trancos, Matadero and Deer Creek needs to be detailed in this DEIS and HCP and reflected in conservation easement language. (*Libby Lucas*)

Response

Protection for riparian areas, creek banks and creek beds will be achieved by the HCP through conservation easements (San Francisquito /Los Trancos Conservation Easement and the Matadero /Deer Conservation Easement). Under the Conservation Program, no new permanent structures may be erected on riparian lands covered by the conservation easements, with few exceptions, such as research related structures and new bridges. Although the HCP would not specifically institute a riparian "setback", it would protect the riparian area from development within 70-400 feet of the creek channel depending upon whether Stanford owns both sides of the creek and the presence of existing improvements. Any new proposed development near a creek would also be subject to the relevant County's then existing ordinances. County ordinances could require a further setback than the HCP, but if the County's local ordinance had a lesser setback, the HCP's conservation easement in riparian areas would apply. The HCP provides an added assurance of setbacks for certain land uses, or in areas subject to the easements, in the event that such areas are not protected by local ordinances, now or in the future.

The construction of a recreational trail along San Francisquito Creek referred to by the commenter would be the improvement of an existing trail. Maintenance and improvement of existing recreational routes are Covered Activities and described in Section 3.6.3 of the HCP. Section 4.2.6 of the HCP's Conservation Program includes several measures to avoid and minimize impacts associated with recreational routes.

3.2.5 Cover Other Species

Comments

Comment 15.1: [T]he habitat descriptions should include other species that in effect support the endangered species. Ignoring these other species can lead to degradation of habitats and losses of species. (*B. Stephen Toben, Mayor, Town of Portola Valley)*

Comment 15.2: The habitat descriptions do not include rare or endangered plants. While these are not animals, they should be protected and we believe the HCP should go beyond the constraints attendant to the five animals listed and give attention to these plants. (*B. Stephen Toben, Mayor, Town of Portola Valley)*

Comment 22.16: The Species covered in this HCP under Federal Incidental Take Permits, California red-legged frog (Rana aurora draytonii), California tiger salamander (Ambystoma californiense), San Francisco garter snake (Thamnophis sirtalis tetrataenia), Steelhead (Central California Coast DPS) (Onchorhynchus mykiss), and Western pond turtle (Actinemys marmorata) constitute a limited list for a unique 8000 acres of rangeland. (*Libby Lucas)*

Comment 22.17: This DEIR does not fully evaluate the element of 'take' due to loss or degradation of habitat of these species, nor does it include habitat for possible species of Golden Eagle, Tri-colored blackbird and White-tailed kite historically observed to forage and nest in Stanford campus foothills, or with the possible reestablishment of the Bay checkerspot butterfly in Stanford's serpentine grasslands habitat. (*Libby Lucas)*

Response

Stanford, in coordination with the Services, selected the HCP's Covered Species, and the HCP's Conservation Program is designed to provide protection for Covered Species. The Covered Species include all species currently listed under the ESA on Stanford's lands. The HCP includes the western pond turtle (WPT) because there is a possibility that it could be listed within the foreseeable future. No other species that are known to occur on Stanford's lands are federally listed or expected to be federally listed in the foreseeable future.

Stanford has elected to limit the HCP's Covered Species to California red-legged frog (CRF), CTS, San Francisco garter snake (SFGS), Central California Coast (CCC) Steelhead, and WPT. However, implementation of the HCP will likely provide benefits to many other native plant and animal species on Stanford Lands. Section 4.2.1.1 of the FEIS describes the plant communities and wildlife that occur on Stanford Lands and Section 5.2 of the FEIS analyzes the potential effects of the Proposed Action and alternatives on biological resources. As described in the Section 5.2.1 of the FEIS, the Proposed Action is expected to result in beneficial effects to other biological resources, including special-status species that are not identified as covered species in the HCP. In general, the HCP's Conservation Program includes habitat enhancement actions that benefit local native plant and animal communities, and the HCP's measures associated with Covered Activities will avoid or minimize effects on natural habitat areas campus-wide. Thus, the EIS does include an analysis of the effects of implementing the Conservation Program on these other plant and animal species. Information related to golden eagle was added to Sections 4 and 5 of Volume I of the FEIS.

Over the course of the permit term, the HCP provides a mechanism to add new covered species, as described is Section 6.7 Amendments and Minor Modifications. For example, if the Bay checkerspot butterfly naturally becomes reestablished on Stanford's lands, measures to protect this species can be developed and the HCP can be amended in accordance with the process outlined in Chapter 6 of the HCP. However, additional environmental review and compliance with NEPA will be required for future amendments to the HCP/ITP.

There has also been discussion of intentionally reintroducing the Bay checkerspot butterfly on Stanford's lands. If the Bay checkerspot is reintroduced onto Stanford's lands, it would likely be permitted under section 10(j) as an experimental population or section 10(a)(1)(A) as part of a research permit. The effects, if any, of the HCP's covered activities on the population of Bay checkerspot butterflies would be addressed at that time.

3.2.6 Covered Species – California Tiger Salamander

Conservation Strategy

Comments

Comment 2.105: The EIS inappropriately proposes Stanford be able to use previously created and enhanced breeding ponds for CTS in the CTS Reserve area for mitigation credits for future development that will impact CTS habitat. It should be clarified whether these ponds were created and enhanced as mitigation for past practices, and Stanford's past efforts to lessen take and mismanagement of CTS habitat should not be used as mitigation for future development that will harm CTS. (*Jeff Miller, Conservation Advocate, Center for Biological Diversity*)

Comment 10.1: While it is important that the long-term CTS conservation strategy focus on alternative breeding sites in the future California Tiger Salamander Reserve, as identified in the HCP, it is also important to acknowledge and recognize that prime aquatic habitat for CTS has historically been provided by large vernal pools and not artificial ponds……The sheer size of Lake Lagunita and its enormous potential to support CTS breeding is not discussed in the HCP… By comparison, if the created ponds become fully functional, their output would be a fraction of the CTS production that Lake Lagunita provides. The HCP should acknowledge the anticipated long-term CTS population recruitment from created ponds *and* Lake Lagunita in terms of potential CTS production and anticipated future variability in production during wet and drought years.

The explanation should justify why a 0.5 km impact assessment buffer is appropriate for the particularly jeopardized Stanford CTS population, whereas healthy, somewhat remote CTS populations without upland habitat restrictions typically receive a 1.0 km impact assessment buffer. (*Brian Pittman, ESA Biological Resources, on behalf of Santa Clara County*)

Comment 10.2: The Golf Course Driving Range serves to provide a key habitat connectivity linkage to undeveloped grasslands and oak woodlands located north of JSJS[B], and in particular those undeveloped areas near the Red Barn and Equestrian Center, along portions of the golf course and golf course driving range, and near Electioneer Road. . . . Due to the local importance of the area in terms of CTS habitat connectivity, the driving range should be formally in the HCP as a "No Build Area" for the 50-year term of the Incidental Take Permit. The development of this area, which is presently permitted without mitigation by the HCP, would render perhaps more than 50 to 100 acres of habitat located north of JS[B] inaccessible and unusable to CTS, a classic case of habitat fragmentation. The USFWS should justify why the habitat values at the driving range were excluded from the HCP, and similarly explain why mitigation would not be required to develop this important area. (*Brian Pittman, ESA Biological Resources, on behalf of Santa Clara County*)

Comment 10.3: The USFWS should justify why the HCP does not provide permanent protection or enhancement of the Lagunita Are…the development of CTS habitat located north of JS[B] should be mitigated in a separately tabulated "North of JS[B] CTS Account" with credits specifically applied to a conservation easement at the Lagunita Area.

…The HCP needs to promote a greater physical connection between areas that are impacted and those that are protected, especially in and near the Lagunita Area.

The USFWS should explain why the HCP excludes the most valuable CTS conservation lands at Stanford, those areas within the Lagunita Area, from the long-term conservation easement; …. The USFWS should also clarify how the single area CTS Account system would protect habitat

better than the two part CTS Account system (i.e., North of JS[B]/South of JS[B]) proposed above. (*Brian Pittman, ESA Biological Resources, on behalf of Santa Clara County*)

Comment 10.6: [A] focused geological study (e.g., analysis of soil cores) should be performed at Lake Lagunita to examine the source of current water losses and to provide potential solutions to improve water retention. The results of this study should inform habitat enhancement recommendations for Lake Lagunita, which would benefit from the removal of accumulated top layers or the addition of a clay lining (e.g., addition of betonite clay)… An associated biological study should be performed at Lake Lagunita to identify habitat improvement recommendations for CTS. This study and the associated soil improvement recommendations should be added as a Covered Activity in the HCP. Presently, such analyses are only required as HCP contingency measures. The USFWS should state why such studies were not included as part of the HCP, and why the overall CTS enhancement strategy bypasses obvious habitat improvement opportunities at Lake Lagunita. (*Brian Pittman, ESA Biological Resources, on behalf of Santa Clara County*)

Comment 11.41: HCP Objective 2.5 (continue to supply water to Lagunita to allow metamorphosis of larval CTS) should be qualified by the requirement that the timing, method and amount of optimal water supply be included, so that conservation and monitoring of the objective will be effective. (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Response

The HCP (Section 2.4.3) correctly describes the current habitat conditions for CTS at Stanford and the importance of Lagunita as a breeding location. Lagunita and the adjacent upland is preserved and will be actively managed for CTS as part of the Central Campus CTS Management Area described in the HCP, including maintaining water levels specifically for CTS breeding for the 50-year permit term. Lagunita water levels will be maintained according to the operation measures in Section 3.1.3 of the HCP. CTS will be monitored at Lagunita and upland areas as described in Section 4.6.3 of the HCP. Stanford will maintain Lagunita for the term of the HCP.

An HCP biological goal is to stabilize the local CTS population and increase its long-term persistence at Stanford. This will be accomplished in part by providing more sustainable habitat in the foothills. The purpose of the new ponds is to provide suitable habitat farther away from urbanization providing additional breeding sites that do not require CTS to cross Junipero Serra Boulevard (JSB) to breed at Lagunita. Lagunita is anticipated to provide a source population for the newly created ponds, and its importance is recognized in the HCP. However, it is not known how many salamanders will be necessary to sustain a population in the CTS Reserve, which is why Lagunita will be managed to support the breeding population and additional breeding ponds created in the foothills.

All areas where CTS occur on Stanford's lands were considered when assessing potential impacts to and estimating take of tiger salamanders from the HCP's covered activities. Neither the CTS conservation program nor the estimation of impacts in the HCP and DEIS rely on the 500-meter distance used in the 2000 General Use Permit (GUP) and Community Plan, as referenced by one commenter. The HCP states that the "density of

salamanders decreas(es) significantly as the distance from Lagunita exceeds 0.75 mile", which equates to approximately 1.2 km from Lagunita. The CTS distribution at Stanford depicted in Figure 2-4 of the HCP is based on extensive field work and knowledge of the campus. The HCP acknowledges that CTS could wander into the "inaccessible" habitat, but that most of the central campus acts as a population sink for the species. The take of individual CTS that might wander into central campus is included in the estimates of take in Section 5.3.3 of the HCP.

The USFWS reviewed data provided by Stanford biologists and noted that CTS were found near the edges of the Driving Range and not on the driving range turf. Based on these data, the USFWS does not believe the driving range turf functions as a dispersal corridor. A large drainage ditch located between the driving range and Lagunita provides a more likely functional dispersal corridor. CTS were observed dispersing in the undeveloped land located between JSB and the driving range, and along the section of Governor's Lane, located between the driving range and the dorm complexes. Based on these observations, it is anticipated that any CTS movement between Lagunita and the west campus that still occurs is likely to be through the undeveloped area between the driving range and JSB. The likelihood of the driving range serving as a dispersal corridor has been shown to be extremely low, therefore USFWS concurred that it could be classified as Zone 4 in the HCP.

It is anticipated that if CTS habitat was lost through development, it would most likely be north of JSB within the central campus. This would require a permanent conservation easement within the CTS Reserve. The HCP's mitigation system includes incentives for Stanford to record conservation easements over habitat within the CTS Reserve. Stanford will not receive mitigation credits for any existing breeding ponds. However, if the HCP were to have two CTS accounts divided by JSB, as suggested by one commenter, the most likely development would result in easements on the campus side (north) of JSB, which are not likely to provide the highest protection for the population and would not meet the specific goal of stabilizing the local CTS population and increasing its chance of long-term persistence at Stanford (Goal 2). The HCP conservation strategy preserves Lagunita, but also includes mitigation measures that would provide enough breeding habitat in the foothills so that CTS individuals have the opportunity to breed closer to the upland habitat and not have to migrate to Lagunita to breed. This strategy may decrease the effect of losing breeding adults on JSB and increase the long-term persistence of CTS at Stanford.

The Lagunita lakebed has been very permeable since before the establishment of the University (when full, the reservoir loses an estimated 500 gallons a minute to percolation). It was created as a stock pond for Senator Stanford's farm, and there were many attempts to decrease the permeability through the addition of a clay soils to build a clay layer. Removing the accumulated layers could have detrimental consequences on tiger salamanders using the lakebed as refuge because tiger salamanders could be estivating in cracks in the lake bed. Further, Lagunita is in the unconsolidated zone and Stanford maintains it for groundwater recharge per the 2005 "Proposed Campus-wide Plan for Groundwater Recharge". The addition of an impermeable clay layer could reduce groundwater recharge, which could have adverse effects on local hydrological conditions, including local aquifers.

California Tiger Salamander Incidental Take

Comments

Comment 10.4: As such, the HCP should identify existing traffic on roads that account for most CTS fatalities and specific take avoidance measures should be provided to address the increased vehicle mortality threat from permitted development. (*Brian Pittman, ESA Biological Resources, on behalf of Santa Clara County*)

Comment 10.5: Few attempts are made by the HCP to minimize CTS losses by migration onto the main campus. The retrofitting of some at-grade infrastructure features such as grates is provided in Section 5, however, the HCP does not go so far as to require new features that would stop or minimize migratory losses. Feasible mitigation measures that should be included in the HCP include the creation of CTS migration barriers (e.g., simple concrete curbs) to route CTS to specific road crossing locations such as the created underground tunnels at JS[B]. Also, such curbs could be built on the north and east side of the Lagunita Area to minimize species losses when individuals migrate into the main campus and down sewer drains. A similar strategy was successfully implemented at the Southwest CTS Preserve in the City of Santa Rosa, where an isolated CTS breeding area and associated upland habitat was encircled by a concrete curb to prevent losses into storm drains and the adjacent neighborhood. The USFWS should justify why such proactive measures to minimize CTS losses were not included in the HCP. (*Brian Pittman, ESA Biological Resources, on behalf of Santa Clara County*)

Comment 10.8: Section 3 of the HCP repeatedly asserts that the Covered Activities individually "may not result in take". However, these same activities are identified in Section 5 as contributing to "take" on a project-level basis. Section 3 should be updated to reflect that species "take" will occur on a project-level basis and is not limited to the cumulative effects of the HCP. (*Brian Pittman, ESA Biological Resources, on behalf of Santa Clara County*)

Response

JSB accounts for most of the CTS fatalities. This road separates upland habitat from the breeding habitat at Lagunita. JSB is a heavily travelled, county-owned road that serves the entire region, not just Stanford. As described in the FEIS (Section 4.2.2.2), Stanford has installed four amphibian tunnels under JSB in an effort to reduce CTS mortality. Stanford may enhance CTS migration between the foothills and Lagunita further by installing additional tunnels. Therefore, the conservation strategy in the HCP preserves Lagunita, but also includes an effort to provide enough breeding habitat in the foothills so that CTS have the opportunity to breed closer to the upland habitat and not have to migrate to Lagunita to breed. This strategy may decrease the effect of losing breeding adults on JSB and increase the long-term persistence of CTS at Stanford.

Stanford has tried to reduce CTS migration into the built campus since the mid-1990s – a conservation goal which is not easily achieved due to the specifics of the Lagunita location within an urban area, surrounded by major roadways. A retaining wall along Lane L and the dorms north of Lagunita was constructed specifically to keep CTS away from the hazards associated with the dorms and roads. Additionally, a drift fence was installed along approximately 30 percent of the Lagunita berm, again in an effort to keep

CTS from entering the built portion of campus. Stanford also provided drift fences along JSB to guide CTS to the existing tunnels. Maintenance was found to be problematic. The drift fences became ineffective in a matter of days after completion due to rodent activity, debris accumulation, and from being altered by members of the public.

There are many design challenges associated with a "simple concrete curb" around Lagunita. Stanford considered this option but it was rejected because of some of these following design challenges:

- Balancing the benefits of guiding CTS to the tunnels with the hazards of having individuals trapped along a fence for a great distance, subjecting them to predation and potential collection by people.
- Accounting for extensive surface and channelized runoff from the foothills and other surrounding upland areas, into Lagunita during rain events, potentially interfering with the free flow of storm water into the retention facility which supports CTS breeding habitat.
- Accounting for the heavy pedestrian and bicycle use in the area where a curb would be placed, including the safety hazards posed by a curb and the need to include pedestrian/bicycle friendly breaks in the curb which would reduce its efficacy as a CTS barrier.

Covered Activities are described in Section 3.1.1 of the FEIS because there is a possibility that they will cause take, and Stanford is seeking coverage for them. It is impossible and unnecessary to quantify the take associated with each individual activity. Instead, the take is accumulated as a total estimate in Section 5.2.1.

Population Decline

Comment

Comment 10.7: It seems that enhancements to critical CTS breeding habitat at Lake Lagunita will only be performed if specifically required by the USFWS due to the threat of imminent CTS extirpation, and then only if outside funding is available. A better option would be to tie key Lake Lagunita improvements into current permitted development under the HCP. The present approach puts the future of the CTS population at risk by ignoring current enhancement opportunities, while simultaneously allowing enormous development (and enhancement funding) opportunities on adjacent lands. The USFWS should explain why the Stanford HCP is not required to set aside a contingency fund that would eliminate the response time in requesting state or federal funding. Similarly, since the HCP states the contingency response would only occur following the infusion of uncertain outside funding, the USFWS and Stanford should clearly state how they might respond to a CTS population emergency in the absence of such required funding. (*Brian Pittman, CWB, ESA Biological Resources, on behalf of Santa Clara County*)

Response

If the CTS population were to become critically imperiled at Stanford, the HCP provides a multi-level protection process. First, the requirements of the CTS Reserve Monitoring

and Management Plan would be implemented in consultation with the Services, including steps taken to provide supplemental water to the ponds and/or modify the ponds to improve their performance. Another key component is the adaptive management approach discussed in Section 4.5 of the HCP. As noted in Section 4.5.4 of the HCP, if there is a consistent population decline that is attributed to an activity performed by Stanford, Stanford and the appropriate Federal agency will meet to determine if the decline is attributable to Stanford's minimization or land management and conservation measures, and if so revisions to the Conservation Program will be made as soon as practicable. However, consistent with the agencies' "No Surprises" policy, the HCP identifies unforeseen circumstances, which are severe natural or manmade adverse conditions. "No Surprises" provides important assurances to section 10 permit holders that the Federal government will not require additional conservation or mitigation measures beyond those agreed to in the HCP, without approval from the applicant. An explanation of "No Surprises" may be found in Section 6.6.1 of the HCP.

3.2.7 Covered Species –Estimating Take/Alternatives to Avoid Take

Comments

Comment 11.10: Regarding Table 5-l and Table 5-2 Summary of Estimated Incidental Mortality of Individuals and Estimated Loss of Zone 1 and 2 Habitat for California red-legged frog, California tiger salamander, Western Pond turtle and San Francisco Garter snake, biological support data on existing habitat caliber and location is deficient. We can find no option in the DEIS for alternative land management protocols that might avoid impacts to species. Is there an alternatives analysis that we missed? (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Comment 22.1: Base biological survey data is not provided on the covered species as to caliber and extent of habitat or present numbers of individuals observed. Therefore impacts of proposed 'take' are indeterminate. (*Libby Lucas*)

Comment 22.31: In regards Table 5-1 and Table 5-2 Summary of Estimated Incidental Mortality of Individual and Estimated Loss of Zone 1 and Zone 2 Habitat for California red-legged frog, California tiger salamander, San Francisco garter snake and Western pond turtle, biological support data on existing habitat caliber and location is deficient. What are present population numbers for covered species? Is it possible to assess impacts of numbers estimated in take if existing numbers are unknown? (*Libby Lucas*)

Comment 22.32: Are there options for alternative land management protocols that might avoid impacts to species in DEIS? Is there an alternatives analysis? (*Libby Lucas*)

Response

The land management protocols contained in the HCP contain measures that avoid impacts to Covered Species while other measures are designed to minimize impacts to the maximum extent practicable. A "no take" alternative is presented in Section 7.1.1 of the HCP and Section 3.4.1 of the FEIS. The EIS concluded that a no take alternative is impractical because it would prohibit or restrict ongoing maintenance activities that could

result in adverse health, safety and public service effects on Stanford and the surrounding communities. Likewise, Section 7.1.1 of the HCP concludes that it would be infeasible for Stanford to stop all day-to-day operations that may result in take of Covered Species without jeopardizing the functioning of the University and public health and safety. For example, the HCP's Conservation Program proposes to mow the bottom of the dry Lagunita Reservoir during the early fall for fire control. Mowing poses a risk of injuring or killing a tiger salamander or garter snake, but mowing has considerably less impact than disking the lake bottom as previous performed. Fire control is required at this location for public health and safety, so the alternative with the least impact was incorporated into the HCP. The FEIS also presents a "no action" alternative in Section 3.2.1 which evaluates project-specific permitting, and concludes that similar minimization measures and mitigation would likely be applied on a project-by-project basis if the Services do not issue the requested ITPs.

The comment regarding the sufficiency of the biological data on existing habitat caliber and location does not identify any specific deficiency on the biological data that is provided in the EIS or HCP, and therefore the Services cannot provide a specific response to this comment. Descriptions of the biological setting, including habitat for the Covered Species at Stanford is included in Section 2.3 of the HCP and 4.2 of the FEIS. Occupied habitat is shown on FEIS Figures 4-16 (California red-legged frog), 4-17 (California tiger salamander), 4-18 (western pond turtle), and 4-19 (CCC steelhead). For discussion of the biological and habitat data used to develop the HCP please see the response to "Covered Species – Habitat Information". The estimates of take/incidental mortality provided in the HCP (Section 5.0) and the FEIS (Section 5.2.1) are based on the best available scientific information, including data collected from monitoring the Covered Species on Stanford's lands.

3.2.8 Covered Species – Habitat Information

Viable Habitat and Development

Comments

Comment 22.19: The characterization of suburban academic Stanford campus as so 'intensely developed' as to preclude viable habitat is unsubstantiated by any review of biological data. And, to eliminate it from this DEIS would appear to be in conflict with environmental laws about avoidance of impact, cumulative impacts of piecemealing of projects and of segmenting river systems. (*Libby Lucas*)

Comment 22.20: This introductory statement by the DEIS seems to be contradicted by 'covered activities' for incidental take of the HCP as found in Section 1.4. (*Libby Lucas*)

Response

It is accurately stated in the HCP and EIS that the urban/suburban environment of the main campus does not provide habitat adequate to support the long-term persistence of the Covered Species, hence it is designated as Zone 4 in the HCP. The HCP and EIS acknowledge that some of the Covered Species could occur in the main campus (Zone 4)

but that they are not expected to persist there because there is no suitable habitat located in the main campus (see Section 4.1 of the HCP and Section 3.1.2 of the FEIS). Stanford and the Services agree that in the event that individual Covered Species are found within the urban/suburban areas of the main campus, they need to be moved back to more suitable habitat and the HCP provides for relocation of Covered Species.

Vegetation

Comments

Comment 22.3: Vegetation that sustains the covered species is not detailed, nor are the seasonal or drought and dry year variables that might cause alterations in types of habitat, within and possibly extending outside HCP area. (*Libby Lucas*)

Comment 22.4: Maintenance of vegetation needs specific protocols for open range, foothills, oak woodland savanna, riparian corridor, marsh, ponds or seeps to assure protection of covered species habitat in HCP. (*Libby Lucas*)

Comment 22.39: Though the range of this DEIS and HCP covers federally endangered listed species it neglects to detail physical locations and the plants of that habitat that best contribute to species health and survival. Also there should be documentation of the biodiversity of a habitat in regards adjacent delineated wetlands, as well as rare and endangered plants and associated wildlife that contribute to the caliber of refugia. Western pond turtles and tiger salamanders need dirt banks for laying nests and steelhead need woody debris in stream channels and stream summer temperatures cooled by shaded riverine aquatic habitat. Are some of the particular habitat needs better addressed in Fire Management's plan than in this HCP? (*Libby Lucas*)

Response

Section 2 of the HCP describes the different ecotypes, plant species, and animal species that are present on Stanford's lands. Section 2.4 of the HCP and Section 4.2.2, Covered Species, of the FEIS also describe the habitat requirements for each of the Covered Species and the current distribution of these species at Stanford. Species' distributions are based on years of monitoring conducted by Stanford researchers and independent reports. In order to protect and manage Covered Species habitat, the HCP identifies Habitat Management Zones (defined in Section 4.1 of the HCP) on Figure 4-2. Areas classified as Zone 1 support one or more of the Covered Species or provide critical resources for a Covered Species and are necessary for the local persistence of the Covered Species. Areas classified as Zone 2 are occasionally occupied by a Covered Species and provide some of the resources used by the Covered Species. These areas include the wetlands, refugia, vegetation and other habitat qualities needed for the Covered Species. The fire management plan referred to in the comment is for the Palo Alto foothills and is not as specific to Stanford lands as the HCP and EIS.

The HCP and EIS recognize that seasonal droughts or years of below average rainfall may affect habitat for the Covered Species (FEIS Section 5.5.3; HCP Section 6.6.2). Provisions for addressing variables that might cause alterations in types of habitat on Stanford's lands are presented in Section 4.5 "Adaptive Management" and in Section 6.6

"Changed and Unforeseen Circumstances" of the HCP. These provisions address the fact that weather patterns could affect vegetation and the habitat of Covered Species. As noted in Section 4.5.1 of the HCP, "The adaptive management provision addresses the process for revising the Conservation Program, including changes to the enhancement and management techniques, the use of experimental techniques in enhancement and management activities, revising various plans adopted pursuant to the HCP, emergencies, and reintroducing Covered Species." Drought is one of the changed circumstances addressed in Section 6.6.2 of the HCP.

The HCP includes habitat management actions that will protect or enhance the vegetation for the benefit of the Covered Species. These actions include retaining woody debris in the creek channels and adjacent riparian zones (Section 4.2.2 of the HCP), the addition of woody debris to San Francisquito Creek to improve overwintering conditions for steelhead (Section 4.3.1.2 of the HCP), and maintaining appropriate hydrological conditions to promote tiger salamander reproduction (Sections 3.1.3 and 4.3.3.1 of the HCP).

3.2.9 Covered Species – San Francisco Garter Snake

Comments

Comment 2.107: The discussion in the EIS of intergrades of SFGS with red-sided garter snake should not be used to downplay impacts to SFGS habitat in the HCP. The USFWS will determine whether the southern San Mateo County snakes are considered part of the listed SFGS population. Given that there are only 7 viable breeding populations in existence, any SFGS on Stanford lands are significant to the overall conservation of the species. The draft Recovery Plan for the SFGS identifies Stanford lands as important for potential reintroduction of SFGS and recovery of the species. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 8.13: As the red-sided garter snake habitat is unprotected and increasingly likely to be destroyed south of Stanford, it is also likely that intergrade garter snakes at Stanford will increasingly belong to the San Francisco garter snake gene pool and should be treated as a listed species. (*Brian Schmidt and Lennie Roberts, Legislative Advocates, Committee for Green Foothills*)

Response

Section 4.2.2.5 of the FEIS describes the garter snake populations found at Stanford and explains the current Federal protections afforded to these populations, given their intergrade status. This discussion is not intended to "downplay" any impacts that may result from the HCPs Covered Activities, rather it is meant to clarify how the USFWS regulates take of this population. As discussed in the EIS, the USFWS considers individuals that exhibit more than 50 percent of the listed characteristic as the listed entity. This position is based on the *Proposed Policy on the Treatment of Intercrosses and Intercross Progeny,* which states "…the Services believe the responsibility to conserve endangered and threatened species under the Act extends to those intercross progeny if (1) the progeny share the traits that characterize the taxon of the listed parent, and (2) the progeny more closely resemble the listed parent's taxon than an entity

intermediate between it and the other known or suspected non-listed parental stock. The best biological information available, including morphometric, ecological, behavioral, genetic, phylogenetic, and/or biochemical data, can be used in this determination." (61 FR 26). Therefore, the USFWS is treating intergrade snakes that exhibit more than 50 percent of the characteristics that are attributable to the listed species as the listed entity *Thamnophis sirtalis tetrataenia*. As the primary prey for adult SFGS is the CRF, the USFWS believes that the conservation strategy developed for the CRF will benefit the SFGS. In addition, the HCP includes minimization and mitigation measures for the SFGS and in fact benefits any aquatic garter snake on Stanford's lands. For more information regarding the Proposed Policy on the Treatment of Intercrosses and Intercross Progeny (the Issue of ``Hybridization"); Proposed Rule, see http://www.epa.gov/fedrgstr/EPA-SPECIES/1996/February/Day-07/pr-494.txt.html .

3.2.10 Covered Species – Steelhead

Steelhead Population Data

Comments

Comment 2.18: The HCP (p.35) states: "Perhaps the primary limiting factor for steelhead in this portion of their range is the low amount of water present in the system during the annual dry season and during periods of drought" and that during "most year, fairly extensive portions of the system dry out." Low water conditions, and the absence of surface flow, is a limiting factor that is exacerbated by water diversions and withdrawals and migration barriers, such as Searsville Dam, that prevent steelhead from being able to access perennial headwater streams where adequate summer flows occur. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.85: The HCP states that, "returning adults (steelhead) can be 15 to 25 inches in total length. The adult female steelhead we (San Francisquito Watershed Council and DFG) transported from a drying pool below the CALTRANS culvert on the Bear Gulch Creek tributary in early 2000 measured 31 inches. Jim Johnson, the former Stream Keeper for the San Francisquito Watershed Council, noted adult steelhead in the watershed up to 40 inches in length (Johnson Undated Report). (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.86: The HCP (p.35) states: "There is no direct evidence that the steelhead population reproducing in the San Francisquito watershed has declined in the last 100 years or is declining at the present time." This statement is absurd. First of all, 100 years ago most of the watershed was still recovering from the almost complete removal of old growth redwoods and other trees from it's headwaters and habitat conditions were already severely altered. Secondly, Searsville Dam had already been blocking the largest spawning and rearing tributary in the watershed for almost 20 years, effectively reducing the tributary habitat by over one third. In addition, other barriers, such as old saw mills and water diversions on Bear Creek were blocking some of the best habitat in other tributaries. Searsville Dam, Bear Gulch Diversion Dam, and others had been removing water from the watershed for over a decade. There are few records in existence, and maybe none relating to steelhead numbers, about the watershed before major habitat alterations began to occur more than 150 years ago. The Agencies must contact the Center For Ecosystem Management and Restoration (Gordon Becker) as well as Stoecker Ecological (Matt Stoecker) to obtain the enormous amount of data related to historic steelhead

and coho in the San Francisquito Creek watershed and the south San Francisco bay. The DEIS is seriously lacking in referenced and assessed salmonid data for the watershed. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.94: Page 136. The HCP states: "Based on the best available data, the number of juvenile steelhead annually resent during the summer filed season at Stanford over the last decade has ranged from 1,500 to 9,000 individuals." The HCP and DEIS fail to include adequate data or methodologies used to estimate populations sizes and ranges. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 3.11: The draft EIS should be withdrawn, rewritten, and rereleased to provide reviewers with an understanding of San Francisquito Creek watershed's steelhead populations, their status and trends, threats, and efforts to conserve and restore them. The HCP should recognize the relationship between Stanford's activities (including operating Searsville Dam, Reservoir, and diversion) and the San Francisquito Creek steelhead run. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Comment 3.34: p. 5-48, paragraph 2. The draft EIS uses estimates of the "steelhead population." The size of the steelhead population is unknown, and attempts to play down the severity of incidental mortality ("0.33 to 2 percent") using population size are inappropriate. As noted in the Biological Opinion for the SHEP, "Little information is available regarding steelhead on the mainstem of San Francisquito" (NMFS 2006, p. 19). The measure of the effects of the Covered Activities should be made in the degree to which the activities are inconsistent with providing the greatest possible amount and quality of steelhead habitat. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Comment 3.35: Section 5.2.1 includes the goal, “Maintain or improve hydrologic and terrestrial conditions that presently support steelhead and increase the chance of long-term persistence for the local steelhead population.” This is the standard to which the effects of the Covered Activities should be measured. Higher quality information should be referenced (see, for example, Leidy et al. 2005) and improved interpretation of the status of the population should be provided in the HCP and the draft EIS. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Comment 14.12: The Draft EIS does not adequately describe the project setting…[T]he draft EIS fails to include complete and accurate information about the current and historical condition of steelhead in the Project area. At a minimum, NOAA should consult the extensive database materials compiled by the Center for Ecosystem Management and Restoration regarding steelhead trout and coho salmon in the Bay Area and the San Francisquito Creek watershed. (*Ellison Folk, Shute, Mihaly & Weinberger LLP, on behalf of Beyond Searsville Dam*)

Response

The Services used the best available scientific information regarding the current and historical abundance and status of steelhead in the San Francisquito watershed. Information sources included Snyder (1905), Skinner (1962), Leidy (1984), Vogel

(2002), DW Alley and Associates (2004), Santa Clara Valley Water District (SCVWD 2004), Fong (2004), and Jones and Stokes (2006). The Services have also utilized the data sources referenced in several Center for Ecosystem Management and Restoration (CEMAR) documents including Leidy et al. (2005) and Leidy (2007). Appendix G summarizes the available information on steelhead collections and observations in the San Francisquito Creek Watershed. This information confirms that steelhead have been present in the watershed for the past 100 years, but there is little information on historical population sizes.

As noted by commenters, anthropogenic factors have caused the steelhead population in San Francisquito Creek watershed to decline over the past 100+ years. The current status of CCC steelhead in the watershed and the condition of available habitat are present in Section 4.2.2.4 of the FEIS. Additional information regarding the effect of Searsville Dam on the status of steelhead in the San Francisquito watershed has been added to Section 4.2.2.4 of the FEIS.

Steelhead population numbers and incidental take estimates presented in Section 5.2 and Table 5-5 of the FEIS are based on surveys conducted on Stanford's lands during the past 15 years. Stream habitat on Stanford's lands with steelhead extends approximately 9 miles on Los Trancos and San Francisquito creeks. The results of single-pass electrofishing conducted by Stanford from 1997 to 2000, indicate juvenile steelhead abundances range from 2 – 19 fish per 100 feet in this area (Alan and Spain 1998, Launer and Holtgrieve 2000, and Launer 2010). Extending these fish densities estimates to the entire 9 miles of stream habitat on Stanford's lands yields the population estimate of approximately 1,500 to 9,000 juvenile steelhead.

Steelhead Upstream Migration and Searsville

Comments

Comment 2.15: The DEIS (4-26) and HCP (p.25) incorrectly states: "Searsville Dam is a barrier to fish migration in the system, and isolates about 3 to 5 miles of suitable spawning habitat from migrating adults." This statement shows a lack of knowledge about the watershed, lack of research, speculation with no supporting data or studies, and questionable communication with Stanford scientists that have worked with the Steelhead Task Force for over a decade to identify migration barriers throughout the watershed. The HCP does not identify any referenced document or study, identifying where the extremely low 3-5 mile came from, but the HCP and DEIS need to quantify, if possible this estimate, and DEIS must correct this inaccuracy. The DEIS repeats this incorrect statement without its own analysis. As noted, approximately 18 miles of historic spawning and rearing habitat occurs upstream of the dam with at least 2.5 of those stream miles currently submerged and buried underneath Searsville Dam, Reservoir, and sediment deposits. Most of this historically accessible habitat is perennial and native rainbow trout, descendants of the historic sea-run steelhead population above the dam, persist in at least seven tributary streams. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.74: 4-30 Third Paragraph. A note about the 2006 Jones and Stoked report cited in the DEIS. As noted in the DEIS, the geographic scope of this study was very limited and did not include the upper mainstem of San Francisquito Creek or it's two largest sub-watersheds (Corte

Madera Creek and Bear Creek) and thus does not represent a detailed watershed-wide habitat assessment or limiting factors analysis. This limitation was acknowledged and discussed at several San Francisquito Watershed Council's Steelhead Task Force meetings before the study began, with recognition of funding constraints and sole County (Santa Clara Co.) geographic scope limitations. As such, many of us on the Steelhead Task Force, as well as the report authors, concluded that the study missed assessing much of our watershed's most important habitat reaches and most limiting factors to steelhead. The Steelhead Task Force focused our efforts on what we, and the resource agencies, believed to be the most limiting factor to San Francisquito Creek steelhead; migration barriers. Searsville Dam is the largest migration barrier in the watershed and blocks or submerges approximately 18 miles of historically accessible steelhead habitat… The DEIS must analyze these impacts using the abundant, even NOAA authored, scientific literature related to such impacts. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.88: Page 58 Fifth Paragraph. The HCP again states: Searsville Dam is a barrier to fish migration in the system, and isolates some 3 to 5 miles of suitable spawning habitat from migrating adults." See previous information about estimated habitat quantity blocked by the dam. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 14.5: The HCP admits that the Dam blocks suitable spawning habitat for steelhead, but fails to acknowledge to true extent of this loss. For example, the HCP asserts that the Dam blocks access to 3-5 miles of spawning and rearing habitat upstream, when estimates of historically available spawning and rearing habitat indicate that the number is much higher - on the order of 18 miles of habitat is blocked above the Dam. See Stoecker Comments. Such modification of critical habitat causes actual harm to the natural behaviors of steelhead, including migration, reproduction, and rearing, and should be addressed by the HCP. (*Ellison Folk, Shute, Mihaly & Weinberger LLP, on behalf of Beyond Searsville Dam*)

Response

In response to comments, the Services have examined additional information regarding the extent of potential stream habitat for steelhead above Searsville Reservoir. According to the USGS National Hydrography Dataset (2004) there is a total 25.7 miles of blueline stream above Searsville Reservoir. The major tributaries located upstream of Searsville Reservoir are Corte Madera, Dennis Martin, Alambique, Sausal, and Westridge creeks. Together these creeks and their tributaries make up 32 percent (14 square miles) of the San Francisquito Creek watershed (Freyberg and Cohen, 2001). Stoecker (2002), as cited in Leidy et al. (2005), reports 10 miles of historic suitable steelhead habitat above Searsville Dam. Stoecker (2010) later estimated 18 miles of suitable steelhead habitat upstream of the Dam. Smith and Hardin (2003) reports Corte Madera Creek and its associated tributaries contain over 8 miles of suitable spawning and rearing habitat. NMFS has reviewed the CDFG methodology used by Stoecker which generated an estimate of 18 miles (2010). In 2005, a NMFS Technical Recovery Team developed GIS-based habitat modeling to the San Francisquito Creek watershed (Agrawal et al. 2005, later revised in Spence et al. 2008 and 2012). This approach classified areas according to their “intrinsic potential” to exhibit suitable freshwater habitat for critical life-history stages of steelhead. Based on this model, 9 miles of habitat upstream of the Reservoir exhibits the physical parameters that are necessary for steelhead summer

rearing (Bjorkstedt et al. 2005; Spence et al 2012). Section 4.2.2.4 in the FEIS has been revised to reflect this information.

Steelhead in Los Trancos Creek

Comments

Comment 11.3: What have been the most recent Steelhead counts after installation of the massive Los Trancos fish ladder? Counts before and after installation should be documented. Reportedly, Fish & Game's Patricia Anderson, found Los Trancos/tributary still had viable runs of Steelhead before Stanford "upgraded" Los Trancos's diversion. (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Comment 11.4: Are steelhead making it upstream of this diversion facility? In a good water year, like 2010, are steelhead to be found in the five miles of Los Trancos Creek extending farther west in Santa Clara County to Black Mountain? There should be supporting field data in this DEIS to give credibility to estimated incidental take of steelhead. (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Comment 22.34: Since installation of the latest fish ladder and diversion weir there appears to be no fish monitoring or counts of migratory steelhead activity in this watershed? Where is the regulatory monitoring plan? What is the steelhead count for above and below Los Trancos fish ladder diversion? How does this data compare with steelhead activity in previous years of Anderson monitoring? How does it compare with other steelhead streams in Bay Area? (*Libby Lucas*)

Response

Although the direct monitoring of adult steelhead has never been performed at Stanford's water diversion structure on Los Trancos Creek (Los Trancos Creek Diversion Facility), the new facility constructed in 2009 has been hydraulically assessed for fish passage. A 2010 hydraulic assessment conducted by NMFS, CDFG, and Stanford concluded the ladder is functioning as designed for steelhead passage with appropriate water depths and velocities. Several observers have reported adult and juvenile steelhead in Los Trancos Creek upstream of the Los Trancos Creek Diversion Facility. Santa Clara Valley Water District (SCVWD 2004) reported juvenile steelhead above the Los Trancos Diversion Facility as did Vogel (2002). Stoecker (2002) observed juvenile *O. mykiss* in Los Trancos as far upstream as 0.7 miles above the confluence with Buckeye Creek (also known as East Fork of Los Trancos Creek), and juvenile *O. mykiss* were also observed in Buckeye Creek. There are several passage impediments upstream of the Los Trancos Diversion Facility, but none of these structures are thought to be complete barriers to steelhead migration. Cold water and the lack of impassable barriers suggest steelhead are utilizing, or are capable of utilizing, at least 2 miles of Los Trancos Creek above the Los Trancos Creek Diversion Facility and utilizing Buckeye Creek for spawning and rearing.

Regarding data to support estimates of incidental take, the Services utilized the results of several years' of electrofishing surveys conducted by Stanford University. Over the past decade the number of steelhead encountered has varied between approximately 0 and 20

fish per 100 feet, depending on location and year. In the HCP and EIS, the maximum anticipated take associated with Covered Activities that directly affect a reach of San Francisquito Creek or Los Trancos Creek uses an estimate of 20 juveniles per 100 feet of stream. Discussion of the methodology and data used to estimate incidental take levels for steelhead has been expanded in Section 5.2.1 of the FEIS and is further discussed in the Comment Response Section 3.2.7 Covered Species-Estimating Take/Alternatives to Avoid Take and under Steelhead Incidental Mortality.

Steelhead Incidental Mortality

Comments

Comment 2.93: Page 132. The HCP estimates annual incidental mortality of juvenile steelhead to be 120 individuals or up to 8% of the population and that loss of steelhead habitat would be 2000 feet. Additionally, "the HCP would allow a maximum of 600 feet of creek to be dewatered in a single year" (page 136). This proposal is unacceptable and will put steelhead at risk. The HCP proposed no expansion of steelhead habitat size by allowing fish passage upstream of the impassable Searsville Dam and adequately determined bypass flows, but rather high mortality rates and a reduction of habitat size as well as the periodic dewatering of already susceptible water impacted areas. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.95: The HCP states that annual "electrofishing is estimated to collect up to 2,000 juvenile steelhead" (HCP page 136) and collection mortality may be up to 90 juveniles or 6% of the population. Collection activities associated with the monitoring program are too high and pose a serious risk to steelhead in areas with impacted habitat and water quality especially during summer flows (as described); the time of year when they are most susceptible to harm from collection efforts. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.97: The HCP shows an excessively high potential rate of steelhead mortality (the 8% mortality annually does not include the extensive and omitted assessment of the Searsville Diversion Dam Facility), proposes an actual decrease in available habitat, and shows no data estimating the stated, "likely" increase in population size. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 11.2: In Table 5-1, estimated incidental mortality of individual steelhead is assessed at 120 annually, out of a population of 1500. What will be the cause of this take? Will dryback, insufficient flow, or high streamflow temperatures degrade health and the survival lifecycle of steelhead? Will blocking migration or removing upstream spawning gravels affect steelhead and their habitat? Over a fifty-year period, without improved water resource management, will steelhead exist in San Francisquito Creek and to what extent? (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Response

Anticipated “take” of steelhead in the Stanford HCP and associated EIS refers to all fish collected during Covered Activities and implementation of the monitoring program. The majority of the collected steelhead will be released alive and uninjured. However, a small fraction of the collected fish will be subject to mortality. In response to comments

regarding the levels of incidental mortality of steelhead, the Services reevaluated the take estimates and have clarified how the take estimates were made. Table 5-1 in the HCP reports that the juvenile steelhead population on Stanford's lands is expected to range from 1,500 to 9,000 individuals, but the table suggests the annual incidental mortality would remain constant at 120 individuals. These same values were used in Table 5-5 on page 5-45 of the DEIS. These tables suggest that the number of fish incidentally killed is simply a percent of the entire population. However, this is not the case for steelhead. The number of fish incidentally killed is dependent on the number of fish that will be captured during construction-related dewatering and monitoring activities. NMFS estimated the number of fish that may be captured during these activities using data on steelhead densities in San Francisquito and Los Trancos creeks from the past decade. This data indicates the number of steelhead encountered on Stanford's lands varies between 0 and 20 fish per 100 linear feet of stream, depending on location and year. In years that the steelhead population level is high, Covered Activities and the monitoring program are expected to collect higher numbers of fish (close to 20 fish per 100 feet). In years that the population is low, associated fish collections will be lower (close to 0 fish per 100 feet). The associated number of fish incidentally killed will reflect the fluctuating number of fish collected, but, as described below, should never exceed 3 percent of those fish captured.

The majority of steelhead "take" in the HCP is associated with Stanford's monitoring program, described in Section 4.6.2 of the HCP. NMFS requested Stanford include a robust monitoring effort in the HCP due to the limited amount of existing data on steelhead population levels in the San Francisquito Creek watershed. The monitoring program includes surveying three times per year, of no less than 10 percent of the steelhead habitat on Stanford's lands by electrofishing, snorkeling, and walking. The monitoring also includes a pilot program of downstream migrant trapping for approximately 5 years at 4 days per week. The Services believe that the proposed surveys and downstream migrant trapping of juvenile steelhead will provide valuable data that are currently lacking from this watershed. This information will be used to monitor trends in the steelhead population and evaluate the effectiveness of the HCP's conservation actions. Based on the results of other experienced researchers, mortality rates are expected to range from 1 to 3 percent during electrofishing and downstream trapping. The amount of annual incidental mortality presented in the HCP and EIS was estimated using this maximum 3 percent mortality rate.

For the monitoring program, no less than 10 percent of steelhead habitat on Stanford's lands will be surveyed three times per year by electrofishing, snorkeling, and walking. No fish would be collected during snorkeling or walking surveys, and therefore, no take is associated with these activities. Stanford estimates up to 2,000 juvenile steelhead may be collected annually during these surveys by electrofishing. Based on a 3 percent rate of mortality, collection by electrofishing generates a maximum estimate of 60 fish lost to incidental mortality. For the pilot downstream migrant trapping program, Stanford estimates their effort may capture up to 1,000 juvenile steelhead. Based on a 3 percent rate of mortality, up to 30 additional juvenile steelhead per year may be lost to incidental mortality during the downstream migrant trapping program. This estimated number of steelhead that would be subject to incidental mortality is based on observed maximum steelhead densities in San Francisquito and Los Trancos creeks (Launer 2011, Launer

2011a, Launer 2011b, DW Alley and Associates 2004). The actual number will depend upon the actual number of fish captured. However, NMFS will not authorize incidental mortality to exceed 3 percent of fish captured. The estimated number of incidental mortalities of steelhead associated with monitoring activities is included in Table 5-4 of the FEIS and presented below.

Table 5-4. Summary of Estimated Steelhead Take Associated with HCP Monitoring Program

Monitoring Activity	Method of Collection	Estimated # of Fish Collected (per year)	Estimated # of Incidental Mortality (per year)	Maximum Percent of Incidental Mortality (per year)
Annual Juvenile Surveys	Electrofishing	2,000	20-60	3 percent
Smolt Migrant Trapping	Funnel/fyke nets or screw traps	1,000	10-30	3 percent

Another source of incidental mortality is associated with dewatering for construction purposes. Temporary dewatering of the channel will allow for in-stream construction activities during bridge maintenance, utility maintenance, bank stabilization and removal of the non-operating Lagunita Diversion Dam. Often construction of in-channel projects is best accomplished by dewatering the work site. Not only can construction proceed more quickly and efficiently, dewatering avoids all the direct impacts on fish and water quality that would occur if construction activities took place in the live stream. Collection and re-location of fish at the work site prior to dewatering are commonly used for in-stream construction activities and it is very effective for minimizing potential impacts on juvenile steelhead.

In-stream Covered Activities will often require dewatering stream reaches and/or relocating fish. These activities will be limited to the dry season (i.e., June 15 to October 15) to avoid issues with rainfall and high stream flows. Work in the dry season also avoids periods of steelhead migration and spawning. Fish collections commonly occur during early morning hours when air and water temperatures are cool. When dewatering occurs, stream flows will be bypassed around the work site and a single site cannot exceed 300 linear feet in channel length. Areas dewatered will be limited to the smallest area possible and will only be dewatered during the actual period of construction. During a single year, the HCP allows for a cumulative total of 600 linear feet of stream dewatering for construction purposes (presented in Table 5-4 of the DEIS and Table 5-5 FEIS as "Annual estimated short-term habitat disruption"), but it is anticipated that no dewatering at all will occur in most years. The HCP estimates, and the DEIS reported, up to 300 juvenile fish could be collected and relocated if the maximum area of 600 linear feet of channel was dewatered in one season and up to 10 fish (i.e., 3 percent) could be incidentally killed from these activities. This estimate by Stanford assumes there could be 50 steelhead per 100 linear feet of stream. However, monitoring conducted over the past decade indicates a maximum density of 20 juvenile steelhead per 100 linear feet of stream is more likely. Therefore, NMFS estimates up to 120 juvenile steelhead could be collected and relocated annually if the maximum area of 600 linear feet of channel is dewatered for construction purposes. At a 3 percent mortality rate and at the highest

population densities, up to 4 fish could annually be killed during relocation from construction sites. Table 5-5 in the DEIS has been updated to reflect this update to steelhead incidental mortality and is included as Table 5-6 of the FEIS and presented below. Over time, the actual population of juvenile steelhead may increase (or decrease) and the actual number of steelhead that could be killed will depend upon the actual size of the future population. However, NMFS will not authorize annual incidental mortality associated with construction activities to exceed 3 percent of fish captured.

Table 5-6. Summary of Estimated Incidental Take of Individuals for Ongoing Stanford Operations and Future Development

Covered Species	Estimated annual population level[1]	Estimated annual incidental mortality (percent of population)	Estimated annual incidental mortality (individuals)[2]
Juvenile steelhead	1,500-9,000	0.04-0.26 percent	4
Red-legged frog	25-250	1-12 percent	3
Tiger salamander	400-4,000	1-5 percent	20
Garter snake	20-100	0 percent	0
Western pond turtle	10-40	0 percent	0

[1]Population estimates provided by Stanford based on studies conducted from 1992 to 2009.

[2]The number of individuals annually killed is dependent upon population level and shall not exceed maximum percent of annual mortality.

For the operation of the Los Trancos Diversion Facility and Stanford's diversion facility on San Francisquito Creek (the San Francisquito Creek Pump Station), incidental mortality was estimated by Stanford to be up to 20 juvenile steelhead annually. Stanford's estimate was based on fish abundance information at these locations and extrapolated for potential encounters of fish with the pump intakes during the 50-year permit term, in an effort to identify a "worst-case" scenario. However, NMFS does not concur with Stanford's estimate, and as described in the biological opinion issued by NMFS on April 21, 2008, for the Steelhead Habitat Enhancement Project (SHEP), upgrades to these facilities are expected to benefit steelhead and the operation of these facilities should not kill steelhead. Entrainment and impingement of steelhead fry and juveniles is unlikely to occur due to the new fish screens, which were designed in accordance to NMFS and CDFG standards. The new Los Trancos fishway was designed to provide adult and juvenile steelhead with full access to pass upstream of the diversion structure under a wide range of flow conditions. Furthermore, the SHEP operational procedures adopted in 2009 provide suitable fish bypass flows below the water intakes in both Los Trancos and San Francisquito creeks. Based on this information, the Services anticipate that no incidental mortality should result from the operation of the Los Trancos Diversion Facility or the San Francisquito Creek Pump Station. Incidental mortality associated with the maintenance of these facilities is included in the incidental take estimates for construction related dewatering (discussed above). Table 5-5 in the DEIS has been updated to reflect this change, and is included as Table 5-6 in the FEIS. The operation and maintenance of Searsville Dam and Stanford's water diversion at Searsville

Dam (Searsville Diversion) are no longer included as covered activities and no incidental take will be provided for these facilities in the Services' ITPs.

The table below summarizes the percent incidental mortality that the Services estimate would occur from each Covered Activity and has been added to Section 5.2.1 of the FEIS in Tables 5-4 and 5-6.

Activity	Method of Collection/Take	Maximum # of Fish Collected (per year)	Maximum # of Incidental Mortality (per year)	Maximum Percent Incidental Mortality (per year)
Operation of San Francisquito Pump Station and Los Trancos Creek Diversion Facility	Intake Pumps	N/A	0	N/A
Ongoing Stanford Operations	Electrofishing and dip nets	120	4	3 percent
Population Monitoring	Electrofishing	2,000	60	3 percent
Population Monitoring	Trapping	1,000	30	3 percent

As explained above, the amount of incidental mortality is directly proportional to the amount of fish captured, which in turn is proportional to the actual population size, and should not exceed 3 percent of the fish captured annually. When juvenile steelhead population levels are less than maximum, fewer individuals will be collected and total incidental mortality numbers will be lower. In accordance with NMFS' "Guidelines for Electrofishing Waters Containing Salmonids Listed Under the Endangered Species Act, June 2000, electrofishing crews at Stanford will observe (monitor) all fish during electrofishing. This real-time monitoring of steelhead by Stanford will ensure mortality rates do not exceed 3 percent of total annual steelhead captures.

Commenters also questioned the 2,000 feet of permanent steelhead habitat loss (presented in HCP Table 5-2 and DEIS Table 5-4). The 2,000 feet estimate of permanent habitat loss for steelhead is based on the maximum cumulative amount of bank stabilization that may be performed during the 50-year permit term and a small amount of infrastructure improvements (i.e., bridge supports). Stanford anticipates constructing up to 10 bank stabilization structures during the life of the HCP, with each structure being up to 200 feet in length. The Conservation Program requires the use of bioengineering methods to stabilize banks and specifies that each structure will consist of no more than 50 percent of hardscape materials. The HCP treats all use of hardscaping as a "permanent loss" of habitat (which then requires mitigation). However, the Services have concluded that the limited use of hardscape materials (e.g., up to 100 feet in length of a 200-foot bank stabilization) does not constitute a complete loss of steelhead habitat. For instance, bank stabilization sites will be permanently affected by the use of hardscape, but the sites are expected to continue to support some riparian vegetation and other habitat functions for

steelhead. Some bank stabilizations may actually improve habitat conditions for steelhead if sources of fine sediment discharge from active erosion sites are curtailed. Placement of the 2,000 feet of steelhead habitat under the "permanent loss of habitat" column was done to illustrate that using hardscape materials on up 2,000 feet of steelhead habitat would require mitigation under the HCP as a "permanent loss of habitat." Table 5-4 in the DEIS has been revised to clarify the nature of the expected 2,000 feet of habitat impacts to steelhead associated with Covered Activities. The revised table is included as Table 5-5 in the FEIS and shown below.

Table 5-5. Summary of Estimated Loss of Habitat in Zones 1 and 2 for Ongoing Stanford Operations and Future Development

Covered Species	Annual estimated short-term habitat disruption	Total estimated short-term habitat disruption over 50-year permit term	Annual estimated permanent loss of habitat	Total estimated permanent loss of habitat over 50-year permit term
Steelhead	600 feet (maximum in one year)	30,000 feet	N/A[1]	N/A[1]
Red-legged frog	2.0 acres	100 acres	0.6 acres	30 acres
Tiger salamander	2.0 acres	100 acres	1.3 acres	68 acres
Garter snake	4.0 acres[2]	200 acres	1.9 acres	98 acres
Western pond turtle	1.6 acres	80 acres	0.3 acres	15 acres

[1] No permanent steelhead habitat loss is anticipated as a result of proposed Covered Activities. Habitat that is impacted by bank stabilization will continue to support some riparian vegetation, fish passage, juvenile rearing, and other habitat functions for steelhead.

[2] In addition, there would be approximately 75 acres of grassland that would be mowed each year for fire break and CTS conservation purposes

3.2.11 Covered Species – Western Pond Turtle

Comments

Comment 2.17: Searsville Dam negatively impacts habitat and migration for Covered Species……The current distribution [of western pond turtle] is identified in the HCP and "from Searsville Dam to the downstream edge of Stanford's boundary." This distribution and … issues with fragmentation and development in the riparian zone suggest that Searsville Dam may be a major factor limiting turtle migration upstream of the dam and past the reservoirs. In addition, western pond turtles are identified in the HCP upstream of the dam over the last 20 year, but not observed recently may be fragmented from the population below the dam. In addition, the dam and reservoir submerged and buried historic wetland ponds and habitat and replaced those areas with a "human-altered landscape" and artificial reservoir full of non-native predatory species that prey on western pond turtles. The remaining, current population of western pond turtles therefore occurs below Searsville Dam and Reservoir, where non-native species are allowed to proliferate and disperse downstream where they can compete with and prey on listed turtles. The dam and reservoir are also altering habitat conditions downstream where the turtles occur and

where climate projections combined with continued dam operations indicate surface flows and habitat size is expected to decrease. It is apparent that the highly altered dam and reservoir are "main threats" to western pond turtle survival.

The HCP and DEIS acknowledge similar threats to red-legged frogs and Searsville Diversion Dam and it's operations are also causing similar negative impacts to red-legged frogs with respect to alteration of habitat, water quality, migration, and spread of non-native predatory species.

The DEIS and HCP acknowledge recent use of habitat upstream of Searsville Dam by several Covered Species and adequate habitat for future occurrence. The dam is a major migration barrier to red-legged frogs, western pond turtles, and garter snakes attempting to migrate upstream and may be a primary factor limiting occurrence upstream in recent years and preventing population expansion. These Covered Species may also be migrating downstream over the dam and can be killed or injured in the fall down the 65-foot concrete block face of the dam along with the native rainbow trout. The HCP and DEIS fail to discuss the impacts of the Searsville Diversion Dam Facility on migration of these Covered Species, adequacy of the screening on the Searsville Diversion intake piping, migration over the spillway and down the face of the dam, and migration limitations caused by water quality alterations and non-native predators in the artificial habitat of Searsville Reservoir. The analysis must also include the physical constraints and risks to these Covered Species on being able to migrate over or around the Searsville Diversion Dam, including leaving the aquatic environment and attempted migration upstream around the steep terrestrial environment. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.73: Section 4.2.2.3 Western Pond Turtle. "They are found ... from Searsville Dam to the downstream edge of Stanford's boundary" and have been "historically found along the marshier areas of Searsville Reservoir", however, "there have been no recent records from the reservoir". In addition, I have observed and photographed western pond turtles in Corte Madera Creek, just upstream of the Jasper Ridge Boundary twice in the mid 1990's and once in the early 2000's. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 22.22: Though the Western pond turtle was not a listed species at time of the recent excavation of Felt Lake to restore its historic capacity, so did not qualify for incidental take review, what measures were taken to relocate the turtles temporarily to sustainable wetlands habitat, and to revegetate Felt Lake refugia? Was any opportunity afforded the public or regulatory agencies to review or comment on this project? What species of Western pond turtles were found at Felt Lake? Were there juveniles as well as adults? How many Western pond turtle males, females and juveniles are to be found at Searsville Reservoir? (*Libby Lucas*)

Comment 22.23: What measures will be incorporated in this Habitat Conservation Plan to insure that this native species of Western pond turtle is conserved with appropriate wetlands and upper bank refugia, protection of migratory corridors (do Western pond turtles navigate past diversion structure on Los Trancos Creek?) and protocols that preclude invasive non-native species, such as sliders, being introduced into habitat? (Palo Alto Foothills Fire Management Plan has more Western pond turtle biological data than HCP?) (*Libby Lucas*)

Response

Recent excavation work at Felt Reservoir was conducted as part of the SHEP in 2009. The USACE authorized this activity under the Nationwide Permit program, and an ESA section 7 consultation with NMFS was performed by the USACE. Permits for the project were also issued by Santa Clara County and CDFG; and appropriate California Environmental Quality Act (CEQA) review was conducted. Although the CEQA process did not include public review, Stanford presented information regarding the SHEP to local interested groups. Biological monitors were present during construction and the site was fenced to prevent turtles from entering the area. A few adult turtles were seen and no turtle mortality was observed. The species, sex, and age of the turtles were not identified because the few turtles observed were not handled. Areas impacted during sediment excavation were hydroseeded and the site has been monitored for re-vegetation.

The Conservation Program will benefit the WPT by placing conservation easements on riparian corridors that will protect the riparian corridors in perpetuity. Riparian areas will provide both wetland and upland habitat for the WPT. Additional measures include placing signs at Felt Reservoir prohibiting the release of any wildlife species. As explained in Section 2.4.4 of the HCP, it is extremely likely that WPTs, as well as other non-native turtles found at Felt Reservoir, have been placed there by members of the public. However, it is unknown whether WPTs that are released at Felt Reservoir have been moved from other areas of Stanford. If WPTs are found at Felt Reservoir they will be captured and quarantined to assess their general health conditions to ensure they can survive in the wild and will be tested for pathogens. As stated in the HCP, if the turtles are healthy, they may be released into more appropriate habitat on Stanford's lands. If non-native turtles are found anywhere on Stanford's lands during monitoring or otherwise, they will be disposed of in an appropriate manner. Further, if the monitoring program results show the presence of any non-native species that could adversely affect WPTs, the non-native species will be removed, if feasible (Section 4.3.1 of the HCP). See Section 4.2 of the HCP for additional measures that will benefit WPTs.

The current distribution of WPTs at Stanford is shown in Figure 2-5 of the HCP and Figure 4-18 of the FEIS. The commenter states that he has observed and photographed WPTs in Corte Madera Creek, just upstream of the Jasper Ridge Boundary twice in the mid 1990s and once in the early 2000s, but did not provide the information to the Services to enable us to confirm the species identification or include the exact location in the FEIS. However, the HCP provides minimization measures for creek maintenance activities that will protect WPTs. Based on the information provided by Stanford and found in the California Natural Diversity Database, the Services believe that WPTs are uncommon on Stanford's lands. As described in Sections 2.4.4 and 5.3.4 of the HCP, it is unclear if the local population is stable. Additional information on the status of the WPT at Stanford will be acquired through the WPT monitoring program (Section 4.6.4 of the HCP). The FEIS summarizes the effects of the Monitoring and Management Plans on WPT in Table 5-3.

Comment 2.17 states: "The dam and reservoir are also altering habitat conditions downstream where the turtles occur and where climate projections combined with continued dam operations indicate surface flows and habitat size is expected to decrease.

It is apparent that the highly altered dam and reservoir are 'main threats' to western pond turtle survival." The construction of the dam has resulted in physical changes to the creek, however it is not apparent to the Services that Searsville Dam and the reservoir behind the dam (Searsville Reservoir) are "main threats" to the survival of WPT. The commenter did not provide sufficient information for the Services to analyze or include in the FEIS.

Water diversion structures and Searsville Dam at Stanford may impede WPT movements, but the Services believe these diversions are not complete barriers to WPT movements. WPTs, CRFs, and SFGSs do not have a "migratory" component in their life history that requires them to move up or downstream seasonally or for breeding purposes. CRFs and SFGSs could use the upland areas at Searsville Dam to negotiate around the dam. Therefore, these structures do not constitute a migratory barrier.

During high winter flows these Covered Species, if present, would be hibernating or otherwise utilizing upland refugia. It is extremely unlikely that any Covered Species are being swept over the dam during high flows or falling off the dam face and no observations of dead Covered Species at the bottom of the Searsville Dam have been reported.

3.2.12 Cumulative Effects Analysis

Comments

Comment 2.81: 5-71 Second Paragraph, Second and Third Sentence. The DEIS should describe here that currently new, natural flood control projects are being built that provide dramatically improved habitat conditions for steelhead, red-legged frogs and other species. In addition to the example on the Guadalupe River, other projects are combining the removal of obsolete dams, with improvements to downstream channel capacity at confined bridges and culverts, as well as improved water diversion facilities to restore miles of historic habitat, restore submerged wetlands for peak flow retention, provide exceptional rearing habitat for steelhead and coho salmon, and safeguard downstream communities and water supplies. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 3.10: Cumulative impacts analysis. This section of the draft EIS is inadequate in that it neglects to evaluate cumulative impacts in the San Francisquito Creek watershed, which is the relevant context to the HCP. The HCP and draft EIS fail to include and assess many reports and important data related to steelhead in the San Francisquito Creek watershed and cites incorrect, inappropriate or unsubstantiated data from the HCP. Further, additional watersheds of import to San Francisquito Creek steelhead are inappropriately selected and should be redefined to include major South Bay basins. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Comment 3.16: p. 4-30. The draft EIS notes that a limiting factors analysis found wintering habitat to be the primary factor limiting steelhead. Wintering habitat is decreased by flood control activities such as clearing debris from streambeds, alteration of the natural hydrograph, and changes to riparian and channel substrate conditions. Each of these changes occurs from Stanford's ongoing activities such as operating Searsville Dam, maintaining stream channels, and

pursuing development. The draft EIS is deficient in that it does not cite the related impacts or mitigate them adequately. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Comment 3.38: p. 5-71 - 5.72. The cumulative effects analysis provided in the draft EIS as related to steelhead is critical to the draft EIR and is perhaps the poorest portion of this environmental document. When the draft is withdrawn and rewritten, this section should describe what is known about the steelhead population of the San Francisquito Creek watershed, factors limiting to the population, how cumulative (past, present, and future) activities in the watershed are likely to affect the population, and how the HCP can be used to support watershed-wide efforts toward restoration. Our organization would be happy to assist in crafting the revisions to this EIS section. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Comment 3.39: Admirably, the draft EIS seeks to broaden the geographic scope of its analysis of steelhead effects but little logic appears to have been applied to the exercise. Other watersheds most likely to be important to the steelhead population of the San Francisquito Creek watershed are Stevens Creek, the Guadalupe River, and Coyote and Alameda creeks. Our organization offers its assistance in improving this section of the draft EIS and providing additional data related to the steelhead resources of the watershed and the region. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Response

Council on Environmental Quality (CEQ) regulations 40 Code of Federal Regulations (CFR) 1508.7, define cumulative impacts as: "The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." The FEIS under Cumulative Effects (Section 5.5) assesses the incremental impact of the Proposed Action and the alternatives in light of other past, present, and reasonably foreseeable future actions. The EIS under Affected Environment (Section 4) provides a succinct description of the environment of the area affected (40 CFR 1502.15) and focuses on the specific resources that are most likely to be impacted by the Proposed Action and alternatives. This description of the Affected Environment includes the physical environment, biological environment and the socioeconomic setting that may be affected by the Services' issuance of ITPs and the subsequent implementation of the HCP. CCC steelhead and their habitat are described within the Affected Environment section of the EIS.

Numerous reports, unpublished data, and other relevant materials were used to prepare the description of the Affected Environment contained in the EIS. Several reports, data records, and anecdotal accounts regarding steelhead and other anadromous fish species were provided to the Services during the public comment period. Information provided during the comment period was reviewed and, in general, confirmed the steelhead information presented in Section 4.2.2.4 of the Affected Environment section of the

DEIS. With the assistance of all available information, the Affected Environment section in the FEIS has been revised to include a more detailed discussion of Searsville Dam and the dam's role on the current condition of steelhead in the watershed. Section 5.5 of the FEIS has also been revised to include a description of the relationship of the San Francisquito Creek steelhead population to the broader steelhead Coastal San Francisco Bay Diversity Stratum, and the CCC steelhead Distinct Population Segment (DPS). With this additional information, the Services believe the Affected Environment section provides an accurate and succinct description of the steelhead resource in the area affected by the Proposed Action and alternatives. The Affected Environment section of the FEIS provides the document's most complete description of the current condition of the steelhead resources and the Cumulative Effects section of the FEIS (Section 5.5) focuses on the incremental impact of the action when added to reasonably foreseeable future actions.

For evaluation of the proposed action when added to future actions on CCC steelhead, the Cumulative Effects in the EIS are structured to assess the Coastal San Francisco Bay Diversity Stratum of the CCC steelhead DPS. This steelhead diversity stratum includes the steelhead population of San Francisquito watershed and it extends from Novato Creek in Marin County south to the Guadalupe River in Santa Clara County (see Figure 5-1 in the FEIS). This geographic scope was selected for analyzing cumulative effects on CCC steelhead, because this grouping offers a useful framework for accounting for diversity and spatial structure in evaluation of population viability (Bjorkstedt et al., 2005). Diversity strata represent an important level of structure between a watershed population and the DPS. As a result of using this geographic scope for evaluating cumulative effects on steelhead, future projects in two Marin County streams were included in the EIS cumulative effects assessment, while projects in Coyote and Alameda creeks were not considered.[1] Because the Marin County streams are within the same steelhead diversity stratum as San Francisquito Creek, impacts to the steelhead populations in these streams are more likely to have an effect on the viability of CCC steelhead in San Francisquito Creek than impacts to watersheds and steelhead populations outside the Coastal San Francisco Bay Diversity Stratum. Stevens Creek and Guadalupe River are within the Coastal San Francisco Bay Diversity Stratum and on-going and future projects in these watersheds are considered in the Cumulative Effects section of the EIS (e.g., Three Creeks Habitat Conservation Plan). The Cumulative Effects analysis in the FEIS (Section 5.5) includes the potential impacts of future dredging of Searsville Reservoir, ongoing maintenance and operation of Searsville Dam and Diversion, and the potential future modification/removal of Searsville Dam.

[1] Coyote and Alameda creeks are within the Interior San Francisco Bay Diversity Stratum for CCC steelhead.

3.2.13 Development – General Use Permit (GUP)

Comments

Comment 3.32: p. 5-12, paragraph 5. This paragraph dismisses impacts of future development beyond the GUP by saying, "it likely would be subject to similar mitigation measures." This basis is insufficient to dismiss the effects as adequately mitigated. The draft EIS must attempt to state the effects and provide adequate and enforceable minimization measures. (*Gordon Becker, M.S., Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Comment 8.4: The HCP and DEIS should examine actual habitat development rates under the GUP for purposes of projecting future needs. The DEIS states that under the existing GUP, Stanford "could" develop up to 30 acres of potential habitat. DEIS at 3-2. No citation is given for this statement, and the GUP in any event is not the final word on new development at Stanford. To assess future habitat development rates based on the GUP, the HCP should instead examine what acreage of habitat has been developed in the nearly 10 years that the GUP has been in place. (*Brian Schmidt and Lennie Roberts, Legislative Analysts, Committee for Green Foothills*)

Comment 8.5: The 180-acre estimate double-counts the 30 acres for the GUP. As discussed below, the projection of 50-150 acres of anticipated development overstates the existing trends and contradicts Stanford's own analysis. (*Brian Schmidt and Lennie Roberts, Legislative Analysts, Committee for Green Foothills*)

Comment 8.7: Simply put, the HCP and DEIS provided an incorrect trend line for anticipating future habitat development that would require a permit. It has not provided a habitat development rate for recent years under the GUP, nor has it included the constraints on development that Stanford itself acknowledged in the Sustainability Study. Reduced impact figures should therefore be included as constraints on the terms of the HCP. (*Brian Schmidt and Lennie Roberts, Legislative Analysts, Committee for Green Foothills*)

Comment 11.30: The GUP should also be an included document in the DEIS. (*Lawrence Johmann, Guadalupe Coyote Resource Conservation District*)

Comment 22.11: Non-inclusion of the suburban, flatland portion of Stanford Campus in this DEIS and HCP constitutes a segmentation or piecemealing of possible project impacts on habitat for the five federally listed species and, therefore integrity of NEPA mandate for avoidance of impact is not assured and cumulative impacts on and inherent contradictions with Santa Clara County's Stanford General Use Permit cannot be assessed in HCP. (*Libby Lucas*)

Response

Stanford requested ITPs that would authorize take associated with the development under the GUP (30 acres) and beyond the GUP (up to 150 acres). Together, these projections total up to 180 acres of future development that may receive incidental take authorization. HCP Section 3.10 describes the maximum amount of development that would be covered by the Services' ITPs during the 50-year permit term and Section 4.2.10 describes the

measures and mitigation for potential impacts to Covered Species associated with this future development. The proposed ITPs would permit the incidental take of Covered Species associated with this level of future development and do not authorize any specific development. Future development by Stanford that has not already received local land use permits would still require local land use approvals, and may also require State and other Federal permits. Future land use entitlements issued by Santa Clara County or other local jurisdictions could require additional mitigation actions or may not allow all of the future development anticipated by the HCP. The analysis of environmental impacts contained in the EIS focuses on the impacts of the incidental take of Covered Species and the implementation of the HCP's Conservation Program. The maximum level of development (i.e., 180 acres) was evaluated in the EIS to ensure the full extent of the effects of the Federal action are disclosed, despite the fact that other local land use approvals would be required to allow for this development.

Regarding the rate of future development by Stanford, the 180-acre estimate does not double count the 30 acres of development authorized under the GUP. The GUP is appropriately referenced and acknowledged as it applies to the EIS. It applies to Stanford's lands within Santa Clara County (which comprises about half of the HCP's Management Zones 1, 2, and 3), and does not apply to lands within San Mateo County. The HCP covers approximately 8,000 acres of Stanford's lands in both San Mateo and Santa Clara counties. The suburban, flatland portion of the main campus is included in the HCP and it is primarily designated as Zone 4 because these areas do not provide habitat to support Covered Species. There is no segmentation or piecemealing of the analysis, because the EIS and the HCP both consider the habitat value of the suburban main campus area and its potential impacts on Covered Species.

3.2.14 Development – Stanford's Future Development

Comments

Comment 11.34: The HCP and DEIS have inherent conflicts with the General Use Permit approved in December 2000 by Santa Clara County which permits over a thousand housing units in designated 'conservation lands' of West Campus stable site and Lake Lagunita area where wildlife corridors and wetland connectors might be realized. Can this conflict be clarified? (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Comment 13.1: The League of Women Voters believes that areas of unique natural resources should be maintained in uses which would preserve them. Open space has a value of its own, not to be viewed as a holding zone for future development. Open space provides a buffer and refuge for wildlife near more developed areas. If habitats deemed of lesser value are to be developed priority should be given to academic or research uses in or near the University core, thus protecting open space further away. (*Jamie Shepard, Board President, League of Women Voters*)

Comment 22.27: It is, however, with some consternation that I find in the covered activities for incidental take list the "Future development associated with the Santa Clara County 2000 General Use Permit" which allows 600 faculty, staff and graduate housing units to be placed on this oak savanna and historic stable site. This is prime habitat, historic, recreationally and

aesthetically irreplaceable, sustains wetlands habitat (for tiger salamander and red-legged frog?) and lies over the San Francisquito Subarea water supply's unconfined aquifer and percolation zone. This use or misuse of natural resources of the region should necessitate a full EIR and this permitted incidental take be disallowed. Where is regulatory rationale? (*Libby Lucas*)

Comment 24.1: With several threatened species on Stanford's land as well as a vast treasure trove of other native flora and fauna, it seems to me that Stanford should confine its future building to areas which are already built up, leaving the surrounding areas as they are or in a restored state. Instead, it seems they are determined to build into sensitive areas and are only concerned with skirting their obligation to conserve the California lands they are lucky enough to own, offering to save parts of the land through the goodness of their hearts only so long as they can go ahead and mess up the rest as they'd like……I suggest that Stanford adopt this concept as well, leaving the lands around undeveloped while voluntarily restoring any damage out of a sense of obligation to this singular parcel of land and its future. (*Susan McDonough*)

Response

The HCP's conservation strategy recognizes the habitat values of the open space, and includes a mechanism to protect the more valuable habitats by requiring more mitigation. Future development in areas that provide high quality habitat (Zone 1), important habitat buffers (Zone 2), and open space (Zone 3) will require Stanford to expend mitigation credits. This strategy creates an incentive for Stanford to develop in the already developed areas (Zone 4), because no mitigation is required. Large areas will be set aside by the HCP's Conservation Program where development is highly restricted, if not completely prohibited. Furthermore, Stanford has the incentive to enhance and preserve additional habitat areas to earn mitigation credits, as described in Section 4.3 of the HCP.

Regarding the relationship of future development under the GUP and the HCP, the Services believe there is no conflict. Stanford's future development will be required to adhere to the terms of both the GUP and the HCP. It is also important to note that the issuance of the ITPs by the Services do not authorize any specific development at Stanford or alter the need for local land use entitlements. As such, future development will only occur if Stanford receives local land use approvals. Future land use entitlements issued by Santa Clara County, or other local jurisdictions, will determine the amount of future development that Stanford will be allowed. However, the maximum amount of potential future development (i.e., 80-180 acres) that would be authorized by the ITPs must be, and is, evaluated in the EIS to ensure that the full extent of the effects of the Federal action are evaluated.

3.2.15 Development – Sustainable Development Study

Comments

Comment 7.2: Regarding the HCP, there appears to be little or no discussion of the relationship to and analysis done in the Stanford Sustainable Development Study (Study) that was finalized just last year. (*Brian Schmidt, Legislative Advocate, Committee for Green Foothills*)

Comment 7.3: Similarly, the minimal habitat encroachment allowed beyond the Academic Growth Boundary under the current GUP, applicable for the 2000-2025 period, belies the claim that 1 to 3 acres of habitat disturbance annually will be required. (*Brian Schmidt, Legislative Analyst, Committee for Green Foothills*)

Comment 7.4: Stanford's requested take coverage based on obsolescent historical levels therefore exceeds both recent years and Stanford's own projections. (*Brian Schmidt, Legislative Analyst, Committee for Green Foothills*)

Comment 8.3: The wholesale failure to include discussion or analysis of the Stanford Sustainable Development Study (Sustainability Study) constitutes a significant oversight in the HCP and environmental review. Stanford authored both the Sustainability Study and the Draft HCP, making the oversight particularly jarring. Correcting this oversight will require significant rewriting of the HCP and EIS to reflect the Sustainable Development Study's conclusions about the amount of campus development that will be needed to occur beyond the Academic Growth Boundary (AGB). (*Brian Schmidt and Lennie Roberts, Legislative Advocates, Committee for Green Foothills*)

Comment 8.6: The Sustainability Analysis estimates significant constraints on future development that need to be included the HCP analysis……The Sustainability Study indicates the level of impact on acreage beyond the AGB should be near zero for the 25 years covered by the Study, and the HCP impact levels should be adjusted to the reflect that fact. (*Brian Schmidt and Lennie Roberts, Legislative Advocates, Committee for Green Foothills*)

Comment 22.13: Correlation of Santa Clara County GUP development scenarios with conservation corridors and mandated sensitive habitat protection protocols for covered species should be included in this DEIS and HCP? (*Libby Lucas*)

Response

The Sustainable Development Study was completed by Stanford in order to fulfill a condition imposed by Santa Clara County under the GUP. The study was approved by the County in April 2009. The purpose was to assess higher density development opportunities within the main campus, which Santa Clara County recognized would be needed to accommodate Stanford-related development within the County. The study was completed because of concerns that low-density development might consume land within the Academic Growth Boundary too quickly resulting in pressure for urban "sprawl" in the foothills south of JSB (Sustainable Development Study, pg 16), which are currently dominated by open space.

The HCP provides measures and mitigation for impacts to Covered Species associated with up to 180 acres of development over the 50-year term of the ITPs. The HCP covers approximately 8,000 acres of Stanford's lands, including approximately 4,000 acres of land outside of Santa Clara County and outside the purview of the Sustainable Development Study. A 50-year development timeframe is addressed because the application is for a 50-year ITP term. The Santa Clara County 2000 GUP and the associated Sustainable Development Study anticipate 30 acres of development and

Stanford has projected that an additional 150 acres may be developed over the 50-year term of the HCP beyond the 2000 GUP (see Table 4-1 of the HCP).

Stanford developed adequate measures and mitigation in the HCP's Conservation Program that allow the Services to authorize take associated with the development of up to 180 acres of land that provide habitat for, or is occupied by, the Covered Species. This development could only occur if it receives local land use approvals, and the results of Stanford's Sustainable Development Study presumably will be considered by the appropriate local land use agency when it considers future development at Stanford. The Federal action of issuing the ITPs will not authorize any specific development at Stanford or alter the need for local land use entitlements. Future land use entitlements issued by Santa Clara County, or other local jurisdictions, may or may not allow all of the future development anticipated in the HCP. However, the maximum amount of potential future development that would be covered under the requested ITPs (and included as Covered Activities in the HCP) is evaluated in the EIS to ensure the full extent of the effects of the Federal action is evaluated.

3.2.16 Felt Reservoir

Comments

Comment 2.90: Page 59 Felt Reservoir. The HCP states that "recent system upgrades allow for water from Searsville Reservoir to be moved to Felt Reservoir." The DEIS must include detailed information about when these upgrades occurred, what was upgraded to allow this capability, what modifications, if any, were made at Searsville Dam and Diversion infrastructure and what the upgrades mean to diversion capabilities and operations at the Searsville Diversion Dam facility and downstream Covered Species. The DIES must ascertain, if recent modifications to the Searsville Diversion Dam Facility were legally permitted and when they were made. As noted in the section above on Searsville Diversion Dam Facility, Stanford experts state that the Searsville Diversion was not being used from at least 1998 to 2001 due to sediment issues. In addition, the recent upgrades to divert water from Searsville Diversion to Felt Lake need to be considered in relation to above stated water rights discrepancies and adequate permitting for such actions. The DEIS must describe in detail these above discussed issues related to water rights, water transfers, operation and physical modifications, and permitting compliance. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.91: Page 94. The HCP does not propose any exclusionary fencing at Felt Reservoir to promote the establishment of riparian vegetation along the edge of the reservoir. Cattle grazing currently is allowed along the entire perimeter of the reservoir and therefore no riparian trees or vegetation are allowed to become established. Well-planned exclusionary fencing at Felt Reservoir, with adequate cattle access to water, could create a unique and biologically rich ecosystem for several of the Covered Species and other wildlife. We would like to make clear, that we view Felt Reservoir as a well-positioned, off stream water storage facility and support it's continued operation and even possible expansion to offset potential storage capacity loss with the possibility of removing Searsville Dam. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.99: Felt Reservoir- There is no mention in the HCP of enhancing the ecosystem benefits of Felt "Lake" Reservoir for Covered Species such as frogs, turtles, and maybe eventually salamanders. This reservoir is currently grazed to waters edge by cattle and exclusionary fencing of large portions of the reservoir could support riparian vegetation and productive habitat, while still allowing adequate watering access for cattle. The HCP and DEIS should assess native riparian vegetation and wetland restoration benefits at the Felt Reservoir. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Response

Regarding the recent system upgrades identified in Section 3.1.3 (Felt Reservoir) of the HCP, this action by Stanford refers to a booster pump station constructed in 2004. The booster pump station is located approximately 2 miles downstream from Searsville Reservoir and takes water from the pre-existing Searsville Reservoir water pipeline (not a new pipeline or creek water diversion point). The added pressure in the pipeline enables water from Searsville Reservoir to get to Felt Reservoir, which is at a slightly higher elevation than Searsville. Since the upgrade was completed in 2004, Stanford's water diversion rates from Searsville Reservoir have remained within historical annual diversion volumes. Section 3.1.3 of the HCP has been revised to clarify the system upgrades performed in 2004.

One commenter suggested Felt Reservoir be managed to enhance riparian vegetation and provide habitat for Covered Species and other wildlife. Felt Reservoir currently serves as a stock pond for the grazing activity at Stanford. WPTs are occasionally found at Felt Reservoir; although Stanford provided information demonstrating that these individuals were likely released by the public. During the development of the HCP, options were considered for enhancing habitat for Covered Species at Felt Reservoir. Stanford decided not to propose habitat management and enhancement actions at this site because Felt Reservoir may be used in the future as a source of drinking water. If Stanford elects to utilize Felt Reservoir for urban water storage and drinking water supplies, creating habitat for Covered Species may not be compatible. However, the HCP and Services' ITPs do not preclude Stanford from enhancing habitat conditions at Felt Lake in the future. The HCP's proposed conservation strategy adequately addresses the impacts of Covered Activities without relying on actions at Felt Reservoir.

3.2.17 Foothills Fire Management Plan

Comments

Comment: 11.15: The Biological Impact Assessment of the Foothills Fire Management Plan, of January 8, 2009 prepared for the City of Palo Alto views Special-status Species by Habitat Type and Treatment Location with Protection Measures, and incorporates details specific to these species that Stanford needs to incorporate in its DEIR. In particular they give a more detailed assessment of habitat types and vegetation in foothills and rangeland surrounding the Stanford Campus and locate species such as the Western pond turtles at Searsville Lake. Is there any reason that this Foothills Fire Management Plan should not be incorporated into Stanford's HCP and DEIS? (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Comment 22.5: Biological Impact Assessment for Foothills Fire Management Plan, Palo Alto, January 8, 2009 and the district's fire management plan need to be compatible with and incorporated into Stanford DEIS and HCP. (*Libby Lucas*)

Response

The Foothills Fire Management Plan was developed for the City of Palo Alto to address vegetation in the City's foothills area for the purpose of reducing fire danger. The HCP was developed to ensure that Stanford's Covered Activities over the 50-year permit term are conducted in a manner that minimizes and mitigates the impacts of the incidental taking of Covered Species to the maximum extent practicable. Suitable habitat for the Covered Species on Stanford's lands is adequately described in Section 2.0 of the HCP and Section 4.2.2 of the FEIS. These descriptions of the habitat types on Stanford's lands include information related to the various biological needs of Covered Species, the presence of those habitat characteristics at Stanford, and the presence of the Covered Species at Stanford. In addition, Section 2.3 of the HCP and Section 4.2.1 of the FEIS describe the plant communities and other wildlife at Stanford, including habitat for other special-status species. The information in the HCP and EIS is based on decades of research and monitoring by Stanford and other experts, and multiple site visits by biologists from the wildlife agencies. The information provided give a sufficient level of detail for the Federal agencies to assess whether the Covered Activities will result in take, the impact of the taking, and assess the potential environmental effects on other wildlife and plant species that may result from the issuance of ITPs. The Foothills Fire Management Plan and the Stanford HCP serve different purposes and it is not necessary to incorporate the Foothills Fire Management Plan into the EIS or HCP.

3.2.18 Form letters and Related Comments Regarding Searsville Dam and Reservoir

Comments

Comment 2.8: The HCP and DEIS fail to show meaningful data related to analysis of diversion rates and unspecified downstream bypass flows at the Searsville Diversion Dam Facility. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.11: As described in the DEIS (5-60), the Santa Clara Valley Water District is developing a Three Creeks Habitat Conservation Plan that rightly acknowledges the negative impacts of their dams and reservoirs on steelhead and is proposing to "improve streamflow and stream temperatures below District reservoirs on steelhead and salmon streams." Page 5-61 of the DEIS also states that "Water releases from SCVWD reservoirs would be modified to increase stream flows when it would benefit the covered fish species." Stanford's HCP and the DEIS do not propose any calculated improvements to streamflow or water temperature below Searsville Diversion Dam and Reservoir or even analyze effects on Covered Species and downstream Critical Habitat. This lack of commitment to addressing the negative impacts of Searsville Dam and Reservoir are unacceptable and continue to put steelhead and other listed species and their habitat at risk. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.23: **[**F]or Stanford's third "water diversion" at the "Searsville Diversion", The HCP should have proposed (but did not) and NMFS' DEIS should have required (but did not)

steelhead bypass flows as required by CDFG and NMFS at both other water diversions directly impacting listed Critical Habitat and threatened steelhead. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.37: [T]he Searsville Diversion Dam Facility has significantly altered habitat conditions along the entire length of San Francisquito Creek and lower Corte Madera Creek for almost 120 years. The proposed HCP would continue and likely escalate these negative impacts in the face of proposed dredging operations and projected climate change impacts downstream of the dam. The HCP fails to adequately mitigate and the DEIS fails to adequately assess or require effective mitigation of these impacts. In addition to assessing current conditions in detail, the DEIS must also assess past and future effects within the required Cumulative Effects analysis. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.51: In addition, another bullet point in this section [DEIS Section 2-3] is not met: "the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking." As noted the applicant's HCP does not even propose adequate bypass flows at the Searsville Diversion (as was required by NMFS at the other two applicant-owned water diversions), any improvements to degraded water quality spilling over Searsville Dam from the reservoir, eradication of non-native fishes species and their artificial habitat, fish passage at the Searsville Diversion (as was required by NMFS at the applicants Los Trancos Diversion Dam), and other meaningful and practicable minimization measures. As such, the Services must decline the proposed HCP as written and require the applicant to address and fix the numerous forms of take identified either through the HCP process or independent of the HCP process.

Comment 2.66: Despite the attention drawn, and requests made, in letters during the HCP scoping process, almost 4 years ago (excerpts below and full letters included in the DEIS Appendix A), the NMFS and USFWS fail in the DEIS to adequately address direct, indirect, and cumulative impacts caused by the Searsville Diversion Dam and Reservoir and have failed to require actions to minimize or mitigate these impacts, including requiring adequate bypass flows and fish passage. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 3.1: Please note that comments are provided in two parts: General Comments and Detailed Comments. The General Comments comprise the basis of my understanding that the DEIS is legally inadequate. I recommend that BSD request the DEIS be withdrawn, revised, and rereleased rather than finalized from its current form. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Comment 3.9: Although Stanford's Covered Activities include water diversion and modification of natural hydrographs, the draft EIS is completing lacking in quantitative information about these activities and impacts. Such information is essential in relation to flooding impacts, and it is particularly critical to evaluating effects on covered species, including steelhead.

The draft EIS must be withdrawn, rewritten, and rereleased to provide detailed, quantitative information necessary to review the effects of water management activities on land use, hydrology, and biological resources. Specifically, the effects of Searsville Dam, Reservoir, and diversion facility and its associated management activities on natural stream hydrology and habitat must be clearly delineated in a quantitative manner. (*Gordon Becker, M.S, Certified*

Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam)

Comment 3.13: p. 2-6, paragraph 2. As proposed, the HCP would authorize on-going operation and maintenance at Searsville Dam for 50 years. This timeline is inconsistent with steelhead recovery goals in the Bay Area and the wider region. Minimization measures must be applied as part of the HCP appropriately, therefore, including immediate and sufficiently-funded study of the potential for removing the dam. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Comment 3.25: Further, Chapter 3 does not characterize hydrologic alteration produced by the dam on downstream reaches. This effect must be analyzed and mitigated appropriately. Such mitigation is not provided in the Minimization Measures noted in Section 4.2.1 of the HCP. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Comment 3.26: This minimization measure [Searsville Dam Measure in Section 4.2.1 of the HCP] should be replaced with one that commits to a detailed analysis of alternatives for removing the dam in a timely manner, with ecosystem and public safety benefits included, and with vastly greater funding made available. In particular, the feasibility study should examine potential water supply, sediment management, and flood impacts of various dam removal options. This study should be undertaken under the auspices of a collaborative stakeholder group including Stanford, relevant agencies, downstream communities, and environmental advocates. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Comment 3.28: We consider the draft EIS is legally inadequate until such time as it is withdrawn, effects of Searsville Dam are analyzed and mitigated, and the draft rereleased for public comment. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Comment 3.36: p. 5-65. The HCP and its draft EIS should promote the undertaking of a collaborative study related to the feasibility of removing Searsville Dam. Such collaboration is recommended by NMFS in the Biological Opinion attached in Appendix A and reinforced by Stanford University scientists and regional restoration advocates. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Comment 8.1: Potential removal or modifications of Searsville dam to allow fish passage, while potentially beneficial for fish, could also have potentially adverse impacts to steelhead downstream of the dam due to increased sedimentation of the main stem of San Francisquito Creek. The large sediment load that originates in the Corte Madera Creek subwatershed currently accumulates in large part behind the dam. Searsville Lake and associated marshes and riparian areas provide habitat for species that would be greatly altered if the dam were removed. These unknown impacts, particularly to aquatic avian species and bats, could outweigh the benefits of increased spawning and rearing habitat for steelhead upstream of the dam. Downstream sedimentation associated with removal or modification of Searsville and potential increases in flood hazards in East Palo Alto, Palo Alto, and Menlo Park is another complex issue

that must be carefully studied and thoroughly evaluated. (*Brian Schmidt and Lennie Roberts, Legislative Advocates, Committee for Green Foothills*)

Comment 8.2: CGF supports a comprehensive study of options for Searsville Dam and Lake in collaboration with Stanford and other stakeholders. Such a study should include analysis of beneficial and adverse impacts to species as well as downstream flood hazards. CGF does not oppose inclusion of a sufficiently-comprehensive study in this HCP, even recognizing that such a study would necessarily delay the HCP. CGF further believes, however, that a comprehensive study could also be done as an amendment to the HCP/ITP. (*Brian Schmidt and Lennie Roberts, Legislative Advocates, Committee for Green Foothills*)

Comment 14.4: Moreover, by deliberately excluding the presence of the Dam from the HCP, Stanford continues to leave itself open to take liability under Section 9 of the Endangered Species Act. *Loggerhead Turtle v. County Council of Volusia County* (11th Cir. 1998) 148 F.3d 1231, 1246. The Dam results in take both through direct harm to steelhead and other Covered Species- such as injury caused by interference with spawning and migration- and through adverse modification of critical habitat. San Francisquito Creek has been designated as critical habitat for California Central Coast steelhead. The Dam adversely modifies critical habitat in San Francisquito Creek in ways that cause actual harm to steelhead by blocking fish passage, significantly modifying flows, altering temperatures, altering water quality, increasing non-native species, and altering habitat quality in San Francisquito Creek watershed and the natural evolution of San Francisquito Creek. See comments of Matt Stoecker and Gordon Becker submitted on behalf of Beyond Searsville Dam. (*Ellison Folk, Shute, Mihaly & Weinberger LLP, on behalf of Beyond Searsville Dam*)

Comment 14.6: Nor does the provision of a minimal amount of funding to study the feasibility of fish passage alternatives at Searsville Dam constitute adequate mitigation or even commitment to implement any of the actions identified. Simply studying the feasibility of mitigation is not mitigation. Moreover, there is no commitment to implement any changes necessary to accommodate fish passage in the absence of substantial modifications to the Dam itself or provide adequate bypass flows, improved water quality and habitat, and reduction in non-native species impacts caused Searsville Diversion Dam complex. As such, the Dam will continue to operate and continue to result in the take of steelhead without any mitigation, let alone avoidance of take to the maximum extent practical. (*Ellison Folk, Shute, Mihaly & Weinberger LLP, on behalf of Beyond Searsville Dam*)

Comment 14.7: The HCP should include an alternative that requires compliance with state laws designed to protect public trust resources in San Francisquito Creek and its watershed. The HCP should also evaluate an alternative that includes the removal and/or modification of Searsville Dam to comply with the requirements of California law. (*Ellison Folk, Shute, Mihaly & Weinberger LLP, on behalf of Beyond Searsville Dam*)

Comment 14.15: NMFS should look at alternatives that would provide for fish passage upstream of Searsville Dam and removal of the Dam altogether as fish passage modifications at the dam and flow improvements alone do not address issues caused by the reservoir such as reduced water quality, reduced habitat conditions, and dispersal of non-native species, plus the many safety liability issues discussed by Stoecker. See Coalition for Canyon Pres. v. Bowers, 632 F.2d 774, 784 (9th Cir. 1980) (finding an alternative for an expanded two-lane highway

reasonable where it was "a recognized feature of highway design and that use of such lanes could improve traffic capacity"). (*Ellison Folk, Shute, Mihaly & Weinberger LLP, on behalf of Beyond Searsville Dam*)

Comment 14.16: The Draft EIS must be revised and recirculated. The foregoing deficiencies in the draft EIS go to the heart of NEPA's requirements and cannot be remedied in a final EIS. Rather, the entire document should be revised to comply with the requirements of NEPA and recirculated for public review and comment. See e.g., *State of California v. Block*, 690 F.2d 753, 770-72 (9th Cir. 1982) (agency must prepare supplemental EIS to evaluate project alternative); see also *Dubois v. Dept. of Agriculture*, 102 F.3d 1273, 1291-93 (1st Cir. 1996). (*Ellison Folk, Shute, Mihaly & Weinberger LLP, on behalf of Beyond Searsville Dam*)

Comment 17.1: Stanford University's Habitat Conservation Plan should be revised to include a detailed analysis of Searsville Dam. Federal resource agencies should ensure that the conservation plan contains a collaborative investigation into the removal of Searsville Dam, restoration of steelhead to their ancestral habitat, revival of submerged wetlands, assessment of natural flood protection benefits, and downstream safety risks.

Dam removal could lead to a more sustainable Stanford and safer surrounding communities. The dam area within Jasper Ridge Biological Preserve offers one of the most important dam-removal and ecosystem-restoration opportunities in the country. Stanford has an opportunity to show scientific leadership, land stewardship and commitment to campus-wide sustainability.

Unfortunately, Stanford's Habitat Conservation Plan and the associated Draft Environmental Impact Statement are insufficient due to significant biological and legal inadequacies and the improper exclusion of Searsville Dam operations. These documents show a lack of commitment by Stanford to adequately protect endangered species, regional habitat quality and long-term community safety. The documents fail to meet the requirements of the Endangered Species Act and violate state public trust laws.

Please withdraw the Draft Environmental Impact Statement and conservation plan, revise it to comply with federal and state laws and incorporate previously excluded data and facilities, and re-circulate it for public review. (*Emailed Form Letters*)

Comment 17.3: I urge Stanford to evaluate and consider removal of Searsville Dam in a manner that is beneficial to protecting creekside communities and watershed health. (*Emailed Form Letters*)

Comment 18.1: I am in favor of removing the Searsville Dam. The Jasper Ridge Advisory Committee (http://jrbp.stanford.edulwatershed.php) notes that part of the benefit of having the Searsville Dam is to study the ecology of the reservoir. However, I believe the true research opportunities lie with the dam removal. By taking baseline data of all kinds, tracking differences as the dam is removed, and monitoring how the ecosystem returns to its natural state, researchers will have an invaluable opportunity to study both how dams alter natural habitats and how the typical objectives identified in dam removal projects (return of certain species, sustainable hydrology, removal of sediment) are best achieved. (*Susan Culliney, M.S. Candidate, Colorado State University*)

Comment 19.1: [T]he flooding issue seems like a red herring: the dam is silted in already and beyond that, the dam was originally designed for San Francisco drinking water, not flood control. Removing the dam does mean that downstream mitigations need to be put in place. But it makes no sense to keep a dam that has outlived its original purpose. (*Pat Haines*)

Comment 19.2: I think Stanford should take an environmental leadership position on this issue and include the removal of the dam in its study. Only then can a real decision be made. (*Pat Haines*)

Comment 20.1: With my in-depth look into the complex issues surrounding the Searsville Dam, I am able to boil down my comments as follows: 1. I would like to see the dam removed. 2. I believe including a full dam-removal investigation in the Habitat Conservation Plan now would hinder the expedient completion and implementation of the HCP. 3. I believe Stanford has an obligation to include the dam and its effects on native species and native habitat health in its Habitat Conservation Plan for the next 50 years. 4. I believe Stanford has an obligation to mitigate for those effects, now and henceforth. 5. When Searsville Dam fills up with silt, as it surely will in the next 50 years, I would like to see a process begin whereby Stanford, with federal regulatory oversight, is obligated to research effective solutions to the problem, including dam removal. (*Amos Hausman-Rogers*)

Comment 23.1: We feel the dam should be removed and let nature take its course. 100 year floods can be mitigated by downstream protection. There are federal funds available for its demolition and removal. We think that overall public opinion would support removal of the Searsville Dam and enhance the reputation of Stanford as an environmentally responsible institution. (*Donna and Marty Mackowski*)

Comment 26.1: Remove the Searsville Dam - and if not removal - then the study towards removal. (*Carolyn Rogers*)

Comment 27.1: Why does the dam have to be COMPLETELY removed at ONE time? Cannot the University start dredging and removing the sludge and at the same time start slowly removing the dam by opening holes in the dam for water to gradually start draining Searsville Lake? Please consider this solution which could be carried out over time. (*Marilyn J. Walter*)

Response

The Services have revised the EIS to include additional information about Searsville Dam and Reservoir in the Affected Environment section (Section 4) and information regarding potential future actions at Searsville Dam are presented in the Cumulative Effects Section (Section 5.5). The FEIS recognizes that there are significant issues associated with Searsville Dam including fish passage. Searsville Dam blocks steelhead from access to about one-third of the San Francisquito Creek watershed.

During the development of the HCP, NMFS encouraged Stanford to consider the inclusion of Searsville Dam and Reservoir in the HCP, and address upstream and downstream fish passage at this facility that could benefit steelhead in the watershed. Stanford, as the section 10 applicant has the discretion to choose what activities to

include in the HCP and ITP application. The Services do not have the authority to require the inclusion or exclusion of a specific activity.

Stanford elected not to include Searsville Dam as a Covered Activity in the HCP because of numerous environmental, safety, and permitting issues associated with the future of Searsville Dam, including Stanford's water supply, upstream and downstream flood risk, sediment removal and disposal, the Jasper Ridge Biological Preserve academic program, and biological diversity in wetland areas created by the reservoir. Stanford has explained to the Services that resolving these issues would substantially delay their ability to obtain ITPs for other Covered Activities. Stanford was also concerned that the current section 10 permit application would be delayed by the additional time and data needed to assess the potential take of steelhead from activities at Searsville Dam, Diversion, and Reservoir (Searsville-related activities). Moreover, the ESA requires the HCP to describe the Covered Activities in sufficient detail to understand their impacts, so that impacts on Covered Species can be avoided, minimized, and mitigated. At this time, Stanford has not identified future actions at Searsville in sufficient detail to assess potential impacts to the Covered Species or other resources. However, Stanford did commit in the HCP to allocate $100,000 to study the technical feasibility of fish passage alternatives at Searsville Dam, and to incorporate the results of this study into any proposed future dam modifications project.

Following the public comment period, Stanford withdrew Searsville-related activities[2] as Covered Activities in the HCP, and informed the Services that Stanford has initiated a process to study the long-term future of Searsville Dam and Reservoir. Stanford's January 4, 2011 letter to the Services regarding the removal of Searsville-related Covered Activities is presented in Volume I, Appendix D of the FEIS. Sections 2.7 and 2.8 of Volume I of the FEIS summarizes the changes in the HCP and revisions in response to comments on the DEIS.

Commenters have also asserted that the HCP and the DEIS "have significant biological and legal inadequacies" and that the EIS must be revised to include a detailed analysis of Searsville Dam. In response to these comments, the Services have provided additional information regarding the effects of Searsville Dam on existing conditions in the Affected Environment section of the FEIS, which succinctly describes the environment of the area to be affected by the alternatives under consideration and provides adequate detail to understand the effects of the Proposed Action and its alternatives. Information regarding the cumulative effects of the past, present, and reasonably foreseeable future effects of Searsville Dam are analyzed in the Cumulative Effects Section of the FEIS to determine whether the reasonably foreseeable effects of proposed action and its alternatives may have a continuing, additive and significant relationship to those effects.

[2] Searsville-related activities excluded from Covered Activities are operation, upgrade, and maintenance of Searsville Dam, Searsville Reservoir, Searsville water diversion intake structure, the Searsville 16-inch water conveyance pipeline extending downstream of Searsville Reservoir to the booster pumping station, Searsville 16-inch pipeline and gate valve used for pipeline maintenance (i.e. flushing), and the in-line booster pumping station constructed in 2004 on the Searsville pipeline approximately 2 miles below Searsville Reservoir. Repairs and upgrades to valves, pipelines, flashboards and appurtenances at the above facilities are also excluded from Covered Activities.

The Services have determined that re-circulation of the EIS for public review is not required, because the changes to the proposed action (removal of Searsville-related activities), and subsequent revisions to the EIS, do not decrease the scope and effects of the Proposed Action or alternatives discussed in the DEIS. Modifications to the Proposed Action do not involve new environmental effects or a substantial increase in the severity of effects previously identified in the DEIS. The NEPA Implementing Regulations (Section 1502.9 (c)), state: "Agencies shall prepare supplements to either draft or final environmental impact statements if: (i) The agency makes substantial changes in the proposed action that are relevant to environmental concerns; or (ii) There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." The environmental concerns regarding Searsville Dam expressed by commenters pertain to an existing facility on the Stanford campus which is outside the scope of the proposed HCP and ITPs because Stanford has chosen not to include Searsville Dam and its operation as Covered Activities under the HCP. The HCP's Conservation Program does not include changes at Searsville Dam, Reservoir, and Diversion, nor will the ITPs authorize the take of Covered Species at this facility. Mitigation measures specifically for the impacts created by Searsville Dam, Reservoir, and Diversion are not included in the HCP, because the Dam and Reservoir are no longer Covered Activities and the Services will, therefore, not be providing incidental take coverage for these impacts. However, the proposed HCP includes conservation measures that would improve existing conditions which may have been influenced by the past operations of Searsville Dam (*e.g.*, large woody debris re-introduced through bioengineered bank stabilization and control of non-native fish species). Since Searsville Dam, Reservoir, and Diversion are no longer Covered Activities under the HCP and ITPs, the Services believe the effects of the Proposed Action and alternatives were adequately presented in the DEIS. No additional effects to the human environment are expected with these modifications to the Proposed Action, nor has the reduction in scope resulted in the need to change the elements already evaluated in the DEIS.

3.2.19 General

Comment

Comment 1.1: Based on our review of the DEIS, we have rated the proposed project and the document LO-1, Lack of Objections – Adequate (see enclosed EPA rating definitions). EPA commends the U.S. Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS) on the quality of the environmental impact statement. The DEIS is comprehensive, well organized, and includes excellent tables and maps. We are pleased that the document includes a section on how climate change may affect the proposed action and Covered Species, and that the HCP will be adapted, as needed, to respond to such effects. (*Kathleen M. Goforth, Manager, Environmental Review Office, U.S. EPA*)

Response

Comment noted.

Comment

Comment 2.62: The channel grading and modification options mentioned should be clarified and explained in detail with concurrent assessment in the DEIS of impacts to Covered Species and habitat, as well as required permitting for such work. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Response

The description of proposed work in the Corte Madera Creek channel upstream of Searsville Reservoir in the Final HCP and FEIS has been revised for clarification purposes. Section 3.2 of the HCP identifies sediment excavation in the channel of Corte Madera Creek and bank stabilization with boulders and riparian plantings to improve conveyance of flood waters upstream of the reservoir and prevent flooding of adjacent roads and properties. Section 4.2.1 of the HCP includes general creek protection measures to reduce impacts from creek maintenance activities on the Covered Species. The potential length of channel reaches affected by these activities has also been revised downward to a cumulative total channel length of 2,000 feet from the Stanford boundary to Searsville Reservoir and no more than 50 feet wide. In the FEIS the general effects of this Covered Activity are described in Section 5 with respect to hydrology and water quality (Section 5.1.3) and biological environment (Section 5.2). Regarding permits required for work within the channel of Corte Madera Creek, Stanford would likely need authorization from the Regional Water Quality Control Board (under Section 401 of the Clean Water Act), the CDFG (Section 1600 of California Fish and Game Code), and the USACE (Section 404 of the Clean Water Act). The project may also require local approval from San Mateo County and is subject to CEQA.

Comment

Comment 3.8: The revised HCP should be evaluated against quantitative measures of conservation and restoration on Stanford property stream areas. The rereleased draft EIS may be adequate if it provides meaningful review standards for stream management actions, and determines appropriate minimization measures for ongoing Covered Activities. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Response

The HCP and associated EIS provide a considerable amount of quantitative information to measure the effects and assess the adequacy of the HCP's Conservation Program in stream areas. For example, quantitative information regarding future development impacts and mitigation is presented in Section 5.2.1 of the FEIS. Over the 50-year permit term, up to 7 acres of riparian habitat in Zones 1 and 2 could be subject to future development on Stanford's lands. Permanent loss to development in Zone 1 and 2 habitat (units in acres) would be mitigated through the HCP's mitigation accounting system with Zone 1 mitigated at 3-to-1 (3 acres preserved for each acre lost) and Zone 2 mitigated at 2-to-1 (2 acres preserved for each acre lost). Annual creek maintenance activities could temporarily disturb up to 600 linear feet of creek channels and affect the steelhead

residing in these areas. Over the life of the HCP, up to 2,000 linear feet of stream bank may be impacted by bank stabilization. The environmental benefits associated with natural stream dynamics would be considered at unstable bank locations and, if structural repairs are needed, bioengineering methods would be employed on stream banks. The proposed design of bank stabilization structures will be submitted to NMFS for review. The HCP includes a monitoring program to measure the Conservation Program's effectiveness (HCP Section 4.6), and an adaptive management program to assure that the measures are modified as needed to respond to new data and achieve the HCP's biological goals and objectives (HCP Section 4.5). These measures along with other components of the HCP's Conservation Program utilize quantitative measures, best available information, and adaptive management for managing stream and riparian areas on covered lands.

The commenter refers to a "rereleased draft EIS". The Services determined not to publish a subsequent DEIS or supplemental DEIS, but rather to publish a FEIS reflecting changes to the EIS. Stanford's removal of activities associated with Searsville Dam and Reservoir are discussed in Section 3.2.18, Form Letters and Related Comments, and clarifications made in response to comments. None of the text changes made to the EIS since the DEIS was released to the public identify or imply new significant effects of the proposed action that would require the issuance of a supplemental DEIS.

Comment

Comment 3.37: p. 5-65. The HCP must analyze and minimize the effects of the Covered Activities independently of other efforts occurring elsewhere in the watershed. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Response

The HCP provides Minimization Measures (Section 4.2) for Covered Activities and the EIS assesses the biological impacts of the Conservation Program on Stanford's lands. Thus, the analysis in the HCP and EIS is independent of other efforts in the watershed. The discussion on page 5-65 of the DEIS (Section 5.5.1 of the FEIS) is within the Cumulative Effects section of the NEPA document and considers the effects of the Proposed Action in relation to future regional flood reduction actions in the San Francisquito watershed. The purpose of the cumulative effects analysis is to address the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. The NEPA implementing regulations require that all Federal agencies consider the cumulative impacts of their actions on the environment.

Comment

Comment 9.1: The County believes incorporating the changes listed in Attachment A would improve the HCP and would assure the HCP satisfies the GUP condition of approval #J.9. For this reason, the County hereby requests the USFWS and NMFS incorporate the recommended revisions. Alternatively, if these changes are not incorporated into the HCP, Stanford University may be required to adhere to both the GUP CTS requirements in addition to the HCP

conservation program. (*Rob Eastwood, Senior Planner, Santa Clara County Department of Planning and Development*)

Response

The changes in Attachment A to the County's letter are incorporated into the Final HCP.

Comment

Comment 11.28: What is the California Department of Water Resources review of this plan? (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Response

The Services issued a Notice of Availability on April 12, 2010, but did not specifically notify the California Department of Water Resources. There is no requirement for the Department of Water Resources to review the HCP or EIS. Comments were not received from the California Department of Water Resources.

Comment

Comment 11.39: Is the Appendix B "Habitat Conservation Plan" the revised HCP as shown on the Stanford website as of August 30, 2010? (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Response

The HCP that is attached to the DEIS as Appendix B is Stanford's July 2009 Draft HCP. On Stanford's website the July 2009 draft document is called "revised" because Stanford initially prepared a Draft HCP in April 2008. Both the July 2009 Draft HCP and the April 2008 Draft HCP are posted on Stanford's website. The Final HCP, revised in response to agency and public input, is included as Appendix B in Volume I of the FEIS.

Comment

Comment 22.21: HCP also does not cover biocide use, although it does provide minimization measures for biocide use. (*Libby Lucas*)

Response

Biocide use is not a Covered Activity in the HCP. The use of 37 active ingredients in pesticides is currently being addressed in section 7 consultations between U.S. Environmental Protection Agency (EPA) and the Services. Upon completion of these consultations, biological opinions will be issued and EPA will use these biological opinions to decide how pesticides containing these chemicals can be used. EPA examines and registers ingredients of a pesticide to ensure there will be no unreasonable adverse effects. Once registered, a pesticide must be used in a way that is consistent with

approved directions on the label. Stanford has committed to apply biocides in accordance with industry standards and label directions.

Comment

Comment 2.100: Lagunita Diversion Dam. As described in the Implementing Agreement for the Stanford University Habitat Conservation Plan dated April 2010, we agree with the statements on page II that: "removing the dam and existing fishway, concrete weir, and apron between the abutments, and restoring the creek to a more natural configuration would best improve juvenile and adult CCC steelhead passage." We request that this effort, which began before the HCP process, continue as planned and independently from the HCP process. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Response

The Lagunita Dam removal project was discussed prior to the development of the HCP, but there was no plan or funds for this action. Through the development of the HCP, Stanford has established an implementation schedule and dedicated funding for this action. At this time, the Services believe the HCP presents the most expeditious avenue for completing this fish barrier removal action.

3.2.20 Geologic Hazards, Seismicity, Soils

Comment

Comment 11.23: Regarding geology, where is the Stanford fault located on campus? It should be shown on the appropriate map. (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Response

The Stanford Fault is shown on Figure 4-3, Geologic Faults, of the FEIS. It is located along JSB, near Lagunita and the golf course.

3.2.21 Grazing

Comments

Comment 11.20: Another aspect of regulatory compliance and coordination needs to be evident in grazing management. It is said that Stanford has a good contractor at present in control of grazing. But has Stanford documented this management plan with baseline criteria of residual biomass to be retained on hillsides and with an adaptive management scale for wet and dry years? Can this present seemingly successful range best management plan be included in this HCP and DEIS? Can this include Stanford coordination with City of Palo Alto's Foothills Fire Management Plan? (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Comment 22.37: Another aspect of regulatory compliance and coordination needs to be evident in grazing management, control of invasives and in fire management, and their best management practices and protocols need to be detailed in this DEIS and HCP. Though their foothills and range grazing is well managed at the present, Stanford should document these management plan elements and the baseline residual biomass found to be best suited to the animals, to the fire department, and to retaining native grass habitat. (*Libby Lucas*)

Response

Grazing is a Covered Activity in the HCP and the impacts of grazing have been analyzed in Section 5.2.1.2 of the FEIS (Section 3.8.3 of the Final HCP). The analysis determined that grazing has little effect on the Covered Species. Stanford's grazing leases in the foothills (shown on Figure 3-3 in the HCP) are too far from Lagunita to provide upland habitat for CTS that breed in Lagunita, and Covered Species have not been observed in these grazing lease areas. The Conservation Program proposes selective mowing/grazing adjacent to created CTS breeding ponds to benefit the migration of CTS and SFGS. Grazing benefits the environment and Covered Species by reducing the fuel load and fire hazard.

Stanford has not proposed a specific residual biomass target for grazing, but the HCP's adaptive management provision provides Stanford with appropriate flexibility to modify any conservation-related grazing or mowing in response to the results of the ongoing monitoring. If the monitoring results indicate that the adoption of specific residual biomass targets would benefit CTS, the adaptive management provision would allow Stanford to adopt such targets.

Coordination between Stanford and the City of Palo Alto regarding the Foothills Fire Management Plan may occur under the HCP, but is not required. Implementation of the HCP allows for Stanford to continue the use of grazing as a tool for fuel load reduction, control of invasives, and retention of native grass habitat.

3.2.22 Hydrology, Water Quality and Groundwater

Quantified Analysis

Comments

Comment 2.101: Other Barriers. The HCP and DEIS fail to identify and discuss several known partial migration barriers on Stanford lands and discussed in the Steelhead Task Force meetings with Stanford staff for years. These include; the concrete low-flow crossing over San Francisquito Creek in Jasper Ridge Preserve just downstream from the Bear and Corte Madera Creek confluence, recently emerged grade control type structures upstream of the golf-cart crossing that was removed, and possibly the Bonde Weir (if Stanford Lands are part of this barrier just downstream of the railroad crossing). While the first two are not serious barriers during most flows, they may limit migration opportunities, especially when considered cumulatively with other partial barriers. The Jasper Ridge in-stream crossing also represents a possible mortality issue for a variety of life stages for Covered Species in San Francisquito

Creek, which is not addressed in the HCP and DEIS. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 3.5: [T]he HCP reflects an ad hoc approach to erosion control, flood control, and fish passage barrier modification to which the draft EIS ascribes less than significant effects. The project and the analysis of its effects do not incorporate quantitative goals or measures. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Comment 3.6: The HCP should be modified to reflect progressive stream corridor management policies including restoration of channel reaches to both carry flood flows and provide habitat values, while maintaining long-term stability. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Comment 3.7: [P]assage barriers should be prioritized for modification and a commitment made to specific fixes and schedules. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Comment 3.12: The draft EIS should clearly state minimization measures that make the HCP compatible with an overall program to restore steelhead throughout the watershed. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Comment 3.20: p. 5-9 - 5-10.The draft EIS analysis reflects an *ad hoc* approach to erosion control and a feasibility-based approach to barrier removal. Further, conservation goals set forth here are not measurable. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Comment 3.21: The HCP must commit to a review of channel stability and a program to address erosion while maintaining habitat benefits. Similarly, barriers should be prioritized and a detailed commitment made to specific fixes and timely schedules. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Response

The purpose of the HCP is to describe Stanford's activities (Covered Activities) and identify measures that will minimize and mitigate the effects of these activities on Covered Species. The Services' five-point policy for HCPs requires the incorporation of biological goals and objectives (65 FR 35242). In the context of HCPs, biological goals are the broad, guiding principles for the operating conservation program of the HCP. They are the rationale behind the minimization and mitigation strategies. Stanford's HCP does not include an approach or strategy for flood control, because flood control is not a specific goal for Stanford or the conservation of Covered Species.

Erosion control is not a specific HCP goal or a significant issue for Stanford or Covered Species on Stanford's lands, but erosion control is a Covered Activity in the HCP. If

issued, the ITPs would permit take associated with the construction of up to 2,000 linear feet of bank stabilization over the 50-year life of the HCP (i.e., approximately 40 feet of bank per year or ten projects of 200 feet each). Each bank stabilization structure must incorporate bioengineering and minimize the use of hardscape. When feasible, bank failures may be addressed by setting back the creek bank or the creation of flood benches consistent with the natural channel geometry. If an active bank erosion site does not present a risk to public safety or detriment to Covered Species, the site may be left "as is" to allow natural geomorphologic processes to influence the channel configuration and habitat diversification. The Services and Stanford believe this is a sound and rational approach to erosion control within the urban and semi-rural environment of the Stanford campus, because it minimizes in-stream construction with hardscape materials and encourages natural habitat-forming processes.

Regarding fish passage barriers, Searsville Dam is the only complete fish passage barrier on Stanford's lands. Fish passage at Searsville Dam is not addressed in the HCP, and the operations and maintenance of Searsville Dam and Reservoir are not Covered Activities. Searsville Dam and fish passage at this barrier will be addressed through a separate Stanford process, and the Services' ITPs will not provide authorization for incidental take at Searsville Dam. Other fish passage impediments on Stanford's lands include the Los Trancos Creek Diversion Facility, the abandoned Lagunita diversion dam on San Francisquito Creek, and a small concrete road crossing on San Francisquito Creek immediately downstream of the confluence with Bear Creek. In 2009, the SHEP remedied the fish passage impediment at the Los Trancos Creek Diversion Facility by constructing a new state-of-the-art fish ladder. For the fish passage impediment created by the non-operating Lagunita diversion dam, the HCP's Conservation Program proposes to remove the structure and restore the stream channel to a more natural configuration. The only remaining steelhead passage impediment which has been identified on Stanford's lands is a concrete road crossing near the confluence with Bear Creek. This barrier is a minor impediment during low flow conditions and the Services will be working with Stanford to make repairs at this site, if needed, through implementation of the HCP's creek maintenance measures and the San Francisquito/Los Trancos Easement Monitoring and Management Plan.

The Services have used the best available information to identify the fish passage barriers on Stanford's lands (Cleugh and McKnight 2002; Smith and Hardin 2001; Stoecker, 2010) and at this time, no other man-made structures have been identified as steelhead fish passage impediments on Stanford's lands. However, if other man-made passage impediments on Stanford's lands are identified or arise during the term of the HCP, Stanford will remove these structures when it is feasible. For woody debris, bulky trash items, and other materials that create impediments to fish passage on creeks within Stanford's lands, the HCP includes surveys, evaluations, and maintenance actions to remove these obstructions if deemed beneficial for Covered Species. The Services believe this is a sound and rational approach to fish passage barriers for the HCP and the analysis presented in the EIS adequately describes the potential effects of these actions.

Regarding measureable conservation goals, quantitative objectives have been incorporated into the HCP. Specific acreage amounts for creek/riparian easement areas, and protected grasslands/seasonal ponds have been established in the HCP planning area

(see Biological Goals #1 and #2). For bank stabilization, the HCP limits the extent of new structures to a cumulative 2,000 linear feet during the 50-year permit term. Specific stream bypass flow rates are required at the Los Trancos Creek Diversion Facility and the San Francisquito Creek Pump Station to ensure adequate conditions for steelhead migration, spawning and rearing. Stream bypass rates will be monitored by stream gages at these two facilities and reported annually to the Services. The HCP's comprehensive Monitoring and Management Plans will track performance of conservation actions and measure progress towards the biological goals and objectives of the HCP (Table 1-2 in Section 1.6 of the HCP). The data collected during the monitoring programs will also provide important information on the status of Covered Species and any potential threats to their persistence on Stanford's lands. Future management decisions will be based on the results of monitoring and will therefore be adapted to any new or unforeseen information that is produced by the monitoring programs.

Comment

Comment 3.19: Section 5.1.3.Standards of significance need to be clearly stated. Effects of the Proposed Action must be determined as quantitatively as possible and evaluated against standards. This entire section uses a broad brush, essentially meaningless approach to dismissing potential impacts of existing operations and future development. No quantitative information is provided by which to measure effects and the adequacy of proposed mitigation. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Response

The commenter appears to be referring to the requirements of CEQA regarding a determination of significance. Under CEQA, the environmental document is required to identify each "significant effect on the environment" resulting from the project and ways to mitigate each significant effect. CEQA lead agencies are encouraged to develop and publish their own thresholds of significance for the purpose of determining the significant effects of a project.

NEPA does not require a determination of significant effects in the environmental document as is customary in CEQA. Under NEPA, "significantly" requires considerations of both context and intensity. (CEQ Regs. Section 1508.27). The context, referred to as the "affected environment" in the EIS, is the geographic, social, and environmental contexts within which the project may have effects. Intensity is the severity of the potential impact, considered in context. Under NEPA, all impacts are discussed regardless of any thresholds amount. For this reason, standards of significance (i.e., significance criteria or thresholds) have not been included in the EIS.

Section 5.1.3.1 of the FEIS addresses the effects of the Proposed Action on hydrology and water quality. Mitigation measures for effects to water quality associated with Covered Activities are presented in the Conservation Program's General Creek Protection Measures in Section 4.2.1 of the HCP. These measures are primarily designed to avoid work within the live stream and prevent the introduction of contaminants into the stream. Thus, these mitigation measures do not lend themselves to quantitative assessment and

quantitative information is not provided in the EIS for the HCP's General Creek Protection Measures. For mitigating the effects of water diversions by Stanford at the Los Trancos Creek Diversion Facility and San Francisquito Creek Pump Station on stream hydrology, the HCP has adopted the bypass stream flows and operational protocols developed for the 2008 SHEP. Appendix A of the HCP contains the April 21, 2008, biological opinion issued by NMFS to USACE for Stanford's construction and operation of the SHEP facilities. This biological opinion was included as an appendix to the HCP, because it includes a detailed description of the seasonal bypass flow requirements and operational protocols at the Los Trancos Creek Diversion Facility and San Francisquito Creek Pump Station. Quantitative information regarding rates of water diversion, seasonal stream flows, and the associated in-stream habitat conditions downstream of these diversions are presented in Appendix A of the HCP.

Comment

Comment 3.31: p. 5-12, paragraph 3. Again, to say that Covered Activities have no adverse effects on water quality is clearly incorrect and inappropriate. This paragraph should be rewritten to state the degree of the effect and, if possible, quantifiably substantiate that the effect is less than significant. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Response

This paragraph has been clarified in Section 5.1.3.1 of the FEIS, as follows:

Ongoing Stanford operations are regulated and conducted in a manner that protects surface and groundwater quality and several measures are in place to reduce the risk of flooding. ~~*The ongoing Covered Activities have not had an adverse effect on surface, drinking, or ground water quality, and have not significantly increased the risk of damage caused by flooding.*~~ *The continuation of these activities would not adversely affect hydrology or water quality. Ongoing operations would not require changes that would result in an increase in withdrawal of groundwater, or pose a threat to groundwater quality.*

Obstructions

Comment

Comment 3.30: p. 5-12, paragraph 2. The statements in this paragraph fail to identify what "obstructions" are being discussed or quantify anything of meaning related to reducing flood risk. The paragraph should be deleted. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Response

Stanford's ongoing creek maintenance activities include the periodic removal of trash, downed trees, and other debris. "Obstructions" in this paragraph refer to these types of materials and they will be removed if obstructing the free flow of water or contributing to

excessive bank erosion. Under the HCP this activity will continue when consistent with the conservation measure that require large woody debris to be left in place unless it poses a flood or erosion risk or a barrier to fish migration. The text in Section 5.1.3.1 of the FEIS has been clarified, as follows:

Ongoing operations include maintenance activities to reduce obstructions in the creeks that could contribute to flooding. Debris removal is ~~These maintenance activities are~~ intended to reduce the risk of flooding. Additionally, the Proposed Action includes excavation of accumulated sediments from the channel of Corte Madera Creek upstream of Searsville Reservoir to prevent flooding of adjacent roads and properties. Approximately once per decade, heavy equipment would be used to remove sediments from Corte Madera Creek and place these materials as a berm alongside the channel. Within a work area of up to 2,000 feet in length and 50 feet wide, the channel and creekbed would be temporarily disturbed by sediment excavation. Work would be performed when the channel reach is seasonally dry to avoid impacts to aquatic species and no degradation of water quality is expected. Stream banks within the affected reach would be stabilized with riparian plantings and the placement of boulders. Restoration of the channel's water conveyance capacity would reduce the risk of localized flooding in the vicinity of Family Farm Road. The action would also stabilize the banks and reduce the potential for erosion.

Storm water Pollution

Comment

Comment 11.8: USGS gage data notes that "low flow affected by wastewater from Stanford Linear Accelerator" groundwater flows, pumped to San Francisquito Creek would need to be assessed for temperature and volume-which may be a critical factor in drought or summer low stream flow conditions and for possible creation of unseasonal attraction flows for incoming steelhead. This should also be represented in base stream data referenced in the DEIS, as evaluation is impossible otherwise. (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Response

The Services could not find the note quoted by the commenter regarding the U.S. Geological Survey (USGS) stream flow gage on San Francisquito Creek (USGS Gage #11164500). Wastewater from the Stanford Linear Accelerator Center (SLAC) is not discharged into San Francisquito Creek. All wastewater from SLAC is discharged to the sanitary sewer where it is treated prior to discharge to San Francisco Bay (Darren Gambelin, personal communication 6/6/11). Therefore, the Services could not find any information indicating SLAC operations create issues for water temperature, stream flow or unseasonal attraction flows in San Francisquito Creek.

Water Conservation

Comment

Comment 11.29: In the Santa Clara County General Use Permit granted to Stanford University in 2000, a requirement stated that "within twelve months of GUP approval Stanford shall prepare and submit to the County Planning Office for review and approval a Water Conservation and Recycling Master Plan which will identify measures for reducing potable water use on campus. Measures included in the plan may be required as conditions of approval for proposed building projects… The plan shall address: a. Mechanisms for use of recycled water for turf and landscaping irrigation," etc. Where in this HCP and DEIS is this water conservation and recycling master plan included? To what degree will this return stream flows to San Francisquito Creek? To what degree will it restore percolation to deep drinking water aquifers? (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Response

In October 2003 Stanford adopted a Final Master Plan for Water Conservation, Reuse and Recycling (Water Conservation Plan) (Maddus Water Management and Stanford University 2003). Stanford's Water Conservation Plan reduces water use in order to accommodate future development within existing water allocations, and it has been in effect since 2003. The FEIS describes the Water Conservation Plan in Section 4.1.8 and 5.1.8.1. Stanford's current average water usage is 2.2 million gallons per day, representing a 15.4 percent decrease in consumption since 2000. Within the HCP and EIS, the Water Conservation Plan is part of Stanford's ongoing operations. The Services are unaware of any effects of the Water Conservation Plan on surface water flows in San Francisquito Creek and deep water aquifers. The environmental effects of Stanford's 2003 adoption of the Water Conservation Plan are outside the scope of the EIS and are not presented in the FEIS.

Comment

Comment 22.30: Both State and local governments are mandating greater use of recycled water for irrigation purposes and for the use of native, and drought tolerant plants in landscaping. Does recycled water pose any risk to the covered species? Are many of the covered species living in or passing through central campus? What benefits would there be to these stream systems in reduced diversions and increased base flows? (*Libby Lucas*)

Response

Stanford's Final Master Plan for Water Conservation, Reuse and Recycling (Water Conservation Plan) (Maddus Water Management and Stanford University 2003) calls for the use of native and drought tolerant plants in landscaping, but does not recommend the use of reclaimed wastewater due to water quality and cost-effectiveness. Local recycling of Stanford's Central Energy Facility cooling tower and Heat Recovery Steam Generator blowdown water was considered more effective because of its local availability and high quality (Water Conservation Plan) (Maddus Water Management and Stanford University 2003). Reclaimed wastewater and recycled Central Energy Facility/Heat Recovery

Steam Generator blowdown water are not currently used for irrigation. However, if reclaimed or recycled water are utilized in the future by Stanford, it is not likely to pose a significant risk to the Covered Species because it would be required to meet state water quality guidelines and the irrigated lands on the central campus are not habitat for the Covered Species. If Covered Species are found within the central campus, the Conservation Program requires the collection and re-location of individuals to safe areas with protected habitat. Regarding base stream flow levels below the Los Trancos Creek Diversion Facility and San Francisquito Creek Pump Station, minimum bypass flow requirements adopted by the SHEP in 2009 are protective of base winter and spring stream flows. No water diversions at these two diversion intakes occur during the summer and fall dry seasons. Therefore, use of recycled water would not likely benefit base flow conditions in creeks on Stanford's lands, but could result in an overall reduction of annual water diversion volumes which has other benefits to the stream and aquatic life.

Water Diversions

Comment

Comment 11.5: According to 2000 USGS gage data, Searsville Lake has a capacity of 952 acre-feet and diversions of about 800 acre-feet each year are diverted from Los Trancos for irrigation on Stanford University Campus. Where are levels of amended Los Trancos diversion flows to Felt Lake canal documented in the DEIS? Will this mean depletion of low Los Trancos and San Francisquito Creek summer flows to a degree that will impact the steelhead fishery? What will be low-flow conditions in drought years? Is this scenario assessed as a "take of federally protected species incidental to otherwise lawful activities"? (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Response

Searsville Reservoir had a storage capacity of 1365 acre-feet of water (Balance Hydrologics, Inc. 1996), but sediment accumulation in the lake has reduced the current capacity to less than 200 acre-feet Due to sedimentation, the volume of the reservoir was roughly 192 acre-feet in 2000 (Rebecca Young as cited in Freyberg and Cohen 2001; Wang et al. 2006). Searsville Reservoir is located on Corte Madera Creek. Approximately 0.3 miles downstream of Searsville Dam, Corte Madera Creek joins Bear Creek and becomes San Francisquito Creek. Stanford's Los Trancos Creek Diversion Facility is located on a tributary to San Francisquito Creek; Los Trancos Creek flows into San Francisquito approximately 4 miles downstream of the confluence with Bear Creek.

To protect low flow conditions during the summer and fall months in Los Trancos and San Francisquito creeks, the Los Trancos Creek Diversion Facility and San Francisquito Creek Pump Station do not withdraw water from July 1 through November 30. Both the Los Trancos Creek Diversion Facility and the San Francisquito Creek Pump Station are Covered Activities in the HCP and the HCP includes operation measures for these facilities that protect downstream fish habitat. The bypass flow requirements and other operational protocols for the Los Trancos Creek Diversion Facility and the San Francisquito Creek Pump Station are presented in detail in Appendix A of the HCP.

Section 3.1.3, 4.1.3.5, and 5.2.1.2 of the FEIS includes an expanded description of the SHEP bypass flows and their anticipated effects on steelhead. The bypass flow requirements at the Los Trancos Creek Diversion Facility and San Francisquito Creek Pump Station apply in all years, including drought years.

Comment

Comment 22.28: The HCP review of increased stream flow diversion from San Francisquito and Los Trancos Creeks and the modified Los Trancos fish ladder and diversion structure is after the fact and I would ask what level of public notice and regulatory review was undertaken at the time of permitting and what review is still acceptable for consideration? (*Libby Lucas*)

Response

The SHEP did not permit increased levels of water withdrawal from San Francisquito or Los Trancos creeks. Stanford's diversions from Los Trancos and San Francisquito creeks are made pursuant to long-standing riparian and appropriative water rights established and maintained under California water laws. Stanford's riparian and appropriative water rights for Los Trancos Creek and San Francisquito Creek are briefly described in Section 3.1.1 of the HCP.

In addition to the construction of a new fish ladder and fish screen at the Los Trancos Creek Diversion Facility, and a new fish screen at the San Francisquito Creek Pump Station, Stanford implemented a new schedule of bypass flows in 2009 for the creek reaches downstream of these two water diversion facilities in accordance with the operating procedures outlined in the SHEP. The new bypass flow schedule was designed to improve downstream habitat conditions for steelhead and other native aquatic species. The bypass flow schedules for these facilities have been added to Section 3.1.3 of the FEIS. In 2008, the USACE authorized this activity under the Nationwide Permit program, and an ESA section 7 consultation with NMFS was performed with the USACE. Permits for the project were also issued by Santa Clara County and CDFG, and appropriate CEQA review was conducted. Although the CEQA process did not include public review, Stanford presented information regarding the SHEP to local interested parties. Stanford has included the continued operation of the diversion facilities, including the SHEP bypass flows for Los Trancos and San Francisquito creeks, in the HCP. With the release of the DEIS and HCP in April 2010, the Services requested comments on all conservation measures including the bypass flows at these two water diversion facilities.

General Hydrology

Comment

Comment 11.31: DEIS Figure 2-2 depicts primary watershed basins: Matadero Creek and San Francisquito Creek. The smaller watershed portions that are within Stanford lands should also be depicted on a map. (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Response

The Matadero and San Francisquito watersheds are depicted because they are the only two watersheds that occur on Stanford's lands. Small ephemeral streams and tributary drainages within the Matadero and San Francisquito watersheds are not depicted on Figure 2-2 of the DEIS, because they do not contribute further information regarding the HCP's Covered Species, Covered Species habitats, or Covered Activities. The Services believe Figure 2-2 provides the appropriate level of detail for presenting the environmental effects of the proposed action and alternatives, and it was not necessary to include the smaller drainages. During implementation of the HCP, Stanford and the Conservation Program Manager will take into account management activities in all drainages and the HCP's Conservation Program applies to all portions of the campus.

Comment

Comment 11.32: A better definition of "basin" would also help in understanding whether basin refers to a watershed or to a species protection area in the DEIS. (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Response

For purposes of the HCP, Stanford's lands have been divided into four management zones representing their intrinsic habitat value to Covered Species (i.e., Zones 1 through 4). Additionally, the potential habitat areas for the Covered Species have been divided into three geographical areas: the San Francisquito/Los Trancos Creek Basin, the Matadero/Deer Creek Basin, and the CTS Basin. The San Francisquito/Los Trancos Creek Basin is located entirely within the San Francisquito watershed. The Matadero/Deer Creek Basin is located entirely with the Matadero Creek watershed. The third basin is the CTS Basin which is not based on a particular watershed, but is based on the principal quality habitat areas occupied (or potentially occupied) by CTS. Impacts that occur in these "basins" determine which HCP mitigation account is used. Therefore, the term "basins" is used in both a watershed context and a species-specific context for implementation of the Conservation Program. The EIS utilizes these same definitions and boundaries for "Basin" as the HCP.

Comments

Comment 11.1: We are unable to find historical and present base flow data for Los Trancos and San Francisquito Creeks in this DEIS, and are therefore unable to assess impacts that the Stanford lake water source diversions for campus irrigation (as depicted in Figure 3-2) will have on the resident steelhead. (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Comment 22.10: Base flows for Los Trancos and San Francisquito Creeks need documentation in HCP as to historic flows, long term USGS gage flows, and flows since new Los Trancos Creek diversion on daily/monthly data basis, ie not median or average daily/monthly assessment, and this could be included as Appendix A addendum. (*Libby Lucas*)

Comment 22.29: The present lake water source and delivery system, as presented in HCP Figure 3-2, excludes majority of the associated beneficial instream uses that historically this San Francisquito Creek flow provided. It is therefore necessary that this HCP prove the remaining level of stream flow will support optimal conditions in critical wetland refugia and riparian habitat for health and well-being of covered species. What is base level of flow in Los Trancos and San Francisquito, seasonally and in wet and dry years? (*Libby Lucas*)

Response

A hydrograph to represent annual flow conditions in San Francisquito Creek below the confluence with Los Trancos Creek has been added to Section 4.1.3.3 of the FEIS (see Figure 4-6). An analysis of average daily flow exceedance rates as related to critical levels for steelhead migration is presented in Appendix F of the FEIS "An Assessment of bypass flows to protect steelhead below Stanford University's water diversion facilities on Los Trancos Creek and San Francisquito Creek". Additional information regarding the relationship of stream flow conditions, water diversion operations and habitat conditions for steelhead can be found in Appendix A of the HCP, NMFS' biological opinion for Stanford University's SHEP issued to the USACE on April 21, 2008.

Water Quality

Comment

Comment 2.92: Page 125. NOAA Fisheries should require that the described installation of a stream flow gauge on Corte Madera Creek immediately downstream of Searsville Dam be expanded to include a water quality component that gauges water temperature, dissolved oxygen, nutrient levels, and other key water parameters impacting habitat for Covered Species. The same parameters should be measured at the gage on Westridge Bridge upstream of Searsville Dam to assess reservoir modifications to water quality. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Response

Stanford proposes to continue to operate three existing water quality monitoring stations located in Los Trancos, Bear, and San Francisquito creeks for the first 5 years of the HCP. These stations will continue to monitor rainfall, stream flow, specific conductance, dissolved oxygen, water temperature, suspended solids, bedload sediment, suspended sediment and pH as they have in the past and the resulting data will be reviewed for their value in conservation efforts. The commenter's suggestion to expand water quality monitoring at existing gages immediately above and below Searsville Dam would provide valuable data to assess the effects of Searsville Reservoir and assist in development of future alternatives for the dam. However, at this time, Stanford has removed Searsville-related activities in the HCP and the Services cannot require this form of monitoring at a non-covered facility.

Comment

Comment 11.22: Also please list as required references: "Horse Keeping A Guide to Land Management for Clean Water" prepared by Council of Bay Area Resource Conservation Districts in partnership with the USDA Natural Resources Conservation Service, and their Dryland Pasture for Horses, Horse Paddocks Conservation Measures to Reduce Non-point Source Pollution at Horse Facilities, Horse manure Management, Controlling Yellow Starthistle, Composting Horse Manure, and Photographic Monitoring for Equestrian Facilities. (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Response

Comment noted.

Water Quality and Searsville Dam

Comments

Comment 2.77: The DEIS must quantify how the ongoing operation and maintenance of hundreds of acres of impervious surface, multiple surface water diversions, groundwater wells/pumps, and water quality issues resulting from Searsville Reservoir do not adversely affect surface and groundwater quality. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 14.10: [T]he draft EIS concludes that ongoing operations of the Stanford campus do not adversely affect water quality. Draft EIS at 512. This conclusion cannot be true as Searsville Dam, and other elements of the water supply system alter downstream flows, affect water quality, and modify habitat in San Francisquito Creek and even cause major eutrophic conditions to occur at Searsville Reservoir. See comments of Stoecker and Becker. (*Ellison Folk, Shute, Mihaly & Weinberger LLP, on behalf of Beyond Searsville Dam*)

Response

The Covered Activities do not include activities that are directly associated with Searsville Dam and Reservoir. Therefore, the ongoing operation of Searsville Reservoir is not included in this assessment of the effects of the proposed action on hydrology and water quality (Section 5.1.3.1 of the FEIS). However, additional information regarding water quality effects of Stanford's existing facilities has been included in the FEIS (Section 4.1.3). Although the FEIS does provide an expanded discussion of water quality effects associated with the Stanford campus, the findings presented in the FEIS remain unchanged from the DEIS in that the Services' issuance of ITPs and Stanford's implementation of the HCP are not expected to adversely affect surface or groundwater quality. The establishment and maintenance of riparian easements along Los Trancos, San Francisquito, and Matadero creeks are expected to preserve the existing streamside vegetation function of filtering sediment and other pollutants prior to entering natural waterways. Maintenance of existing riparian vegetation and future riparian restoration/bioengineered projects by the HCP's Conservation Program are expected to increase shading and assist with cool water temperature conditions in streams. As required in the 2000 Santa Clara County GUP for future development, Stanford will

prepare a site-specific hydrology and drainage study for each new project and make specific storm drainage system improvements sufficient to assure that the peak storm runoff leaving the developed site does not increase, and that any increased runoff does not cause downstream flooding.

Comment

Comment 2.33: The 2006 Jones and Stokes report, cited in the DEIS (4-30), listed the following key finding related to factors limiting steelhead in San Francisquito Creek: "Spring and summer stream temperatures in San Francisquito Creek can reach levels high enough to cause egg and fry mortality." Notice that this statement and the report findings do not identify such temperature impairment for the Los Trancos Creek tributary, which was studied in that effort. Searsville Dam impacts downstream water quality to the entire mainstem of San Francisquito Creek. Tributaries upstream of Searsville Dam and Reservoir, such as Bear and Corte Madera Creeks, do not have identified temperature elevations leading to egg and fry mortality. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Response

Comment noted.

Ground Water Recharge

Comments

Comment 10.9: The HCP should identify whether or not the historic and continued use of groundwater in and near Lake Lagunita has contributed to the low water table at this location, a situation that impedes lake ponding and the sustained retention of water through the CTS breeding season. The HCP does not identify whether the extreme depth of current wells is attributed to exhaustion of shallow depth wells. The overdrafting of shallow wells may have contributed to the relatively deep water table at Lake Lagunita. (*Brian Pittman, ESA Biological Resources, on behalf of Santa Clara County)*

Comment 10.10: Section 5 does not take credit for the beneficial effect of adding supplemental water to Lake Lagunita. (*Brian Pittman, ESA Biological Resources, on behalf of Santa Clara County)*

Comment 11.24: A map should also clearly delineate the "confined" and "unconfined" zones of groundwater on Stanford lands, Section 4.1.3.2 describes the "unconfined zone" (where groundwater recharge can occur) at Stanford as "relatively small, consisting of a swath of land between the main quad and Junipero Serra Boulevard, stretching west to Sand Hill Road and east to Stanford Avenue". This is a narrow band that historically contained water channels and percolation ponds, such as Lake Lagunita, to supply the deep underground aquifer for Palo Alto. The "confined zone" where water cannot move from the ground surface to the aquifer appears to be relatively large on Stanford lands. (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District)*

Comment 11.25: Delineation of these groundwater areas is important as it may impact placement of mitigation, ponds, etc. (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District)*

Comment 11.26: Where is percolation for aquifer supply to be accomplished in this HCP and DEIR? Figure 3-2 Illustrates Los Trancos and San Francisquito Creek stream flow bypasssing prime downstream natural percolation reaches; Lake Lagunita only seems to be managed to hold water from rain events. (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District)*

Comment 11.27: Where is percolation to deep aquifers now expected to occur? (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District)*

Comment 22.8: Groundwater and unconfined aquifer zones need to be illustrated on full map of 8000 acre campus in order to assess interrelationship with wetlands and riparian habitat of HCP and covered endangered species. (*Libby Lucas)*

Comment 22.9: Delineated wetlands, Lake Lagunita, San Francisquito, Los Trancos, Matadero, and Deer Creek corridors and watersheds should be assessed as to their percolation potential and contribution to aquifer water supply. (*Libby Lucas)*

Response

A number of comments and questions were raised regarding groundwater recharge locations, percolation potential, the aquifer water supply, and the depth of wells. As part of the FEIS' description of the existing affected environment, Section 4.1.3.2 includes discussion of the confined and unconfined percolation zones located within the project area. Impacts to groundwater supply associated with future campus development are presented in Section 5.1.3.1 of the FEIS. As discussed in Section 5.1.3.1, Stanford has adopted the 2005 "Proposed Campus-wide Plan for Groundwater Recharge" to mitigate the effects of new impervious surfaces on groundwater recharge. The approach for groundwater recharge mitigation in Stanford's 2005 plan relies on the conveyance of a quantifiable amount of water from Stanford's irrigation water supply to Lagunita. Lagunita has a very permeable bottom and the water rapidly percolates to groundwater. Stanford's groundwater consultants have developed a calculation methodology for quantifying the amount of recharge lost to new impervious surface area and a monitoring program is in place to ensure the cumulative amount of water conveyed to Lagunita is greater than the cumulative amount of recharge lost to new development on campus. Santa Clara County required Stanford to develop this groundwater recharge mitigation plan as a condition of approval (Condition N.4) for the 2000 GUP and this methodology was approved by the SCVWD in July 2005.

The Proposed Action and alternatives considered in the EIS do not include changes to the manner in which water is currently managed on Stanford's lands. Under all alternatives, Stanford would continue to seasonally divert stream flow at the Los Trancos Creek Diversion Facility and the San Francisquito Creek Pump Station, and diversion operations would be conducted to meet the minimum fisheries bypass flows adopted in 2009 by the SHEP. The filling of Lake Lagunita with water from San Francisquito Creek

would continue under all alternatives to maintain water levels that provide CTS breeding habitat and recharge the groundwater aquifer. In summary, the Proposed Action and alternative actions considered in the EIS are not anticipated to affect groundwater recharge volumes or groundwater water quality. Monitoring levels of groundwater recharge lost to development and mitigation through percolation in the Lagunita will continue per the 2005 Proposed Campus-wide Plan for Groundwater Recharge. Future Campus development not allowed and mitigated for under the GUP would be addressed in future environmental review under CEQA.

In response to questions about Lagunita and groundwater recharge areas, Section 4.1.3.2 of the Affected Environment section of the FEIS has been updated. However, the FEIS does not include an extensive description of the groundwater basin, percolation areas, percolation volumes, or the depth of wells in the area, because the proposed action and alternatives are not anticipated to affect the groundwater aquifer. The Services also determined that a map of confined and unconfined infiltration zones is not necessary in the EIS.

Section 4.1.3 of the FEIS has been updated to include the following:

The bed of Lagunita is very permeable, with loss rates estimated at 500 gallons per minute to percolation. Metzger (2002) reports water infiltration at Lagunita contributes to both shallow and deep water aquifers. Water from San Francisquito Creek is seasonally pumped by Stanford via the San Francisquito Creek Pump Station into Lagunita where this volume is conveyed to groundwater minus evapotranspiration. To mitigate the effects to groundwater recharge associated with future campus development, the County of Santa Clara required Stanford to complete a study which estimates recharge "lost" to new development and a means to "offset" these losses (2000 GUP Condition of Approval N.4). Stanford's 2005 "Proposed Campus-wide Plan for Groundwater Recharge" mitigates the effects of new impervious surfaces on groundwater recharge through the conveyance of a quantifiable amount of water from Stanford's irrigation water supply to Lagunita. Stanford currently tracks calculated levels of groundwater recharge lost to new development, and mitigation through percolation in Lagunita occurs per the 2005 Proposed Campus-wide Plan for Groundwater Recharge. San Francisquito Creek is also a significant source of groundwater recharge. The majority of groundwater recharge from San Francisquito Creek (about 90 percent) occurs between the USGS gage at the Stanford Golf Course and the Palo Alto Municipal Golf Course (Metzger 2002).

3.2.23 Land Trust

Comments

Comment 2.104: Any Stanford lands put into permanent conservation easements must be managed for special-status species habitat and ecosystem values in perpetuity, thus the EIS must describe a dedicated funding and monitoring program and who will be responsible for ensuring this outcome. (*Matt Stoecker, Director, Beyond Searsville Dam)*

Comment 8.8: Stanford's authority over the land trust significantly reduces the trust's ability to do its job and avoid conflicts of interest. The land trust that is to be the recipient of conservation easements from Stanford needs to be completely independent of Stanford and ready (if needed) to even bring legal action against Stanford to enforce the easements, yet Stanford is given authority to set up the trust with no details on how that will happen. Establishment of a trust directed in whole or even in part by persons receiving paychecks from Stanford would create irreconcilable conflicts of interest, as Stanford's ability to exercise control over its employees could influence whether the trust could exercise its legal obligation to protect the conservation easements. Disclaimers that "Stanford would never do such a thing, even 50 years from now" are wholly irrelevant, whether such disclaimers are accurate or not. The conflict of interest exists regardless of good intentions. (*Brian Schmidt and Lennie Roberts, Legislative Advocates, Committee for Green Foothills)*

Comment 8.9: The trust also needs sufficient resources to monitor and defend the easements that it owns. This could include litigation both litigation and ability to call on independent scientific expertise. The land trust needs to be adequately funded by Stanford, and run by worthy people nominated by Stanford in advance of approval, who are not Stanford employees, and who appoint their own replacements so that Stanford has no subsequent appointment power. (*Brian Schmidt and Lennie Roberts, Legislative Advocates, Committee for Green Foothills)*

Comment 11.12: What protective protocols and legal mandates are to be found in conservation easements? (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District)*

Comment 11.17: It is a concern that the management group to which Stanford delegates administration of its conservation easements might not realize it is subject to Santa Clara and San Mateo County General Plan guidelines as well as California and Federal regulatory review. Wording of these conservation easements should be included in both the text of the HCP and the Implementing Agreement in order to avoid inconsistencies and noncompliance with CEQA and other environmental law. (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District)*

Comment 11.18: It is also a concern that this conservation management body not be composed of people who owe their jobs to Stanford-or graduates their loyalty to the University. Biological integrity of conservation lands should not be compromised by potential loyalties to other than the conservation ethic. How can this be assured? (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District)*

Comment 13.3: It appears that a separate, non-profit land trust organization will be formed to hold the conservation easements and to monitor implementation of the HCP. In order to ensure transparency the trust should be completely independent of Stanford University and have broad based community representation. All deliberations should be open to the public. (*Jamie Shepard, Board President, League of Women Voters)*

Comment 13.4: A substantial trust should be funded by the University to ensure viability over time. (*Jamie Shepard, Board President, League of Women Voters)*

Comment 13.5: Page 140 of the HCP proposal states "It is unknown whether mitigation will make up for the lost functions and values of the existing habitat. Therefore, the precise impact of

cumulative future growth is unknown." Precisely because of that concern there needs to be clear criteria for incidental take and close scrutiny of the mitigation process as well as close oversight by regulatory and permitting agencies and a watchful public. (*Jamie Shepard, Board President, League of Women Voters)*

Comment 22.36: A concern has been expressed that the management group to whom Stanford delegates administration of its conservation easements would not be Stanford staff or tied to Stanford economically and that they be thoroughly cognizant of local municipal, county, regional, state and federal regulatory and environmental law and guidelines. (*Libby Lucas)*

Response

Section 6.3.3 of the HCP describes the entity that will hold the conservation easement deeds. This entity would be a non-profit land trust organization that is qualified under Section 815 of the California Civil Code to hold the conservation easements that Stanford will grant in accordance with Section 4.3 of the HCP. The non-profit entity will be subject to all state and Federal laws that govern non-profit entities, including any laws that may regulate the conduct of the land trust entity's board members. This entity will also monitor Stanford's compliance with the HCP's Monitoring and Management Plans and the terms of the conservation easement deeds granted pursuant to the HCP, and Stanford will report regularly to the land trust to facilitate this oversight monitoring. Stanford must manage the conservation easement in a manner that complies with all Federal, state and local regulations/laws. The Services will have approval over the language contained in the conservation easement to ensure it meets regulatory requirements for conservation easements. In addition, during the 50-year permit term, the Services have the primary enforcement responsibilities to ensure that Stanford is meeting all its obligations under the HCP, including appropriate management of the habitats covered by the conservation easement. After the permits expire, the Services as third-party beneficiaries will continue to have the right to enforce the terms of the conservation easements pursuant to the HCP. However, the land trust entity will have the primary authority to ensure that Stanford continues to comply with the terms of the conservation easement deeds when the permits expire. Section 4.3 of the HCP requires Stanford to prepare long-term Monitoring and Management Plans for the conservation easement areas prior to the expiration of the permits. Stanford will be responsible for post-permit management and monitoring of the easement areas, including providing sufficient funding to implement these plans.

Section 6.3.3 of the HCP has been revised to provide further detail concerning the land trust's board of directors, meetings, and review of the Annual Report and mid-year status report. The land trust will consist of a board of directors and include at least two board members selected from the public at large who are, or have been, affiliated with local conservation organizations and who have no current affiliations with Stanford. The President of Stanford will appoint the initial members of the board, including the public members.

Section 6.5 of the HCP describes funding assurances of the HCP, and implementation of the HCP, including the funding assurance, will be a condition of the permits. Stanford will include a line item for HCP implementation into its annual operating budget for the

life of the HCP. Stanford has provided documentation to the Services that demonstrate the budget item will be sufficient for implementing all aspects of the HCP implementation including funding of the Conservation Program Manager position (or a similar entity responsible for HCP implementation). The Conservation Program Manager will oversee day-to-day implementation of the HCP, as described in Section 6.3.2 of the HCP.

3.2.24 Land Use

General

Comment

Comment 3.33: Page 5-31, paragraph 6. This impact statement claims no land use effects because the nature of the land uses are not changing. This is not a valid basis for dismissing effects, and the statement should be rewritten to compare land use effects with standards of significance, describe minimization measures, and provide a determination of the post-minimization effects significance. For example, development and maintenance activities in and near creeks should be evaluated against the policies listed in Table 4-1. The draft EIS must address the inconsistency of the Covered Activities with these policies. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Response

The Services followed CEQ regulations when assessing the impacts of the Proposed Action and alternatives on land use. Existing lands uses and the environmental setting in the area affected by the HCP are presented in the Affected Environment section of the EIS. However, the EIS does not analyze all the environmental effects of existing land uses. The Environmental Consequences section of the EIS analyzes the effects of the Proposed Action (i.e., Stanford's HCP and the Services' issuance of an ITP) and alternatives on existing land uses and land use designations. The EIS is not stating existing land uses have not affected the environment, but the document does conclude the Proposed Action and alternatives will not result in any changes to existing land uses.

None of the measures or mitigation accounting system in the HCP's Conservation Program would change existing land uses or affect existing general plan designations and zoning ordinances. Conservation easements and future preservation and enhancement activities that would be implemented through the HCP would further restrict or condition activities allowed in management zones, but not change the land use designations. Ongoing Stanford operations would not adversely affect land use because they are already established land uses. Future development would only occur after all appropriate permits have been obtained from local, state, and Federal agencies with jurisdiction over the development.

The Services have reviewed the creek protection policies summarized in Table 4-1 of the DEIS and concluded the Proposed Action is consistent with these policies. Existing general creek protection policies of local jurisdictions would continue to apply to

Stanford's lands regardless of implementation of the Proposed Action or alternatives. The comment does not identify specific information regarding which Covered Activities are inconsistent with the creek protection policies presented in Table 4-1. Therefore, such information cannot be used for improving the environmental analysis or documentation.

Menlo Park Reservoir Tanks

Comments

Comment 4.1: I have read the HCP documents and have not found language that clearly details what, if any, impacts there are for Menlo Park to maintain and operate these [City] reservoirs. (*Kathleen M. Gallagher, Interim Environmental Programs Manager, City of Menlo Park*)

Comment 5.1: Staff discussed the City's reservoir maintenance procedures with one of the HCP officials, Sheila Larson, Senior Staff Biologist of the United States Fish and Wildlife Service. Staff was assured by Ms. Larson that the reservoirs are located in Zone 3 where the HCP minimization measures would not restrict the City from necessary reservoir maintenance and operations. Ms. Larson stated one exception could include reservoir maintenance weed abatement work and recommended non-poisonous weed control (e.g., mowing or 'weed whacking') instead of poisonous weed control use. (*Kent Steffens, Deputy City Manager, City of Menlo Park*)

Response

Menlo Park's water tanks for municipal water supply are located in an area designated by Stanford for institutional use (HCP Figure 1-3) and designated as Management Zone 4 (HCP Figure 4-2). Implementation of the HCP will not affect the current operation and maintenance of these water tanks as long as the activities are confined to the water tank leasehold site that is designated as Zone 4 and no Covered Species are present during maintenance and operation. If a Covered Species were found during operation and maintenance of the water tanks, the Conservation Program Manager would relocate the Covered Species to more suitable habitat, as described in Section 4.2.9 of the HCP. No additional measures are required by the HCP's Conservation Program, and no impacts to these facilities have been identified in the NEPA analysis for the EIS.

3.2.25 Management Zones

Comments

Comment 2.68: The DEIS states that "...only undeveloped lands provide habitat for the (listed) species". This statement is incorrect. Listed species occur along developed lands, especially within riparian areas along the stream banks of San Francisquito Creek, the Webb Ranch lease, nursery lease along lower Los Trancos Creek, and other residential lease and mixed-use areas adjacent to the top of the stream bank. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.72: Figure 3-1- Management Zones Map. This and other maps showing the different Management Zones (1-4), include Zones 1 and 2 adjacent to riparian areas and Zone 1

along streams. At Searsville Dam the maps show an approximately 0.1 mile wide (according to the scale provided on the map legend) area defined as Zone 4 across the dam and downstream. The HCP and DEIS fail to delineate the Management Zone boundaries with enough textual or visual detail to understand where some of these exact boundaries occur. The DEIS should provide additional detail on Management Zone Boundaries and in particular ensure that Zone 1 occur along the entire stream all the way to the base of the dam. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Response

As part of the Proposed Action, the HCP divided all of Stanford's lands into four management zones according to the habitat value of the land, if any, to the Covered Species (Section 4.1 of the HCP). Zones 1 and 2 provide habitat for Covered Species. Zone 3 lands are generally undeveloped areas that do not support individual Covered Species or provide critical resources such as dispersal corridors, and Zone 4 includes land that does not support the Covered Species (although individual Covered Species may be found in the developed areas). As the commenter correctly pointed out, Zones 1-3 do contain isolated development (ranch houses and utilities), yet still provide habitat for the Covered Species. As such, the FEIS has been revised to clarify that Covered Species do occur in areas where there is minor development. The ITPs would authorize incidental take of ESA-listed species on approximately 8,000 acres of Stanford's lands, regardless of the level of development, although only Zones 1, 2, and 3 (described in Section 4.1 of the HCP) provide habitat for the species. These revisions do not introduce a new environmental impact or affect the severity of an existing impact discussed in the DEIS. Further, no new or modified mitigation measures would be required as a result of these changes. The commenter also noted that Figure 4-2 in the HCP shows an approximately 0.1 mile wide area defined as Zone 4 near Searsville Dam that appeared to extend into the channel. The area depicted in this figure as Zone 4 was meant to only include the dam face and footing. The stream channel extending below the dam is within Zone 1. Figure 4-2 has been revised to depict the area immediately adjacent to the face of the dam as Zone 1. The Services believe the figures presented in the EIS and HCP provide adequate detail to understand the proposed action, alternatives to the proposed action, and allow for a meaningful analysis of potential effects to the human environment.

3.2.26 Non-native Species (and Native Revegetation)

Comments

Comment 11.13: It is accepted practice in Santa Clara County that to retain genetic integrity, only native species of plants of the watershed should be used in revegetation and landscape design. This plant list should be included in this HCP and possibly with some direction as to reliable providers. Species might even differ slightly between the San Francisquito Creek and Matadero Creek watersheds. (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District)*

Comment 11.14: There should be a list of invasive plants that are known to degrade habitat-and that should thus be avoided for federally protected species for which this HCP is designed. For instance phragmites is an invasive in Palo Alto's baylands and should certainly not be

recommended for revegetation. (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District)*

Comment 11.21: In the Habitat Conservation Plan table of contents, lists in Appendices B, Recommended Best Management Practices for Management of Animal Waste Compost and Sediment on Creeks includes Table 2 an approved List of Plants for Vegetated Buffers. Is it appropriate for the list to have a number of salt tolerant plants? Are they native to the watershed? Please delete 'phragmites', a highly invasive plant that City of Palo Alto is spending thousands of dollars to eradicate its baylands. This is a ten-year-old list and needs updating. (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District)*

Comment 15.3: [I]n order to preserve the habitats for the five listed species, the HCP should address the control of invasive species in those areas with more detailed plans and review of progress made in the control of invasive species. (*B. Stephen Toben, Mayor, Town of Portola Valley)*

Comment 15.4: [T]he town suggests that consideration be given to awarding mitigation credits as part of the HCP for major efforts by Stanford to control invasive species, especially in areas of particular biological concern. (*B. Stephen Toben, Mayor, Town of Portola Valley)*

Comment 15.5: Portola Valley would like to see Stanford adopt as part of the HCP a program that would preclude the planting of invasive or potentially invasive species anywhere on Stanford lands and especially in habitats for endangered species. (*B. Stephen Toben, Mayor, Town of Portola Valley)*

Comment 15.8: Plants on the Stanford Campus should be drought tolerant and native to minimize the need for water diversion. (*B. Stephen Toben, Mayor, Town of Portola Valley)*

Comment 21.1: I am concerned that the Stanford EIS does not mention streamside vegetation alterations caused by the relentless invasion of non-native plant species including garden variety English ivy and slender false brome (grass). I will reject an EIS that confuses preservation and neglect. I demand an EIS that includes botanical habitat stewardship along the entire creek corridor. (*Steve Kennedy)*

Comment 22.6: Invasive species of animals and plants need to be identified and a management and monitoring plan for their control should be outlined for 50 year life of this HCP in order to protect covered endangered species. (*Libby Lucas)*

Comment 22.38: In regards native species best suited for campus and industrial landscape, it is recommended to include particular species propagated from the San Francisquito and Matadero Creek watersheds. To obtain and promote appropriate vegetation please refer to the Acterra nursery native plant list, and do delete the invasive phragmites from Table 2 of Appendix B 's Approved List of Plants for Vegetated Buffers. (*Libby Lucas)*

Comment 22.40: Then, Stanford has to include an invasives management plan to insure that protected species' critical habitat is not overwhelmed before anyone notices. The maxim is a stitch in time saves nine. If there is any doubt, please ask for cost to City of Palo Alto in trying to remove phragmites from their baylands. Invasive plants should be avoided in all aspects of

campus landscaping and lists relative to individual watersheds are available from both Santa Clara and San Mateo counties. (*Libby Lucas)*

Response

The riparian areas and creeks that provide habitat for the riparian Covered Species also support several non-native plant species, and a variety of non-native wildlife species, including bullfrogs, fishes, crayfish, and mitten crabs. Non-native crayfish have also been found at Lagunita. The foothills, which support CTS, are dominated by non-native grasslands. To date, Stanford has been able to sustain populations of the Covered Species in these areas and the HCP's monitoring program includes routine monitoring of harmful invasive wildlife and plant species.

Section 3.11 of the HCP describes the Habitat Management, Monitoring, and Enhancement activities, which includes provisions for the removal of non-native plant and animal species. Non-native animals will be removed through hand capture, trapping, and electrofishing. Non-native plants will be removed through mowing, hand removal, grazing, and the spot application of herbicide if hand removal is not effective or is not feasible because of the range of the infestation. The HCP also discourages the unauthorized release of turtles and other non-native wildlife species through the posting of signs and installing fences, if necessary (HCP Sections 4.3.1.2, 4.3.2.2, and 4.3.3.2). Feral cats, which are known to prey on CTS and other species, will be reduced by removing feral cat feeding stations in and near the easement areas and other sensitive habitat areas (HCP Section 4.3.3.4).

The HCP includes procedures to identify invasive species early and address them quickly and effectively to reduce the likelihood that there will be detrimental levels of invasive species. Sections 4.6.1, 4.6.2, and 4.6.4 of the HCP include monitoring for bullfrogs, non-native crayfish, centrarchid fishes, and other non-native fish species. Stanford will then use the monitoring data to assess habitat conditions for the Covered Species and if the monitoring shows that the presence of non-native species is adversely affecting the Covered Species, Stanford will implement various management actions to minimize the impact of non-native species on the Covered Species (HCP Section 4.3.1.2).

Section 6.6.2 of the HCP identifies the circumstances that would trigger the need to redirect conservation resources to controlling invasive species. For example, if the monitoring finds there is an uncontrolled infestation of non-native weed species, Stanford would submit a damage assessment report to the agencies, and use some of the funds that Stanford has committed to implementing the HCP to address the infestation.

In response to comments, Stanford has deleted phragmites spp. (common reed) from the "Approved List of Plants for Vegetated Buffers" in the HCP (Table 2, Appendix B). In addition, the HCP has been revised to ensure that the best management practices (BMPs) employed by agricultural and equestrian lessees would be reviewed and approved by the Conservation Program Manager (HCP Section 4.2.8). The Conservation Program Manager may choose to exclude certain plant species if monitoring determines such species are adversely affecting habitat for the Covered Species.

Section 4.2.1.1 of the FEIS provides an overview of the existing plant communities on Stanford's lands and includes discussion of the non-native plants within the various habitat communities. Several HCP measures are designed to encourage native plant species and prevent the spread of non-native species. For example, areas disturbed by utility line maintenance and repair will be re-seeded with native plant species (HCP Section 4.2.3). At the Stanford Golf Course, new plantings of non-native ornamental species (other than maintenance of the existing turf and landscaped areas) will not be permitted within 75 feet of the top of any creek bank, unless approved by the Conservation Program Manager (HCP Section 4.2.4). Stream bank stabilization projects will incorporate bioengineering techniques and draft plans will be submitted to the Services for review prior to implementation (HCP Section 4.2.2). During the Services review, only plantings of native species will be allowed. As suggested by one commenter, mitigation credits can be awarded to Stanford for major efforts to control and remove non-native species (HCP Section 4.3), and the Services will encourage Stanford to pursue these efforts, particularly for removal of non-native, invasive plants within creekside riparian zones. For landscaping on campus, Stanford's design guidelines in the "2003 Water Conservation, Reuse, and Recycling Master Plan" specify the use of drought tolerant plants, efficient irrigation, and emphasize native landscaping (Stanford 2003).

Non-native Species and Searsville Dam

Comments

Comment 2.48: [T]he HCP fails to propose, and the DEIS fails to require, an effective non-native eradication plan and by not addressing their primary source of reproduction and dispersal at Searsville Reservoir, other limited efforts will not be successful in eliminating non-native species and their negative effects.

As part of the Cumulative Effects analysis, the DEIS must analyze and assess the critical role that Searsville Reservoir and the Searsville Diversion Dam's spillway and proposed operation has played as the historic source for exotic fish plantings, continued role as the most expansive artificial habitat that these invasive species are able to survive in, reproduce, and spread to downstream habitats in San Francisquito Creek. … The HCP and DEIS fail to propose any significant action to limit the occurrence or dispersal of non-native species from Searsville Reservoir and the DEIS fails to analyze and require effective mitigation for this taking of listed species. The DEIS must also describe in detail how the Searsville Diversion Dam configuration and operation, proposed diversion and downstream flow measures, and Reservoir are promoting and dispersing non-native species and quantify these impacts on Covered Species. The DEIS should include requirements for elimination of the artificial habitat supporting non-native species and detailed plans for eradication of the non-native fish species and reduction in other species such as bullfrogs. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.75: 4-31 First Paragraph. The DEIS must state that these non-native fish species identified below Searsville Dam come from the reservoir, are allowed to spill over the dam, reproduce in the reservoir, spread downstream from the reservoir, and are well studied stillwater species that rely on the presence of the reservoir's artificial stillwater habitat to survive and perpetuate in the watershed. This section should include other non-native species such as

bullfrog and crayfish. The DEIS must analyze the impact of these exotic species on listed native species and their relationship to the dam and reservoir, as well as how current operations at the dam allow for the spread of these species downstream and the resulting resource competition and predation. Mitigation measures to eliminate the non-native fish and reduce bullfrog habitat should be identified with realistic costs estimates. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.84: HCP Page 25 Non-native Aquatic Species. As described above, the artificial stillwater of Searsville Reservoir is where most or all of these non-native fish species were introduced, persist, spawn, and disperse from into adjacent creeks. The HCP fails to adequately address the serious threat posed by these non-native species and source population at Searsville Reservoir. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 3.17: p. 4-31, paragraph 4. Non-native fish are present for several miles downstream from Searsville Dam due to its operations and reservoir. This impact must be cited and mitigated through the HCP and its draft EIS. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Response

Non-native aquatic species associated with Searsville Dam are described in Section 4.2.2.4 of the FEIS. As noted by several commenters, Searsville Reservoir supports several non-native species and is a source of non-native species to downstream areas in San Francisquito Creek (Fee et al. 1996). The Services agree that the program to eliminate or reduce non-native species likely would be more effective if the HCP addressed source populations in Searsville Reservoir. However, Stanford has elected not to include any activities with Searsville Dam and Reservoir as Covered Activities in their application to the Services for an ITP. Therefore, the reservoir is not within Stanford's HCP and conservation measures do not extend into this area. In response to one commenter, Sections 4.2.1.2 of the FEIS have been revised to include catfish (*Ictalurus spp.*) and crayfish (*Pacifastacus leniusculus*) as non-native aquatic species that may be present below Searsville Dam.

3.2.27 Permit Term

Comment

Comment 25.1: i oppose any 50 year permit. i think a 2 year permit is too much. those species are listed to be protected. i see no reason for Stanford to not protect them. nothing has been advanced as to why they need to murder and kill those species. i oppose this plan. stanford should go back to the drawing board and learn to live with the rest of america. (*Jean Public*)

Response

Comment noted.

3.2.28 Recreational Impacts on Covered Species

General

Comments

Comment 11.35: Where is the recreation element in the HCP/DEIS with evaluation of its anticipated Impact on federally protected species for the next fifty years? *(Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Comment 11.36: How can conflicts between student recreational use and habitat conservation of these lands be avoided? What alternatives can be devised to separate recreation and wildlife use along stream corridors and in general campus use? Shouldn't this deserve an entire chapter in the HCP / DEIS? *(Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Comment 22.25: Recreational activities of the academic community are not reviewed in regards equestrian and hiking trails on campus and into these foothills. The safety and accessibility of such recreation trails should be planned so as to avoid impacting the integrity of riparian and wildlife corridors. With 8000 acres at their disposal, this should not be too difficult a task. If this is to be a 'covered activity' it needs to be in evidence in the text of support biological data and mapped in an appropriate campus activities figure. Golf cart and bike trails need to be shown also in relation to traffic connectors and wildlife corridors. (*Libby Lucas*)

Response

Section 3.6 of the HCP describes recreational activities. Recreational activities that may affect Covered Species include golfing at the Stanford Golf Course, windsurfing and sailing at Lagunita and Felt reservoirs, and recreational trail routes. Figure 4-13 in the FEIS and Figure 3-2 in the HCP show the locations of these recreational facilities. To minimize disturbance of sensitive habitats, no dogs, bicycles, or horses are permitted on Stanford's Dish Recreational Route. Bicycles and horses are permitted on the Public Trails shown in the figures, but all the Public Trail routes in the San Francisquito Creek watershed are immediately adjacent to existing roadways (i.e., Alpine Road and Sand Hill Road). In the Matadero Creek watershed, the Public Trail route parallels Page Mill Road and Deer Creek Road with a short link of this trail crossing over a grassy knoll and horse pasture. Measures to avoid and minimize the potential impacts of recreational activities have been incorporated into the HCP's Conservation Program and are presented in Section 4.2.6 of the HCP. These trail alignments, in combination with the HCP's recreational activities measures, avoid impacts to existing high quality habitat and wildlife corridors for Covered Species.

The potential effects of the recreational activities on Covered Species are presented in Section 3.6 of the HCP, and the FEIS presents recreational activities as part of the land use discussion in Chapters 4 and 5 (Sections 4.1.9, 5.1.9, and 5.5.2.9). Section 5.1.9.1 of the FEIS presents the effects of the HCP's Conservation Program on land use and did not find that the Proposed Action or alternatives would significantly affect existing uses, including recreation. Since no conflicts or impacts with existing recreational uses were

identified, the EIS did not include an entire section of analysis on this topic, as suggested by one commenter.

Regarding bike paths and bike lanes, these bicycle routes occur within the urbanized campus area to the north of JSB and do not impact Covered Species or their habitat. Similarly, golf cart paths are restricted to the golf course area and do not impact Covered Species or their habitat. Golf cart and bike paths are not delineated in a figure in the HCP or EIS because they do not provide habitat for Covered Species and do not conflict with wildlife corridors. Since there are no specific conservation measures for golf cart or bike paths, the Proposed Action and alternatives do not affect these facilities or their use.

Future Olympic Events

Comments

Comment 11.37: Consideration of Stanford as a location for an essential part of the equestrian element in any bid for the summer Olympics should be given some evaluation in the document. This is bound to be an exciting reality in the next fifty years and the HCP DEIS needs to include it. (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Comment 22.26: The Red Barn, stables and riding ring have provided historic recreation for which Leland Stanford's stock farm was noted, but in consideration of the 50 year life span of this HCP it is inevitable that this facility be an important consideration in the equestrian element of a Summer Olympics. This would mandate a scope of facilities and accessibility to events in the foothills that would be wise to consider in this planning document at this time. As Frederick Law Olmstead planned the space and vistas of the Stanford campus, it is critical for this HCP to honor his vision and preserve the farm's oak woodland savanna as it survives healthily impressive in and around the Red Barn, and stables, and riding ring. (*Libby Lucas*)

Response

The use of Stanford for equestrian events under a future Olympics is not currently proposed and it is unknown when and if it would ever occur. There are no proposals and no details about what events would occur, where they would occur, and an anticipated number of people that would attend. Due to these uncertainties, it would be too speculative to present a meaningful analysis of a future Olympics event on Stanford's lands in this EIS. It is not currently proposed as a Covered Activity in the HCP.

3.2.29 References

Founding Grant

Comment

Comment 11.40: Stanford's #1 institutional goal is "Maintain land use flexibility." In view of the legal restrictions associated with the Founding Grant-which are cited as the basis for the need to retain future land use flexibility (HCP, Sec.1.5)-Stanford's Founding Grant should be an included document in the DEIS. The importance of goals-both institutional and biological-to the DEIS

and HCP makes inclusion of such a document mandatory. (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Response

Stanford has stated its biological and institutional goals as the applicant for the ITPs, and those goals are described in the HCP in Section 1.5. Stanford's institutional goals are based, in part, on the Founding Grant. It is not necessary to include the Founding Grant to determine the environmental effects of the Proposed Action (issuing the ITPs and implementing the HCP). Stanford's Founding Grant is available for viewing at http://wasc.stanford.edu/files/FoundingGrant.pdf.

Persons and Organizations Consulted

Comment

Comment 2.83: 6-1 Persons and Organizations Consulted. It is particularly concerning that so much readily available information and involved groups and individuals were not referenced or contacted in the preparation of this DEIS. The list of contacted people includes someone from Friends of Corte Madera Creek in Marin County and does not include any of the dozens of individuals and groups that comprise(d) the former San Francisquito Watershed Council, CRMP, Steelhead Task Force or the current groups focused on the creek and restoration including San Francisquito Watershed Project, Acterra, San Francisquito Joint Powers Authority, American Rivers and Beyond Searsville Dam. In addition, key people from Stanford, Center for Ecosystem Management and Restoration, Center for Biological Diversity, DFG, USGS, local governments, and other participants in almost two decades of watershed council activities are not listed. The Peninsula Conservation Center and Acterra have many unreferenced documents that would have added greatly to this document, its accuracy, and the preparers understanding. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Response

The Services sought and obtained a large amount of information for the preparation of the NEPA document. Numerous documents were utilized including reports prepared by CEMAR, the San Francisquito Watershed Council, San Francisquito Joint Powers Authority, CDFG, USGS, and local governments (as noted in Section 6 of the FEIS). For the preparation of the EIS, these written documents were readily available and reliable sources of information. When written information was not available or updated information was required, the Services contacted persons and organizations. Therefore, the Services did utilize the best available information from the sources listed by the commenter, but it may have been obtained through reports and other written documents rather than consultation with an individual person or organization.

The Services also held a public scoping meeting on September 21, 2006, at the Stanford campus and accepted public comments on the scope of the NEPA document and HCP. The Scoping Report is attached as Appendix A of the FEIS. Information provided during the public comment period for both NEPA scoping and DEIS review was considered by the Services and incorporated into the FEIS where appropriate.

3.2.30 Regional Flood Planning

Comments

Comment 2.65: The HCP and DEIS fail to adequately commit Stanford coordination with San Francisquito Creek watershed flood protection and restoration efforts outside of the Stanford campus. (*Matt Stoecker, Director, Beyond Searsville Dam and Jeff Miller, Conservation Advocate, Center for Biodiversity*)

Comment 5.2: Menlo Park staff discussed this issue with you and was assured that the HCP would not restrict or interfere with the development of flood detention basins in the Webb Ranch area if the San Francisco Creek Joint Powers Authority chose to develop flood detention basins in the Webb Ranch area in the future. (*Kent Steffens, Deputy City Manager, City of Menlo Park*)

Comment 6.1: Staff disagrees with the statements in the EIS that "sufficient information is not currently available to include flood reduction as a Covered Activity" (Page 2-5) and that the proposed adoption of the EIS and approval of the HCP "would not have a significant adverse effect on regional flood reduction as a result of either implementation of the Conservation Program or placement of a conservation easement in the San Francisquito Creek watershed" (p. 5-11). In early 2009, the San Francisquito Creek Joint Powers Authority (JPA) retained engineering consultant Phillip Williams and Associates to examine potential areas suitable for the detention of floodwaters in the upper watershed during major storm events. The consultant's July 2009 Alternatives Analysis Report identified three specific such sites immediately adjacent to San Francisquito Creek on Stanford University lands and is available online…These sites lie within areas classified as Zone 1 or Zone 2 in the HCP, areas in which development is to be avoided to the maximum extent feasible, and lie partially within the proposed conservation easement. We believe that placement of a permanent conservation easement on these detention sites without any mention of the potential future modification of the sites would significantly constrain their future use for flood reduction purposes. (*Glenn S. Roberts, Director of Public Works and Curtis Williams, Director of Planning and Community Environment, City of Palo Alto*)

Comment 6.2: Although the 2009 Alternatives Analysis Report provides a relatively small amount of information regarding the scope of the potential detention sites, it does identify three specific locations and basin sizes that could and should be documented in the HCP and addressed in the EIS. Staff believes that Stanford and the US Fish and Wildlife Service have unduly given the issue short shrift by only mentioning it in a few brief paragraphs in response to scoping comments made by several interested parties and not even mapping the specific detention locations identified in the Alternatives Analysis Report. The concept of upstream detention has been developed to a sufficient degree and has enough public support and potential public safety benefits to merit a more robust discussion in the environmental assessment of the HCP. By amending the HCP to include the construction of the one or more of the potential detention basins as a Covered Activity and modifying the EIS to assess some of the related challenges, impacts, and benefits to protected species, these documents could serve to lay the groundwork for future detailed analysis of a specific flood reduction project. Therefore, staff requests that the HCP and the EIS be modified to document and assess the three potential detention sites and to describe how flood reduction goals could be effectively implemented in concert with the overall

conservation goals of the HCP. (*Glenn S. Roberts, Director of Public Works and Curtis Williams, Director of Planning and Community Environment, City of Palo Alto*)

Comment 8.10: The HCP needs to integrate and work with downstream impacts of San Francisquito Creek on endangered species. The San Francisquito Creek flood control project in particular should be discussed in the HCP as an opportunity for potential cooperation. (*Brian A. Schmidt and Lennie Roberts, Legislative Advocates, Committee for Green Foothills*)

Comment 11.38: It is important that Stanford coordinate with San Mateo and Santa Clara Counties in every aspect of this HCP, along with State and Bay Area regulatory agencies and the US Corps of Engineers. A watershed is not a watershed without a flood control project in its fifty-year future. (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Comment 12.1: I disagree with the statement in the DEIS that "sufficient information is not currently available to include flood reduction as a Covered Activity" (Page 2-5). In 2009 the SFCJPA hired an environmental engineering firm experienced in these matters to study potential areas suitable for the upstream detention of floodwaters during major storm events. That consultant determined that specific sites adjacent to the Creek could be utilized for this purpose. With their 2009 summary report (see http://sfcjpa.ehclients.com/documents/altematives%20analysis.pdf), the substantial information gathered for the report, and other data amassed by multiple agencies, there is sufficient available information to include flood reduction as a Covered Activity in the HCP. (*Len Materman, Executive Director, San Francisquito Creek Joint Powers Authority*)

Comment 12.2: I also question the statement on page 5-11 of the DEIS that regional flood reduction will be addressed by "all of the stakeholders in the region, not just Stanford. Therefore, possible regional flood reduction activities, such as modifications to Searsville Dam, the construction of off-stream detention sites, or regional-flood-reduction-related, widening of San Francisquito Creek, are not Covered Activities." This quote rightly indicates that Stanford has a responsibility to participate in regional flooding solutions. In addition, the previously mentioned consultant's report found that, among all landowners in the watershed, Stanford is uniquely able to support flood prevention activities through floodwater detention on lands now classified as Zone 1 or Zone 2 in the HCP. (*Len Materman, Executive Director, San Francisquito Creek Joint Powers Authority*)

Comment 12.3: Also on Page 5-11, the DEIS states "While the HCP does not expressly cover any future regional flood reduction activities, it does not inhibit regional flood reduction planning." Because the threat of flooding here has increased since a 1998 flood damaged 1,700 properties, and flood reduction planning has been a U.S. Army Corps of Engineers (Corps) activity here since 1941, and Stanford's Trustees expressed support for flood protection measures following a 1955 flood that damaged Stanford and other properties, what is needed now is "activity." Thus, we request that the sentence within the DEIS quoted here be changed to state "The HCP expressly covers regional flood reduction activities. (*Len Materman, Executive Director, San Francisquito Creek Joint Powers Authority*)

Comment 12.4: While it is true that the HCP protects a small fraction of the watershed and Stanford land, the previously mentioned July 2009 study determined that the only viable flood

detention facilities within the watershed are adjacent to the Creek on Stanford lands (and thus at least partially within the proposed conservation easement). Thus, we disagree with the suggestion that the Proposed Action would not have a significant adverse effect on regional flood reduction as a result of implementing the Conservation Program or the placement of a conservation easement. (*Len Materman, Executive Director, San Francisquito Creek Joint Powers Authority*)

Comment 12.5: The purchase of Stanford land as part of a flood reduction project is not being contemplated, and thus there would be no change of ownership to affect a possible conservation easement. Currently, there are many diverse uses of Stanford's land; its potential use as a floodwater detention facility would benefit the region without requiring that the existing land uses of these sites be substantially altered. (*Len Materman, Executive Director, San Francisquito Creek Joint Powers Authority*)

Comment 12.6: The HCP's Proposed Action would make the construction of a flood reduction facility within the conservation easement much more difficult, and thus it is important that the HCP positively affirm the potential use of lands adjacent to the Creek for this purpose. (*Len Materman, Executive Director, San Francisquito Creek Joint Powers Authority*)

Comment 12.7: The concept of upstream detention has been developed to a sufficient degree and has enough public support and potential public safety benefits to merit amending the HCP to include the potential construction of the one or more detention basins as a Covered Activity and to merit modifying the DEIS to assess the resulting positive and negative impacts to protected species. It is important that these changes be made so that both documents describe and assess how the federal government's and the region's flood reduction activities can be implemented in concert with, rather than harmed by, the vital conservation goals of the HCP. (*Len Materman, Executive Director, San Francisquito Creek Joint Powers Authority*)

Response

As discussed in EIS Scoping and Public Participation (FEIS Section 2.6.2), Stanford is not currently considering new flood reduction facilities on Stanford's lands. The Services have encouraged the permit applicant to include all actions within the 8,180-acre planning area that: (1) are likely to result in incidental take; (2) are reasonably certain to occur over the life of the permits; and (3) are under the applicant's control. However, Stanford, as the section 10 applicant, has the discretion to choose what activities it wishes to include in the HCP and which ones it wishes to exclude, and the Services do not have the authority to require the inclusion or exclusion of a specific activity. Stanford has no current plans for new flood reduction facilities within the 8,180-acre planning area. As a result, Stanford's application to NMFS and USFWS did not include new flood reduction facilities as a Covered Activity. Existing storm water detention basins within Stanford's central campus are included in the HCP as Covered Activities (HCP Section 3.5.3).

As suggested by several comments, we have examined the potential locations of the three floodwater detention sites presented in the July 2009 Alternatives Analysis Report prepared by Philip Williams and Associates (see http://sfcjpa.ehclients.com/documents/alternatives%20analysis.pdf). Based on the maps presented in the 2009 summary report, the detention basins are near or adjacent to areas

proposed as permanent conservation easements, but not within a permanent conservation easement. The potential detention sites are located within HCP Zones 1, 2, and 3. However, not all of Zone 1 is included within the permanent conservation easement and no areas in Zone 2 and 3 have been proposed for permanent conservation easement. Based on the information provided in the 2009 summary report, the potential detention sites will not be placed into a permanent conservation easement and we disagree that approval of the HCP will significantly constrain the use of detention basins for flood reduction purposes in the watershed. Stanford will be managing areas within Zone 1 to avoid development to the maximum extent feasible and future development is defined in Section 3.10 of the HCP as academic, academic support, residential, athletic, and commercial facilities. Thus, this commitment by Stanford to avoid development to the maximum extent feasible in Zone 1 did not include flood reduction facilities and the HCP/ITP will not necessarily preclude the future placement of floodwater detention facilities on Stanford's lands in Zone 1. Without additional detail regarding future flood reduction facilities, the EIS cannot estimate potential constraints and effects on future flood planning. Since flood reduction is neither a goal for Stanford or the HCP's conservation strategy, regional flood planning has not been integrated into the proposed action and it would be inappropriate for this EIS "to lay the groundwork for future detailed analysis of a specific flood reduction project" as suggested by one commenter.

3.2.31 Review and Reporting

Comments

Comment 11.42: It is our request that a five or seven year review mechanism be incorporated into this HCP. (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Comment 15.6: The town has concerns that the 50-year term of the HCP may be overly long since it is not possible to anticipate changes in habitats or identification of other endangered species. We realize that the plan does include provisions for annual review and modifications where necessary. We urge that this process of review be shared with affected communities such as the Town of Portola Valley. (*B. Stephen Toben, Mayor, Town of Portola Valley*)

Comment 22.18: With a 50-year lifespan, shouldn't this HCP cover both past and foreseeable future wildlife habitat and refugia needs? In light of climate change and the degree to which global warming may alter seasons, temperatures, rainfall intensities and storm patterns, shouldn't a 5 to 7 year review be included? (The Santa Clara County HCP includes provisions for a major review of its HCP every 5 to 7 years.) What ESA accommodation is provided for in the permit regarding identification of new endangered species? (*Libby Lucas*)

Response

Section 6.4 of the HCP describes the annual reporting requirements and Services review process. Stanford will submit annual reports to the Services on October 1, or the first business day of the month, every year the permit is in effect. Every 5 years, Stanford will prepare and submit an overview report that describes trends in Covered Species' populations and habitat. In addition, Stanford has updated the description of the "Entity to Hold Conservation Easements (Land Trust)" in Section 6.3.3 of the Final HCP, and

Stanford will be providing mid-year status reports regarding activities associated with the conservation easement areas. This reporting and review process provides the Services with the ability to regularly evaluate the status and effectiveness of the HCP's Conservation Program on the Covered Species, and if annual monitoring results show that the Conservation Program is not effectively achieving the biological goals and objectives of the HCP, adaptive management would be employed to modify the Conservation Program (HCP Section 4.5).

Sections 6.6 and 6.7 of the HCP describe processes for addressing the potential effects of climate change (e.g., prolonged drought conditions), new species listings, and other issues that could require modifications to the Conservation Program. The HCP requires Stanford to notify the Services and submit damage assessment reports if natural phenomena such as, fire, floods and drought, affect the Covered Species, and to coordinate with the Services to identify appropriate remedial or restoration efforts to address changed circumstances (HCP Section 6.3.2). The Services believe the HCP's extensive monitoring and reporting program provides an adequate mechanism for periodic review of HCP implementation.

3.2.32 Searsville Dam and Reservoir-Baseline Information and Cumulative Effects

Comments

Comment 2.4: Ongoing operation and maintenance of the Searsville Diversion Dam Facility (including water diversion and inadequate downstream releases over the dam's spillway) is causing take of steelhead below the dam, and significantly altering downstream habitat for Covered Species, as supported by extensive data cited later in this letter. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.7: NEPA requires inclusion of Searsville Dam in the DEIS Cumulative Effects analysis. With respect to the omission of detailed analysis of Searsville Dam, the HCP and DEIS fail to "analyze the potential environmental effects related to the issuance of a Section 10 incidental take permit consistent with NEPANEPA requirements. The NEPA analysis will address the direct, indirect, and cumulative effects" (HCP p. 6). Cumulative effects are defined as the "impact on the environment that results from the incremental impacts of the action when added to the past, present, and reasonably foreseeable future actions" (DEIS 5-58). In addition, to our assertion that Searsville Dam must be fully assessed in the HCP and DEIS due to it's integral role as part of the Searsville Diversion Dam water diversion being addressed in these documents, the above statement requires that the DEIS analyzes the dam as part of the cumulative effect analysis as a "past, present, and future action". (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.12: The described water diversion agreement does not provide enough detail or supporting data to allow for even a basic analysis of impacts to downstream habitat, surface flows, water quality, Covered Species, migration, dewatering, and many other critical factors. Providing the Historic Diversion Rates Table (over decades and not year to year) is not satisfactory to assess important information about the historic diversion rates and duration in relation to specific historic flows at the dam. Detailed diversion rates for each year in operation, monthly averages, and daily records for the last several years should be provided and analyzed

by experienced NMFS hydrologists and in relation to downstream flows over the Searsville Diversion Dam spillway. The HCP and DEIS should present extensive and historic diversion data sets, describe and detailed studies conducted to assess Covered Species impacts of the proposed diversion agreement, and the DEIS must complete a thorough analysis of expected impacts to downstream Covered Species and Critical Habitat. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.13: The ongoing operation, maintenance, and presence of the Searsville Diversion Dam, connected water diversion, and reservoir, is currently, and would continue to alter downstream flows, water quality, sediment transport, woody debris transport, habitat quality (including habitat for rearing, spawning, feeding, shelter), directly injure steelhead jumping against the concrete dam, allow for the breeding and dispersal of predatory non-native species, and impair essential behavioral patterns, breeding and migration. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.16: This direct take of steelhead at the Searsville Diversion Dam must be included in the detailed analysis of the entire Searsville Diversion Dam Facility in the DEIS. The DEIS must analyze, with supporting data, how the Searsville Diversion Dam Facility, Reservoir, and continued operation play a primary role in limiting steelhead migration and survival in the watershed. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.19: The Searsville diversion dam facility alters stream flow……Stanford consultants Balance Hydrologics (1996) showed (Table B-1) through field studies conducted in 1995 and 1996 that the Searsville Diversion Dam Facility and its associated Reservoir, trapped sediment accumulation, and constructed causeway are impacting surface flows on Corte Madera Creek. The data shows that the sediment accumulation and constructed causeway dam on Corte Madera Creek, which extends from the reservoir upstream, has altered surface flows and appears to be causing surface flows on Corte Madera Creek to go subsurface. Sediment aggradation at the creek inlets to reservoirs is known to cause surface flows to go subsurface underneath the reservoir trapped deposits. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.20: This data clearly shows that perennial flows in Corte Madera Creek disappear in the drier months as the creek encounters sediment deposition caused by the Searsville Diversion Dam and Reservoir. Stanford's HCP does not provide adequate flow data to assess changes caused by the Searsville Diversion Dam and Reservoir to surface flows and impacts to Covered Species. The DEIS does no analysis of impacts from the Searsville Diversion Dam Facility on creek inflows or even the proposed water diversion and downstream flow measures over the Searsville Diversion dam's regulating spillway (which was inappropriately requested to be omitted from analysis). (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.21: The DEIS must assess how the operations and proposed water withdrawals at the Searsville Diversion Dam alter downstream hydrology and impact steelhead migration at downstream anthropogenic barriers and natural "critical riffles". This assessment must consider that downstream flows are reduced in volume and duration due to proposed water diversions lack of adequately determined bypass flows, evaporation from the reservoir, absence of flows after the reservoir drops below the spillway, and lack of releases during reservoir filling with initial rainy season flows. All of these factors reduce adequate flow conditions and duration of flows for immigrating and outmigrating steelhead to be able to migrate past downstream partial

barriers and undefined (in both the HCP and DEIS) critical riffles on San Francisquito Creek. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.22: The DEIS (5-10) and HCP acknowledge that there are "periods where there is no overflow at Searsville Dam." As shown below, stream flows upstream of Searsville Dam and Reservoir persist in Corte Madera Creek during periods where Searsville Dam prevents downstream overflow at the spillway. The DEIS must assess the interruption of surface flows above and below the Searsville Diversion Dam and Reservoir and impacts to Covered Species. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.25: The HCP incorrectly claims "no affect" from Searsville Diversion on Covered Species. The HCP (p.56) states: "Manipulation of water levels caused by the diversions (at Searsville Diversion Dam) will not affect western pond turtles, red-legged frogs, or garter snakes found downstream of the dam because the diversion amount is small relative to the natural creek flow." The HCP fails to substantiate with quantitative data how this definitive statement of no affect can be made. It is clear that the dam and reservoir alter downstream water quality, quantity, surface flow duration, and other alterations of the downstream hydrology and habitat. There is no analysis of the proposed water diversion and downstream overflows in the HCP or DEIS to adequately determine impacts on downstream habitat, combined with projected climate, on Covered Species. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.26: The most significant negative impacts from proposed water diversions and inadequate downstream releases would be during the lower flow periods at the margin of adult and smolt migration, and as the proposed diversion lowers the reservoir elevation below the dam's spillway, extending the duration and amount of low flow water and exacerbating dewater conditions. The DEIS fails to assess these negative impacts of the proposed water diversion and downstream flows directly influenced by the presence and operation of Searsville Dam and its spillway configuration.

The HCP does acknowledge negative “effects” of Searsville Diversion. The HCP (p. 56) does acknowledge “potential downstream effects” of the Searsville Dam diversion, but dismisses them as “insubstantial” with no adequate analysis and tries to draw from a totally inadequate comparison of mean and monthly winter flows at a gaging station many miles downstream and after the other two significant tributaries in the watershed have already joined the mainstem of San Francisquito Creek. This information tells us nothing about the Searsville Diversion Dam’s impacts on critical and limiting late-spring, summer and fall flows and nothing about impacts to lower Corte Madera Creek immediately downstream of the diversion dam, San Francisquito Creek from before the Corte Madera Creek confluence downstream, water quality, surface flow duration during summer months, low suspended sediment releases from the reservoir, migration at critical riffles, and assessment of impacts to outmigration of smolts (including those from the Bear and Los Trancos Creek tributaries that are impacted by flows and the negative “effects” below Searsville Dam and lower Corte Madera Creek. As described in the DEIS (5-60), the Santa Clara Valley Water District is developing a Three Creeks Habitat Conservation Plan that rightly acknowledges the negative impacts of their dams and reservoirs on steelhead and is proposing to “improve stream flow and stream temperatures below District reservoirs on steelhead and salmon streams.” The HCP must provide and the DEIS must require detailed data and analysis to support these unfounded “insubstantial” claims for downstream effects and cite NMFS’ own extensive literature on significant downstream effects of diversion dams on

steelhead, including NMFS' own assessment of diversion dams for the above discussed SHEP states that "these activities and current diversion affect steelhead" and where they required fish passage and downstream bypass flows. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.27: The HCP (p.56) continues to state: "During the period when there is no overflow, the amount of water flowing through the dam is fairly constant and not affected by the amount of water being diverted." This statement of "no affect" is not substantiated with any data or analysis to support it and fails to acknowledge important considerations. Of particular importance with regards to downstream surface flow is how the Searsville Dam diversion impacts the timing and duration of low-flow conditions downstream that limit steelhead migration, the timing and duration of no water spilling over the dam downstream, the degree of reservoir surface elevation drop and subsequent early season rainfall and inflow needed to refill the reservoir (and associated lack of downstream flow during that refilling time), and the nature of the "leaks" in the dam and data to show their "fairly consistent" flow. In addition, the "leaks" described in the dam are not an adequate, manageable, or acceptable means of by-pass flows below a dam. The HCP and DEIS must quantify the flow of water "through" the dam and analyze this impact on Covered Species and Critical Habitat downstream. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.28: [T]he HCP does not describe how water flows through the dam, however, as reported in this letter, cracks reportedly caused by earthquakes are known to leak water downstream. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.34: The DEIS fails to address teh issue of eutrophication in Searsville Reservoir, impcats to Covered Species, Critical Habitat downstream, water pollution, health risks, and impacts to biodiversity and shifts from native to non-native aquatic species. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.35: The DEIS fails to assess the past, present, and future impacts of the Searsville Diversion Dam caused turbidity released downstream by the presence of Searsville Diversion Dam and HCP-covered spillway operation on Covered Species and habitat quality. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.38: Searsville Dam traps all boulders and cobbles, as well as large woody debris, and has dramatically reduced input of these key habitat features downstream in Corte Madera Creek and the entire length of San Francisquito Creek for over a century and continues to do so today. In addition, riparian vegetation, root wads, and occurrence of backwater habitats are all impacted by the presence of the dam and reservoir and altered sediment transport and hydrology. The DEIS must analyze these impacts using the abundant, even NOAA authored, scientific literature related to such impacts. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.39: The 2006 Jones and Stokes report cited in the DEIS (4-30) listed the following key finding related to factors limiting steelhead: "The loss of complex pool habitat used by over-wintering and over-summering juvenile steelhead is primarily the result of low recruitment of boulder and woody debris, the building blocks of complex habitat, from the upper watershed." This statement is exactly correct and the boulders and woody debris from the largest tributary of the "upper watershed" have been trapped in Searsville reservoir for almost 120 years, unable to contribute to the identified reaches in Critical Habitat for steelhead. These impacts effect other

Covered Species and riparian and aquatic habitat quality for lower Corte Madera and the entire length San Francisquito Creek. These impacts are also felt at the mouth of the creek and wetland habitats of the SF Bay. The DEIS fails to state that one of, if not the, primary reasons for this low recruitment is due to the fact that Searsville Dam and Reservoir have trapped all boulders (and cobbles and gravels), and most large woody debris, coming from the watershed's largest tributary (Corte Madera Creek), or assess these long-term impacts. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.40: The notion that the undescribed addition of woody debris to San Francisquito Creek will somehow reduce the widespread and dramatic effects of climate change predictions to the creek, in a meaningful way, is absurd and not supported with any data. The DEIS must be realistic in these statements and also describe that the missing large woody debris, boulders, and cobbles occur upstream of, and are trapped by, the Searsville Diversion Dam. In addition, the DEIS must acknowledge the fact that abundant and high quality overwintering and oversummering habitat, with native rainbow trout, occurs upstream of the impassable Searsville Dam and it is not the lack of overwintering habitat in the watershed that is the most limiting factor to steelhead, but rather the impassable Searsville Diversion Dam that prevents them from accessing the habitat upstream and being confined to the downstream habitat degraded by the dam. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.41: The HCP and DEIS fail to assess the cumulative effects of the large woody debris reductions to Covered Species habitat caused by the Searsville Diversion Dam and Reservoir. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.42: Stanford's consultant Balance Hydrologics noted that bedload sediments from Corte Madera Creek make up 10-20% of the total mass of sediment discharge into the reservoir and that gravels are a portion of the sediment (Freyberg and Cohen 2001, p. 17). These critical spawning gravels are being prevented from transporting downstream where their noted lack of abundance is a key limiting factor for steelhead spawning. The DEIS fails to assess the past, present, and future cumulative effect of this impact on both steelhead and other Covered Species. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.43: Searsville diversion dam operations may be increasing downstream erosion. In discussing the altered sediment transport downstream of Searsville Dam, Freyberg and Cohen state: “The dramatically reduced sediment flux may have contributed to the geomorphic changes in the San Francisquito Creek channel that have been observed in a number of reaches. (Freyberg and Cohen 2001 p.iii)” Freyberg and Cohen goes on to state that significant “bank sloughing” and erosion have occurred and that “such changes are not unexpected after dam construction” (Freyberg and Cohen 2001, p. 25). The dam and reservoir have reduced the transport of coarser sediments and spawning gravels downstream and appears to be causing downstream bank erosion as is common with sediment-starved “hungry water” downstream of reservoirs. The impacts of the dam, reservoir, and diversion facility on downstream habitat alterations and potentially increased erosion and bank have not been addressed in the HCP and DEIS. The DEIS must assess this altered sediment flux and impacts to covered species, downstream erosion, and claims in the HCP and DEIS that the HCP could reduce erosion in the creek. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.46: The DEIS identifies the "loss of diversity and abundance of invertebrate prey species" as one of the "factors affecting steelhead survival" (DEIS 4-30). Scientific literature shows that dams can reduce invertebrate species richness in streams. Griffith et al. (2010) state: "Naturally functioning aquatic systems provide many ecological and human benefits. Restoration of these environments has a high potential to improve these ecological and human benefits. Dam removal sets in motion physical and chemical changes above and below the dam site. Many of these changes result in ecological changes. Bottom samples showed significantly lower invertebrate species richness in the pond (reservoir) above the dam than below the dam in Holts Creek. Invertebrate species richness was similar in Holts Creek above and below the mouth of the dam." Following dam removal, "invertebrate richness data suggest we may see an increase in richness above the dam after connectivity is restored." The DEIS must analyze, with supporting data, how the Searsville Diversion Dam Facility, Reservoir, operation, proposed dredging, and water withdrawals and lack of bypass flows impacts prey items for Covered Species. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.47: Searsville Dam negatively impacts the transport of beneficial sediment downstream……While the larger, and beneficial, boulders, cobbles, and gravels are trapped by the reservoir and dam, the fine, and less beneficial, sediments are still allowed to transport downstream. The HCP and DEIS fail to assess the impacts of the Searsville Diversion Dam and Reservoir to downstream sediment transport. The DEIS must assess how deposits of “fine sediments”, including decayed plant material and algae from the reservoir, on cobbles and gravels in San Francisquito Creek is influenced by the altered hydrology, water quality, and duration of summer flows as relates to the altered conditions caused by the Searsville Diversion Dam and Reservoir. The HCP proposes the continuation of Searsville Diversion Dam operations trapping beneficial substrates and woody debris and allowing less beneficial and potentially harmful fine substrates to negatively impact already reduced cobbles and gravels for spawning and rearing. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.49: The HCP and DEIS completely fail to discuss the loss of unique habitat that has been buried and submerged by the dam, reservoir, and upstream deposited sediment. As part of the cumulative effects analysis it is critical for the DEIS to identify and quantify the historic and ecologically unique wetlands and riparian habitat that was buried by Searsville Dam and Reservoir. An estimated 2.5 miles of five different streams and riparian forests, as well as multiple wetland ponds were destroyed, submerged, buried, or impacted by the dam and reservoir. The DEIS fails to discuss these impacts on Covered Species and should identify pre-dam and pre-reservoir habitat conditions and assess how removal of Searsville Dam could restore miles of currently buried streams, extensive riparian forests and adjacent wetland habitats, unlike the artificial, warmwater, degraded water quality of the unsustainable Searsville Reservoir. Dam removal could increase the amount of highly productive wetland habitat that these historic riparian zones provide. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.50: The HCP fails to meet the requirements of Section 10(a)(2)(B). The DEIS (2-3) states “Section 10(a)(2)(B), provides that the Services (NMFS, USFWS) shall issue an ITP if the Services find, after opportunity for public comment, that: (Bullet Point 4) the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild;” The overwhelming evidence provided within this letter and referenced documents show that the proposed HCP will likely appreciably reduce the likelihood of the survival and recovery of the species in the wild. The HCP proposes to not open up any additional historic habitat for

steelhead, would result in continued and likely exacerbated negative impacts to water quality and quantity downstream of Searsville Dam, would not effectively eliminate or eradicate non-native species or their source in Searsville Reservoir, would continue to deprive and negatively alter Covered Species habitat in Corte Madera and San Francisquito Creek below Searsville Dam, and lead to the compounding of increased water temperatures, reduced flows, and prolonged drying downstream of Searsville Dam caused by impacts from the dam and the projections for climate change. Furthermore, forecasted increases in fires and possible major sediment transport event combined with possible dam failure, over the 50-year life of this HCP, present a serious possibility for extirpation of Covered Species occurring below Searsville Dam. The HCP fails to show adequate protection of Covered Species in light of these escalating negative impacts and safeguards for these devastating possibilities. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.57: The Searsville Diversion Dam Facility exacerbates projected climate change conditions. As noted in the DEIS (5-74 to 5-75), climate change is expected to increase temperatures, prolong droughts, reduced total rainfall, reduced stream flow, and increase the risk of fire. The DEIS also states that lower spring and summer creek flows would reduce the number of smolts able to leave a watershed, particularly in arid systems that dry back in most water years. These affects appear to be happening now and are expected to be well underway over the course of this 50-year proposed HCP. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.58: The DEIS fails to discuss and assess the potential safety risks associated with seismically induced failure of the over-century-old Searsville Dam as well as the potential for the Searsville Diversion Dam Facility to elevate the regional earthquake risk of reservoir-induced-seismicity. This public safety issue must be addressed in detail in the DEIS. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.59: The Searsville Diversion Dam Facility impacts flooding. The HCP and DEIS fail to provide the above and additional detailed information or assessment about the extent of this sediment accumulation above the dam crest, rate and upstream expansion of accumulation, expected future upstream impacts on flooding and habitat, impacts of the constructed causeway, quantify pre-dam conditions, identify current and future flooding hazards caused by the dam, describe recent measures taken to reduce flooding upstream, quantify how this safety issue will evolve over the course of the next 50 years of this permit, measures already taken to reduce the flooding and safety issues caused by the dam and reservoir, already implemented project effectiveness, and detailed plans to mitigate this risk to upstream residents. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.60: A well-designed dam removal and sediment management plan could have significant benefits to downstream flood protection, would eliminate upstream flooding issues related to the dam, and eliminate dam failure and other safety hazards associated with the dam. The DEIS must consider and assess the flooding implications of continued operation of the Searsville Diversion Dam Facility, potential scenarios over the next 50 years, and impacts to public safety and Covered Species protection. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.64: The ABAG (2010) Dam Failure Inundation Map shows that dam failure at Searsville Dam would devastate the lower reaches of the San Francisquito Creek watershed and notably the lowest reaches; including Menlo Park, Palo Alto, and East Palo Alto. The DEIS

should assess the safety and risk factors in relation to Searsville Dam with a minimum 50 year projection as it relates to environmental justice issues in all downstream areas and communities. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.76: 4-31, second paragraph. The DEIS states; "Stanford water diversion facilities act as partial barriers to steelhead migration and movement within Stanford-adjacent stream reaches." This statement is incorrect. The DEIS should state that Searsville Dam is a water diversion facility that is a complete barrier to steelhead migration. Figure 4-9 on page 4-71 shows "Searsville Diversion" clearly noted as one of the "diversion" facilities of the "Lake" Water System. Only the Los Trancos Diversion Dam, Lagunita Diversion Dam, and San Francisquito Pump Station faculties are partial barriers. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.78: [T]he DEIS fails to show how operations do not adversely increase the risk of damage caused by flooding.…In addition, it is well document that operations at the Searsville Diversion Dam and Reservoir have had, and continue to cause, flooding issues upstream and off of Stanford lands, putting upstream landowners at risk of flooding and impairing vehicle access. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.80: The DEIS also fails to adequately address how climate change over the next 50 years of the proposed plan is expected to impact water quality and quantity issues below Searsville Dam as described previously. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.82: 5-78 Table 5-6 Comparison of Alternatives, First row "Geologic Hazards and Soils" See above comments related to geologic hazards at the Searsville Diversion Dam Facility. All three descriptions for these alternatives should be rewritten and reanalyzed with regards to described potential geologic hazards associated with the continued operation and maintenance of Searsville Dam and Reservoir, including landslides, liquefaction, reservoir-induced seismicity, dam failure inundation data, and current and future structural integrity of the dam. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.87: Page 57, Creek Monitoring Facilities. While the HCP and DEIS do not adequately assess the impacts of Searsville Dam and Reservoir on Covered Species and downstream habitat, there are existing creek monitoring facilities in various locations within the watershed (with access to records), resource agencies, and others to analyze data relating to flows and even water quality, that would be helpful for Stanford. For example, Stanford and Palo Alto operate creek monitoring devices upstream of Searsville Dam on Corte Madera Creek, on Bear Creek, on Los Trancos Creek, and multiple locations on San Francisquito Creek. The longstanding USGS gauging station also has decades of flow data. A detailed analysis of these monitoring devices' data should be conducted to gain understanding of possible impacts from the Searsville Diversion Dam's operations as well as provide adequate analysis for the HCP and DEIS. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.96: Page 136. The HCP states that "water diversion structures and their operations could result in the take of steelhead. While this take has not been observed, and the population has continued to thrive in the existing environment, it is possible that diversion and operations could strand steelhead, increase rate of predation, or inhibit dispersal. It is estimated that the diversion operations with the SHEP operating protocols could result in the annual incidental

mortality of 20 juvenile steelhead. Incidental mortality associated with maintenance of these diversion facilities is included in the estimates associated with dewatering described above." Many of the statements made in the above paragraph are false. The statement acknowledges expected take at "water diversion structures and their operations", however, the HCP and DEIS fail to include Stanford's identified water diversion structure at Searsville Dam (whose diversion activities are proposed for inclusion in the HCP). Take at Searsville Dam has been observed from adult "salmon" blocked below the dam in the earliest years of it's operation (see other observation information described in this letter) to adult steelhead observed by this author jumping against the dam in the mid 1990's. In addition, the HCP states and staff at Jasper Ridge have also noted, that steelhead are regularly observed in the scour pool below the dam, which becomes isolated and strands steelhead, inhibits dispersal, and contains non-native predatory fish species. Steelhead populations are not known to "thrive in the existing environment" on Corte Madera Creek downstream of the dam, where water quality is highly impacted by Searsville Reservoir, water releases are modified or prevented at Searsville Dam, dispersal is inhibited or prevented, and non-native predatory fish spilling over from Searsville Reservoir are most abundant. Incidental mortality estimates associated with the Searsville Diversion Dam are not considered or included in the HCP or DEIS. This major omission in assessing Stanford's water diversion facilities renders mortality estimates low and incomplete. Mortality of steelhead and other Covered Species associated with the Searsville Diversion Dams operations and maintenance must be evaluated and included in any assessment of water diversion facility impacts. Other direct and indirect negative impacts associated with the Searsville Diversion Dam Facility described in this letter are not included in this HCP or DEIS and must be an integral part of such environmental documents and proposed HCP for Covered Species utilizing creeks below the diversion facility. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 3.2: [T]he impacts of operating the diversion dam must be analyzed in the HCP EIS. Such impacts include (but are not limited to) blocking steelhead and other Covered Species access to habitat, altering downstream hydrology and water quality in San Francisquito Creek, introduction, perpetuation, and dispersal of exotic species, degrading downstream habitat, dewatering, and other direct and indirect take of Covered Species. The draft EIS does not discuss these impacts, provide minimization measures, or otherwise address operation and maintenance of Searsville Dam. This is a fatal flaw that cannot be corrected through a typical process of finalizing the draft by responding to comments. The EIS should be withdrawn, rewritten to address the impacts of operating and maintaining Searsville Dam, and rereleased with an adequate comment period. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Comment 3.23: p. 5-11, paragraph 2.There is no discussion of the impacts of diversion or hydrologic alterations produced by the operation of Searsville Dam in the draft EIS. These topics must be discussed in light of effects on steelhead habitat and habitat of other covered species. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Comment 3.24: In HCP Chapter 3, the Searsville complex is considered "an integral part of the landscape" (p. 59). We reject this characterization as nonsensical and request that it be removed. Salmon and steelhead recovery plans do not consider dams to be an integral part of the landscape, and fish passage and determined bypass flows must be considered when reviewing the effects of dams on steelhead and salmon populations. (*Gordon Becker, M.S, Certified Fisheries*

Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam)

Comment 3.27: **[**B]ypass flows at Searsville are not accounted for in the HCP or in the draft EIS or any of its referenced documents. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Comment 3.29: p. 5-11, last paragraph. The statement that ongoing operations do not adversely affect surface water quality is unsupported and obviously incorrect. Specifically, ongoing operations include impounding streamflow at Searsville Dam. Downstream water releases have altered water quality including temperature, nutrient content, and dissolved oxygen levels. The dam also creates "hungry" water with low sediment loads, leading to decreased habitat quality downstream. Importantly, the denial of any adverse effect on water quality reflects a tone in the draft EIS of lazy and unprofessional dismissiveness that is expected to be purged from the rereleased draft. The draft EIS must evaluate the effect of operating Searsville Dam and other operations on water quality, including temperature, sediment transport, duration of surface flows, dissolved oxygen, and reservoir-induced .changes in nutrient content. (*Gordon Becker, M.S, Certified Fisheries Professional, Center for Ecosystem Management and Restoration, on behalf of Beyond Searsville Dam*)

Comment 14.8: The Draft EIS fails to meet the requirements of NEPA… The Draft EIS fails to adequately define the project and analyze its impacts. The draft EIS should include an analysis of impacts from the Searsville Dam. (*Ellison Folk, Shute, Mihaly & Weinberger LLP, on behalf of Beyond Searsville Dam*)

Comment 14.9: [T]he Dam is clearly a past, present and future activity that affects Covered Species and its impacts must be evaluated in the draft EIS - even if it is not included in the ITP and HCP. Due to the dam's age and 50 year proposed HCP, future cumulative impacts must include assessment of retrofitting, removal, and projected safety and earthquake risks. (*Ellison Folk, Shute, Mihaly & Weinberger LLP, on behalf of Beyond Searsville Dam*)

Response

A large number of comments were received regarding the past, present, and potential future impacts of Searsville Dam, Diversion, and Reservoir. Comments include requests to include in the EIS analysis and information regarding the following topics related to Searsville:

(1) Effects of the reservoir on downstream flows in Corte Madera and San Francisquito creeks.
(2) Effects of the reservoir on downstream water quality, including temperature and turbidity.
(3) Effects of the reservoir on sediment transport.
(4) Effects of the reservoir on downstream bank erosion.
(5) Effects of the reservoir on woody debris transport including cumulative reductions in large woody debris downstream.
(6) Effects of the reservoir on downstream steelhead habitat including breeding and migration.

(7) Effects of the dam on steelhead migration in the watershed and the movement of other Covered Species.
(8) Effects of the dam and reservoir on the likelihood of survival and recovery of listed species in the wild.
(9) Assessment of retrofitting or removal of the dam.
(10) Loss of habitat currently buried and submerged by the dam and reservoir.
(11) Loss of habitat due to sediment accumulation in the upstream portion of reservoir basin.
(12) Potential safety risks associated with seismically induced failure of Searsville Dam.
(13) Potential regional earthquake risk from reservoir-induced seismicity.
(14) Landslides, liquefaction, dam failure inundation data, and current and future structural integrity of the dam.
(15) Environmental justice issues in downstream areas and communities due to safety risks at the dam
(16) Effects of the reservoir on flooding associated with sediment accumulation above the dam crest.
(17) Effects of the constructed causeway at the reservoir.
(18) Measures implemented to reduce the flooding and increase safety to residents upstream of the dam and reservoir.
(19) Description of how water flows through the dam.
(20) Effects of the Searsville Diversion on downstream flows in Corte Madera and San Francisquito creeks.
(21) Effects of the Searsville Diversion on steelhead and their habitat downstream in Corte Madera and San Francisquito creeks.
(22) Effects of the Searsville Diversion on steelhead migration including passage at downstream anthropogenic barriers and natural "critical" riffles.
(23) Effects of the Searsville Diversion Don western pond turtles, red-legged frogs, or garter snakes found downstream of the dam.
(24) Effects of the Searsville Diversion on downstream water quality in Corte Madera and San Francisquito creeks.
(25) Historic water diversion rates and duration in relation to specific historic flows at the dam.
(26) Effects of eutrophication in the reservoir and downstream areas in Corte Madera and San Francisquito creeks.
(27) Effects of the reservoir on competitive interactions between native and non-native aquatic species.
(28) Effects of water evaporation from the reservoir on downstream flow.
(29) Effects of the dam on prey items for Covered Species.
(30) Effects of climate change on water quality and quantity issues below the dam.

The Services have revised the EIS to include additional information about Searsville Dam, Diversion, and Reservoir in the Affected Environment section (Section 4 of the FEIS) and information regarding past, present and potential future actions at Searsville Dam are presented in the Cumulative Effects section (Section 5.5 of the FEIS). The EIS recognizes that there are significant issues associated with Searsville Dam including fish passage, downstream flow conditions, water quality and flood reduction. However, Searsville Dam, Searsville Reservoir, Searsville Diversion and other Searsville-related activities are not included in Stanford's Final HCP and will not be covered in the

Services' proposed ITPs. Information is provided in the Affected Environment section of the FEIS (Section 4) for the purpose of succinctly describing the environment of the area to be affected by the Proposed Action and alternatives under consideration. Information and analysis regarding the effects of Searsville Dam, Diversion, and Reservoir are included to the level of detail necessary to understand the effects of the Proposed Action and its alternatives. Information regarding the cumulative effects of the past, present, and reasonably foreseeable future effects of Searsville Dam, Diversion, and Reservoir are analyzed in the Cumulative Effects section of the FEIS (Section 5.5) to determine whether the reasonably foreseeable effects of Proposed Action and its alternatives may have a continuing, additive and significant relationship to those effects. Therefore, information regarding the above topics is included in the FEIS, but not all topics were analyzed in detail because they are not relevant to the potential effects of the Proposed Action and alternatives considered in the EIS.

3.2.33 Searsville Dam – Relationship with Lake Water System

Comments

Comment 2.1: We believe it is illegal to include operations and maintenance of the dam and reservoir, new dredging, water diversion rates and inadequate downstream releases over Searsville Diversion Dam, without including the presence of the dam and fully assessing the impacts of the dam. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.6: The HCP (p. 49) identifies that the "Searsville Dam diversion" and Searsville Reservoir are an integral part of Stanford's "... 'Lake' water system". The HCP seeks coverage of this "Lake"" water system and the Searsville Diversion Dam must be included as an essential part of that system and adequately assessed in the HCP.

Stanford archives show that the Stanford Board of Trustees discussed "cleaning out said reservoir (Searsville) by the blow-out pipe or pipes now or hereafter in said dam..." (Regnery 1991 p.122). Regnery (1991) also quotes Waterways (1982) to state: "Two heavy cast iron pipes emerge from the base of Searsville dam", that one of the pipes "now served solely as Searsville Lake "blowoff"- a way of draining the lake into San Francisquito Creek", and that the second pipe contains a venturi meter that "measures water flow out of the lake (Searville Reservoir)" (p.130). In 1924, Regnery (1991) reports that "a three-level outlet at the dam was installed in order to draw off surface water" (p.137). These statements shows the direct connection between the dam, the water diversion pipes that pass inside the dam, downstream bypass flow potential, and measurement devises essential to the water diversion operations, which are included for coverage in the proposed HCP. The presence of Searsville Dam cannot be divorced from the Searsville Diversion infrastructure. The statements also show the direct connection between the dam and operations and management of the reservoir in addressing the sediment trapped within, and blowoff capabilities. The HCP omits and the DEIS fails to include and adequately assess impacts of Searsville Dam, the essential component of the entire the entire Searsville Diversion Dam Facility. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.24: Despite Stanford requesting that the presence of the Searsville Diversion Dam not be included or analyzed in the HCP and DEIS, the HCP proposes coverage for the water diversion attached to, and reliant upon, the Searsville Diversion Dam. Proposed operational

measures for water diversion at Searsville Dam are described in the HCP as follows; "For purposes of this HCP, between October 1 and April 30 of each year, Stanford will not divert water to the standpipe if the surface elevation of Searsville Reservoir drops to more than 1 foot below the spillway." This makes no sense. Firstly, the statement proves the direct relationship and connectivity of the proposed water diversion and the "presence of Searsville Dam". Secondly, this would allow for water diversion down to and below the dam's spillway causing a lack of regulated surface flows to downstream Critical Habitat and listed species. Finally, their is no analysis of this reduction in water on downstream Covered Species or requirements for adequately determined bypass flows for listed species, habitat, and adequate migration. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 11.7: Removal of the Searsville Dam has not been adequately analyzed in the Stanford DEIS/HCP. Analysis should include restoration of steelhead to their ancestral habitat, revival of submerged wetlands, assessment of natural flood protection benefits, and downstream safety risks, for current and likely future scenarios. (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Comment 14.1: The HCP Improperly Excludes Searsville Dam and Measures Necessary to Avoid Take from the Dam. (*Ellison Folk, Shute, Mihaly & Weinberger LLP, on behalf of Beyond Searsville Dam*)

Comment 14.2: Among its most significant failings is the omission from the HCP of a major element of Stanford's water supply system – the operation and presence of Searsville Dam. Instead, the HCP proposes to cover routine maintenance and operation of the Dam, while at the same time excluding coverage for the Dam itself. HCP at 59. In addition, the HCP proposes to cover the water diversion facilities connected to, and dependent on, the dam as well as reservoir produced by the dam with proposed major dredging operations within the reservoir. Such a tactic runs afoul of the requirement that an HCP provide a "complete description" of the activity sought to be authorized. 16 U.S.C. §1539 (a)(2)(A)(i). It is, moreover, nonsensical. It is not practical to divorce the presence of the Dam from the attached diversion facilities and reservoir – for which the HCP seeks coverage. Nor does it make any sense to allow for take coverage for such activities as flushing of the Dam and dredging the reservoir, while at the same time ignoring the presence of the Dam itself. Were it not for the Dam, no water diversion facility or reservoir would exist and no flushing, dredging, or other maintenance activities would be required. (*Ellison Folk, Shute, Mihaly & Weinberger LLP, on behalf of Beyond Searsville Dam*)

Comment 14.3: The HCP cannot provide for coverage of some elements of the water supply system created by the Searsville Dam while at the same time ignoring other integral elements of that system. See *Crutchfield v. U.S. Army Corps of Engineers*, 154 F. Supp. 2d 878, 900-905 (E.D. Va. 2001) (holding that the Army Corps improperly segmented a necessary water source from analysis of a wastewater treatment plant). (*Ellison Folk, Shute, Mihaly & Weinberger LLP, on behalf of Beyond Searsville Dam*)

Response

Stanford's April 2008 application to the Services for an ITP included operations and maintenance of Searsville Dam and the Searsville Diversion, but the dam itself was not proposed as a HCP covered facility. Following the DEIS public comment period,

Stanford withdrew Searsville-related actions as Covered Activities in the HCP, and informed the Services that Stanford has initiated a process to study the long-term future of Searsville Dam and Reservoir (see January 4, 2011 letter in Appendix D, Volume I of the FEIS). Therefore, Stanford's Covered Activities no longer include and the Services' proposed ITPs do not provide coverage for Searsville-related activities. As a result of this revision to the HCP in January 2011, the FEIS does not analyze the removal of Searsville Dam, operation of the Searsville Diversion, or other Searsville-related activities as part of the Proposed Action.

Regarding the nature and extent of the relationship between Covered Activities in the HCP and Searsville-related activities, the Services offer the following information. Stanford's Lake Water System includes three water storage reservoirs (Searsville, Felt, and Lagunita) and three water diversion facilities (Searsville Diversion, Los Trancos Creek Diversion Facility, and San Francisquito Creek Pump Station). Only two water diversion facilities and two storage reservoirs are included in Stanford's January 2011 revised ITP application to the Services. The current proposal is for Felt Reservoir, Lagunita, the Los Trancos Creek Diversion Facility, and the San Francisquito Creek Pump Station to be included as Covered Activities in the HCP and ITP. Searsville Dam, Searsville Diversion, and Searsville Reservoir are connected with the other local water facilities in that there are pipelines, a flume, and pumps that allow Stanford to move water between all these facilities. However, Searsville Dam, Diversion, and Reservoir operate independent of the other water system facilities, and the other facilities can and do operate independent of Searsville.

The existing Searsville Reservoir has the capacity to store approximately 200 acre-.feet of water and existing pipelines can convey this supply from Searsville Reservoir directly to the campus landscape irrigation system. Stanford has the ability to move water from Searsville Reservoir to Felt Reservoir; however, this capability was very limited prior to the installation of booster pumps in 2004. Under most conditions, Felt Reservoir's water surface is at a higher elevation than Searsville Reservoir's water surface. The booster pumping station, which was installed in 2004, added pressure to the pipelines that enables water to be moved from Searsville Reservoir to Felt Reservoir under all conditions. Stanford's water system does not require Searsville water to pass through Felt Reservoir and Searsville Reservoir can operate independently as a gravity-feed diversion utilizing water intakes at various elevations in the reservoir to convey water to the campus irrigation system. Neither the booster pumping station nor the 16-inch diameter pipeline extending downstream of Searsville Reservoir to the booster pumping station is part of the Covered Activities.

Likewise, Stanford's Felt Reservoir, Los Trancos Creek Diversion Facility and San Francisquito Pump Station can and do operate independent of Searsville Reservoir to provide water to the campus irrigation system. Felt Reservoir primarily receives its water supply from the Los Trancos Creek Diversion Facility and the San Francisquito Creek Pump Station. Water is diverted during the winter and spring months at the Los Trancos Creek Diversion Facility and the San Francisquito Creek Pump Station for conveyance by flume and pipeline to Felt Reservoir. When needed, water for irrigation can be obtained directly from the Los Trancos Creek Diversion Facility, the San Francisquito Creek Pump Station, or Felt Reservoir.

For the foregoing reasons, the Services concluded that Searsville Dam, Diversion, Reservoir and Operations are segregable from the other components of Stanford's Lake Water System.

3.2.34 Searsville Dam and Reservoir-General Comments

Comments

Comment 2.3: [I]t is our understanding that Searsville Diversion Dam is currently in violation of at least two CDFG Codes requiring fish passage and adequate bypass flows for downstream resources, neither of which are occurring, as well as other violations. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.29: Observations of the dam and these leaks over the past two decades have shown that they often do not release an unobservable amount of flow and mainly keep some concrete blocks wet and sometimes the downstream scour pool with a shrinking amount of water until next winters flow. As observed many times and again during a tour of Searsville Dam on August 11, 2010, the downstream scour pool had shrunk considerably and there was no surface flow leaving the pool downstream in Corte Madera Creek. The exposed scour pool is becoming eutrophic and non-native fish were observed in the degraded water. On this same day, upstream of the dam and reservoir, Corte Madera Creek was flowing cool and clear with approximately 2 cfs and abundant native rainbow trout observed (pers. obs. Stoecker, Workman, Wegner). Page 57 of the HCP states that "steelhead are present in the pool immediately downstream of the (Searsville) dam ... ") The lack of by-pass flows and degraded water quality downstream of the dam violates CDFG Code section 5937 requiring dam operators to keep downstream fish in good condition as well as causing direct take of steelhead and other Covered Species and their identified habitat. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.69: 2-6 Second Paragraph, Searsville Dam. The DEIS states that "Searsville Dam and Reservoir are located on San Francisquito Creek." Searsville Dam and Reservoir are not located on San Francisquito Creek, but rather the Dam occurs on Corte Madera Creek and the Reservoir occurs on, and has buried portions of, Corte Madera, Sausal, Dennis Martin, Alambique, and other smaller streams. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.70: The DEIS states that, "The dam was built in 1982 and has trapped a significant amount of silt, reducing its flood control capacity." The word "silt" does not accurately describe the diverse types of sediment (boulders, cobbles, gravels, sand, silt) and woody debris trapped behind the dam. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.71: The above quote also incorrectly states that the trapped silt is "reducing its flood control capacity". (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.79: Contrary to the above statements made in the DEIS, the ongoing presence and operation of the Searsville Diversion Dam Facility does appear to violate several applicable laws including CDFG Codes cited and others included in the letter submitted by Shute, Mihaly, and Weinberg. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Response

The issues raised concern states law and regulations administered by the CDFG. The CDFG is aware that Stanford submitted a permit application along with the HCP to the Services and that the Services published the Notice of Availability for the DEIS. The CDFG did not provide comments on the DEIS.

Comment

Comment 2.67: This analysis should also include a detailed analysis of historic coho salmon use in the watershed, potential high quality coho salmon habitat in the wetland areas submerged by the dam and reservoir, and future restoration potential with dam removal and expected improvements to habitat and flow conditions in the watershed. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Response

It is likely that some coho salmon (*Oncorhynchus kisutch*) historically occurred in the watershed (Gobalet et al. 2004), however there is little information to confirm this, and the commenter provided no information to support the type of analysis requested. Neither state nor Federal recovery plans have identified this watershed for recovery of coho salmon. In addition, coho salmon are not a Covered Species in the HCP. Coho salmon are not present in the HCP Area, are not present in the San Francisquito watershed and are therefore not affected by the HCP's Covered Activities.

Comment

Comment 2.63: The DEIS should also quantify and analyze the long-term costs and above-mentioned impacts of expected Searsville Diversion Dam Facility maintenance, repairs, dredging, channel alteration, possible seismic upgrades, environmental upgrades, and retrofitting expected to occur over the next 50 years of this proposed HCP. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Response

Searsville Dam and Searsville-related activities are not part of the Proposed Action or alternatives. The Services have revised the FEIS to include additional information about Searsville Dam, Diversion, and Reservoir in the Affected Environment section (Sections 4.1.3.5 and 4.2.2.4) and information regarding potential future actions at Searsville Dam are presented in the Environmental Consequences section (Section 5.5 of the FEIS).

Comment

Comment 2.9: Unfortunately, in describing "Potential Effects of the Water Diversions on the Covered Species" including the "Searsville Diversion", the HCP makes the following false and strangely mixed message: "Stanford's diversion facilities were modernized during the 1990s and again in 2009 to protect steelhead. Physical and operational changes were made at these times. The physical changes to the facilities included the installation of fish screens and ladders. These

physical changes and changes in the operation of Stanford's water diversions have significantly reduced the effects of the water diversions on the Covered Species" (p.55). Stanford has three "diversion facilities" in the San Francisquito Creek watershed and the largest is their cited "Searsville Diversion". The Searsville Diversion facility (which includes the dam just as the Los Trancos Diversion includes that dam) has never been modernized (despite being the oldest) to protect steelhead. There are no fish screens or ladders at Searsville Dam and there have been no operational changes, such as establishing bypass flows, to reduce the effects of this water diversion facility on steelhead or other Covered Species. The continued operation of the Searsville Diversion Dam as described in this HCP and DEIS would result in the direct take of steelhead and other species. Interestingly, the above statement acknowledges the negative "effects" of their "water diversions", but does not consider the Searsville Diversion or need to similarly "modernize" and "protect steelhead". (*Matt Stoecker, Director, Beyond Searsville Dam*)

Response

The commenter correctly points out that Stanford operates three water diversion facilities and only two of the three have been modernized with measures to protect steelhead. Section 4.1.3.5 of the FEIS contains an accurate explanation of the diversion facilities that were updated and what these updates were. The section of the Draft HCP cited above by the commenter has been revised in the Final HCP and accurately reflects the condition of existing water diversion facilities:

'Stanford's ~~diversion facilities~~ San Francisquito Creek Pump Station and Los Trancos Creek Diversion Facility were modernized during the 1990s and again in 2009 to protect steelhead. Physical and operational changes were made at these times. The physical changes to these two facilities included the installation of fish screens and ladders. These physical changes and changes in the operation of ~~Stanford's water diversions~~ the San Francisquito Creek Pump Station and the Los Trancos Creek Diversion Facility have significantly reduced the effects of the water diversions on the Covered Species."

Regarding Searsville Dam, please see response 3.3.32 above, Searsville Dam and Reservoir - Baseline Information and Cumulative Effects.

Comment

Comment 2.10: The HCP incorrectly goes on to state that the long-term effects of the SHEP and the implemented fish passage modifications and dedicated downstream by-pass flows "are beneficial to steelhead and designated Critical Habitat by largely eliminating the impacts of Stanford's water diversions on stream flows that are important to steelhead" (HCP p. 56). While the SHEP has benefited steelhead and Critical Habitat downstream of the Los Trancos and San Francisquito Diversion facilities, the SHEP did not provide these benefits to Searsville Diversion (as implied), whose operations directly impact the vast majority of Critical Habitat for steelhead on Stanford lands, from downstream of the Searsville Diversion Dam on lower Corte Madera Creek along the entire mainstem of San Francisquito Creek. Unfortunately, as shown conclusively in this letter, operations at the Searsville Diversion Dam negatively impact all listed steelhead that migrate to the Bay and back to the San Francisquito Creek watershed. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Response

The SHEP biological opinion addresses water diversion operations at the Los Trancos Creek Diversion Facility and the San Francisquito Creek Pump Station. The Searsville Diversion was not included in the SHEP and currently is not operated with downstream bypass flows for fish. Operations at the Searsville Diversion are not included as Covered Activities in the Final HCP.

Comment

Comment 2.89: The HCP and DEIS must show detailed records of all completed modifications and changes to the Searsville Dam diversion facility, including dates, costs, type of construction, and resulting impact on the diversion facility, operations, and any changes to diversion capability and alterations to dam height, overall configuration, water release and diversion controls, and flashboard operation. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Response

The EIS has not been revised to include detailed information regarding modifications or construction at the Searsville, because this facility is not a Covered Activity and there are no effects to this facility associated with the Proposed Action. As described in the footnote in Section 3.1.3 of the HCP referenced by the commenter, Stanford adjusted their operations at Searsville Dam by diverting during higher flow periods in winter and spring. However, these changes to operations at the Searsville Diversion did not require construction or modification of Searsville facilities.

Comments

Comment 2.2: The inadequately described "feasibility study" does not require any action to mitigate impacts from the dam, but rather mere consideration in the next ten years, at which point Stanford could say it was not feasible do to any number of reasons. The measure describes no watershed stakeholder collaboration (as recommended in NMFS 2008 Biological Opinion, HCP Appendix A), is massively underfunded to conduct a comprehensive and detailed study of this type, does not include mention of dam removal alternatives as requested by multiple public comment letters for the HCP scoping process (included in this letter), has an unacceptable time frame of ten years, and does not contain any commitment to adequately determine or implement bypass flows or timely and effective fish passage project implementation. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.98: As was accomplished with this successful SHEP project, a similar study, in collaboration with the California Department of Fish and Game, should be carried out for the Searsville Diversion Dam in order to calculate suitable bypass for proposal prior to any requests for coverage of this structure. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Response

Stanford has described the situation and the proposed process to address the issues surrounding Searsville Dam in a document titled “The Future of Searsville Dam and

Reservoir," which is included as Appendix E in the FEIS. NMFS supports a collaborative investigation along the lines proposed by Stanford and would be willing to assist with any technical studies related to stream flow.

Comment

Comment 14.14: Most notable, is the draft EIS's failure to include a single alternative that calls for more protection of the environmental resources that are and will be affected by the on-going operation and expansion of the Stanford campus. Instead, the draft EIS appears to treat the on-going operation of the Stanford campus as part of the environmental baseline and assumes that this activity will continue unabated into the future. Based on these assumptions, the draft EIS concludes that the Incidental Take Permit combined with the HCP will actually confer an environmental benefit and is therefore superior to the other alternatives considered. See e.g., Draft EIS at 5-36 - 5-44. The HCP proposes no expansion of available habitat for steelhead and actually would result in a decrease in habitat size. (*Ellison Folk, Shute, Mihaly & Weinberger LLP, on behalf of Beyond Searsville Dam*)

Response

The EIS considers a reasonable range of alternatives (ten in all), and carries forward three alternatives that are both feasible and meet the purpose and need of the proposed action. NEPA requires that an EIS include, in comparative form, a rigorous exploration and objective evaluation of a reasonable range of alternatives to a proposed Federal action (42 United States Code [U.S.C.] 4332(c); 40 Code of Federal Regulations [CFR]. 1502.14). An agency must follow a "rule of reason" in preparing an EIS, in terms of which alternatives the agency must discuss and the extent to which it must discuss them (*Natural Res. Def. Council v. Morton*, 458 F.2d 827, 834 [D.C. Cir. 1972]; *Alaska v. Andrus* 580 F.2d 465, 475 [D.C. Cir. 1972]). The alternatives analysis is based upon a lead agency's statement of the underlying purpose and need to which the agency is responding (40 CFR 1502.13). The term "reasonable alternatives" refers to alternatives "that are technically and economically practical or feasible and meet the purpose and need of the proposed action" (43 CFR 46.420(b)).

The Services disagree with the commenter's assertion that the DEIS does not include an alternative that provides an increased level of protection for the natural environment on Stanford lands. The proposed Conservation Program provides significant benefits for Covered Species and their associated natural habitat communities. Enhancement actions include retaining large woody debris in the creek channels and adjacent riparian zones (Section 4.2.2 of the HCP), the addition of large woody debris to San Francisquito Creek to improve overwintering conditions for steelhead (Section 4.3.1.2 of the HCP), removal of the abandoned Lagunita Diversion Dam (Section 4.2.1), new breeding ponds for red-legged frog will be constructed (Section 4.3.2.2), and additional breeding ponds for California tiger salamander may also be constructed (Section 4.3.3.2). The Conservation Program would record riparian easements to protect riparian areas from development within 70-400 feet of the creek channel and habitat management actions that will protect existing conditions for the benefit of the Covered Species, such as maintaining appropriate hydrological conditions to promote tiger salamander reproduction at Lagunita (Sections 3.1.3 and 4.3.3.1 of the HCP). Furthermore, the HCP's proposed mitigation

credit system provides Stanford with an incentive for improving conditions for Covered Species on-site and implementing enhancement projects that go beyond the requirements of Federal, state and local regulations. These measures would provide more protection to the environmental resources than currently exists and confer an environmental benefit to the Covered Species and natural habitat areas on Stanford lands.

3.2.35 Searsville Reservoir – Dredging and Pipeline Flushing

Comments

Comment 2.5: Dredging of the reservoir to year 2000 capacity is a new, ongoing, and major modification to the overall Searsville Diversion Dam Facility that will cause additional alteration of the reservoir's water quality and downstream releases and surface flow and requires thorough analysis in the DEIS. The HCP provides scant data, or even commits to a type of dredging operation, and the DEIS fails to assess in any meaningful way the impacts of dredging. (*Matt Stoecker, Director, Beyond Searsville Dam)*

Comment 2.14: The HCP and DEIS also fail to analyze, or even discuss, negative impacts to migration downstream of the dam caused by the Covered Activities of the Searsville Diversion's water diversion, lack of adequately established downstream bypass flows, or hydrologic alterations caused by the proposed dredging operations. (*Matt Stoecker, Director, Beyond Searsville Dam)*

Comment 2.32: The DEIS fails to assess these impacts and State and Federal Agencies must require adequately determined bypass flows at the Searsville Diversion Dam. As described in this letter, the proposed dredging operations would also be expected to significantly reduce downstream flows through additional summer drawdown of the reservoir, need for prolonged winter reservoir filling duration, dredging operation water requirements, any proposed (but not described in the HCP and DEIS) sluicing techniques, and general cleaning, road wetting, and other dredging operations requiring water. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 2.36: The DEIS also fails to include adequate analysis of turbidity impacts caused by the proposed dredging operation…Th[e] flushing activity [associated with the Searsville diversion] is not adequately described to understand quantitatively assess impacts to Covered Species. These water quality impacts would extend downstream further than "immediately adjacent to the pipe" and this impact must be quantified. Proposed flushing schedules, operational limitations, amount and duration of flushing water and suspended sediment, and exact location of flushing fall-out must be identified and assessed. In addition, a visual survey of the creek reach prior to flushing will not be able to identify many of the Covered Species, especially egg, larval, and juvenile phases. The HCP and DEIS fail to provide essential data and describe surveying methodologies to be used to effectively identify Covered Species or to adequately minimize and assess impacts to Covered Species. (*Matt Stoecker, Director, Beyond Searsville Dam)*

Comment 2.44: “No matter whether open water is maintained at Searsville and/or Searsville Dam is altered or removed, the sediment flux into San Francisquito Creek below the dam will increase in the future” (Freyberg and Cohen 2001). The HCP and DEIS fail to assess future projections for sediment transport below the dam as part of the cumulative effects analysis. The

HCP and DEIS should include detailed information about the various expected impacts of no action or the proposed dredging on downstream habitat, Covered Species, and community safety. The DEIS fails to address safety issues related to the anticipated alteration of sediment flow downstream of the dam. (*Matt Stoecker, Director, Beyond Searsville Dam)*

Comment 2.45: Proposed new and major dredging impacts will, as stated, have major impacts well beyond the dam and must be assessed for the lower watershed, and impacts to Covered Species. (*Matt Stoecker, Director, Beyond Searsville Dam)*

Comment 2.52: The proposed dredging operation is not described in sufficient detail in the HCP or DEIS to know what is being proposed. While the proposed dredging appears to focus on removal of older sediment deposits in the lower part of the reservoir system near the dam and away from established wetland vegetation, Stanford's Freyberg and Cohen state that "it is conceptually possible to achieve zero net sediment accumulation while "fresh" sediment is accumulating in upstream portions of the reservoir and "older" sediment is being removed from portions of the reservoir closer to the dam. Such a pattern is not sustainable over the long term, however, and the depth distribution in particular is unlikely to continue to meet performance criteria" (Freyberg and Cohen 2001, p. 34).The DEIS fail to describe how prolonged and sustained the dredging operation would be……If Stanford intends to include dredging as part of the HCP discussion or Covered Activities within, the HCP and DEIS must include detailed plans, environmental impacts (including air pollution, noise, traffic impacts, water impacts, equipment details), costs, and acknowledgement that the Searsville Diversion Dam is responsible for, and an integral part of, the activity. (*Matt Stoecker, Director, Beyond Searsville Dam)*

Comment 2.53: The HCP (p.61) states: "Transporting the dredging equipment and offloading it into the reservoir could harm or kill red-legged frogs, western pond turtles or garter snakes, or displace them from the area. Turbidity resulting from the dredging could affect egg masses, and release of hydrogen sulfide could reduce oxygen levels in the reservoir affecting frog tadpoles and metamorphosis. Suction in the shallow water along the edges could dislodge or suffocate egg masses, suffocate frog tadpoles, and displace or harm red-legged frogs, pond turtles, or garter snakes." Increased turbidity could lead to increased release of nutrients into the reservoir and resulting increases in water temperatures and eutrophic conditions. These conditions can impact downstream water availability, quality, and duration of flows. (*Matt Stoecker, Director, Beyond Searsville Dam)*

Comment 2.54: Dredging would also draw down the reservoir during summer months and require additional inflows to fill the reservoir back up to the point where it is spilling over the dam and providing flows downstream, thus reducing the amount and duration of flows downstream and limiting the effectiveness of early season adult steelhead migration and prolonged low water conditions and surface flow drying downstream in late fall. The DEIS fails to acknowledge negative impacts from dredging downstream of Searsville Reservoir and on Covered Species including steelhead, which are not discussed as being impacted. (*Matt Stoecker, Director, Beyond Searsville Dam)*

Comment 2.55: The DEIS fail to adequately discuss requirements of the Clean Water Act, Army Corps, and other potential permitting requirements related to this new dredging operation, and must clarify this relationship and requirements. We believe that this new and massive dredging

proposal would require Stanford to apply for an Army Corps permit, among others, and completely separate permitting process with multiple federal, states, and local agencies involved.

Comment 2.56: A detailed description and quantifiable analysis of the proposed dredging operation and impacts to Covered Species, along with detailed cost estimates for the life of the HCP, must be included in the DEIS. (*Matt Stoecker, Director, Beyond Searsville Dam)*

Comment 2.61: The DEIS (5-16) fails to include and adequately analyze air quality, noise, traffic, and waste (sediment) impacts from the proposed dredging operation for Searsville Reservoir and briefly described potential proposal along Corte Madera Creek to make major channel alterations upstream of the reservoir. Dredging equipment, heavy equipment, sediment transport, truck loads on public roads, resulting air quality and noise impacts are not sufficiently described and must be assessed for the 50 years of this proposal. (*Matt Stoecker, Director, Beyond Searsville Dam)*

Comment 14.11: The Draft EIS fails to adequately analyze impacts from elements of the Searsville system that are included in the HCP. In addition to its failure to adequately analyze the direct and cumulative impacts of the Searsville Dam, the Draft EIS fails to include an adequate analysis of impacts that it purports to address. For example, as detailed in the comments of Matt Stoecker, dredging of the Searsville Reservoir will have substantial impacts that are not addressed in the draft EIS. These impacts include land-based impacts, such as a staging area, transportation impacts, water quality impacts, and alteration of downstream flows. (*Ellison Folk, Shute, Mihaly & Weinberger LLP, on behalf of Beyond Searsville Dam)*

Response

Although Stanford has never conducted dredging operations in Searsville Reservoir, periodic dredging of accumulated sediments from Searsville Reservoir was proposed as a Covered Activity in the Draft HCP (see Section 3.1.3). Numerous comments expressed concern regarding the potential impacts of this activity on water quality, sediment transport, Covered Species, and community safety. In response to these comments and Stanford's recent expanded and accelerated study of Searsville Reservoir, Stanford has decided to remove activities associated with Searsville Reservoir, including dredging, from its ITP application. The Final HCP has been revised accordingly and dredging of Searsville Reservoir is no longer proposed as a Covered Activity. As a result, the ITPs proposed for issuance by NMFS and USFWS will not authorize any take associated with dredging in Searsville Reservoir. In the FEIS, dredging Searsville Reservoir has been removed from the Proposed Action and not included in the FEIS Environmental Consequences section. The Services gave careful consideration to including dredging as a reasonable and foreseeable future action that, when added to the proposed action or alternatives, could have cumulative impacts on the environment. However, due to the uncertainty regarding dredging, which has never been conducted, the Services determined that dredging is too speculative to consider as a future action within the cumulative effects section of the FEIS. Section 5.5 of the FEIS, which included impacts to water quality, hydrology, sediment transport, vegetation, Covered Species, and other wildlife species has been modified in response to changes in the HCP and to comments on the EIS. If Stanford conducts dredging operations in Searsville Reservoir in the future,

Stanford would be required to obtain the appropriate permits and environmental clearance from local, states and Federal agencies prior to conducting this activity.

Regarding the flushing of Searsville pipelines, the maintenance and operation of Searsville pipelines are not Covered Activities in the HCP. The flushing of Searsville pipelines and other routine maintenance activities at Searsville are described in Section 5.5.1.4 of the FEIS. The Services have added more detail describing the duration and location of these activities to this section of the FEIS. The flushing of the Searsville pipelines and other routine Searsville maintenance activities may impact California red-legged frogs, garter snakes, western pond turtles, and steelhead through disturbance by maintenance work crews and through temporary increases in turbidity and suspended sediments from discharges of sediment-laden water into Corte Madera Creek (below the dam) and on the bank of San Francisquito Creek.

3.2.36 Water Rights

Searsville Diversion

Comments

Comment 2.30: ". . .Searsville Lake is now no longer used as a water supply. (p. 3)" Freyberg and Cohen goes on to state that Searsville Reservoir "was operated as a water supply reservoir for irrigation and fire protection until 1998 ... "(p. 4). "Because the only outflows from Searsville Lake are through flow over the spillway, leakage through and under the dam, evaporation, and perhaps groundwater seepage, the water surface elevation under current operating conditions (no stop logs, no diversions) is relatively stable, varying on the order of 1-2 m (3-7 ft) between peak flood stage and low water at the end of the dry season" (Freyberg and Cohen 2001, p. 31). The above statements from two of Stanford's most involved employees with Searsville Dam, describe that the Searsville Diversion was not in use from at least 1998 to 2001 and expectedly longer since the writing of the 2001 report, which does not mention any plans to resume diversions from the dam. The HCP fails to provide clarity about the historic and present use of the diversion and this information is critical to provide and for the DEIS to thoroughly review and assess. (*Matt Stoecker, Director, Beyond Searsville Dam*)

Comment 14.13: … NOAA should also confirm that Stanford has a valid water right to divert water from the Searsville Reservoir and that it has not made any modifications to its use of water over the years. (*Ellison Folk, Shute, Mihaly & Weinberger LLP, on behalf of Beyond Searsville Dam*)

Response

Stanford has modified their HCP and ITP application regarding Searsville Reservoir, Diversion, and other Searsville-related activities (see Section 2.7 of the FEIS). These activities are no longer Covered Activities in the HCP and will not be included in the Services' ITPs. Therefore, the FEIS does not provide extensive details regarding the Searsville Diversion, but past and current operations are generally described in the Affected Environment section of the FEIS (Section 4).

Although Searsville Reservoir and Searsville Diversion have been removed from the proposed action, the Services have worked with Stanford to respond to questions from two commenters regarding past Searsville operations. Stanford initiated, developed and maintains pre-1914 appropriative water rights and riparian rights for diversion at Searsville Dam and Reservoir, evidenced by State Water Resources Control Board Statement of Water Diversion and Use No. S004661. Stanford continues to exercise and report those rights. Stanford temporarily reduced its water diversions from Searsville in the mid-1990s while it addressed water quality and sedimentation issues that were caused by the Loma Prieta earthquake. Diversions from Searsville Reservoir resumed in the late 1990s and have continued annually since then.

Documentation

Comments

Comment 2.31: The HCP and DEIS fail to provide clarity about the above statements that Searsville Diversion had ceased for multiple years and water rights were transferred downstream. The HCP and DEIS fail to, and must, provide detailed original documents and detailed about the historic and current data related to the acquisition and use of this water right and diversion facility. The HCP and DEIS must explain disparities in the HCP claim of 1914 water rights and Regnery's citations of 1919 and 1920 water rights, the history and agreement of the stated water right transfer downstream, provide detailed water diversion agreements and records at both described downstream and Searsville Diversion facilities, and correct disparities in the statement within the HCP and DEIS. (*Matt Stoecker, Director, Beyond Searsville Dam)*

Comment 11.6: Stanford claims diversions for irrigation of campus are based on pre-1914 riparian rights, according to a separate submittal to NOAA and California Water Resources. Submittal(s) which purport to document Stanford water rights should be included in this DEIS. (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Comment 11.9: In the 2007 San Francisco PUC Facilities Upgrade DEIR it states that Stanford plans to provide 1.9 mgd of lake water sources for irrigation of Stanford Campus. This lake water resource is water diverted from Los Trancos and San Francisquito Creeks to Felt Lake and Searsville Reservoir. In a separate submittal to NOAA and State Department of Water Resources Stanford has claimed diversions to these lakes for irrigation purposes are based on pre-1914 riparian rights. (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District*)

Comment 22.12: The Santa Clara County's Stanford General Use Permit, Figure 6 showing Matadero Creek's watershed to cover half of Stanford campus and receiving San Francisquito Creek landscape irrigation diversions, needs State Water Resource review as to qualification of latest upgrade under riparian water rights allocation law? (*Libby Lucas*)

Response

Stanford's riparian and appropriate water rights are briefly described in Section 3.1.1 of the HCP. Stanford's water rights authorize diversion from Los Trancos Creek and San Francisquito Creek and the watershed upstream of San Francisquito Creek.

Appropriative water rights initiated after 1913 are subject to permits and licenses issued by the State Water Resources Control Board (Water Board). In June 2006, in connection with SHEP, Stanford representatives met with Water Board water rights staff to explain Stanford's water diversion operations and to confirm that Stanford is operating its diversion facilities in compliance with its water rights. The results of this meeting were summarized by Stanford's legal counsel, Robert Donlan, in a June 27, 2006, letter to the Water Board. Based on this letter and other information provided by Stanford, it is the Services' understanding that Stanford's water operations at the Los Trancos Creek Diversion Facility and at the San Francisquito Creek Pump Station, which are Covered Activities in the HCP, are in accordance with valid water rights. Although requested by one commenter, detailed original documents regarding Stanford's water rights have not been included in the FEIS or HCP and are not necessary to adequately describe the affected environment or assess the effects of the Proposed Action.

Creek Diversion

Comment

Comment 15.7: Stanford's water rights allow for water diversion from these creeks. These diversions should be limited or curtailed during droughts to maintain a minimum flow of water to support the endangered species. (*B. Stephen Toben, Mayor, Town of Portola Valley*)

Response

For the purpose of the HCP and ITPs, the Services must ensure the covered facilities (i.e., Los Trancos Creek Diversion Facility and the San Francisquito Creek Pump Station) are operated and maintained in a manner that is protective of all Covered Species, including steelhead. At Stanford's Los Trancos Creek Diversion Facility and the San Francisquito Creek Pump Station, the HCP includes a schedule of minimum bypass flows to maintain adequate conditions for aquatic species downstream of these water intakes. This bypass flow schedule was originally developed in 2006-08 for the re-building of the Los Trancos Creek Diversion Facility and the San Francisquito Creek Pump Station as part of the SHEP. The SHEP bypass flows must be maintained whenever the diversions are operating and apply to all water year types, including drought years. Stanford must actively manage its water operations to maintain these bypass rates and, in dry water years, diversion volumes are reduced as Stanford is required to maintain the SHEP bypass flows. Although the SHEP flow schedule focuses on migration, spawning, and rearing conditions for steelhead, these bypass rates are expected to be protective of all the HCP's Covered Species in Los Trancos and San Francisquito creeks. Additional information was included in Section 3.1.3 of the FEIS to describe bypass flows and other operational protocols at Stanford's Los Trancos Creek Diversion Facility and San Francisquito Creek Pump Station.

3.2.37 Wildlife Corridors

Comments

Comment 2.106: The concept of assigning relative habitat value to "zones" based on whether they are permanently occupied by covered species is deeply flawed. For species such as the CTS, CRLF, SFGS, and WPT, which migrate seasonally from wetlands and breeding areas to uplands, preservation of upland habitats and migration corridors can be as important as preservation of breeding habitat. Loss of or fragmentation of uplands or migration corridors, regardless of their relative habitat value, can result in extirpation of these species. For example, construction in Zones 2 or 3 that blocked migration of any of these species into uplands hibernation habitat could impact the species locally. Zones 2 and 3 contain significant migration corridors and uplands habitat for CRLF, CTS, SFGS, and WPT, and almost all of the Zone 2 and 3 lands are well within the known dispersal distances for these species from the creek corridors in Zone 1. The EIS does not adequately evaluate loss or degradation of dispersal and migration corridors or connectivity between, breeding and uplands habitats for these species. (*Matt Stoecker, Director, Beyond Searsville Dam)*

Comment 11.11: Wetlands hydrology and connectivity of wildlife corridors are essential to the health and well being of endangered species and need to be an element in the biological assessment. Where is the wetlands delineation mapping and does it reflect species wildlife corridor management zone(s)? (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District)*

Comment 11.33: The lack of designation of wildlife corridors within and through the Stanford Campus is a critical deficiency in this HCP and DEIS. (*Lawrence Johmann, Chair, Guadalupe-Coyote Resource Conservation District)*

Comment 22.2: Delineation of wetlands and range of refugia is not sufficiently mapped for covered species, or for other species that support them, nor are the migratory wildlife corridors of species addressed. (*Libby Lucas)*

Comment 22.7: Wildlife corridors for covered endangered species need to be mapped in undeveloped HCP foothill lands as well as extending to and through suburban 'game preserve' campus to ensure gene pool connectivity. (*Libby Lucas)*

Comment 22.24: Wildlife corridors are not identified in this DEIS of HCP and they are a basic requirement of habitat for all endangered species listed, both as seasonal migratory need for species interaction and gene pool exchange and for sustainable uplands bank as well as shaded aquatic and wetlands riparian refugia. All the previous 'covered activities' list has the capability of impacting the integrity of wildlife corridors, both marginally and significantly, but such impact cannot be addressed or avoided (as per NEPA Law and Guidelines) if a wildlife corridor is not identified. This is a serious deficiency in DEIS and HCP. These wildlife corridors should be evident on and from the 'game preserve' campus into the foothills. (*Libby Lucas)*

Comment 22.33: Wetlands hydrology and connectivity of wildlife corridors is essential to perpetuation of a viable population of these particular endangered species but biological surveys,

done seasonally, need to be incorporated in this DEIS and HCP to provide integrity to professional analysis. (*Libby Lucas)*

Response

As part of the Proposed Action, the HCP divided all of Stanford's lands into four management zones according to the habitat value of the land, if any, to the Covered Species (Section 4.1 of the HCP). Existing habitat areas that will be protected, or managed, for the Covered Species were divided into three large areas: the San Francisquito /Los Trancos Easement, the Matadero/Deer Easement, and the CTS Reserve. The easement areas and Reserve are presented in Figure 5-1 of the HCP. These sites are designed to protect biologically sensitive habitat (including wetlands) and movement corridors for Covered Species. The proposed conservation easements would permanently protect and provide management for the riparian zones that steelhead, CRF, SFGS, and WPT depend on. The CTS Reserve would provide protection and management of grassland habitat south of JSB, as well as a location for future conservation easements established to mitigate CTS habitat loss that may occur. Although these areas are not described as "wildlife corridors" in the HCP or EIS, the movement and population connectivity of the Covered Species were extensively considered in the development of these easement locations and the CTS Reserve. The contiguous nature of the easements will provide for movement of Covered Species and other species located in these areas. The effects of creating these easements and the Reserve are assessed in Section 5 of the FEIS. The Conservation Program was designed to increase the likelihood of the long-term persistence of Covered Species at Stanford.

The Conservation Program includes annual biological surveys for Covered Species and their habitats at Stanford. Surveys for CRF are described in HCP Section 4.6.1; surveys for steelhead are described in HCP Section 4.6.2; surveys for CTS are described in HCP Section 4.6.3; surveys for WPT are described in HCP Section 4.6.4; and surveys for SFGS are described in HCP Section 4.6.5.

Wetland delineations are prepared when it is necessary to establish the specific boundaries of a wetland area (i.e., for the purposes of determining the wetland impacts of a specific project and the mitigation necessary for permits issued under the CWA). A wetland delineation is not required for issuance of the ITPs, however, a wetland delineation could be required prior to the completion of a Covered Activity if that activity will affect wetlands protected under the CWA. Issuance of ITPs from the Services does not relieve Stanford of its obligation to obtain appropriate permits from the USACE under Section 404 of the CWA.

Several figures in the FEIS show the primary aquatic features on Stanford's lands (Figures 3-2, 3-3, 3-4, 4-16, 4-17, and 4-18, and 4-19) and the EIS includes narrative descriptions of the creeks, seasonal wetlands, ponds, lakes and reservoirs in the Affected Environment section (Section 4 of the FEIS). Figures 2-1, 2-2, 2-3, 2-4, and 2-5 in the HCP also show the major aquatic features utilized by Covered Species on Stanford's lands. These figures and the narrative descriptions of hydrological and biological environments in the EIS establish the locations and extent of major aquatic features. The

environmental consequences of the Proposed Action and alternatives on these aquatic features are presented in Section 5 of the FEIS.