COMMENT ANALYSIS REPORT

PUBLIC DRAFT RECOVERY PLAN FOR
THE EVOLUTIONARILY SIGNIFICANT UNITS OF
SACRAMENTO RIVER WINTER-RUN CHINOOK SALMON AND
CENTRAL VALLEY SPRING-RUN CHINOOK SALMON AND
THE DISTINCT POPULATION SEGMENT OF
CENTRAL VALLEY STEELHEAD

APRIL 2010

Prepared by
U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service

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ACRONYMS AND ABBREVIATIONS

CAR	Comment Analysis Report
DCC	Delta Cross Channel
DPS	Distinct Population Segment
ESA	Endangered Species Act
ESU	Evolutionarily Significant Unit
FERC	Federal Energy Regulatory Commission
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
SOC	Statement of Concern
USC	United States Code
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
WSRA	Wild and Scenic River Act

1.0 INTRODUCTION

The National Marine Fisheries Service (NMFS) published its intent to develop recovery plans for five Evolutionarily Significant Units (ESUs) of Pacific Salmon and five Distinct Population Segments (DPSs) of Steelhead Trout in the *Federal Register* on September 11, 2006. The notice directed that NMFS is required under the Endangered Species Act (ESA) to develop and implement recovery plans for the conservation and survival of ESA-listed species, including the five ESUs of Pacific Salmon and five DPSs of Steelhead Trout.

Notice of Availability for the *Public Draft Recovery Plan for the ESUs of Sacramento River Winter-Run Chinook Salmon and Central Valley Spring-Run Chinook Salmon and the DPS of Central Valley Steelhead* (herein referred to as the "Draft Recovery Plan") was published in the *Federal Register* on October 7, 2009. NMFS solicited public comments regarding the Draft Recovery Plan. The initial public comment period was 60 days and concluded on December 5, 2009. Following several requests to extend the public comment period, NMFS extended the deadline to submit comments to February 3, 2010, making the entire comment period 120 days in total.

During the public comment period, four public meetings were held to inform and to solicit comments from the public on the Draft Recovery Plan. There were two public meetings held in Chico, CA on October 20, 2009, and two public meetings held in Sacramento, CA on October 21, 2009. These meetings were attended by a variety of stakeholders, including local jurisdiction officials, state and local agency personnel, industry representatives, public and non-profit interest representatives, and others who have a professional involvement and knowledge of salmon recovery issues, as well as general public and other constituencies.

NMFS received 78 individual submissions (including comments received at public meetings) in response to the Draft Recovery Plan. This comment analysis report (CAR) provides an analytical summary of these submissions. It presents the methodology used by NMFS in reviewing, sorting, and synthesizing substantive comments within each submission into common themes. As described in the following sections of this report, a careful and deliberate approach has been undertaken to ensure that all substantive public comments were captured.

2.0 THE ROLE OF PUBLIC COMMENT

Recovery plans describe actions beneficial to the conservation and recovery of species listed under the Endangered Species Act of 1973, as amended (16 United States Code [USC] 1531 et seq.). The ESA requires that recovery plans incorporate: (1) objective, measurable criteria which, when met, would result in a determination that the species is no longer threatened or endangered; (2) site-specific management actions necessary to achieve the plan's goals; and (3) estimates of the time required and costs to implement recovery actions. The ESA requires the development of recovery plans for each listed species unless such a plan would not promote its recovery.

NMFS is responsible for developing and implementing ESA recovery plans for listed salmon and steelhead. In so doing, NMFS' goal is to restore endangered and threatened Pacific salmonids to the point that they are again self-sustaining members of their ecosystems and no longer need the protections of the ESA.

Recovery Plans developed under the ESA are guidance documents, not regulatory documents. However, the ESA envisions Recovery Plans as the central organizing tool for guiding the recovery of listed species. Recovery Plans also guide Federal agencies in fulfilling their obligations under section 7(a)(1) of the ESA, which calls on all Federal agencies to ''utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species and threatened species.'' In

addition to outlining proactive measures to achieve species recovery, Recovery Plans provide a context and framework for implementing other provisions of the ESA with respect to a particular species, including consultations on Federal agency activities under section 7(a)(2) and the development of Habitat Conservation Plans in accordance with section 10(a)(1)(B).

This framework establishes the need for public comment in the listing process. Once the public comment period is concluded, NMFS considers all comments received as well as any new information that may have emerged in that time.

3.0 ANALYSIS OF PUBLIC SUBMISSIONS

All submissions on the Draft Recovery Plan were read, reviewed and logged into a database where they were assigned an automatic tracking number (Submission ID). Submissions were reviewed for specific substantive comments (herein referred to as 'comments'), which were then recorded into the database and given a unique Comment ID (with reference to the original Submission ID) for tracking and synthesis. Substantive comments were then coded into issue categories (see Table 1).

The coding phase was used to divide each submission into a series of comments, each having a unique Comment ID number. The goal of this process was to ensure that each sentence and paragraph in a submission containing a substantive comment pertinent to the Draft Recovery Plan was entered into the database. Substantive content constituted assertions, suggested actions, data, background information or clarifications relating to the content of the Draft Recovery Plan.

A total of 16 issue categories were developed for coding during the first step of the analysis process as shown in Table 1**.** These categories evolved from common themes found throughout the submissions received by NMFS. Some categories correspond directly to sections of the Draft Recovery Plan (i.e. Threats and Limiting Factors), while others focus on more procedural topics (i.e. Coordination and Compatibility). Several submissions included scientific studies or white papers as appendices, which were captured under the DATA category.

Once substantive comments were coded, a second review of the comments within each issue category was conducted to identify specific concerns within those categories. These were synthesized into succinct statements of concern (SOCs) that are intended to capture the general issues raised in comments with similar themes. SOCs are frequently supported by additional text to further explain the concern, or alternatively to capture the specific comment variations within that grouping. SOCs are not intended to replace actual comments. Rather, they summarize for the reader the range of comments on a specific topic. Each issue category may have more than one SOC. For example, there are 13 SOCs under the issue category "Implementation" (IPL 1, IPL 2, IPL 3, etc.). Each comment was assigned to one SOC. The complete list of SOCs can be found in Section 6.0.

Table 1: Issue Categories

Issue Category	Code	Summary
Abundance, Behavior and Distribution	ABD	Includes comments on the abundance, behavior and distribution of the three recovery plan ESUs/DPS
Biological Recovery Criteria	BCR	Includes comments focusing on the biological and other criteria for removing the ESUs or DPS from the list of threatened and endangered species.
Coordination and Compatibility	COR	Includes comments on compliance with other statues, laws or regulations that should be considered in the recovery plan; coordinating with Federal, state, local agencies or organizations; permitting requirements.
Data	DATA	Includes comments referencing scientific studies available that should be considered in the development of the recovery plan; data source clarification.
Editorial, Clarification and Consistency	EDI	Includes comments pertaining to clarification or elaboration of discussions within the Draft Recovery Plan; text or data consistency between sections; editorial comments on spelling and grammar.
Genetic Structure	GEN	Includes comments associated with genetic or life history diversity of the three recovery plan species.
Habitat	HAB	Includes comments associated with habitat requirements, or describing the areas that should or should not be included in the recovery plan.
Impacts for Consideration	IMP	Includes comments on social, economic, or other relevant impacts that could occur as a result of recovery plan actions.
Implementation	IPL	Includes comments regarding the implementation of the recovery actions, and on the schedule or costs associated with the implementation of the recovery plan.
Peer Review	REV	Includes comments suggesting potential peer reviewers for the recovery plan.
Recovery Actions	RAC	Includes comments on alternative recovery actions that should be considered. Also includes comments on specific Priority 1 and 2 recovery actions.
Regulatory Compliance	REG	Includes comments associated with compliance with existing regulations, laws and statutes.
Research, Monitoring, Evaluation Needs	RME	Includes comments on baseline research, monitoring, and evaluation needs
Threat Abatement Criteria and Mitigation	THC	Includes comments associated with actions to address threats and limiting factors to species recovery.
Threats and Limiting Factors	THR	Includes comments on factors that are presently limiting or threaten to limit survival of the ESUs or DPS.
Comment Acknowledged	ACK	Includes comments determined not to be substantive and warranted only a “comment acknowledged” response.

4.0 SUBMISSIONS RECEIVED

NMFS received a total of 78 submissions in response to the Draft Recovery Plan. Every submission, except one, was received from within the state of California. Table 2 lists the organizations from which unique submissions were received. There were two joint submissions from multiple organizations, #50 and #53. The Stockton East Water District (#39) submitted a letter concurring with the comments submitted by San Joaquin River Group (#82) relative to the Calaveras and Stanislaus Rivers, and that they be incorporated in full on their behalf as well.

Table 2: Unique Submissions from Organizations

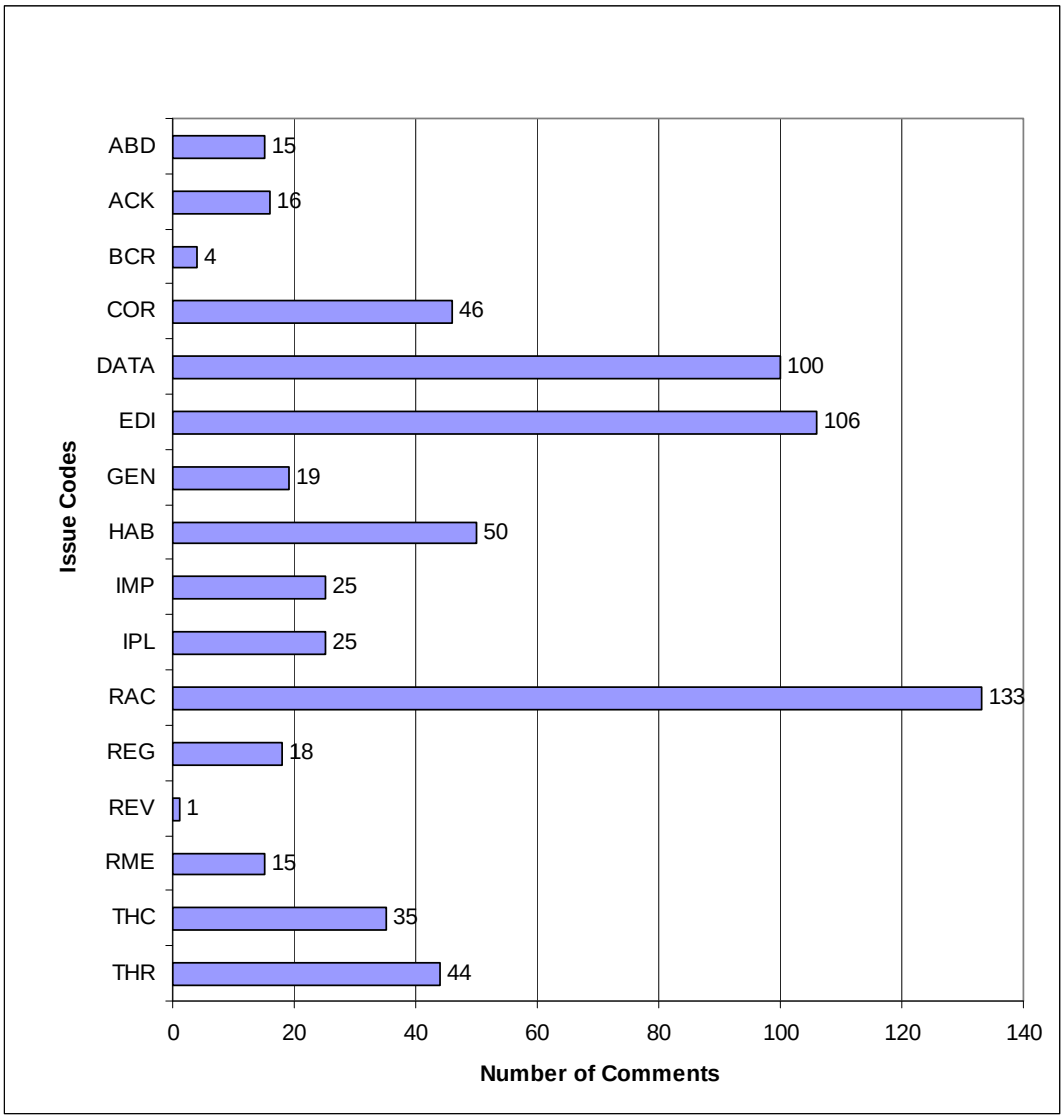
Organization	Submission #
Joint Submission from: - Merced River Conservation Committee - California Sportfishing Protection Alliance - Trout Unlimited - Friends of the River - Golden West Women Flyfishers - American Rivers - American Whitewater	53
Joint Submission from: - Ophir Property Owners Association, Incorporated, and the Auburn Ravine Preservation Committee - Save Auburn Ravine Salmon And Steelhead - Granite Bay Flycasters - California Salmon and Steelhead Association - Northern California Council, Federation of Fly Fishers - Lincoln Open Space Committee	50
AquAlliance	33
Assemblyman Jim Nielsen	18
Bureau of Reclamation	3, 84
California Farm Bureau Federation	61
CH2M HILL	68, 71
Deer Creek Watershed Conservancy	43
Del Oro High School	63
Department of Water Resources	45
Department of Water Resources	83
Dry Creek Conservancy	85
East Bay Municipal Utility District	76
EDAW	1
Edwards Ranch	69
Friends of Butte Creek	4
Johnson Hicks Marine Electronics	2
Mason, Robbins, Browning & Godwin	46
Mendocino National Forest	16
Merced Irrigation District	59
Morgan Stanley Smith Barney	21
Nevada Irrigation District	58

Organization	Submission #
NORCAL Guides and Sportsmen's Association	38
Northern California Council of the Federation of Fly Fishers, Incorporated	52
Northern California Power Agency	35
Nystrom & Company LLP	37
Pacific Gas and Electric Company	65
Redding Electric Utility	32
RMG Appraisers	42
San Francisco Public Utilities Commission	28
San Joaquin River Group Authority	82
Save Auburn Ravine Salmon And Steelhead	19
Solano County Water Agency	66
South Yuba River Citizens League	80
Southern Sierra Miwuk Nation, American Indian Council of Mariposa	60
Stockton East Water District	39
Stoecker Ecological	51
Streamline Engineering	13
Terraqua Incorporated	41
U.S. Bureau of Reclamation	40
U.S. Department of Agriculture, U.S. Forest Service, Lassen National Forest	54
U.S. Department of Agriculture, U.S. Forest Service	70
U.S. Fish and Wildlife Service, Red Bluff Fish and Wildlife Office	26
University of California Davis, Center for Watershed Sciences	5
Wildlands, Incorporated	12, 48
Yuba County Water Agency	81

5.0 COMMENT ANALYSIS

A total of 652 comments were coded from the 78 unique submissions. Figure 1 shows the number of comments under each issue category. The issue category Recovery Actions (RAC) contained the largest number of coded comments at 133. The categories of Editorial, Clarification and Consistency (EDI) and Data (DATA) contained the next highest numbers of comments, at 106 and 100 respectively. These comments pertain primarily to clarifications or elaborations on discussions, data references, and consistency of information within the Draft Recovery Plan. Materials provided to NMFS with submissions, or referred to in submissions, will be reviewed for inclusion in the Draft Recovery Plan.

Figure 1: Comments by Issue Category



6.0 STATEMENTS OF CONCERN

This section presents the SOCs developed for each issue category which summarize substantive comments received. To assist in finding which SOCs were contained in each submission, a Submission Index (Appendix A) was created. The submission index is a list of all submissions received, presented alphabetically by the last name of the commenter, as well as the submission ID associated with the submission, and which SOCs respond to their specific comments. To identify the specific topics that are contained in an individual submission, first search for the submission of interest in Appendix A, then note which SOC codes are listed under the submissions, locate the SOC within Section 6.0 and then read the text next to that SOC. Each substantive comment contained in a submission was assigned to one SOC.

A Comment Index of all coded comments and the SOCs they are linked to can be found in the Appendix B.

Abundance, Behavior and Distribution

ABD 1 The depths of salmon decline throughout California should be explored, and measures that will restore salmon numbers to 1960-levels or better should be implemented.

ABD 2 For spring-run Chinook, recent data collected by the Department of Water Resources from paired releases of spring-run juveniles released in the Bay and the river suggest that there is no evidence that fish strayed into other spring-run tributaries (e.g. Mill, Deer, Butte). There have been no reports of straying individuals collected in Butte Creek.

ABD 3 The rationale provided for the assignment of high viability potential for spring-run Chinook, but low potential for steelhead in the area below Friant Dam, is questionable.

ABD 4 In the conceptual recovery scenario, NMFS should provide documentation that steelhead spawning is occurring in the upper reach of the lower Merced River.

ABD 5 The long-term persistence of Central Valley steelhead populations is dependent on the interrelationship between small stream and large stream populations. Restoration that focuses only on increasing absolute numbers and ignores the need to increase population diversity may be inadequate.

ABD 6 Winter Run Chinook should be included in the Cow Creek Watershed Profile, under "Species that Historically Occurred" and "Viability Potential."

ABD 7 Historic occupation of Stony Creek by spring Chinook is unlikely as there was not suitable over-summer habitat in the creek or adjacent river.

ABD 8 The Draft Recovery Plan overlooks San Joaquin Basin O. mykiss data for the Mokelumne, Calaveras, Stanislaus, Tuolumne, and Merced Rivers that demonstrate the abundance of resident populations, which may provide a genetic reservoir for the anadromous form in the basin.

ABD 9 The Draft Recovery Plan should include a more detailed discussion of alternative life histories and polymorphic populations.

ABD 10 There is a lack of consistency among terms used to describe different life-history forms for the same species (i.e. O. Mykiss) throughout the Draft Recovery Plan, which complicates constructive review. The Draft Recovery Plan should be modified to clarify the O. mykiss life-history dynamics, the historical presence, their distrubtion throughout California, and the status of O. mykiss populations in the San Joaquin Basin today.

ABD 11 It is not realistic for NMFS to build recovery strategies for populations where there are no existing historical or current population estimates.

Biological Recovery Criteria

BCR 1 It appears that the current listing status is not consistent with the extinction risk for Central Valley steelhead. NMFS needs to review the science of threats, and the results of the conservation and protective programs that are in place, and if the programs have not been effective in stopping population decline, then the listing status should be upgraded to endangered.

BCR 2 The Central Valley Project Improvement Act and CALFED may not be appropriate conservation measures to justify listing steelhead as threatened rather than endangered.

BCR 3 The Draft Recovery Plan should include consideration of the lower Yuba River population levels and trends relative to other Central Valley rivers to take into account out-of-basin factors.

BCR 4 The recovery scenarios include the objectives of a minimum of two viable populations of steelhead within each of the four extant steelhead Diversity Groups. NMFS should increase the minimum to ALL viable populations of steelhead in the Southern Sierra Nevada Diversity Group, including the Merced River.

Coordination and Compatibility

COR 1 NMFS should involve the public and all stakeholders in the discussion and consideration of fish passage and flow issues, particularly related to introduction plans.

COR 2 Various non-governmental organizations would like to meet with NMFS to discuss next steps with the Draft Recovery Plan.

COR 3 The lack of dialogue with public and agency stakeholders since the steelhead was listed as a threatened species is of concern. NMFS need to explicitly outline how they plan to work cooperatively with stakeholders to implement recovery actions of the Draft Recovery Plan.

COR 4 The definition of "involved parties" and the level of involvement that NMFS is expecting should be more clearly defined. There are various agencies that should also be included as involved parties in the Draft Recovery Plan.

COR 5 The amount and timing of the water needs for any introduction effort of salmon or steelhead in the upper Yuba basin, or any new approach to water management, should be carefully evaluated with a view toward balancing these needs against the requirement or reliable water delivery to the Nevada Irrigation District's service area, at both current and predicted future levels of use.

COR 6 Proposed implementation of fish passage at the Englebright Dam, Our House Dam, New Bulards Bar Dam, and Log Cabin Dam needs to take into consideration, and accommodation for, the proper and efficient maintenance of operations for delivery of the water supply throughout the Nevada Irrigation District's service area.

COR 7 NMFS can ease implementation of recovery actions by engaging stakeholders early in the planning process. Early stakeholder engagement would also allow for the evaluation of impacts associated with reintroduction, and enable these concerns to be incorporated in the decision-making process.

COR 8 U.S. Forest Service (USFS) and NMFS coordination will be required to ensure that recovery objectives can be met with proposed hydropower projects going through Federal Energy Regulatory Commission (FERC) relicensing on the Middle Fork American River, South Fork American River and Mokelumne River.

COR 9 A Thomes Creek Coordinated Resource Management Plan with the Natural Resources Conservation Service could serve as a good tool to manage recovery actions in the Thomes Creek watershed by working with private landowners, local and state governments, and obtaining technical expertise from USFS and NMFS.

COR 10 It appears there has been a lack of coordination between NMFS and other regulatory agencies when developing the Draft Recovery Plan.

COR 11 NMFS should coordinate with the Lower Clear Creek Technical Advisory Group in any attempts to modify salmonid restoration activities in the Lower Clear Creek drainage.

COR 12 NMFS should coordinate with Redding Electric Utility on any flow adjustments that could affect power generation.

COR 13 Coordination with sister agencies could help avoid inter-species management conflicts and help to ensure proper balancing of Delta outflow requirements and upstream cold water management.

COR 14 NMFS should coordinate with federal and state land managers to encourage sustainable and prudent timber harvest practices, to reduce runoff depletion and large-scale erosion and sedimentation associated with catastrophic wildfires and an unnatural fire regime.

COR 15 Demonstrate how the Draft Recovery Plan will recognize, encourage and build upon watershed management approaches developed at the local and regional level.

COR 16 NMFS should consult with California Department of Fish and Game regarding past reintroduction efforts of anadromous salmonids above Central Valley dams in order to avoid and minimize previous mistakes and failures.

COR 17 There is a need for cross-species balance between recovery plans and Biological Opinions. NMFS should coordinate within the broader group of entities engaged in Central Valley and Delta recovery strategies so that recovery actions will not aid one species at the expense of another.

COR 18 Pacific Gas and Electric should be included as a party in the habitat evaluations and fish passage assessment. Specific measures needed to assure successful spawning need to be compared to PG&E operational limits, while continuing to comply with FERC and other regulatory requirements.

COR 19 Public stakeholder groups spend considerable time and money each year monitoring salmon and steelhead populations in the watersheds of the Draft Recovery Plan. Actively seeking input from these groups could lead to a greater understanding of the abundance and distribution of these species.

COR 20 The Final Recovery Plan should consider procedural flexibility to incorporate ongoing processes such as FERC relicensing, water rights changes, agency adaptive management plans and local watershed management activities into the recovery actions.

COR 21 NMFS should seek methods to more actively include Bureau of Land Management, USFS, National Park Service, and FERC in the Recovery Plan process.

COR 22 As part of outreach activities associated with the Recovery Plan, NMFS should inform local hydroelectric and irrigation projects of its analysis of climate change an its affect on salmon and steelhead populations.

COR 23 NMFS should conduct outreach and coordinate activities with Indian Tribes.

COR 24 NMFS needs to approach the FERC relicensing process in the Central Valley with a unified and consistent effort.

COR 25 Recovery scenarios for the Merced River are disconnected from ongoing regulatory processes and there is a lack of cooperation between State and Federal agencies in this regard.

COR 26 The Nevada Irrigation District would like to coordinate with NMFS regarding any introduced population to the Yuba River and how any such population should be designated as experimental and nonessential.

COR 27 NMFS should list all potential recovery actions from San Franciso Bay through the Delta and into all watersheds so that parties can understand the scope of this effort and maximize coordination/minimize conflicting actions.

COR 28 NMFS should develop and implement a water exchange agreement with the Deer Creek Irrigation Company and the Stanford-Vina Irrigation District that would dedicate fish passage flows and identifies water infrastructure facilities required to meet passage needs.

COR 29 NMFS should independently implement study requests that have been rejected by FERC, and seek alternative funding sources. NMFS should work with interested parties to seek ways of developing the necessary data and studies to inform the FERC licensing process.

COR 30 NMFS should coordinate with other NMFS regional office, state governments, and foreign governments concerning potential shifts in the global distribution and viability of extant salmon populations in the context of global climate change.

COR 31 Local involvement in small stream preservation can result in support for larger scale efforts such as the CV Recovery Plan. In turn, validation and a small amount of support (funding) from the plan will strength local preservation efforts.

COR 32 Funding small stream preservation efforts builds awareness and support from local residents for the larger Central Valley Recovery Plan effort. Efforts by various groups should be considered for inclusion in the Draft Recovery Plan.

COR 33 The Draft Recovery Plan should include the Stanislaus River above New Melones in order to comport to the 2009 NMFS Biological Opinion for SWP/CVP operations.

Data

DATA 1 There are different scientific studies and biological information available that can aid in the development and rationale for recovery actions in the Draft Recovery Plan. These information sources should be reviewed by NMFS before the final Recovery Plan is released.

DATA 2 There are multiple locations throughout the Draft Recovery Plan where data sources need to be identified, more recent and pertinent data sources need to be cited, or statements made in the Draft Recovery Plan are contradicted by other existing research or studies.

Editorial, Clarification, and Consistency

EDI 1 Editorial comments related to the Draft Recovery Plan have been provided, and NMFS will respond to them individually.

EDI 2 Certain discussions and conclusions made in the Draft Recovery Plan need further clarification or elaboration. Current wording of text is misleading in some places, and should be clarified as well.

EDI 3 Consistency of wording or data presentation needs to be checked throughout the Draft Recovery Plan.

Genetic Structure

GEN 1 The Draft Recovery Plan should include the Fall Run and the Late Fall Run of salmon for the Sacramento River.

GEN 2 Appraisals of population sizes and viability should include both anadromous and resident life-history components and the recovery actions should be applied to include both components.

GEN 3 The biological and ecological bases of the switching mechanism(s) controlling residency versus anadromy needs to be better understood so that effective management measures can be developed to increase the production of anadromous (steelhead) individuals.

GEN 4 The genetic structure of the Central Valley salmon population complex must determine how the populations are managed individually and as parts of larger genetic-evolutionary entities (diversity groups).

GEN 5 Separate management of the Nimbus Hatchery steelhead is not appropriate due to the introgression of this population into other Central Valley O. mykiss populations.

GEN 6 NMFS research suggests that above-dam populations of O. mykiss may harbor at least portions of the original or historical Central Valley genomes. The transport of below-dam fish to the upper watershed areas would affect the genetic structure of above-dam stocks, with unknown evolutionary and management ramifications.

GEN 7 NMFS should address the controversy around the genetic integrity of spring-run Chinook in the upper Sacramento River and provide rationale for its position.

GEN 8 It is difficult to develop an effective recovery strategy without a better understanding of the factors that influence the expression of anadromy versus residency in Central Valley O. mykiss individuals and populations, and the population genetic structure of the Central Valley O. mykiss populations and the extent of historical and ongoing genetic exchange.

GEN 9 All naturally spawned steelhead populations within the Central Valley basin are closely related to populations in the genetic groups that include the Eel and Klamath Rivers due to the historic use of Eel River origin broodstock at the Nimbus Hatchery. It is unrealistic to think that juvenile steelhead rearing in the Stanislaus River are not likely hatchery production for this reason.

GEN 10 Information presented in the Draft Recovery Plan does not support considering Mill and Deer Creeks as one population in terms of stated diversity group recovery objectives. The fish in these two creeks should be considered as two separate populations.

GEN 11 It is unclear whether NMFS feels that all populations supported by hatcheries are not viable, particularly those associated with the Feather River Hatchery.

GEN 12 NMFS needs to delineate the differences between steelhead and salmon.

GEN 13 Data on rainbow/steelhead trout planting both above and below New Hogan Dam should be included in the discussions on hatchery influences.

GEN 14 Clarify the discussion in Appendix B that the Calaveras River "winter-run" could have colonized the Calaveras River after the dam was put in.

GEN 15 Discussion should be added that addresses the issue of steelhead change in life history and evolutionary trajectory by favoring the resident component of the population through moderation of temperature, flows, and other factors.

Habitat

HAB 1 Stillwater Creek should be rewatered to restore salmon spawning beds.

HAB 2 The Feather River low flow section has great potential as spawning and rearing habitat.

HAB 3 The Sacramento River downstream of the Shasta Dam, particularly upstream of Cottonwood Creek could be restored with a program to return lost gravel.

HAB 4 Unoccupied portions of the Yuba River above Englebright Dam cannot be considered for designation as critical habitat unless fish passage is provided at the dam.

HAB 5 The only suitable steelhead spawning and rearing waters above Black Butte dam, but below Stony Gorge dam, occur in Grindstone Creek on the Mendocino National Forest.

HAB 6 Deep refugia pools on Thomes Creek have never recovered sufficiently from the 1964 floods to provide the stratified cool refugia needed for spring Chinook to over-summer.

HAB 7 Lower Stony Creek below Black Butte dam does not provide viable summer habitat, nor did it historically provide spawning or rearing habitat.

HAB 8 There is suitable spawning and rearing habitat in the Auburn Ravine/Coon Creek Watershed.

HAB 9 The anticipated impacts of climate change should be considered when deciding which areas will be considered 'primary' for recovery focus.

HAB 10 The upper Stanislaus River should be considered primary for recovery focus.

HAB 11 The riparian and aquatic habitats along stream channels would provide viable fall Chinook habitats regardless of the current water deliver schedules.

HAB 12 There is little evidence of O. mykiss usage of floodplain habitats in California.

HAB 13 The O. mykiss production in the Tuolumne River is less than the Merced, Stanislaus and Calaveras.

HAB 14 The lack of stream gradient and natural geomorphology of the area below La Grange Dam are the primary factors for the lack of instream complexity.

HAB 15 Non-natal rearing habitat has potential to aid long-term persistence, and habitat that may be utilized by future populations should be preserved now.

HAB 16 Diversions in the Auburn Ravine Creek area should be continued and optimized.

HAB 17 Imported water is crucial to maintenance and recovery actions in Auburn Ravine and other West Placer streams.

HAB 18 Auburn Ravine has more potential spawning habitat than all other stream reaches in the area combined.

HAB 19 The North Fork and Middle Fork of the Feather River should be added as part of the spring-run Chinook and Central Valley steelhead recovery footprint.

HAB 20 Butte Creek has historically supported salmonids, at least to the Quartz Bowl.

HAB 21 Redding's 35 named, now headwater, creeks have all historically hosted Chinook and some still do.

HAB 22 All endangered runs should be included in the Draft Recovery Plan.

HAB 23 The Draft Plan should take into account the degree to which the lower Yuba River accomplishes Viable Salmonid Population parameters regarding population viability.

HAB 24 Coon Creek watershed should be considered a higher value within the Draft Recovery Plan.

HAB 25 Small streams should be given a separate set of standards for recovery goals, objectives, and criteria that recognzies their importance in long term health of Central Valley anadromy.

HAB 26 West Placer streams have a role to play in sustainable anadromy in the Central Valley. There is a large gap in the lower part of the Northern Nevada Diversity Group between the American and Yuba Rivers.

HAB 27 "Suitable rearing habitat" should be defined, as well as what is necessary to maintain it.

HAB 28 Auburn Ravine and Coon Creek were identified with having low potential to support a viable population of steelhead due to limited habitat at marginally suitable elevations. However, American, Feather, Butte, Yuba, Sacramento River, and Clear Creek have similar elevations and habitat as Auburn Ravine and Coon Creek, and were determined to have higher potential. NMFS should provide further clarification around the differences in these tributaries.

HAB 29 Auburn Ravine and Coon Creek do not need water imported to the watersheds to support viable populations of salmon and steelhead. Steelhead migrate into and use these streams, along with fall chinook.

HAB 30 Vital habitat for anadromous fish may not have been adequately considered in profile discussions and viability assessments within the Draft Recovery Plan.

HAB 31 Depictions of current Central Valley Steelhead spawning habitat in the headwaters of Ulatis and Alamo Creeks is incorrect.

HAB 32 NMFS has already listed many miles of Thomes Creek as designated critical habitat. The Draft Recovery Plan currently suggests that there is no anadromous passage upstream of Horse Trough Creek. These conclusions are at odds with one another, and should be clarified.

HAB 33 Thomes Creek watershed should not be identified in the Draft Recovery Plan as being currently occupied by spring Chinook. This watershed is unlikely to contribute to recovery due to limiting habitat conditions.

HAB 34 The lower reaches of the Calaveras River could not have historically supported steelhead due to high water temperatures and would have functioned as a migration corridor, which is similar to its function today.

HAB 35 Tuolumne River has extensive floodplain habitat, and observations indicate that juvenille O. mykiss are far less dependent on large floodplain habitat for rearing than Chinook salmon. Language in the Draft Recovery Plan should be edited accordingly.

HAB 36 The lower Tuolumne River supports a naturally reproducing population of several thousand individuals and the population has persisted despite dry conditions over the past several years. Language in the Draft Recovery plan should be edited accordingly.

HAB 37 Potential viability on Old Cow Creek should be quantified both below and above Whitmore Falls.

Impacts for Consideration

IMP 1 NMFS should investigate a potential conflict between steelhead spawning and Special Uses Permits for whitewater rafting on the Merced River within the Sierra National Forest.

IMP 2 Providing listed fish species with passage above the existing Black Butte dam would create new resource management conflicts with recreational fishing, agency fish stocking programs, grazing management, fuel management, and timber harvest in some watersheds. Potential impacts should be considered and discussed in the Draft Recovery Plan.

IMP 3 NMFS concerns about wildfire, and interest in obtaining the most shade and coolest water temperatures possible could be at odds with wildfire use to obtain resource benefits.

IMP 4 Impacts to established trout fisheries from proposed recovery actions should be considered.

IMP 5 The Draft Recovery Plan should provide details about how Shasta Lake itself may be affected by reintroducing the subject stocks above the dam, including the potential for lower lake levels and impacts on established warm water bass tournaments.

IMP 6 Describe how the Recovery Actions associated with Battle Creek will impact the Battle Creek Restoration Project.

IMP 7 Evaluate the financial impacts of the proposed Recovery Actions on [electricity] consumers and Central Valley Power hydroelectric resources.

IMP 8 The Draft Recovery Plan does not go far enough in estimating the direct, indirect, and cumulative costs of the long-term implementation of the Recovery Plan, including lost-opportunity costs related to agriculture.

IMP 9 There are significant impacts to water users and landowners that have not been considered in the Draft Recovery Plan.

IMP 10 The Draft Recovery Plan should investigate potential impacts to social service and criminal justice resources.

IMP 11 Consider the impacts of Recovery Action 2.7.14.3 on overall carbon emissions, vehicle miles traveled and the economic impacts on local fueling establishments.

IMP 12 Consider how modifications to the Delta Cross Channel gate operations or controlling access to Georgianna Slough could affect the survival and migration of Mokelumne origin salmonids.

IMP 13 The Recovery Plan should include a discussion of the economic benefits of recovery.

IMP 14 Consider the negative impacts of reducing the State's total hydroelectric capacity through removing dams (e.g. New Exchequer Dam), facility decommissioning, and opening floodgates, along with the social benefits provided by these dams, including flood protection, irrigation projects, and clean, renewable hydroelectric energy.

IMP 15 Provide an up-to-date economic analysis of the Central Valley salmon and steelhead fisheries, including a thorough analysis of financial losses to the commercial and sport fishing industries and regulatory costs that have resulted from the severe depletion of Central Valley salmon and steelhead populations.

IMP 16 NMFS should cross-reference recovery actions that are already required as reasonable and prudent actions in final biological opinions. Cross-reference factors effecting sponsorship, funding, and schedules of implementation.

IMP 17 Clarify the relationship between current downstream planning activities and possible major upstream activities that could impact volumes and timing of flows.

IMP 18 NMFS should include a list of small "stresses" that cumulatively could impact species, and what or who is responsible for them. The list could also include mitigation measures.

Implementation

IPL 1 NMFS should prioritize its projects in the Draft Recovery Plan to achieve maximum yield of increasing fish populations per dollar spent. Prioritization should emphasize actions that are broadly-supported, have the highest probability of achieving desired outcomes, and are cost-effective and implementable.

IPL 2 NMFS should spend less money and time on administrative efforts and studies, and put the monies on the ground to increase good habitat for the fish instead.

IPL 3 The Recovery Plan must examine all costs associated with the implementation of the recovery actions, including direct costs, indirect costs, and socio-economic costs stemming from recovery measures, including cost projections on measures involving proposed major long-term infrastructure. NMFS should also plan for possible liability in its cost estimations.

IPL 4 NMFS must take into consideration technical feasibility, economic feasibility, regulatory feasibility, and logistical feasibility when evaluating recovery plan actions.

IPL 5 Improve incentive structures to encourage beneficial actions and voluntary investments in improvements to contribute toward recovery plan goals.

IPL 6 NMFS should plan a strategy for funding both the immediate and longer-term actions that the Recovery Plan recommends, which would include a concerted campaign to secure federal funding.

IPL 7 The Recovery Plan does not recognize the financial constraints of NMFS and other agencies that could severely limit the ability to implement some of these proposed actions now and in the future.

IPL 8 There is concern that the species being considered for recovery have, or may become, extirpated before NMFS takes action. The Draft Recovery Plan appears to emphasize selecting optimal actions over getting things done on the fast track. The Final Plan should consider the trade-offs between certainty and the need for speedy action.

IPL 9 The prioritization process should not de-emphasize watersheds where there is a lack of data or where habitats have been more heavily impacted than in other watersheds (i.e. previous mining, hydroelectric, agricultural diversion, or industrial and municipal diversion).

IPL 10 NMFS's design criteria for fish screens and fish ladders make their installation cost-prohibitive for most small water diverters.

IPL 11 NMFS did not include the near-term funding and workforce needs for U.S. Forest Service analysis and planning associated with the action item of enhancing watershed resiliency from catastrophic wildfires.

IPL 12 NMFS should identify those projects where successful above-dam reintroductions have been accomplished. The Draft Recovery Plan should identify who will conduct fish passage research and if there is adequate funding available for this research.

IPL 13 The U.S. Forest Service would appreciate the opportunity to work with NMFS to ensure that estimates of the costs and timeframes associated with this planning, consultation and coordination are included in the implementation schedule.

Peer Review

REV 1 It is crucial that NMFS seek independent peer review of the Draft Recovery Plan to ensure that the plan reflects the best available science, commercial data, and analysis of impacts in order to guide the recovery of listed species.

Recovery Actions

RAC 1 Provide non-consumptive water for Stillwater Creek for all four salmon runs.

RAC 2 Move the Sacramento River levies (especially along the Feather River below Orville Dam) back to expand the river and create natural habitat for the survival of the juvenile salmon.

RAC 3 Reduce the bypass flow from Fremont weir from the 8,000 cfs, proposed in the Draft Recovery Plan, to 2,000 cfs to avoid stranding young salmon.

RAC 4 Create a state-of-the-art hatchery on the main stem of the Sacramento River below Keswick dam for fall and late-fall fish and steelhead.

RAC 5 Install hatch boxes in Cow, Cottonwood, Bear, and Clear creeks for fall run salmon.

RAC 6 Build a weir at the mouth of Battle Creek to control overcrowding and end all accessing of fish at the hatchery.

RAC 7 Investigate the use of flushing flows to improve the passage of both hatchery and wild juvenile winter-run and fall-run salmon on the Sacramento River.

RAC 8 Move the Coleman Fish Hatchery to the base of Keswick Dam.

RAC 9 Consider the technical, logistical, and financial feasibility of providing fish passage at the Englebright Dam, as well as the flows necessary for a successful introduction of salmon and steelhead upstream of the dam.

RAC 10 Recovery efforts on the Merced River should be persistent in order to recover anadromous fisheries and aquatic habitat.

RAC 11 Develop more cost-effective criteria and designs for fish ladders and fish screens.

RAC 12 Clearly define the terms and information used to establish recovery area boundaries and criteria, and use the most up-to-date information available.

RAC 13 Remove all dams on Antelope Creek.

RAC 14 Close the rivers to salmon and steelhead fishing in order to preserve the species, and close the river to power boats during critical spawning periods.

RAC 15 More analysis needs to be conducted to consider the viability of passing anadromous fish above Black Butte Dam.

RAC 16 Additional data collection and weighing of benefits and risks is needed before considering barrier modification.

RAC 17 The only steelhead spawning/rearing habitat on Thomes Creek is within USFS boundary and gravel abundance is not a limiting factor.

RAC 18 The acquirement of key undeveloped lands, such as those adjacent to anadromous fish habitats, and transference of these lands to USFS management to preserve their wild condition, could be the most cost-effective action taken today to ensure the potential recovery of the three fish stocks.

RAC 19 Movement of the Coleman National Fish Hatchery is not in line with existing Battle Creek and CALFED agreements and the recently signed Memorandum of Understanding.

RAC 20 Consider the use of multiple solutions, such as retrofitting existing structures or the use of non-inflatable seasonal structures to improve sediment transport and fish passage.

RAC 21 There is no reason to discontinue stocking above Upper Falls in Deer Creek.

RAC 22 Raise the priority of passage impediments/barriers affecting adult immigration and spawning in Auburn Ravine/Coon Creek Watershed.

RAC 23 Adjust and broaden the recovery plan strategy to realistically target more doable and cumulatively effective actions for near-term and mid-term implementation, and lower the priority of extremely challenging and infeasible long-term actions as part of a more realistic and achievable long-term recovery plan strategy.

RAC 24 Aggressively pursue, prioritize, build upon and expand long-term on Priority 1 Recovery Actions 1.2.12, 1.2.14, 1.2.15, 1.2.16, and 1.2.18.

RAC 25 Prioritize and expand coordination with the Pacific Fisheries Management Council to reassess and improve regulation of ocean fisheries.

RAC 26 Consider new and expanded surface and groundwater facilities as tools to assist with future climate change and current conflicts between consumptive use demands and asynchronous instream flow needs.

RAC 27 Implement more effective gravel replenishment programs and employ additional techniques, such as hydraulic egg planting device, to jump-start runs in the areas below Keswick Dam.

RAC 28 NMFS should lend full support for Sites Reservoir, which would meet some of the West Side irrigation demands from Sites during the summer, and return the water from the Sacramento River to Sites Reservoir in the fall.

RAC 29 The recovery plan should provide strategies and recovery actions to address Delta issues in the following areas: entrainment, migration route flow impacts due to Delta Cross Channel (DCC) and other operations, predation by non-native species, and loss of Delta rearing habitat.

RAC 30 Consider rerouting the Mokelumne River to the Sacramento River upstream of the DCC as a recovery action to reduce straying and avoid the high morality rates in the interior Delta.

RAC 31 Natural barriers limit habitat restoration opportunities for both spring-run Chinook and steelhead in the region above Pardee Dam; thus restoration efforts should focus on Dry and Sutter creeks and the upper Mokelumne River below Camanche Dam.

RAC 32 The closure of the DCC and placement of barriers in the Georgianna Slough would exclude a significant portion of the Delta as rearing habitat for Sacramento origin salmonid rearing. If the Delta is fixed, then the habitat in the interior Delta should be suitable rearing habitat for juvenile salmonids and thus measures to restrict access might actually be detrimental to recovery.

RAC 33 The nature of the Camanche permit and lack of existing data do not support the need to dedicate additional flows to steelhead.

RAC 34 NMFS should consider having tiered standards for fish screens to make it more economic for small operators to screen their diversions.

RAC 35 Restoration efforts on the Yuba River should include the restoration of habitat complexity and diversity in the form of riparian, large wood and off-channel habitats.

RAC 36 Clear direction from an overarching plan with recovery as the primary goal for the Feather River is needed if the actions proposed in the Oroville Settlement Agreement are going to achieve the greatest results.

RAC 37 Fish ladders must be used in places where dams are contemplated to be removed.

RAC 38 Recovery Action 1.6.5., which calls for floodgates to be opened wide and for absolute maximum flow outflow rates during certain portions of the irrigation season, would cause the sudden dislodging of salmonid eggs, the dislocation of salmonid juveniles, and the traumatic disturbance of spawning habitat.

RAC 39 All urban coastal areas between Mendocino/Sonoma County Line and the U.S./Mexico border, as well as all shore areas between the Mendocino/Sonoma County Line and the U.S./Mexico border, should be required to, at the earliest possible opportunity, use desalinated ocean water for their primary principal source of potable water and must be required to make the fullest possible use of recycled wastewater.

RAC 40 The Priority 1 recovery actions plans identified for the Yuba River should be reassessed. Items listed as Priority 1 that are not necessary to "prevent extinction" of the spring-run Chinook salmon or the steelhead populations should be classified as Priority 2 actions.

RAC 41 The steelhead recovery action plans are poorly rationalized with little or no scientific justification presented.

RAC 42 There is no need to conduct a feasibility study as part of Recovery Action 2.10.33.2 since trout habitat above the dam is not suitable because of the lack of cold water.

RAC 43 Instream flow evaluation in the Calaveras River is not the appropriate type of study for determining spawning gravel use, and it is unclear what is meant by determining "improved use of existing spawning gravel."

RAC 44 There is not enough water supplies to implement Recovery Action 2.10.54.4.

RAC 45 The threats assessment for steelhead populations in the San Joaquin River basin indicate that flows are suitable for all life stages, therefore an instream flow evaluation as proposed in Recovery Actions 2.10.4.2, 2.10.4.3, 2.10.8.3, 2.10.21.2, 2.10.21.3, 2.10.21.4, 2.10.21.5, and 2.10.34.2 are not appropriate.

RAC 46 There are too few O. mykiss migrants to determine migration responses to varying flow levels as proposed in Recovery Action 2.10.10.1.

RAC 47 The suitability of water temperatures for O. mykiss has been demonstrated in the persistence of O. mykiss populations, thus Recovery Actions 2.10.15.8, 2.10.36.1, and 2.10.36.2 should be removed.

RAC 48 Resident O. mykiss abundance can be further improved on the Merced and Tuolumne Rivers by increasing physical habitat complexity with the addition of woody debris, boulders, and other features that promote cover, scouring, shear zones, depth, turbulence, etc.

RAC 49 Actions to improve survival in the Delta for the benefit of O. mykiss and several other native species should be higher priority than conducting the Recovery Action 1.11.3.1 feasibility study.

RAC 50 Restoration of riparian habitat and instream cover may improve O. mykiss abundance, but a substantial increase in population should not be expected.

RAC 51 Recovery Action 2.10.5.1 should be removed as a coarse sediment management plan has already been developed.

RAC 52 Recovery strategies for West Placer streams should address the unique needs and life history of "half-pounder" steelhead population.

RAC 53 The major rivers of the Southern Sierra Diversity Group (Calaveras, Stanislaus, Tuolumne, Merced, and lower San Joaquin) should all be given equal and urgent priority. The Merced River in particular should be listed as a Priority 1 for Recovery Actions.

RAC 54 Central Valley steelhead and spring-run Chinook salmon populations should be re-established above rim dams for every major diversity group.

RAC 55 Recovery actions in habitat essential to securing extant populations should be given priority.

RAC 56 The Lassen National Forest long-term strategy for anadromous fish-producing streams should be considered in the recovery actions.

RAC 57 Reevaluate the need for costly flow evaluations and passage implementation in the Bear River.

RAC 58 An Englebright Dam Reach spawning habitat rehabilitation project should be expanded to include other actions beyond gravel augmentation.

RAC 59 The creation of new side-channel habitats associated with existing stands of riparian vegetation that are not presently hydraulically connected to the Yuba River channel should be listed as Priority 2 actions instead of Priority 1.

RAC 60 The proposed recovery action of increasing floodplain habitat availability below Englebright Dam is undefined and ambiguous. NMFS should provide further details around this proposed action.

RAC 61 Include the upper Yuba River Basin as a primary-priority area for reintroduction.

RAC 62 Instream improvements to the Merced River should be limited to those that will maximize opportunistic use whenever freshets provide migration access to steelheads.

RAC 63 The Draft Recovery Plan should evaluate that recovery of Central Valley DPS populations may not be possible, and that the recovery goals established in the recovery plan could be unachievable.

RAC 64 The recovery overview scenarios must address political, economic, and financial feasibility.

RAC 65 NMFS should focus on improving physical habitat, which has been demonstrated to increase O. mykiss production potential.

RAC 66 Remove Recovery Action 2.10.21.1, as ambient air temperature has been determined to be the primary factor affecting water temperature in the San Joaquin River basin.

RAC 67 Extensive restoration is needed in the Cow Creek Watershed for a population to persist.

RAC 68 NMFS should consider a siphon that brings McCloud River water over the Jones Valley Ridge as a recovery action to enable Stillwater Creek to become a year-round natural spawning stream for all four runs of Sacramento River salmon.

RAC 69 The Draft Recovery Plan does not include independent technical rationales for the proposed recovery actions on South Cow and Old Cow Creeks.

RAC 70 The Draft Recovery Plan should clarify what fishery purpose is being served by decommissioning and removing the Old Cow Creek Project, along with the probability that potential benefits would be achieved.

RAC 71 Recovery actions focused on screening unscreened diversions in the Calaveras River should be revised reflect that temporary screens are in place at Bellota Weir.

RAC 72 Recovery actions to improve rearing habitat, including "increasing floodplain habitat availability" should receive a separate action, description, and cost estimate.

RAC 73 Because the Merced River is classified as wild and scenic, this designation would eliminate the possibility of constructing any structures for facilitating passage of steelhead around the four dams on the lower Merced River.

RAC 74 When providing specific targets (i.e. time scales, flow) in Recovery Actions, please provide information on why those targets are necessary, how they were developed, and any associated analysis.

RAC 75 The Feather River population was not assessed by the Technical Recovery Team due to insufficient data. It would be helpful to know what information is needed so the Team can make an assessment.

RAC 76 Paynes Crossing should be added as a Recovery Action.

RAC 77 Proposed recovery actions that rely on assumed floodplain rearing by juvenille steelhead and resident trout should be carefully evaluated and coordinated with any floodplain habitat reconstruction projects.

RAC 78 Clarify the need and benefits of Sites Reservoir Construction to take pressure off of Shasta Lake.

RAC 79 Recovery actions should focus on the creation and/or restoration of available habitat.

RAC 80 NMFS should rely on available temperature data and basic air/water temperature models to infer future climate habitat potential in the Basalt and Porous Lava diversity group streams.

RAC 81 A Recovery Action should be included to expedite requests for scientific anadromous fish study take permits.

RAC 82 The feasibility, practicability, and benefits of releasing experimental populations of salmon and steelhead should be evaluated in the Draft Recovery Plan.

RAC 83 The steelhead currently accessing or historically found in Beegum Creek do not deserve more than a Core 2 Recovery focus within the Northwestern California Diversity Group.

RAC 84 Recovery actions should focus on flows that are too high for fry, or temperatures that are too cold on McCloud River.

RAC 85 Increasing knowledge of the factors that drive life-history expression would be a more useful recovery action for steelhead on the Stanislaus River than conducting a new instream flow evaluation.

RAC 86 NMFS should clarify whether they intend to convert the Merced River Hatchery to produce steelhead or not.

RAC 87 NMFS should clarify how they intend on collecting distribution and abundance data for O. mykiss in habitats accessible to anadromous fish.

RAC 88 The Draft Recovery Plan should summarize key recovery strategy components, especially those elements of the near-term approach, in order to make the strategy less complex for readers.

RAC 89 The Draft Recovery Plan should ensure Priority 1 actions are consistent with the strategy outlined, and further clarify, if necessary, how primary and secondary actions compare and/or fit with one another.

RAC 90 NMFS should clarify the value of Diversity Groups when assessing the current distributions and populations.

RAC 91 NMFS should clarify who will be conducting the feasibility studies proposed for steelhead in the Merced River. NMFS should also clarify what the next steps would be if fish passage studies were not found to be feasible here.

RAC 92 NMFS should provide the rationale or data to demonstrate that pulse flows "attract" steelhead into rivers, thereby resulting in higher annual adult returns.

RAC 93 Existing initiatives for restoration of floodplains, riparian, and intertidal wetland habitats should be considered as core recovery elements while impacts to existing flood control and land use patterns should be minimized.

Regulatory Compliance

REG 1 Given that the majority of proposed projects in the Draft Recovery Plan involve federal actions, NMFS should be prepared to conduct proper analysis under the National Environmental Policy Act (NEPA).

REG 2 The lower canyon section of Thomes Creek is eligible for being designated as Wild under the Wild and Scenic Rivers Act (WSRA). Construction activities in this reach are not consistent with the current Forest Plan, and USFS policy on management of eligible streams. Additional coordination with the USFS will be required regarding streams designated under the WSRA.

REG 3 The direct benefit to the fish species from changing regulations needs to be established. Regulations include modifications to federal and state requirements for waste discharge, Army Corps Section 404 requirements for currently exempt routine agriculture, and potential new Section 4(d) prohibitions and limits for fish screen design.

REG 4 Compliance with existing federal and state regulations should not be listed as a recovery action, because is already required and should already be happening.

REG 5 The Plan should clarify how the recommendations from the Plan will be provided through the Section 7 Consultation process.

REG 6 NMFS must hold parties accountable for take violations in light of almost extinct populations of threatened species in the Central Valley.

REG 7 The Endangered Species Act requires recovery plans to have objective, measurable criteria; yet, the factors identified here are largely subjective and can be easily manipulated to fit a desired outcome.

REG 8 Coordination is required to ensure identified recovery actions meet regulatory terms and conditions of FERC relicensing negotiations that are ongoing in the upper McCloud River.

REG 9 The dedication of instream flows through Section 7 implementation or the Camanche permit extension process is overly limiting and prescriptive since NMFS previously concluded that Section 7 consultation for the JSA was complete for CV steelhead.

REG 10 The Draft Plan is missing factors that are included in current regulatory documents or conservation measures (i.e., Central Valley Project Improvement Act actions, Operations Criteria and Plan Biological Opinion's Reasonable and Prudent Alternatives, and regulatory codes).

REG 11 The Draft Recovery Plan should cite important FERC relicensing actions for hydroelectric projects in the Merced River, including Section 18 Fishway Prescription and compliance with other federal laws.

REG 12 NMFS should work with other resource agencies for the enforcement of State-Federal laws governing streambed alteration, water quality, water quantity, and facilities operations.

REG 13 There needs to be a clear distinction between Central Valley Project Improvement Act actions and projects in the Draft Recovery Plan in order to avoid duplicative efforts.

Research, Monitoring, Evaluation Needs

RME 1 Available information relevant to the Draft Recovery Plan should be collected, evaluated, and stored in easy to access files.

RME 2 Data collection could be improved by installing monitoring instrumentation in the Sacramento River at various key locations to determine the timing and magnitude of fish movement.

RME 3 Use existing year-round trout habitat to model steelhead juvenile outmigration to find the number of spawners likely to return to the headwaters of the Stony watershed.

RME 4 When designing proposed feasibility studies, the potential that desirable cool water habitats that are currently blocked could potentially become inhospitable before introduced populations evolve. Current climate change modeling could help with this information, which needs to be included in all habitat evaluations and reintroduction plans.

RME 5 In order to begin evaluating the potential residualization problem of juvenile salmonids in reservoirs, some initial research efforts could be undertaken.

RME 6 A comprehensive research and monitoring program is needed to properly identify O. mykiss abundance and distribution, and most importantly, factors that drive anadromy before appropriate recovery actions can be developed.

RME 7 Critical research on fish passage above rim dams, reintroductions, and climate changes (passage around limiting dams in the lower rivers) and the collection of distribution and abundance data for O. mykiss in habitats accessible to anadromous fish should be priorities.

RME 8 It is fundamentally important to conduct population surveys of resident O. mykiss in currently disconnected areas to evaluate existing use, possible competition, and the likelihood of successful reintroduction of anadromous salmonids.

RME 9 NMFS should conduct follow-up studies where previous or ongoing studies are poorly designed or inconclusive.

RME 10 Seven critical studies are needed for Central Valley Steelhead and Spring-run Chinook Salmon, which would evaluate habitat, passage, and environmental conditions on the Merced River to evaluate alternatives and feasibility of recovery actions.

RME 11 In regards to Recovery Action 2.10.57.6 for the San Joaquin River basin, rapid increases and decreases in flows should be evaluated with real-time monitoring to assess affects on migratory response in O. mykiss.

RME 12 Install new "real-time" fish counters in rivers and creeks.

RME 13 Recovery actions should mitigate low flow periods in Auburn Ravine, Doty Ravine and Coon Creek watersheds when irrigation season ends.

Threat Abatement Criteria and Mitigation

THC 1 Restrict water use on salt rich west side soil (San Joaquin River) by planting xerics and trees instead of lawns and requiring farmers to install more subsurface micro drip irrigation.

THC 2 Consider reducing predatory species abundance to a level that allows for protection of the protected species.

THC 3 Improved understanding of changing conditions (multi-trophic interactions, ocean currents, upwelling patterns, ocean temperatures, and other relevant factors) should be weighed against inland stressors and threats in terms of regulatory allocation of responsibility and integrated with climate change research and findings over the long-term.

THC 4 Economic and other sanctions should be imposed on tribes that practice reckless gillnetting.

THC 5 There is no evidence that instream flows are a factor limiting resident or anadromous O. mykiss production in the San Joaquin River basin.

THC 6 Remove non-native predatory and competitor fish to restore "downstream" habitat in the lower Stanislaus River, and provide greater food and habitat availability and less predation loss to anadromous O. mykiss.

THC 7 There is no research that indicates that a lack of suitable spawning and rearing habitat may reduce the likelihood of establishing a viable steelhead population in the Stanislaus River.

THC 8 Information presented in Appendix B of the Draft Recovery Plan indicate that the temperatures in the Stanislaus River are adequate for all life stages of O. mykiss, thus additional instream flows or riparian habitat to promote shading are not warranted with regard to management temperatures.

THC 9 There is no information to suggest that the existing flow standards at the La Grange and New Don Pedro dams are unsuitable for spawning.

THC 10 The Recovery Plan should recognize that both Chinook salmon and steelhead have unique life histories that will require different flow regimes and patterns.

THC 11 The Draft Recovery Plan should spell out the rigid enforcement of adipose fin-clipping of hatchery steelhead.

THC 12 The New Melones Dam on the Stanislaus River should be removed or modified to restore fish access or improve passage to historically accessible spawning habitat.

THC 13 The Draft Recovery Plan should lay out the steps to improve flow, temperature, and water quality in Central Valley rivers supporting steelhead stocks.

THC 14 Population growth should be accounted for and integrated throughout the Recovery Plan in regards to reduced water supply and availability.

THC 15 The threats analysis is confusing and difficult to track throughout the document and within the Appendices. The approach should be reconsidered or restructured to provide some clarity to the process.

THC 16 Marine mammal population reductions, under regulation and supervision, could improve species recovery.

THC 17 If sport fishing closure is required as part of recovery, then closures should be applied on a case-by-case basis, not to the DPS as a whole.

THC 18 NMFS should clarify how they have authority under "FERC processes" to compensate for the loss of habitat caused by gravel mining or non-FERC dams.

Threats and Limiting Factors

THR 1 Consider the pesticides nitrate and clorimine as causes for population declines.

THR 2 Consider the influence the Tracy Pumps have had on destroying the water quality of the spawning habitat in the upper Central Valley north of Red Bluff, California.

THR 3 Multiple limiting factors should be evaluated before implementing Recovery Actions on Putah Creek.

THR 4 Consider the hundreds of boats on the Sacramento River and their impact on the fish populations.

THR 5 Consider road-related erosion and its affects on fish habitat.

THR 6 Dam removal should be considered as the key to species recovery.

THR 7 Sea lions and Humboldt squid should be considered as predators of salmon and steelhead.

THR 8 The major limiting factor and threat to Mokelumne River salmonids is poor survival rates in the interior Delta.

THR 9 Include Feather River Hatchery in the list of Reasons for Listing/Threats Assessment as an important factor.

THR 10 Sportsmen and poachers are still having an impact on salmon and steelhead populations.

THR 11 The Draft Recovery Plan must expand on the different threats affecting Central Valley steelhead and spring-run Chinook.

THR 12 Consider the potential threat posed against salmonid populations by the Peripheral Canal.

THR 13 Current annual escapements of steelhead in the Calaveras River may have been influenced by other factors beyond what is noted in the Draft Recovery Plan.

THR 14 Environmental conditions, such as high water temperatures and low dissolved oxygen concentrations, are not a problem for migrating adult salmonids below Bellota Weir.

THR 15 Predation on juvenile salmonids is very high in Tuolumne River, and snorkel surveys confirm the presence of large numbers of non-native predators, especially largemouth bass.

THR 16 Water temperatures in the Tuolumne River are not a limiting factor for O. mykiss.

THR 17 Crocker Huffman Diversion Dam, Merced Falls Dam, McSwain Dam, and New Exchequer Dam should all be identified as stressors.

THR 18 Habitat loss and water temperature on the Tuolumne River and Merced River are threats to spring-run Chinook salmon and steelhead.

THR 19 The Grassland Bypass Project has been a long-time stressor to salmonids in the San Joaquin River and Delta, and should be reflected as such in the Draft Recovery Plan.

THR 20 Consider the potentially different impacts of climate change on salmonids in the upper Yuba River Watershed versus on the lower Yuba River.

THR 21 Consider temperature increases in the upper watersheds proposed for reintroduction due to climate change.

THR 22 NMFS should explain why the discharges from the Lincoln Wastewater Treatment and Reclamation Facility and Auburn Wastewater Treatment Plant are allowed, when they are likely warmer than Auburn Ravine.

THR 23 The majority of the effects and influences on the Southern Sierra Diversity Group related to flows originate from the Mokelumne River, Sacramento River via the Delta Cross Channel, and operations at the State and Federal water projects.

THR 24 The Draft Recovery Plan contains no mention of the rebuild of the Woodbridge Dam and state-of-the-art fish screens that NMFS was involved in the design and certification of. Since the ladders went into operation there have been no data indicating that the ladders/dam impedes passage at low flows upstream from Thornton.

THR 25 The East Bay Municipal Utility District has taken actions since a 1991 California Department of Fish and Game report to alleviate previous lethal levels of dissolved oxygen and hydrogen sulfide along with heavy metal that cause fish kills. These and other actions should be taken into consideration in the Draft Recovery Plan.

THR 26 There is no evidence that instream flows or water temperatures are a factor limiting resident or anadromous O. mykiss production in the Calaveras River.

THR 27 There is no evidence that the present flow regime in the Stanislaus River negatively impacts juvenile O. mykiss, and the Draft Recovery Plan should be edited accordingly.

THR 28 NMFS should provide evidence to support findings that flow fluctuations in the Merced River are affecting steelhead embryo incubation and spawning, as well as providing evidence that temperature is affecting steelhead adults and spawning in the Merced River.

THR 29 There are many other factors that have affected habitat besides the loss of habitat caused by dams. Discussions in the Draft Recovery Plan should reflect that.

Comment Acknowledged

ACK 1 Includes submissions that do not contain substantive comments pertinent to the Draft Recovery Plan.

APPENDIX A

SUBMISSION INDEX

Commenter	Submission ID	Comments
Aikens, Curt *Yuba County Water Agency*	81	BCR 3, COR 7, EDI 2, EDI 3, GEN 10, HAB 23, IPL 1, IPL 3, IPL 7, RAC 23, RAC 40, RAC 58, RAC 59, RAC 60, RAC 61, THR 20
Albrecht, David	14, 64	ABD 6, DATA 2, EDI 1, EDI 2, HAB 37, RAC 67, RAC 69, RAC 70
Baker, Devin	49	THR 6
Balkovek, Gregory	30	ABD 1, HAB 1
Banks, Percivel *California Salmon and Steelhead Association*	50	DATA 1, HAB 16, HAB 17, HAB 18, HAB 30, RAC 52
Barkley, Mike	47	DATA 1
Bates, Gregg *Dry Creek Conservancy*	85	ABD 5, COR 31, COR 32, DATA 1, HAB 24, HAB 25, HAB 26
Brobeck, Jim	8	DATA 1
Brochini, Anthony *Southern Sierra Miwuk Nation, American Indian Council of Mariposa*	60	DATA 1, RAC 10
Brown, Ryan	36	HAB 2, IPL 2, RAC 79
Brown, Shannon *University of California Davis, Center for Watershed Sciences*	5	ACK 1
Buzzard, Diane *Special Projects Office/BOR*	3	ACK 1, IMP 6, RAC 19
Cannon, Tom *Wildlands Incorporated*	12, 48	COR 2, IMP 18, RAC 23, RAC 3
Chainey, Steve *EDAW*	1	ACK 1

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Chamberlain, Lewis	24	GEN 1, RAC 1
Charles, Cindy *Golden West Women Flyfishers*	53	BCR 4, COR 20, COR 21, COR 22, COR 23, COR 24, COR 25, COR 29, DATA 1, DATA 2, EDI 1, EDI 2, HAB 19, IMP 15, IPL 6, IPL 7, IPL 8, IPL 9, RAC 53, RAC 54, REG 11, REG 12, REG 6, RME 10, RME 7, RME 8, RME 9, THC 10, THR 17, THR 18
Chotkowski, Michael *U.S. Bureau of Reclamation*	40	EDI 2, GEN 7, REG 5
Conti, CJ *Del Oro High School*	63	ACK 1
Dablio, Marianita	73	ACK 1
Dalrymple, Maryann *Stockton East Water District*	39	ACK 1
Edwards, Jim *Edwards Ranch*	69	DATA 1
Egan, Robin *Granite Bay Flycasters*	50	DATA 1, HAB 16, HAB 17, HAB 18, HAB 30, RAC 52
Farquhar, Jay	23	GEN 1, RAC 1
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Fredrickson, Justin *California Farm Bureau Federation*	61	COR 13, COR 14, COR 15, COR 30, IMP 17, IMP 8, IMP 9, IPL 1, IPL 3, IPL 4, IPL 5, RAC 20, RAC 23, RAC 24, RAC 25, RAC 26, RAC 82, RAC 93, REG 1, REG 3, REV 1, THC 2, THC 3
Godwin, Arthur *Mason, Robbins, Browning & Godwin*	46	ACK 1
Hadley, Elizabeth *Redding Electric Utility*	32	COR 10, COR 11, COR 12, IMP 7, REG 13

Commenter	Submission ID	Comments
Harthorn, Allen *Friends of Butte Creek*	4	DATA 1, EDI 2, HAB 20
Haynes, Brenda *Assemblyman Jim Nielsen*	18	ACK 1
Hoffman-Floerke, Dale *Department of Water Resources*	83	ABD 10, ABD 2, ABD 9, BCR 2, COR 33, COR 4, DATA 1, DATA 2, EDI 1, EDI 2, EDI 3, GEN 11, GEN 12, GEN 15, HAB 10, HAB 27, RAC 36, RAC 74, RAC 75, RAC 76, REG 10, THR 10, THR 11, THR 9
Holtrop, Joel *United States Department of Agriculture, United States Forest Service*	70	ABD 7, COR 8, DATA 2, EDI 1, EDI 2, EDI 3, HAB 32, HAB 33, HAB 5, HAB 6, HAB 7, IMP 1, IMP 2, IMP 3, IMP 4, IMP 5, IPL 11, IPL 13, RAC 15, RAC 16, RAC 17, RAC 18, RAC 83, REG 2, REG 8, RME 3, RME 4
Howland, Justin	22	GEN 1, RAC 1
Johnson, Brian *Trout Unlimited*	53	BCR 4, COR 20, COR 21, COR 22, COR 23, COR 24, COR 25, COR 29, DATA 1, DATA 2, EDI 1, EDI 2, HAB 19, IMP 15, IPL 6, IPL 7, IPL 8, IPL 9, RAC 53, RAC 54, REG 11, REG 12, REG 6, RME 10, RME 7, RME 8, RME 9, THC 10, THR 17, THR 18
Kleinfelter, John *Department of Water Resources*	45	COR 4
Martin, Michael *Merced River Conservation Committee*	53	BCR 4, COR 20, COR 21, COR 22, COR 23, COR 24, COR 25, COR 29, DATA 1, DATA 2, EDI 1, EDI 2, HAB 19, IMP 15, IPL 6, IPL 7, IPL 8, IPL 9, RAC 53, RAC 54, REG 11, REG 12, REG 6, RME 10, RME 7, RME 8, RME 9, THC 10, THR 17, THR 18
Maurizi, Alex	10	DATA 1
Meamber, Don	11	RAC 2
Mlcoch, Mark *NORCAL Guides and Sportsmen's Association*	38	DATA 1, RAC 27, RAC 4, RAC 5, RAC 6, RME 12

Commenter	Submission ID	Comments
Moller, David *Pacific Gas and Electric Company*	65	COR 7, IPL 10, RAC 11
Moore, MJ	15	ACK 1
Morgan, Lee *Mendocino National Forest*	16	COR 9, THR 5
Morrison, Ed	25	ACK 1
Morse, Kathleen *United States Department of Agriculture, Forest Service, the Lassen National Forest*	54	DATA 2, EDI 3, RAC 55, RAC 56, RAC 88, RAC 89, RAC 90, THC 15
Murphy, Richard *RMG Appraisers*	42	THR 2
N/A, Charles	20	DATA 1, IMP 10, IMP 11, IMP 14, RAC 37, RAC 38, RAC 39, REG 4, THC 16, THC 4, THR 12
Nelson, Ron *Nevada Irrigation District*	58	COR 1, COR 26, COR 5, COR 6, HAB 4, RAC 57, RAC 9, REG 1
O'Laughlin, Timothy *San Joaquin River Group Authority*	82	ABD 10, ABD 11, ABD 4, ABD 8, COR 19, COR 3, COR 4, DATA 1, DATA 2, EDI 1, EDI 2, EDI 3, GEN 13, GEN 14, GEN 8, GEN 9, HAB 12, HAB 13, HAB 14, HAB 34, HAB 35, HAB 36, IMP 14, IPL 12, IPL 3, RAC 41, RAC 42, RAC 43, RAC 44, RAC 45, RAC 46, RAC 47, RAC 48, RAC 49, RAC 50, RAC 51, RAC 62, RAC 63, RAC 64, RAC 65, RAC 66, RAC 71, RAC 73, RAC 85, RAC 86, RAC 87, RAC 91, RAC 92, REG 7, RME 11, RME 6, THC 18, THC 2, THC 5, THC 6, THC 7, THC 8, THC 9, THR 13, THR 14, THR 15, THR 16, THR 21, THR 26, THR 27, THR 28, THR 29
Okita, David *Solano County Water Agency*	66	DATA 1, DATA 2, EDI 1, EDI 2, HAB 31, RAC 12, THR 3

Commenter	Submission ID	Comments
Olson, Brenda *United States Fish and Wildlife Service - Red Bluff Fish and Wildlife Office*	26	ACK 1
Onizuka, Galen *Johnson Hicks Marine Electronics*	2	THR 1
Otto, Ronald *Ophir Property Owners Association, Incorporated, and the Auburn Ravine Preservation Committee*	50	DATA 1, HAB 16, HAB 17, HAB 18, HAB 30, RAC 52
Patten, Joseph *CH2M HILL*	71	DATA 1, EDI 2, IPL 1, RAC 27, RAC 28, THR 7
Patten, Joseph	72	DATA 1, RAC 27
Queen, Dehnert	7	ACK 1
Rabone, Geoffrey *Merced Irrigation District*	59	RAC 81
Reedy, Gary *South Yuba River Citizens League*	80	DATA 1, EDI 1, EDI 2, IMP 13, IMP 16, IPL 5, RAC 35, RAC 72
Richelieu, Jeff *Streamline Engineering*	13	DATA 1, RAC 13, THR 7
Roberts, Doug	67	RAC 14, THR 4

Commenter	Submission ID	Comments
Rockwell, Mark *Northern California Council, Federation of Fly Fishers*	50	DATA 1, HAB 16, HAB 17, HAB 18, HAB 30, RAC 52
Rothert, Steve *American Rivers*	53	BCR 4, COR 20, COR 21, COR 22, COR 23, COR 24, COR 25, COR 29, DATA 1, DATA 2, EDI 1, EDI 2, HAB 19, IMP 15, IPL 6, IPL 7, IPL 8, IPL 9, RAC 53, RAC 54, REG 11, REG 12, REG 6, RME 10, RME 7, RME 8, RME 9, THC 10, THR 17, THR 18
Sanchez, Jack *Save Auburn Ravine Salmon And Steelhead*	19, 50	COR 2, DATA 1, DATA 2, EDI 2, HAB 11, HAB 16, HAB 17, HAB 18, HAB 28, HAB 29, HAB 30, HAB 8, RAC 22, RAC 52, RME 13, THR 22
Savage, Holly *Deer Creek Watershed Conservancy*	43	COR 28, RAC 20, RAC 21
Schneider, Susan	31	ACK 1
Scott, Dougald *Northern California Council of the Federation of Fly Fishers, Incorporated*	52	ABD 3, BCR 1, EDI 2, THC 11, THC 12, THC 13, THC 14, THC 17, THR 11, THR 19
Shutes, Chris *California Sportfishing Protection Alliance*	53	BCR 4, COR 20, COR 21, COR 22, COR 23, COR 24, COR 25, COR 29, DATA 1, DATA 2, EDI 1, EDI 2, HAB 19, IMP 15, IPL 6, IPL 7, IPL 8, IPL 9, RAC 53, RAC 54, REG 11, REG 12, REG 6, RME 10, RME 7, RME 8, RME 9, THC 10, THR 17, THR 18
Smith, Randall	9, 17	ACK 1, HAB 1, HAB 21, RAC 68
Steindorf, Dave *American Whitewater*	53	BCR 4, COR 20, COR 21, COR 22, COR 23, COR 24, COR 25, COR 29, DATA 1, DATA 2, EDI 1, EDI 2, HAB 19, IMP 15, IPL 6, IPL 7, IPL 8, IPL 9, RAC 53, RAC 54, REG 11, REG 12, REG 6, RME 10, RME 7, RME 8, RME 9, THC 10, THR 17, THR 18
Stoecker, Matt *Stoecker Ecological*	51	EDI 1

Commenter	Submission ID	Comments
Stork, Ronald *Friends of the River*	53	BCR 4, COR 20, COR 21, COR 22, COR 23, COR 24, COR 25, COR 29, DATA 1, DATA 2, EDI 1, EDI 2, HAB 19, IMP 15, IPL 6, IPL 7, IPL 8, IPL 9, RAC 53, RAC 54, REG 11, REG 12, REG 6, RME 10, RME 7, RME 8, RME 9, THC 10, THR 17, THR 18
Stubblefield, Howard *Morgan Stanley Smith Barney*	21	ACK 1
Sykes, Richard *East Bay Municipal Utility District*	76	COR 17, COR 18, COR 20, COR 27, DATA 1, DATA 2, EDI 1, EDI 2, EDI 3, HAB 9, IMP 12, RAC 29, RAC 30, RAC 31, RAC 32, RAC 33, REG 9, THR 23, THR 24, THR 25, THR 8
Tavares, Trudy *Nystrom & Company LLP*	37	GEN 1, HAB 1, HAB 22
Ten Pas, Brent *Northern California Power Agency*	35	IPL 1, REG 13
Tussing, Steve *Terraqua Incorporated*	41	DATA 1, DATA 2, HAB 15, RAC 80
Unger, Arthur	6	THC 1
Unknown, Unknown	77	RAC 34
Unknown, Unknown	78	DATA 1
Unknown, Unknown	79	ACK 1
Vlamis, Barbara *AquAlliance*	33	DATA 1
Williams, John *Lincoln Open Space Committee*	50	DATA 1, HAB 16, HAB 17, HAB 18, HAB 30, RAC 52
Wilson, Howard *CH2MHILL*	68	HAB 3, RAC 7, RAC 8, RME 1, RME 2, THC 2
Yoshiyama, Ronald *San Francisco Public Utilities Commission*	28	COR 16, GEN 2, GEN 3, GEN 4, GEN 5, GEN 6, IPL 4, RAC 77, RME 5

APPENDIX B

COMMENT INDEX

Abundance, Behavior and Distribution

Category ABD 1 -- Abundance, Behavior, Distribution:
The depths of salmon decline throughout California should be explored, and measures that will restore salmon numbers to 1960-levels or better should be implemented.

s30 c28-- Balkovek Gregory

I urge you to fully explore the depths of salmon decline throughout California and to implement those measures that will restore salmon numbers, regardless of species, to 1960 numbers or better. *(Entered On:2/23/2010 11:47:08 AM)*

Category ABD 2 -- Abundance, Behavior, Distribution:
For spring-run Chinook, recent data collected by the Department of Water Resources from paired releases of spring-run juveniles released in the Bay and the river suggest that there is no evidence that fish strayed into other spring-run tributaries (e.g. Mill, Deer, Butte). There have been no reports of straying individuals collected in Butte Creek.

s83 c367-- Hoffman-Floerke Dale -- Department of Water Resources

Section 2.2.6 Reasons for Listing/Threats Assessment, page 36: Recent data collected by DWR from paired releases of spring-run juveniles released in the Bay and the river (1 million + for each location) suggestthat although straying occurs at a much higher rate for Bay releases, there is no evidence that fish strayed into other spring-run tributaries (e.g. Mill, Deer, Butte, etc.). Although spring-run have been 100% clipped and tagged (cwt) for several years, we have had no reports of any collected in Butte Creek (the only tributary with a cwt recovery program). This does not suggest that it's not occurring, just that if it is, the number of straying individuals must be quite low. *(Entered On:4/27/2010 10:53:10 AM)*

Category ABD 3 -- Abundance, Behavior, Distribution:
The rationale provided in the Draft Recovery Plan for the assignment of high viability potential for spring-run Chinook, but low potential for steelhead in the area below Friant Dam, is questionable.

s52 Scott Dougald -- Northern California Council of the Federation of Fly Fishers, Incorporated c638--

Viability Potential for Populations Below Friant Dam (Appendix A). The assignment of high viability potential for spring-run Chinook while at the same time assigning a low potential for steelhead is questionable. The assignment is primarily based upon the low presence of steelhead in the major tributaries of the San Joaquin River (the Tuolumne, Stanislaus, and Merced rivers) as well as the lack of floodplain rearing habitat in the San Joaquin River in general. Since the Upper San Joaquin will be managed for spring-run Chinook recovery, floodplain habitat that can also be utilized by steelhead will undoubtedly be provided. *(Entered On:4/27/2010 11:20:59 AM)*

Category ABD 4 -- Abundance, Behavior, Distribution:
In the conceptual recovery scenario, NMFS should provide documentation that steelhead spawning is occurring in the upper reach of the lower Merced River before assuming the population is at risk of extinction.

s82 c725-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 151, The lower Merced River is characterized as having a low to moderate potential to support a viable population of steelhead. If there are few data on Merced River steelhead to assess the status of steelhead populations, how can you make any assessment about the Merced River population? Do you assume that since data is lacking, then the population must be at risk of extinction? Why not assume that since data is lacking, there never was a viable population to begin with? *(Entered On:4/27/2010 11:46:14 AM)*

s82 c728-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 151, includes the maintenance of a steelhead spawning population in the upper reach of the lower Merced River extending from approximately the Highway 59 bridge (RM 42) upstream to the Crocker Huffman Dam (RM 52). The conceptual recovery scenario includes maintenance of steelhead spawning in the Merced River. What evidence does NMFS that steelhead spawning is occurring in that river segment currently? *(Entered On:4/27/2010 11:46:14 AM)*

Category ABD 5 -- Abundance, Behavior, Distribution:
The long-term persistence of Central Valley steelhead populations is dependent on the interrelationship between small stream and large stream populations. Restoration that focuses only on increasing absolute numbers and ignores the need to increase population diversity may be inadequate.

s85 c785-- Bates Gregg -- Dry Creek Conservancy

A reduction in the large river source populations may also explain the precipitous decline of steelhead in smaller streams, in spite of the large amount of quality habitat that still exists in these systems. Thus, restoration that focuses only on increasing absolute numbers and ignores the need to increase population diversity may be inadequate. *(Entered On:4/22/2010 2:17:55 PM)*

Category ABD 6 -- Abundance, Behavior, Distribution:
Winter Run Chinook should be included in the Cow Creek Watershed Profile, under "Species that Historically Occurred" and "Viability Potential."

s64 c76-- Albrecht David

Why are "Winter Run" Chinook not included [in the Cow Creek Watershed Profile: Appendix A; pages 143-149, Species that Historically Occurred]? *(Entered On:4/23/2010 11:52:52 AM)*

s64 c78-- Albrecht David

Why isn't "Winter Run Chinook" listed; even given potential may be "very low"? [in the Cow Creek Watershed Profile: Appendix A; pages 143-149, Viability Potential] *(Entered On:4/23/2010 11:52:52 AM)*

Category ABD 7 -- Abundance, Behavior, Distribution:
Historic occupation of Stony Creek by spring Chinook is unlikely as there was not suitable over-summer habitat in the creek or adjacent river.

s70 Holtrop Joel -- United States Department of Agriculture, United States c123-- Forest Service

Page 127, Map- It is unlikely that spring Chinook historically occupied Stony Creek as shown in the map. There was not suitable over summer habitat in the creek or adjacent river. *(Entered On:4/22/2010 2:04:08 PM)*

Category ABD 8 -- Abundance, Behavior, Distribution:
The Draft Recovery Plan overlooks San Joaquin Basin O. mykiss data for the Mokelumne, Calaveras, Stanislaus, Tuolumne, and Merced Rivers that demonstrate the abundance of resident populations, which may provide a genetic reservoir for the anadromous form in the basin.

s82 c435-- O'Laughlin Timothy -- San Joaquin River Group Authority

The Recovery Team either ignored, or negligently overlooked San Joaquin Basin O. mykiss data that certainly demonstrates the abundance of at least resident O. mykiss populations. These resident populations may provide a genetic reservoir for the anadromous form in the basin. In the last decade, substantial 0. mykiss data has been collected on the Mokelumne, Calaveras, Stanislaus, Tuolumne, and Merced Rivers. For instance, rotary screw straps have been annually documenting the abundance and timing of juvenile migrants in all of the tributaries for various lengths of time (January through June on the Stanislaus River since 1995). In the Stanislaus, weir counts have been conducted annually since 2003 between September and December (sometimes through June) to document adult escapement; while, snorkel surveys have been conducted on about a bi-weekly basis since 2002 to monitor the abundance, distribution, and habitat preferences of all life-stages of O. mykiss. Snorkel surveys and seining also occur regularly on the Tuolumne River and have occurred on the Calaveras River, as well. Some Electrofishing, seining and acoustic tracking has also been conducted in the Mokelumne. *(Entered On:4/27/2010 11:46:07 AM)*

Category ABD 9 -- Abundance, Behavior, Distribution:
The Draft Recovery Plan should include a more detailed discussion of alternative life histories and polymorphic populations.

s83 c371-- Hoffman-Floerke Dale -- Department of Water Resources

Section 2.3.3 Life History: There should be a more detailed discussion of alternative life histories and polymorphic populations, and especially how resident fish interrelate with steelhead. *(Entered On:4/27/2010 10:53:10 AM)*

Category ABD 10 -- Abundance, Behavior, Distribution:

There is a lack of consistency among terms used to describe different life-history forms for the same species (i.e. O. Mykiss) throughout the Draft Recovery Plan, which complicates constructive review. The Draft Recovery Plan should be modified to clarify the O. mykiss life-history dynamics, the historical presence, their distrubtion throughout California, and the status of O. mykiss populations in the San Joaquin Basin today.

s82 c432-- O'Laughlin Timothy -- San Joaquin River Group Authority

There is a lack of consistency among terms used to describe different life-history forms for the same species (i.e., O. mykiss) throughout the report, which is problematic because it complicates constructive review, but it also raises the question whether members of the Recovery Team understand basic O. mykiss life-history dynamics, the historical presence and distribution of O. mykiss throughout California, and most importantly, about the true status of O. mykiss populations in the San Joaquin Basin today. For instance, based on the following quotes we are unable to determine if San Joaquin Basin steelhead are "widespread," consist of a "small self-sustaining population," or are "not viable"? *(Entered On:4/27/2010 11:46:06 AM)*

s83 c358-- Hoffman-Floerke Dale -- Department of Water Resources

There needs to be more specificity regarding steelhead life history and their associated conservation measures. *(Entered On:4/27/2010 10:53:10 AM)*

Category ABD 11 -- Biological Recovery Criteria:

It is not realistic for NMFS to build recovery strategies for populations where there are no existing historical or current population estimates.

s82 c723-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 75, Population Level Delisting Criteria- Core 2 populations... You have identified several Central Valley streams as having "Core 2 populations", yet there are no population numbers for many of the streams, e.g., the Merced River. Without any population numbers, how do you know that these recovery numbers are realistic? *(Entered On:4/27/2010 11:46:14 AM)*

s82 c749-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 43, first paragraph. Your recovery plan does not indicate the San Joaquin Valley steelhead population size. How can recovery strategies be developed for a population when there are no historical or current population estimates? *(Entered On:4/27/2010 11:46:15 AM)*

Biological Recovery Criteria

Category BCR 1 -- Biological Recovery Criteria:
It appears that the current listing status is not consistent with the extinction risk for Central Valley steelhead. NMFS needs to review the science of threats, and the results of the conservation and protective programs that are in place, and if the programs have not been effective in stopping population decline, then the listing status should be upgraded to endangered.

s52 c643-- Scott Dougald -- Northern California Council of the Federation of Fly Fishers, Incorporated

It appears that the current listing status is not consistent with the extinction risk for Central Valley steelhead as stated in the Recovery Plan. We recommend that NMFS review the science of the threats that concerned the BRT, and the results of the conservation and protective programs that have been in place for more than 15 years. If the data show that the programs have not been effective in stopping the population decline, then the listing status should be upgraded to endangered. *(Entered On:4/27/2010 11:20:59 AM)*

Category BCR 2 -- Biological Recovery Criteria:
The Central Valley Project Improvement Act and CALFED may not be appropriate conservation measures to justify listing steelhead as threatened rather than endangered.

s83 c370-- Hoffman-Floerke Dale -- Department of Water Resources

Section 2.3.1, Brief Overview/Status of the Species, page 38: It should be noted here that others disagree that CVPIA and CALFED are appropriate conservation measures to justify listing steelhead as threatened rather than endangered (D. McEwan 2001). *(Entered On:4/27/2010 10:53:09 AM)*

Category BCR 3 -- Biological Recovery Criteria:
The Draft Recovery Plan should include consideration of the lower Yuba River population levels and trends relative to other Central Valley rivers to take into account out-of-basin factors.

s81 c670-- Aikens Curt -- Yuba County Water Agency

The Draft Plan (pgs. 63 and 71) states that Core 1 populations (including the lower Yuba River) must meet low-risk extinction criteria defined as a less than 5% extinction risk within 100 years, or all of the following: O Census population size is >2500 adults, or effective population size is >500 â€¢ No population decline is apparent or probable â€¢ No catastrophic events occurring or apparent within the past 10 years â€¢ Hatchery influence is low YCWA's concern is that the first two of these criteria do not take into account Central Valley-wide population trends. The habitat conditions in the lower Yuba River may be sufficient to support viable populations, yet specific levels or trends of these populations may not be able to meet these criteria due to out-of-basin factors. YCWA therefore suggests that the Draft Plan include consideration of the lower Yuba River population levels and trends relative to other Central Valley rivers to take into

account out-of-basin (e.g., ocean conditions) factors. *(Entered On:4/27/2010 11:10:52 AM)*

Category BCR 4 -- Biological Recovery Criteria:

The recovery scenarios include the objectives of a minimum of two viable populations of steelhead within each of the four extant steelhead Diversity Groups. NMFS should increase the minimum to ALL viable populations of steelhead in the Southern Sierra Nevada Diversity Group, including the Merced River.

s53 c618--	**Shutes**	**Chris**	**-- California Sportfishing Protection Alliance**
	Johnson	**Brian**	**-- Trout Unlimited**
	Stork	**Ronald**	**-- Friends of the River**
	Charles	**Cindy**	**-- Golden West Women Flyfishers**
	Rothert	**Steve**	**-- American Rivers**
	Steindorf	**Dave**	**-- American Whitewater**
	Martin	**Michael**	**-- Merced River Conservation Committee**

Therefore, the recovery scenarios include the objectives of a minimum of two viable populations of steelhead within each of the four extant steelhead Diversity Groups. Because of the extreme depletion (precariously depressed populations) among the Southern Sierra Nevada Diversity Group, we recommend that NMFS increase the minimum to all viable populations of steelhead in the Southern Sierra Nevada Diversity Group, and include the Merced River in that designation. *(Entered On:4/27/2010 11:39:13 AM)*

Coordination and Compatibility

Category COR 1 -- Coordination and Compatibility:
NMFS should involve the public and all stakeholders in the discussion and consideration of fish passage and flow issues, particularly related to introduction plans.

s58 c65-- Nelson Ron -- Nevada Irrigation District

If and when the feasibility of introduction [upper Yuba basin] becomes subject to more extensive scrutiny, NMFS should involve the public and all stakeholders in the discussion and consideration of fish passage and flow issues. Any introduction plan should, of course, be specific in its discussion of fish passage and flow requirements, and should represent a consensus among the relevant agencies, the public, and all stakeholders. *(Entered On:4/27/2010 9:49:14 AM)*

Category COR 2 -- Coordination and Compatibility:
Various non-governmental organizations would like to meet with NMFS to discuss next steps with the Draft Recovery Plan.

s19 c772-- Sanchez Jack -- Save Auburn Ravine Salmon And Steelhead

Attached are annotated corrections to the NMFS Auburn Ravine Profile. It appears to be written by someone unfamiliar with the Auburn Ravine. I and members of our Board of Directors would like to meet with you to discuss the many inaccuries in your report and how a report like this could be distributed by NMFS and how we can correct these inaccuracies. Thanks for your courtesy and and prompt attention on this serious matter. I have attached our SARSAS Strategic Plan and the SARSAS Four Phase Plan for Returning Salmon and Steelhead the the Auburn Ravine *(Entered On:4/22/2010 1:58:59 PM)*

s48 c425-- Cannon Tom -- Wildlands Incorporated

Attached is my first thoughts on the recovery plan and its guidance for our conservation banking program. [See Attachment]. We [Wildlands Inc] would like to meet with you in the near future to discuss where we go from here. *(Entered On:4/27/2010 11:10:02 AM)*

Category COR 3 -- Coordination and Compatibility:
The lack of dialogue with public and agency stakeholders since the steelhead was listed as a threatned species is of concern. NMFS need to explicitly outline how they plan to work cooperatively with stakeholders to implement recovery actions of the Draft Recovery Plan.

s82 c757-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 207 states: NMFS commits to working cooperatively with other individuals and agencies to implement recovery actions and to encourage other Federal agencies to implement actions where they have responsibility or authority. How can we be sure of NMFS "commitment" to work cooperatively? Since the steelhead was listed as a threatened species, there has been a lack of dialogue with public agency stakeholders

regarding potential cooperative arrangements in the San Joaquin Basin that could benefit steelhead. *(Entered On:4/27/2010 11:46:16 AM)*

Category COR 4 -- Coordination and Compatibility:
The definition of "involved parties" and the level of involvement that NMFS is expecting should be more clearly defined. There are various agencies that should also be included as involved parties in the Draft Recovery Plan.

s45 c163-- Kleinfelter John -- Department of Water Resources

As I was not able to find a definition in the document, my question is basically related to the term and meaning of â€œInvolved Partyâ€□. If possible, please provide some clarification or guidance on what is implied or intended for involved parties, and/or even an idea of the level of involvement expected. *(Entered On:4/27/2010 9:57:13 AM)*

s82 c740-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 194, 2.10.27 Shouldn't the Merced Irrigation District be included as an involved party? Why is DWR included as an interested party as they have no jurisdiction over the Merced River or steelhead? *(Entered On:4/27/2010 11:46:14 AM)*

s82 c763-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 188, 2.10.17.1, Implement actions identified in the San Joaquin River Restoration Program (e.g. Mendota Pool bypass). Shouldn't the San Joaquin River Exchange Contractors Water Authority be included as an involved party? *(Entered On:4/27/2010 11:46:15 AM)*

s82 c764-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 189, 2.10.18.1, Implement actions identified in the San Joaquin River-Restoration Program (e.g. retrofit Sack Dam). Shouldn't the San Joaquin River Exchange Contractors Water Authority be included as an involved party? *(Entered On:4/27/2010 11:46:15 AM)*

s83 c400-- Hoffman-Floerke Dale -- Department of Water Resources

Table 8-2, page 183: The level of involvement that NMFS expects from involved parties is unclear since the definition/role of involved parties is not clearly defined. *(Entered On:4/27/2010 10:53:11 AM)*

Category COR 5 -- Coordination and Compatibility:
The amount and timing of the water needs for any introduction effort of salmon or steelhead in the upper Yuba basin, or any new approach to water management, should be carefully evaluated with a view toward balancing these needs against the requirement or reliable water delivery to the Nevada Irrigation District's service area, at both current and predicted future levels of use.

s58 c59-- Nelson Ron -- Nevada Irrigation District

Fish passage and flow needs should be evaluated in light of the essential need to provide a consistent and clean water supply throughout our (Nevada Irrigation District) three county service area. Any introduction of salmon and steelhead in the Yuba River basin must be consistent with, and not impinge, on water rights held by the District that are vital to our public service responsibilities. *(Entered On:4/27/2010 9:49:13 AM)*

s58 c62-- Nelson Ron -- Nevada Irrigation District

The water supply of the upper Yuba basin is not unlimited, nor is it consistent from year to year and, consequently, the amount and timing of the water needs for any introduction effort should be carefully evaluated with a view toward balancing such needs against the requirement of a continued reliable delivery of water to the Nevada Irrigation District's service area, which cannot be interrupted, altered or diminished. Any "new approach to water management" must place a priority not only on maintenance of the current level of service provided by the Nevada Irrigation District, but also on assuring that it will meet demands on its water supply that will occur in the future. *(Entered On:4/27/2010 9:49:14 AM)*

Category COR 6 -- Coordination and Compatibility:

Proposed implementation of fish passage at the Englebright Dam, Our House Dam, New Bulards Bar Dam, and Log Cabin Dam needs to take into consideration, and accommodation for, the proper and efficient maintenance of operations for delivery of the water supply throughout the Nevada Irrigation District's service area.

s58 c63-- Nelson Ron -- Nevada Irrigation District

The Draft Plan contemplates the implementation of fish passage at the USACE's Englebright Dam as well as Yuba County Water Agency's Our House, New Bullards Bar, and Log Cabin dams, and generally suggests that access should be improved in all areas above the USACE's Englebright Dam. These considerations should likewise be made with due consideration of, and accommodation for, the proper and efficient maintenance of the operations necessary for delivery of a reliable water supply throughout the Nevada Irrigation District's service area. *(Entered On:4/27/2010 9:49:14 AM)*

Category COR 7 -- Coordination and Compatibility:

NMFS can ease implementation of recovery actions by engaging stakeholders early in the planning process. Early stakeholder engagement would also allow for the evaluation of impacts associated with reintroduction, and enable these concerns to be incorporated in the decision-making process

s65 c86-- Moller David -- Pacific Gas and Electric Company

Pacific Gas and Electric Company encourages NMFS to fully engage such stakeholders in the affected watersheds early on in the planning process, fully evaluate the impacts of reintroduction, and factor these impacts into decisions on reintroduction. Understanding and addressing stakeholders impacts early on would ease implementation of such actions. *(Entered On:3/15/2010 11:39:46 PM)*

s81 c685-- Aikens Curt -- Yuba County Water Agency

YCWA requests that NMFS provide YCWA a revised Draft Plan that frilly addresses YCWA's comments, so that YCWA can review and comment on that new draft before NMFS considers adoption of a final recovery plan. *(Entered On:4/27/2010 11:10:52 AM)*

Category COR 8 -- Coordination and Compatibility:

U.S. Forest Service and NMFS coordination will be required to ensure that recovery objectives can be met with proposed hydropower projects going through Federal Energy Regulatory Commission (FERC) relicensing on the Middle Fork American River, South Fork American River and Mokelumne River.

s70 c112-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

Hydropower projects affecting stream flows on the Middle Fork American River, South Fork American River and Mokelumne River have been, or are in the process of FERC relicensing. USFS (Eldorado National Forest) coordination with NMFS will be required to ensure that recovery objectives can be met with proposed hydropower management for Project 184, the Upper American River Project, and the Placer County Water Agency project. *(Entered On:4/22/2010 2:04:07 PM)*

s70 c143-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

All eight National Forests can play a role in Recovery Plan implementation, including doing specific recovery actions as "USFS" in Table 8-2, "Implementation table for Priority 1 recovery actions." A subset of these National Forests will need to complete Forest Land and Resource Management Plan (FLRMP) amendments or revisions and reinitiate plan-level consultation in order to accommodate the active or passive reintroductions that are described in the Draft Recovery Plan. *(Entered On:4/22/2010 2:04:09 PM)*

Category COR 9 -- Coordination and Compatibility:

A Thomes Creek Coordinated Resource Management Plan with the Natural Resources Conservation Service could serve as a good tool to manage recovery actions in the Thomes Creek watershed by working with private landowners, local and state governments, and obtaining technical expertise from U.S. Forest Service and NMFS.

s16 c148-- Morgan Lee -- Mendocino National Forest

it would be good to develop a Thomes Creek CRMP w/ NRCS working w/ private landowners, local and state government, and USFS, and getting technical expertise from NMFS and USFWS and water quality control board to manage CV recovery actions in this watershed. *(Entered On:4/27/2010 11:31:28 AM)*

Category COR 10 -- Coordination and Compatibility:
It appears there has been a lack of coordination between NMFS and other regulatory agencies when developing the Draft Recovery Plan.

s32 c153-- Hadley Elizabeth -- Redding Electric Utility

Any proposed actions that could potentially reduce the output of CVP generation must be coordinated between State and Federal laws. REU was surprised and disappointed to learn of the lack of coordination between NMFS and other regulatory agencies when developing their Draft Plan. *(Entered On:4/27/2010 9:52:54 AM)*

Category COR 11 -- Coordination and Compatibility:
NMFS should coordinate with the Lower Clear Creek Technical Advisory Group in any attempts to modify salmonid restoration activities in the Lower Clear Creek drainage.

s32 c155-- Hadley Elizabeth -- Redding Electric Utility

REU also participates in the Lower Clear Creek Technical Advisory Group. As was mentioned in the Draft Plan, it is critical that NMFS coordinate with this successful group, along with Reclamation, in any attempts to modify salmonid restoration activities in this drainage. *(Entered On:4/27/2010 9:52:55 AM)*

Category COR 12 -- Coordination and Compatibility:
NMFS should coordinate with Redding Electric Utility on any flow adjustments that could affect power generataion.

s32 c156-- Hadley Elizabeth -- Redding Electric Utility

In addition, NMFS and Reclamation must consult with REU on any flow adjustments that could affect REU's power generation at this facility, as REU is a retail electric provider, which has an obligation to serve the electricity needs of its customers. *(Entered On:4/27/2010 9:52:55 AM)*

Category COR 13 -- Coordination and Compatibility:
Coordination with sister agencies could help avoid inter-species management conflicts and help to ensure proper balancing of Delta outflow requirements and upstream cold water management.

s61 c205-- Fredrickson Justin -- California Farm Bureau Federation

In addition, coordinate with sister agencies to avoid inter-species management conflicts (e.g., pelagic versus anadromous species) and to ensure proper balancing of Delta outflow requirements, for example, and upstream coldwater management. *(Entered On:4/27/2010 11:13:38 AM)*

Category COR 14 -- Coordination and Compatibility:
NMFS should coordinate with federal and state land managers to encourage sustainable and prudent timber harvest practices, to reduce runoff depletion and large-scale erosion and sedimentation associated with catastrophic wildfires and an unnature fire regime.

s61 c210-- Fredrickson Justin -- California Farm Bureau Federation

Coordinate with federal and state land managers to encourage sustainable and prudent timber harvest practices, to reduce runoff depletion and large-scale erosion and sedimentation associated with catastrophic wildlifes and an unnatural fire regime. *(Entered On:4/27/2010 11:13:39 AM)*

Category COR 15 -- Coordination and Compatibility:

Demonstrate how the Draft Recovery Plan will recognize, encourage and build upon watershed management approaches developed at the local and regional level.

s61 c211-- Fredrickson Justin -- California Farm Bureau Federation

Recognize, encourage and build upon watershed management approaches developed at the local and regional level. *(Entered On:4/27/2010 11:13:37 AM)*

Category COR 16 -- Coordination and Compatibility:

NMFS should consult with California Department of Fish and Game regarding past reintroduction efforts of anadromous salmonids above Central Valley dams in order to avoid and minimize previous mistakes and failures.

s28 c272-- Yoshiyama Ronald -- San Francisco Public Utilities Commission

Therefore, it is important that NMFS consult with CDFG regarding those purported past reintroduction efforts of anadromous salmonids above the Central Valley dams in order to avoid or at least minimize previous mistakes and failures. *(Entered On:3/2/2010 12:30:20 PM)*

Category COR 17 -- Coordination and Compatibility:

There is a need for cross-species balance between recovery plans and Biological Opinions. NMFS should coordinate within the broader group of entities engaged in Central Valley and Delta recovery strategies so that recovery actions will not aid one species at the expense of another.

s76 c310-- Sykes Richard -- East Bay Municipal Utility District

Need for cross-species balance between recovery plans, BOs, etc. EBMUD has observed that the actions in species-specific Biological Opinions and recovery plans from NMFS and USFWS, as well as the actions in this draft recovery plan will often aid one species at the expense of another. NMFS must work within the broader group of entities engaged in CV and Delta recovery strategies so that a realistic and balanced plan is developed to effectively address all species of concern. *(Entered On:4/27/2010 11:22:34 AM)*

Category COR 18 -- Coordination and Compatibility:

Pacific Gas and Electric should be included as a party in the habitat evaluations and fish passage assessment. Specific measures needed to assure successful spawning need to be compared to PG&E operational limits, while continuing to comply with FERC and other regulatory requirements.

s76 c319-- Sykes Richard -- East Bay Municipal Utility District

PG&E should be included as a party in the habitat evaluations and fish passage assessment. The specific measures needed to assure successful spawning in the upper watershed would have to be identified and compared to PG&E operational limits to determine if PG&E even has the capability to meet these measures while complying with FERC or other regulatory requirements. *(Entered On:4/27/2010 11:22:35 AM)*

Category COR 19 -- Coordination and Compatibility:

Public stakeholder groups spend considerable time and money each year monitoring salmon and steelhead populations in the watersheds of the Draft Recovery Plan. Actively seeking input from these groups could lead to a greater understanding of the abundance and distribution of these species.

s82 c540-- O'Laughlin Timothy -- San Joaquin River Group Authority

Government efforts to seek a better understanding of the abundance and distribution of O. mykiss, and develop a sensible and scientifically based Recovery Plan, would be drastically improved if they sought the advice of the public agency stakeholders who spend millions of dollars each year monitoring salmon and steelhead populations in these watersheds. *(Entered On:4/27/2010 11:46:12 AM)*

Category COR 20 -- Coordination and Compatibility:

The Final Recovery Plan should consider procedural flexibility to incorporate ongoing processes such as FERC relicensing, water rights changes, agency adaptive management plans and local watershed management activities into the recovery actions.

s53 c596-- Shutes Chris -- California Sportfishing Protection Alliance
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

The Final Plan should consider procedural flexibility to incorporate on-going processes (e.g., water rights changes, FERC relicensing, resource agenciesâ€™ adaptive management plans, or local watershed management activities) into the NMFS recovery actions and activities. *(Entered On:4/27/2010 11:39:12 AM)*

s76 c340-- Sykes Richard -- East Bay Municipal Utility District

With NMFS' consent, EBMUD has effectively used adaptive management efforts in the past and most recently this year to provide fall attraction flows and any recovery actions that could jeopardize these efforts in the future are inappropriate for inclusion in the recovery plan. *(Entered On:4/27/2010 11:22:36 AM)*

Category COR 21 -- Coordination and Compatibility:
NMFS should seek methods to more actively include the Bureau of Land Management, USFS, National Park Service, and FERC in the Recovery Plan process.

s53 c600--	**Shutes**	**Chris**	**-- California Sportfishing Protection Alliance**
	Johnson	**Brian**	**-- Trout Unlimited**
	Stork	**Ronald**	**-- Friends of the River**
	Charles	**Cindy**	**-- Golden West Women Flyfishers**
	Rothert	**Steve**	**-- American Rivers**
	Steindorf	**Dave**	**-- American Whitewater**
	Martin	**Michael**	**-- Merced River Conservation Committee**

Outreach activities are focused upon State and Federal fisheries agencies.3 Other agencies have jurisdictional authorities and responsibilities in many watersheds and could be public partners in the process (e.g. Bureau of Land Management, United States Forest Service, National Park Service, and the Federal Energy Regulatory Commission). NMFS should seek methods and modify ways to more actively include those agencies in the Recovery Plan Process. *(Entered On:4/27/2010 11:39:13 AM)*

Category COR 22 -- Coordination and Compatibility:
As part of outreach activities associated with the Recovery Plan, NMFS should inform local hydroelectric and irrigation projects of its analysis of climate change an its affect on salmon and steelhead populations.

s53 c601--	**Shutes**	**Chris**	**-- California Sportfishing Protection Alliance**
	Johnson	**Brian**	**-- Trout Unlimited**
	Stork	**Ronald**	**-- Friends of the River**
	Charles	**Cindy**	**-- Golden West Women Flyfishers**
	Rothert	**Steve**	**-- American Rivers**
	Steindorf	**Dave**	**-- American Whitewater**
	Martin	**Michael**	**-- Merced River Conservation Committee**

As part of the outreach activities, NMFS should inform local hydroelectric and irrigation projects of its analysis of climate change and its affect upon salmon and steelhead populations in California (Chapter 7) *(Entered On:4/27/2010 11:39:13 AM)*

Category COR 23 -- Coordination and Compatibility:
NMFS should conduct outreach to, and coordinate activities with Indian Tribes.

s53 c602--	**Shutes**	**Chris**	**-- California Sportfishing Protection Alliance**
	Johnson	**Brian**	**-- Trout Unlimited**
	Stork	**Ronald**	**-- Friends of the River**
	Charles	**Cindy**	**-- Golden West Women Flyfishers**
	Rothert	**Steve**	**-- American Rivers**
	Steindorf	**Dave**	**-- American Whitewater**
	Martin	**Michael**	**-- Merced River Conservation Committee**

NMFS should also conduct outreach to Indian Tribes and non-governmental organizations. *(Entered On:4/27/2010 11:39:12 AM)*

s74 c285-- Franco Mark

We [Affiliation Winnemem Wind Tribe] have also been involved in trying to set up waterways around dams, to allow fish back to upper reaches and cold water via little cow creek and dry creek. We wish to be involved with this planning. *(Entered On:4/27/2010 9:53:26 AM)*

Category COR 24 -- Coordination and Compatibility:
NMFS needs to approach the FERC relicensing process in the Central Valley with a unified and consistent effort. Both the Draft and Final Recovery Plans should be submitted to FERC for coordination of efforts.

s53 c603--	**Shutes**	**Chris**	**-- California Sportfishing Protection Alliance**
	Johnson	**Brian**	**-- Trout Unlimited**
	Stork	**Ronald**	**-- Friends of the River**
	Charles	**Cindy**	**-- Golden West Women Flyfishers**
	Rothert	**Steve**	**-- American Rivers**
	Steindorf	**Dave**	**-- American Whitewater**
	Martin	**Michael**	**-- Merced River Conservation Committee**

NMFS needs to approach the FERC relicensing process in the Central Valley with a unified and consistent effort, in order to have full participation of NMFS Staff in all ongoing FERC proceedings that may affect recovery of anadromous salmonids...Time is of the essence in FERC relicensing because of the nature of the process (fast-tracked over a relatively short period of time) and the dire plight of Central Valley Steelhead DPS and Central Valley spring-run Chinook salmon ESU. FERC relicensing provides a defined process in which NMFS can advance recovery goals. Other stakeholders look to NMFS for guidance and leadership in these proceedings as they related to recovery of listed salmonids. *(Entered On:4/27/2010 11:39:13 AM)*

s53 c604-- **Shutes Chris -- California Sportfishing Protection Alliance**
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

As quickly as possible, NMFS should develop and complete the Recovery Plan. As quickly as possible after its completion, NMFS should submit the final completed plan to FERC for implementation in the FERC relicensing process and for recognition as a formal FERC Comprehensive Plan under Section 10(a)(2)(A) of the Federal Power Act. Because of the 2-year FERC regulations for developing information and data to inform the Commission, NMFS should forward the Draft Recovery Plan to FERC, immediately, with an explanatory cover letter, under each of the dockets for which there is intersection with the Draft Plan. *(Entered On:4/27/2010 11:39:13 AM)*

Category COR 25 -- Coordination and Compatibility:
Recovery scenarios for the Merced River are disconnected from ongoing regulatory processes and there is a lack of cooperation between State and Federal agencies in this regard.

s53 c629-- **Shutes Chris -- California Sportfishing Protection Alliance**
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

For the Merced River, recovery scenarios are somewhat disconnected from on-going regulatory process(es)27,28. We are concerned that further consideration for recovery of Merced River anadromous species will â€œfall through the regulatory cracksâ€ because of lack of cooperation among Federal and State agencies *(Entered On:4/27/2010 11:39:14 AM)*

Category COR 26 -- Coordination and Compatibility:
The Nevada Irrigation District would like the opportunity to coordinate with NMFS on the designation of introduced experimental populations in the Yuba River as "nonessential."

s58 c802-- Nelson Ron -- Nevada Irrigation District

We agree with the recommendation on page 215 of the Draft Plan that any introduced populations to the Yuba River should be considered for designation as "experimental" under Section 10(j) of the Endangered Species Act. We expect that any such experimental population would be designated as nonessential and respectfully request the opportunity to discuss this issue with NMFS and other stakeholders in further detail at the appropriate time in the introduction planning process. *(Entered On:4/27/2010 9:49:14 AM)*

Category COR 27 -- Coordination and Compatibility:
NMFS should list all potential recovery actions from San Franciso Bay through the Delta and into all watersheds so that parties can understand the scope of this effort and maximize coordination/minimize conflicting actions.

s76 c304-- Sykes Richard -- East Bay Municipal Utility District

This recovery plan should list all the potential recovery actions from the San Francisco Bay through the Delta and into the upper watersheds as necessary for recovery so that all parties can understand the scope of this effort and coordination can be maximized and conflicting actions can be minimized. *(Entered On:4/27/2010 11:22:35 AM)*

Category COR 28 -- Coordination and Compatibility:
NMFS should develop and implement a water exchange agreement with the Deer Creek Irrigation Company and the Stanford-Vina Irrigation District that would dedicate fish passage flows and identifies water infrastructure facilities required to meet passage needs.

s43 c158-- Savage Holly -- Deer Creek Watershed Conservancy

Develop and implement a water exchange agreement with the Deer Creek Irrigation Company and the Stanfordâ€“Vina Irrigation District and dedicate fish passage flows. The agreement should identify water infrastructure facilities required meet fish passage needs. A water exchange agreement has been developed w/DCID and SVRIC and is currently being implemented. *(Entered On:4/22/2010 2:00:50 PM)*

Category COR 29 -- Coordination and Compatibility:
NMFS should independently implement study requests that have been rejected by FERC, and seek alternative funding sources. NMFS should work with interested parties to seek ways of developing the necessary data and studies to inform the FERC licensing process.

s53 c605--	**Shutes**	**Chris**	**-- California Sportfishing Protection Alliance**
	Johnson	**Brian**	**-- Trout Unlimited**
	Stork	**Ronald**	**-- Friends of the River**
	Charles	**Cindy**	**-- Golden West Women Flyfishers**
	Rothert	**Steve**	**-- American Rivers**
	Steindorf	**Dave**	**-- American Whitewater**
	Martin	**Michael**	**-- Merced River Conservation Committee**

In those cases where NMFS (and other resource trustees and non-governmental organizations) have recommended study requests to support NMFSâ€™ efforts for recovery of listed salmonids, and FERC has rejected those recommendations, NMFS should implement those studies independently, and should fast-track seeking alternative funding sources, such as omnibus funding from Congress. NMFS should also work with other interested parties to seek ways of developing the necessary data and studies to inform the FERC licensing process. *(Entered On:4/27/2010 11:39:13 AM)*

Category COR 30 -- Coordination and Compatibility:
NMFS should coordinate with other NMFS regional office, state governments, and foreign governments concerning potential shifts in the global distribution and viability of extant salmon populations in the context of global climate change.

s61 c214-- Fredrickson Justin -- California Farm Bureau Federation

In the context of long-term climate change, coordinate with neighboring NMFS and regional offices, state governments and foreign governments concerning potential shifts in global distribution and viability of extant salmon populations. *(Entered On:4/27/2010 11:13:39 AM)*

Category COR 31 -- Coordination and Compatibility:
Local involvement in small stream preservation can result in support for larger scale efforts such as the CV Recovery Plan. In turn, validation and a small amount of support (funding) from the plan will strength local preservation efforts.

s85 c781-- Bates Gregg -- Dry Creek Conservancy

Local involvement in stream preservation can result in support for large scale efforts such as the CV Recovery Plan, and in turn, validation and a small amount of support from the plan will lend strength to local preservation efforts. *(Entered On:4/22/2010 2:17:55 PM)*

Category COR 32 -- Coordination and Compatibility:
Funding small stream preservation builds awareness and support from local residents for the larger Central Valley Recovery Plan recovery effort. Efforts by the following groups should be considered for inclusion in the Draft Recovery Plan.

s85 c786-- Bates Gregg -- Dry Creek Conservancy

Another benefit of preserving small streams is building awareness of and support from local residents for the larger recovery effort. Migrating fish are exciting and the public understands the larger effort better when they see their community is part of it. Local efforts in turn could benefit from even a small amount of agency support. Local efforts are strong but very sensitive to small amounts of funding. Agency validation of local efforts and small amounts of funding for local projects can make a big difference locally and build support for the larger Central Valley Recovery Plan. *(Entered On:4/22/2010 2:17:55 PM)*

s85 c788-- Bates Gregg -- Dry Creek Conservancy

Passage impediments, flow conditions, and entrainment issues [in Auburn Ravine] are being addressed by local water agencies working in processes with the Foothill Water Network and CABY west Placer Creeks group to implement management that will sustain anadromy. Placer County, Nevada Irrigation District and Dry Creek Conservancy have initiated a project to improve the two major downstream passage barriers and received state and private foundation funding. Local groups such as Save Auburn Ravine Salmon and Steelhead, Ophir Property Owners Association, Inc., Auburn Ravine Preservation Committee, and Lincoln Open Space Committee are committed to

improving the corridor. Agency support of these efforts could result in major improvements in conditions. *(Entered On:4/22/2010 2:17:55 PM)*

s85 c790-- Bates Gregg -- Dry Creek Conservancy

As on the other streams, flow conditions issues are being addressed by local water agencies working in processes with the Foothill Water Network and CABY west Placer Creeks group to implement management that will sustain anadromy. ...Agency support of these efforts could result in major improvements in conditions. *(Entered On:4/22/2010 2:17:54 PM)*

Category COR 33 -- Coordination and Compatibility:

The Draft Recovery Plan should include the Stanislaus River above New Melones in order to comport to the 2009 NMFS Biological Opinion for SWP/CVP operations.

s83 c384-- Hoffman-Floerke Dale -- Department of Water Resources

Section 4.4 Listing Factors and Threats - Factor 1, Criterion 1.1A, page 77: The Stanislaus River above New Melones should be included in this criterion, so that this document comports to the 2009 NMFS Biological Opinion for SWP/CVP operations. *(Entered On:4/27/2010 10:53:11 AM)*

Data

Category DATA 1 -- Data:
There are scientific studies and biological information available that can aid in the development and rationale for recovery actions in the Draft Recovery Plan. These information sources should be reviewed by NMFS before the Final Recovery Plan is released.

s4 c412-- Harthorn Allen -- Friends of Butte Creek

The habitat above Centerville Powerhouse regularly support the majority of the summer holding spring run salmon in Butte Creek yet it flows at 18% to 29% of the total flow at Centerville Head Dam(LCDD) on average between June and August due to the diversion of water to generate electricity(see chart below). *(Entered On:4/27/2010 11:29:33 AM)*

s8 c12-- Brobeck Jim

My comments will include reference to the following study conducted over several years by Dr Paul Maslin. http://www.csuchico.edu/~pmaslin/ *(Entered On:2/22/2010 10:56:25 AM)*

s10 c22-- Maurizi Alex

But recent scientific reports indicate the extent of global warming will not be nearly as great as predicted. Instead of a 6 degree Fahrenheit increase in global temperatures, recent studies indicate only a 1 degree Fahrenheit increase is likely. Satellite measurements of the temperature of the upper atmosphere indicate it is warming only one-third as much as feared and the oceans down to one-half mile are not warming at all. The earth is radiating most of the additional heat it is receiving from the sun into outer space. I refer you to the following website: www.scienceandpublicpolicy.org. Look for the SPPI Monthly CO2 Report for the months of July, August and September 2009. *(Entered On:2/22/2010 3:47:56 PM)*

s13 c104-- Richelieu Jeff -- Streamline Engineering

According to the report in 1993 by Fish and Game, Antelope Creek has the potential to produce a sustainable population of 3,000 fall-run and 2,000 spring-run Chinook salmon. [â€œA Plan for Actionâ€ prepared by the California Department of Fish and Game in November, 1993. *(Entered On:3/1/2010 9:26:59 AM)*

s20 c291-- N/A Charles

The following article, by Mike Aughney, is taken from http://www.usafishing.com/trinity.html *(Entered On:4/27/2010 11:32:19 AM)*

s20 c292-- N/A Charles

And just in case any think agencies powerless to act against the aforementioned gillnetting practice, the following article (one not sympathetic to regulation of tribal

fishing practices), by Dan Bacher, illustrates an example to the contrary, & can be found at http://www.calsport.org/8-7-09.htm *(Entered On:4/27/2010 11:32:19 AM)*

s20 c421-- N/A Charles

Now, back on May 9 2009, I submitted a comment in re the BDCP to BDCPcomments@water.ca.gov & to lori_rinek@fws.gov. It can be found at http://www.water.ca.gov/deltainit/docs/comments-2009/Charles.pdf. It reads as follows: *(Entered On:4/27/2010 11:32:20 AM)*

s33 c402-- Vlamis Barbara -- AquAlliance

I have attached comments that were created for the Environmental Assessment that was written for the 2009 Drought Water Bank. As one of the primary authors, I feel comfortable sharing it with you. The comments highlight what is known and unknown about the interaction of groundwater and surface waters, the importance of streams for spawning and rearing habitat in the northern Sacramento Valley, and the threats to the habitat from the myriad water plans and projects in the Sacramento Valley. *(Entered On:3/2/2010 11:09:57 AM)*

s38 c41-- Mlcoch Mark -- NORCAL Guides and Sportsmen's Association

Use the Interior Department's "Special Scientific Report No. 10" (1940), to pipe water 40 miles from the McCloud River to the headwaters of Stillwater Creek near Mountain Gate, to create 24 new miles of prime spawning habitat *(Entered On:4/27/2010 11:33:14 AM)*

s41 c573-- Tussing Steve -- Terraqua Incorporated

There is scant reference to the importance of non-natal rearing habitats provided by the smaller Central Valley tributaries, many of which are not intermittent or ephemeral. The work of Paul Maslin (1996, 1997, 1998) documents the use of these habitats by naturally spawned Chinook salmon, including spring and winter-runs. *(Entered On:4/27/2010 10:53:43 AM)*

s47 c177-- Barkley Mike

I have been collecting the snippets of comment on Stony Creek chinook at http://www.mjbarkl.com/salmon.htm - at the bottom of that page are links to my filings with the SWRCB and the District Court. *(Entered On:3/15/2010 2:27:44 PM)*

s50	**Sanchez**	**Jack**	**-- Save Auburn Ravine Salmon And Steelhead**
c580--	**Otto**	**Ronald**	**-- Ophir Property Owners Association, Incorporated,**
	Egan	**Robin**	**and the Auburn Ravine Preservation Committee**
	Banks	**Percivel**	**-- Granite Bay Flycasters**
	Rockwell	**Mark**	**-- California Salmon and Steelhead Association**
	Williams	**John**	**-- Northern California Council, Federation of Fly Fishers**
			-- Lincoln Open Space Committee

Low fall flows are recognized as a critical limiting factor in restoration, and it has been proposed that water could be purchased or traded to provide benefits to anadromous fish, including access to upstream spawning areas. Specific recommendations for potential funding and implementation were offered. (SBC-PCP 10â€™2003, Conservation Strategy Considerations, item 2.; PCP 12â€™2003, Resource Assessment, p 14; Foothills Water Network web site; et al.) *(Entered On:4/27/2010 10:54:58 AM)*

s53 c597--	**Shutes**	**Chris**	**-- California Sportfishing Protection Alliance**
	Johnson	**Brian**	**-- Trout Unlimited**
	Stork	**Ronald**	**-- Friends of the River**
	Charles	**Cindy**	**-- Golden West Women Flyfishers**
	Rothert	**Steve**	**-- American Rivers**
	Steindorf	**Dave**	**-- American Whitewater**
	Martin	**Michael**	**-- Merced River Conservation Committee**

The Recovery Plan should systematically describe relevant studies that have been identified, proposed, or completed, as well as data gaps that need to be filled by future studies. These should include studies in ongoing regulatory processes (e.g. FERC relicensing, State Water Resources Control Board proceedings), studies undertaken or under consideration by other agencies, and studies undertaken by water users. This description should include discussion of studies or data that are scientifically controversial, the parties to the controversy, and the nature of the controversy. An example might be the discredited temperature modeling for the South Yuba River in the Upper Yuba River Studies Program. *(Entered On:4/27/2010 11:39:12 AM)*

s53 c606--	**Shutes**	**Chris**	**-- California Sportfishing Protection Alliance**
	Johnson	**Brian**	**-- Trout Unlimited**
	Stork	**Ronald**	**-- Friends of the River**
	Charles	**Cindy**	**-- Golden West Women Flyfishers**
	Rothert	**Steve**	**-- American Rivers**
	Steindorf	**Dave**	**-- American Whitewater**
	Martin	**Michael**	**-- Merced River Conservation Committee**

Appendix B lists the 7 critical studies that Resource Agencies and we believe that information is needed for anadromous fish recovery in the Merced River. *(Entered On:4/27/2010 11:39:12 AM)*

s53 c614-- **Shutes Chris -- California Sportfishing Protection Alliance**
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

The upper Merced River was classified for steelhead as a secondary "focus for recovery." The attached Study Request details a study which would inform NMFS of the status for reintroduction potential, described in the Study Request, 3.1a Upper River Fish Populations and Habitat.6 *(Entered On:4/27/2010 11:39:13 AM)*

s53 c623-- **Shutes Chris -- California Sportfishing Protection Alliance**
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

Appendix B of this letter lists the approximate costs of 7 studies that would allow NMFS to ascertain the feasibility of a fish passage program and stream flow requirements for tailwater and upstream temperatures for all life stages. *(Entered On:4/27/2010 11:39:13 AM)*

s53 c633-- **Shutes Chris -- California Sportfishing Protection Alliance**
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

APPENDIX B Critical Merced River FERC Study Requests 2009 ATTACHED STUDY PLANS R 3.1a Upper River Fish Populations and Habitat Study R 3.1b Anadromy Salmonid Habitat Study R 3.2 Fish Entrainment Study R 3.4 Anadromous Fish Passage Study R 3.6 Salmonid Flood Plain Rearing Study R 3.7 Chinook Salmon Egg Viability Study R 3.8 Instream Flow Study *(Entered On:4/27/2010 11:39:14 AM)*

s53 c686-- Shutes Chris -- California Sportfishing Protection Alliance
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

Letter from Jeffrey R. Single, Ph.D., California Department of Fish and Game to Hicham Eltal, Merced Irrigation District, November 16, 2009 regarding fish passage at the Crocker-Huffman Diversion Dam *(Entered On:4/27/2010 11:39:12 AM)*

s60 c70-- Brochini Anthony -- Southern Sierra Miwuk Nation, American Indian Council of Mariposa

Much of the information that NMFS needs to evaluate, develop, and implement recovery actions on the Merced River is identified in the Proposed Study Plan review by Resources Agencies and Conservation Groups under FERC Relicensing for the Merced River Projects: Study Requests of CGs (FERC eLibrary Accession #200911045072); NMFS (FERC eLibrary Accession #20091105-5069; SWRCB (FERC eLibrary Accession #s 20091105-5044 & 20091116-0188); and CDFG (FERC eLibrary Accession #20091106-5007) for the Merced Falls Hydroelectric Project. *(Entered On:3/15/2010 11:46:27 PM)*

s66 c102-- Okita David -- Solano County Water Agency

Page 133, under Putah Creek, under key restoration actions, Develop and implement measures to improve flow conditions and reduce flow fluctuations. A legal document describing flow conditions and fluctuations in flow for Putah Creek already exists. SCWA and associated contracting agencies (the cities of Vacaville, Fairfield, Suisun, and Vallejo and the Solano Irrigation District and Maine Prairie Water District) and several volunteer agencies (the cities of Dixon and Rio Vista and Reclamation. District 2068, Dixon Resource Conservation District, Dixon Regional Watershed Joint Power's Authority, Vallejo Sanitation and Flood Control District and Fairfield-Suisun Sewer District) are in the process of preparing a multi-species Habitat Conservation Plan (HCP) for various activities in Solano County. This cooperative effort with the U.S. Fish and Wildlife Service, California Department of Fish and Game, and National Marine Fisheries Service was initiated in 1999. *(Entered On:3/23/2010 11:36:03 PM)*

s69 c107-- Edwards Jim -- Edwards Ranch

See enclosed memo dated 8/20/02 from Colleen Harvey Arrison of the Northern California-North Coast Region Department of Fish and Game regarding Files and Distribution List. *(Entered On:2/24/2010 5:49:41 PM)*

s69 c108-- Edwards Jim -- Edwards Ranch

See memo dated 8/18/97 from the Department of Fish and Game-Inland Fisheries Division regarding 1997 Antelope Creek Spring-Run Chinook Salmon Survey. *(Entered On:2/24/2010 5:49:41 PM)*

s71 c248-- Patten Joseph -- CH2M HILL

See Special Scientific Report-Fisheries No. 461 by Dan Slater [USFWS] in 1963 *(Entered On:3/16/2010 12:16:41 AM)*

s71 c249-- Patten Joseph -- CH2M HILL

See The First Four Years of King Salmon Maintenance Below Shasta Dam, Sacramento River, California, Dr. James W. Moffett et al, December 1948 *(Entered On:3/16/2010 12:16:41 AM)*

s71 c275-- Patten Joseph -- CH2M HILL

See my latest concept (enclosed White Paper) for a side channel on the Bureau's own property near Keswick Dam, for specific egg planting to produce fry. There are many other potential alternate sites (see the enclosed 2 optional locations) where, if this site were proven successful for egg planting, the concept could be employed. *(Entered On:3/16/2010 12:16:41 AM)*

s71 c276-- Patten Joseph -- CH2M HILL

See my enclosed "Organization for Action" that if properly implemented could assure a continuing and more effective placement of gravel. See my enclosed description of how we could sustain a viable Redding Riffle that has historically been an excellent spawning area. There are many other areas where gravel manipulation could be effective to create ideal spawning areas. *(Entered On:3/16/2010 12:16:41 AM)*

s71 c277-- Patten Joseph -- CH2M HILL

NMFS should lend full support for Sites Reservoir. First of all for the greater flexibility that it offers to help fish. Secondly because it can develop much more water than any of the reasonable raising of Shasta Dam schemes. One of the best examples of flexibility is how it could be operated in conjunction with Shasta to hold the lake level a little higher in the summer months for recreation and in particular for a larger cold water prism for temperature control. See the enclosed Concepts for Reversing Environmental Losses and Meeting California's Water Needs in the 21st Century. *(Entered On:3/16/2010 12:16:41 AM)*

s72 c281-- Patten Joseph

If you question my views as to the efficacy of the egg planting device, I suggest that you call Lorne White, retired AkF&G biologist, who conducted a highly successful salmon restoration program in Kodiak using the device. His phone number is 907-487-2292. *(Entered On:4/27/2010 11:39:55 AM)*

s76 c309-- Sykes Richard -- East Bay Municipal Utility District

In addition to over 100 District reports on all of the JSA monitoring, there are numerous data sources describing the salmonid resources of the Mokelumne River including CALFED reports, university studies, peer reviewed journal articles, and symposia

presentations. A thorough review of data collected and reported since 1991 should be initiated prior to developing recovery guidelines for the Mokelumne River so that the recovery guidelines are based on the best available, and most current, science and data. Please contact Jose Setka at jsetka@ebmud.com to obtain copies of the relevant studies and references to available online studies. *(Entered On:4/27/2010 11:22:34 AM)*

s76 c315-- Sykes Richard -- East Bay Municipal Utility District

Woodhull (1946) declared Bald Rock Falls to be a "complete barrier" to upstream migration of salmonids, and the presence of a similar structure has recently been documented on the Middle Fork at about 1200 ft elevation (Steve Boyd, personal communication). Figures 1 and 2, attached, show the locations of these barriers and provide a table showing elevation by river mile. *(Entered On:4/27/2010 11:22:35 AM)*

s76 c320-- Sykes Richard -- East Bay Municipal Utility District

Existing data [from the JSA] not yet considered for this recovery plan may assist in determining the merits of pulse flows for steelhead. Moreover, the fact that over 90% of the steelhead population within the Mokelumne is of hatchery origin suggests that water for steelhead pulse flows would be better used to maintain cold water for all salmonids including steelhead and Chinook salmon. *(Entered On:4/27/2010 11:22:35 AM)*

s76 c325-- Sykes Richard -- East Bay Municipal Utility District

Page 9 states: "It is likely that steelhead numbers could be restored to the lower Mokelumne River in better numbers if temperature and flow standards are established that would provide for juvenile rearing." If juvenile rearing habitat were limiting, there would not be a large resident population of O. mykiss in the lower Mokelumne River. From January 2005 through February 2006, electrofishing surveys were conducted by EBMUD from Camanche Dam downstream to the Woodbridge Irrigation District dam. Based on a PIT tag mark and recapture study, the estimated population of O. mykiss greater than 100 mm was 9,215 (+1/- 3,678). *(Entered On:4/27/2010 11:22:35 AM)*

s76 c338-- Sykes Richard -- East Bay Municipal Utility District

See April 21, 1997 letter from William T. Hogarth, NMFS to Kevin P. Madden, FERC and April 23, 1998 letter from William T. Hogarth, NMFS to Carol Sampson, FERC *(Entered On:4/27/2010 11:22:35 AM)*

s78 c342-- Unknown Unknown

See "Sea lions: Professor sees more coming" The Sacramento Bee, Friday, January 2, 2009. See Video "Brutus eating a salmon at the American River confluence". sacbee.com/links *(Entered On:3/1/2010 6:23:15 PM)*

s80 c353-- Reedy Gary -- South Yuba River Citizens League

Cost estimates for both the action to rehabilitate spawning habitat below Englebright Dam, and to restore habitat complexity to support greater rearing production and

diversity are available from the Draft Habitat Expansion Plan developed by DWR and PG&E. *(Entered On:4/22/2010 2:08:33 PM)*

s82 c491-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 192, 2.10.23.1, Develop a baseline monitoring program for the Calaveras River to evaluate water quality throughout the watershed to identify areas of concern. Comment: A baseline water quality program has already been implemented in the Calaveras River (Tetra Tech 2005). See http://www.ccwd.org/documents/Facilities/CCWD%20FINALT920Phase%20II May 06 05 RFSize.pdf *(Entered On:4/27/2010 11:46:10 AM)*

s82 c559-- O'Laughlin Timothy -- San Joaquin River Group Authority

A coarse sediment management plan for the Tuolumne River was developed by McBain and Trush in 2004. The plan is available at: http://www.tuolumnerivertac.com/Documents/7-2004 Revised CSMP Report.pdf *(Entered On:4/27/2010 11:46:13 AM)*

s83 c375-- Hoffman-Floerke Dale -- Department of Water Resources

See D. McEwan 2001 and IEP 1999 - Monitoring, Assessment, and Research on CV Steelhead. Tech App VII-A-11 CALFED - CMARP for discussion on conservation measures). *(Entered On:4/27/2010 10:53:10 AM)*

s83 c383-- Hoffman-Floerke Dale -- Department of Water Resources

See D.McEwan 2001 and Zimmerman et al. 2008 (Maternal Origin and Migratory History of Oncorhynchus mykiss captured in rivers of the Central Valley, California Rpt prepared for California Department of Fish and Game, Contract P0385300). *(Entered On:4/27/2010 10:53:11 AM)*

s83 c393-- Hoffman-Floerke Dale -- Department of Water Resources

Northern Sierra Diversity Group/Yuba River, page 115: Recent genetic data from spring-run collected in the Yuba indicates they are essentially all FR spring-run. See Carlos Garza (NOAA Fisheries) for details of recent analysis. *(Entered On:4/27/2010 10:53:11 AM)*

s84 c401-- Finnegan Michael -- Bureau of Reclamation

The Bureau of Reclamation, Central California Area Office, has completed the initial phase of the steelhead spawning surveys (December 15, 2009 - January 26, 2010). Please see the enclosed overview of the survey results to date. Beginning in February 2010, bi-weekly updates will include a cumulative redd count, hydrograph, and flows as per United States Geological Survey gage data. This information is being sent to comply with the Reasonable and Prudent Alternatives (RPAs) that relate to Lower American River (LAR) monitoring and reporting requirements under Section 11.2.1.3., and the RPAs

related to LAR flows (Actions II and 11.4) as stated in the enclosed update. *(Entered On:3/1/2010 8:53:50 PM)*

s85 c789-- Bates Gregg -- Dry Creek Conservancy

Salmon have been more abundant in Dry Creek than the other streams. Dry Creek Conservancy spawning survey results shown below reflect the precipitous decline seen throughout the west coast of the US in recent years. Dry Creek Spawning Year Secret Ravine Dry Creek + tribs 1997 20 54 1998 57 78 1999 77 119 2000 283 344 2001 211 335 2002 379 578 2003 291 368 2004 285 680 2005 76 772 2006 14 210 2007 5 41 2008 0 26 2009 4 5 Notes â€“ 1. From 1997 to 2002 the survey was done over an eight week period. Since 2002 the survey has been conducted on all reaches simultaneously on one day. This gives a better estimate of total numbers present for one time. It doesnâ€™t give a count that includes fish present throughout the whole season, and because the count is done only once, it is possible that the peak presence of spawners may be missed. 2. From 1997 to 2002 comparison of Secret Ravine to Dry Creek may reflect a differing number of observations since all reaches were not surveyed exactly the same number of times. The same is true of comparisons of numbers from different years from 1997 to 2002. Area coverage increased each year. For that reason the apparent trend from 1997 to 2003 may not be accurate; there may have been more fish present in any year. 3. The numbers represent the total of both live fish and carcasses observed. *(Entered On:4/22/2010 2:17:55 PM)*

Category DATA 2 -- Data:

There are multiple locations throughout the Draft Recovery Plan where data sources need to be identified, more recent and pertinent data sources need to be cited, or statements made in the Draft Recovery Plan are contradicted by other existing research or studies.

s19 c182-- Sanchez Jack -- Save Auburn Ravine Salmon And Steelhead

[from Appendix A, Watershed Profiles, Auburn Ravine/Coon Creek Watershed Profile] Historically, Auburn Ravine flows were ephemeral (Sierra Business Council 2003). Flows gradually declined through the spring, summer, and early fall until the first seasonal storm events occurred. Compared to the historical flow regime, current management practices produce higher flows year-round and more consistent flows during the spring and summer months (Table 2). Most of the instream flow in Auburn Ravine is water imported from the Yuba River, Bear River, and American River watersheds through various means, to meet domestic and agricultural needs in western Placer County and southeastern Sutter County (Sierra Business Council 2003). Discharges from PG&Eâ€™s Wise Powerhouse dominate instream flows during the irrigation season, which extends from April 15 through October 15. Winter flows are dominated by discharges from wastewater treatment facilities and natural runoff. Current water management practices in Auburn Ravine likely provide cold water habitat for salmonids during time periods which historically lacked cold water habitat (Sierra Business Council 2003). (Terrible info source: natural springs occurred historical in upper Ravine. *(Entered On:4/22/2010 1:58:59 PM)*

s19 c183-- Sanchez Jack -- Save Auburn Ravine Salmon And Steelhead

[from Appendix A, Watershed Profiles, Auburn Ravine/Coon Creek Watershed Profile] Current water management practices in Auburn Ravine likely provide cold water habitat for salmonids during time periods which historically lacked cold water habitat (Sierra Business Council 2003). (Terrible info source: natural springs occurred historical in upper Ravine. Besides if you allow the PG&E trans basin diversion, you should expect to make sure the new watershed provides what was lost in the original watershed.) *(Entered On:4/22/2010 1:58:59 PM)*

s19 c184-- Sanchez Jack -- Save Auburn Ravine Salmon And Steelhead

The maximum elevation of the Auburn Ravine watershed is approximately 1,000 feet above mean sea level (MSL). Therefore, precipitation in the watershed falls nearly exclusively as rainfall. (comment: this is not true for the source water from trans basin diversions) *(Entered On:4/22/2010 1:58:59 PM)*

s41 c576-- Tussing Steve -- Terraqua Incorporated

The Draft Recovery Plan relies upon Lindley et al. (2007) to identify areas of habitat contraction for a range of climate change scenarios. I have reservations about these results when applied to the largely spring-fed tributaries in the Central Valley (i.e. the Basalt and porous lava diversity group for spring-run). Lindley et al. (2007) relied upon their methodology as water temperature data across the Central Valley were limited. I donâ€™t think this methodology adequately takes into consideration cold water spring sources within anadromous habitats. *(Entered On:4/27/2010 10:53:43 AM)*

s53 c628-- Shutes Chris -- California Sportfishing Protection Alliance
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

Past mitigation for losses of populations of Central Valley Steelhead, fall- and late-fall run Chinook salmon, and spring-run Chinook salmon in the Merced River though adaptive management actions of the State* and Federal Resources Agencies, in conjunction with local agencies operating hydroelectric and agricultural diversions, has completely failed and is totally inadequate. *This has now been recognized by the California Department of Fish and Game in a letter to Merced ID of November 16, 2009, which directs Merced ID to evaluate fish passage at the Crocker-Huffman Diversion Dam and to develop a plan for fish passage at that location (see Appendix C of this letter). *(Entered On:4/27/2010 11:39:14 AM)*

s53 c632-- Shutes Chris -- California Sportfishing Protection Alliance
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

For spring-run Chinook salmon on the Merced River, the Recovery Plan (Page 116) states that â€œthese candidate areas for reintroduction, passage feasibility studies, habitat suitability assessments and other related investigations are or will be undertaken in separate processes (e.g. FERC relicensing and San Joaquin River Restoration Program).â€ Evaluation of the Merced River for anadromous species recovery is not currently being considered under these other programs. *(Entered On:4/27/2010 11:39:14 AM)*

s54 c658-- Morse Kathleen -- United States Department of Agriculture, Forest Service, the Lassen National Forest

5.0 Recovery Scenario, page 110 (but elsewhere, too, where same reference relates to Deer, Mill and Antelope Creek). Where the â€œU.S. Forest Service long-term strategyâ€ is referenced relative to â€œenhancing watershed resiliencyâ€, the source should reflect the document titled â€œWatershed Analysis for Mill, Deer and Antelope Creeksâ€ (not the long-term strategy). The reference is also mentioned in the Watershed Profile section for these drainages (Armentrout et.al. 1998; although the date should be corrected to 2000). USDA FS 2001 reference? U.S. Department of Agriculture, Forest Service, [USDA FS]. 2001. Sierra Nevada Forest Plan Amendment: Final Environmental Impact Statement. Appendix I, Part 4, pags 101-114. *(Entered On:3/24/2010 12:23:31 AM)*

s64 c75-- Albrecht David

Six of the eight natural barriers in the lower half of Wagoner are rated a "low degree of difficulty"; the other two are rated "medium to difficult"(Powers & Orsborn, 1985). Habitat type & Substrate type in the bypass has also been defined (McCain, 1990). See PGE License Surrender Application Volume 111, Sections 3.1.1 to 3.1.3 together with Figures and photographs of Appendix A (A-5,-6, 7 -7). *(Entered On:4/23/2010 11:52:52 AM)*

s64 c85-- Albrecht David

[In the Cow Creek Watershed Profile: Appendix A; pages 143-149, Fisheries and Aquatic Habitat] "For Old Cow and South Cow, together with the tributaries for both; and Cow Creek mainstem from its beginning at the confluence of Old Cow and South Cow all the way to the Sacramento River; information on diversions rights (ie., ownership, magnitude, and duration) is as per the SWRCB Cow Creek Adjudication finalized in August 1969." That document does not include the waters of North (Little) Cow, Oak Run Creek, and Clover Creek. *(Entered On:4/23/2010 11:52:52 AM)*

s66 c91-- Okita David -- Solano County Water Agency

Page 39, Figure 2-9, depicts current Central Valley Steelhead spawning habitat in the headwaters of Ulatis and Alamo Creeks. SCWA would like to know the data source that supports this designation. *(Entered On:3/23/2010 11:36:02 PM)*

s66 c93-- Okita David -- Solano County Water Agency

Page 46, Figure 2-10, depicts Steelhead Distribution in the upper reaches of Ulatis and Alamo Creeks and in Putah Creek. Again, SCWA would like to know the data source that supports this designation. *(Entered On:3/23/2010 11:36:02 PM)*

s66 c95-- Okita David -- Solano County Water Agency

On page 123, the Northwestern California Diversity Group lists Putah Creek as having a steelhead population. The information above the list states this list is based on the best available professional knowledge, is there any actual data that shows steelhead occur in Putah Creek? *(Entered On:3/23/2010 11:36:02 PM)*

s66 c97-- Okita David -- Solano County Water Agency

Page 125, Figure 5-3, depicts a Steelhead Spawning Population on Putah Creek below Monticello Dam. The Putah Diversion Dam is not depicted on the map, but would be a complete barrier to any salmonid passage 6 miles downstream of the Monticello Dam. Please provide the data that supports this designation. *(Entered On:3/23/2010 11:36:02 PM)*

s66 c98-- Okita David -- Solano County Water Agency

Page 129, under the Northwestern California Diversity Group, is states that steelhead are known or believed to occur in Putah Creek. Please provide the data source that supports this designation. *(Entered On:3/23/2010 11:36:02 PM)*

s66 c100-- Okita David -- Solano County Water Agency

Page 133, under Putah Creek, second paragraph, last sentence states that "One element of the Accord is to provide instream flows for anadromous steelhead." The Second Amended Judgment (Accord) states that pulse flows shall be released to attract anadromous fish, not steelhead. *(Entered On:3/23/2010 11:36:02 PM)*

s70 c127-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

Page 180 Steelhead paragraph- You cite an anadromous barrier a short distance above the gorge. Recent fish passage enhancement work at this 24N01 crossing should allow steelhead and lamprey ready access above this point. *(Entered On:4/22/2010 2:04:08 PM)*

s76 c308-- Sykes Richard -- East Bay Municipal Utility District

Need for including most recent CV salmonid studies. EBMUD is particularly concerned about the draft recovery plan's reliance on outdated materials in the assessment and development of recovery measures for the interior Delta, including the Mokelumne River. The bulk of the recommendations made for the Mokelumne River steelhead were based on a single 1991 CDFG publication, now over 18 years old and scientifically obsolete due to the subsequent (a) implementation of the Joint Settlement Agreement and (b) development of a much more recent, comprehensive database on the current status of Mokelumne River fisheries ecosystem. *(Entered On:4/27/2010 11:22:34 AM)*

s76 c316-- Sykes Richard -- East Bay Municipal Utility District

Suitable river temperatures and flows in the lower Mokelumne River have been provided by EBMUD for steelhead through the JSA. On page 4-107 it states that temperatures within the Mokelumne River are as high as 68Â°F in August. This is not accurate given the JSA provisions and current river management. Within the reach between Camanche Dam and Lake Lodi water temperatures have not approached 68Â°F since at least 1992, prior to implementation of the joint settlement agreement flows in 1996. *(Entered On:4/27/2010 11:22:35 AM)*

s76 c324-- Sykes Richard -- East Bay Municipal Utility District

Page 9 states: "Anadromous hatchery programs that release out-of-ESU steelhead stocks into the CCVS ESU are operated at Nimbus Hatchery and Mokelumne River Hatchery." The last time Nimbus origin eggs were used for the Mokelumne Hatchery program was in 1999-2000. Feather River steelhead eggs were imported from 2001-02 through 2006-07. *(Entered On:4/27/2010 11:22:35 AM)*

s76 c328-- Sykes Richard -- East Bay Municipal Utility District

Page 4-107: Under the Passage/Impediments/Barriers section it states that a "potential (low flow) barrier extends over a 600-foot section" just upstream from Thornton. Moreover it states that Woodbridge Dam may present a barrier to upstream passage at low flows. The data used for the statement is nearly 2 decades old and does not assess the effects of the JSA flows on improving conditions. Since 1996, salmon migration timing has varied with no correlation with flow timing or magnitude. Other than beaver dams and illegal fences there have been no blockages observed in the river reach below Woodbridge Dam. Fish passage has occurred during the months of August and September during dry years under JSA dry year flows. *(Entered On:4/27/2010 11:22:35 AM)*

s76 c331-- Sykes Richard -- East Bay Municipal Utility District

Page 4-107 "Flow Conditions" â€“ States that in dry year conditions flows below Woodbridge can be well below 100cfs from August through beginning of November. Under Dry year scenario minimum flows below Woodbridge in October when salmon spawning begins are 80 cfs. *(Entered On:4/27/2010 11:22:36 AM)*

s76 c333-- Sykes Richard -- East Bay Municipal Utility District

Page 4-110: "Flow Conditions"- States that maintaining flow of about 300 cfs from mid-October through February provides maximum spawning habitat and that flow variation during embryo incubation may lead to redd dewatering. As sated previously, the 1991 report cited is out of date and since implementation of JSA flows and changes to the steelhead program at the Mokelumne River Fish Hatchery there has been an overall increase in steelhead escapement to the river and hatchery. In the months of November through May flow variations are a natural occurrence to which steelhead have adapted. *(Entered On:4/27/2010 11:22:36 AM)*

s76 c334-- Sykes Richard -- East Bay Municipal Utility District

Page 4-111: "Entrainment" â€“ States that Woodbridge Canal was screened in 1968 and that they do not meet CDFG or NMFS standards. Furthermore it states that North San Joaquin Water Conservation District (NSJWCD) pumps are either unscreened or that the screens are in disrepair. State of the art fish screens were installed and became operational in 2008 at the head of Woodbridge Canal. These screens were certified by CDFG and NMFS. Both of the NSJWCD intakes referenced have had new CDFG certified screens installed in the last 3 years. *(Entered On:4/27/2010 11:22:36 AM)*

s76 c335-- Sykes Richard -- East Bay Municipal Utility District

Page 4-111: "HATCHERY EFFECTS Because early attempts to create a natural run of steelhead in the Mokelumne River were unsuccessful, the fishery is currently managed by CDFG as a catchable rainbow trout fishery. Steelhead averaging three to a pound are released annually. These fish likely prey on juvenile salmonids in the lower river (EBMUD 1992)." Except for one year of volitional release, this practice was discontinued a number of years ago and all hatchery yearling steelhead are released below Woodbridge Dam with most of the fish released at Thornton or the Delta. *(Entered On:4/27/2010 11:22:36 AM)*

s82 c442-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 145: It should be noted that the "extant populations of steelhead" that are either "data deficient" or "at a high risk of extinction" refers to the presence of healthy 0. mykiss populations in the Calaveras, Stanislaus, and Merced Rivers where the majority of the populations are resident rainbow trout with a handful of documented steelhead. *(Entered On:4/27/2010 11:46:07 AM)*

s82 c443-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 145: The statement regarding "local efforts to investigate steelhead presence...have been minimal" in these watersheds is incorrect. In fact, public agency stakeholders spend millions of dollars each year monitoring salmon and steelhead populations within these watersheds. For instance, the Calaveras River has had ongoing steelhead monitoring efforts since 2002, which include juvenile migration studies using a rotary screw trap, targeted snorkel surveys, and a pilot PIT Tag study. *(Entered On:4/27/2010 11:46:07 AM)*

s82 c453-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 197 states: Flow is reported to be a principal factor currently limiting salmonids in the Calaveras River (CALFED Bay-Delta Program 2000, as cited in Marsh 2006). Comment: Strikeout this statement. Please refer to comment Main Document, Page 147(2) provided above. Today, due to flows provided by SEWD water management operations, a prized rainbow trout fishery exists in the lower river above Bellota. This resident population may provide a genetic reservoir for the expression of the anadromous life history form. *(Entered On:4/27/2010 11:46:08 AM)*

s82 c470-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-11, Figure 4-5. Life Stage Timing for Steelhead Populations in the Southern Sierra Nevada Diversity Group. Adult immigration and holding, adult spawning, and juvenile migration timing is inaccurate. *(Entered On:4/27/2010 11:46:09 AM)*

s82 c477-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-114: The referenced FFC document contains erroneous information since it was prepared based on drought year observations. *(Entered On:4/27/2010 11:46:09 AM)*

s82 c495-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 199, 2.10.39.1, For Involved Parties, remove Reclamation (Reclamation exercises no discretion on New Hogan operations). No comment can be provided regarding implementation of Phase 1 restoration plan because this document could not be found at the referenced location (i.e., "AFRP website 2005"). *(Entered On:4/27/2010 11:46:10 AM)*

s82 c496-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 200, 2.10.41.1: No comment can be provided regarding implementation of Phase 1 restoration plan because this document could not be found at the referenced location (i.e., "AFRP website 2005"). *(Entered On:4/27/2010 11:46:10 AM)*

s82 c499-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 42, Figure 2-4 indicates that adult steelhead abundance in the San Joaquin River is moderate in November and high during December and cites steelhead report card data as the source. However, the Stanislaus, Tuolumne, and Merced rivers are closed to fishing during these months, so there should not be any report card data available. *(Entered On:4/27/2010 11:46:10 AM)*

s82 c501-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 148-149 states: There are many egregious statements in this section that lack credible scientific basis. We are unaware of any research that has

indicated that a "lack of suitable spawning and rearing habitat may reduce the likelihood of establishing a viable steelhead population in the Stanislaus River." Recent assessments of spawning habitat for Chinook salmon and the large population of 0. mykiss (about 10,000 fish) in the river are strong indications that spawning habitat is not an important factor limiting either resident or anadromous O. mykiss production in the Stanislaus. Recent analyses concluded that current spawning habitat in the Stanislaus River is capable of supporting 1,000 to 3,000 spawning adult Chinook salmon. Steelhead have similar spawning habitat requirements so this habitat could be expected to support a similar number of spawning O. mykiss. Further, as noted elsewhere, the Stanislaus River has a substantial population of O. mykiss, which obviously successfully reproduce each year. *(Entered On:4/27/2010 11:46:10 AM)*

s82 c505-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 207: There are several management actions in this section that are not supported with scientific justification. No evidence is provided that lower water temperatures are needed on the Stanislaus, or that lower water temperatures will increase anadromy. Similarly, there is no evidence that pollution is a problem in the Stanislaus River, or that it is inhibiting anadromy. There is also no evidence that anadromy will be increased by more flow, or that more flow will "carry" migrants downstream. *(Entered On:4/27/2010 11:46:10 AM)*

s82 c511-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 217 states: Steelhead smolts also have been captured in the rotary screw traps at Caswell State Park and Oakdale each year since 1995 (Cramer and Associates Inc. 2000; 2001). Comment: This citation is not included in the references and may be incorrect. Monitoring at Oakdale began in 1993 and at Caswell during 1994. *(Entered On:4/27/2010 11:46:11 AM)*

s82 c512-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-116, Adult Immigration And Holding-Harvest/Angling Impacts section: The fishing season now extends from January 1 through October 31. Also, the document cited here and throughout Appendix B is an early working draft. Although never completed, the latest working draft is SRFG 2004 that is cited in other sections of this plan; neither document is in a condition to be used as citable material. *(Entered On:4/27/2010 11:46:11 AM)*

s82 c513-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-116, Spawning-Water Quality section states: Gravel mining and the subsequent production of pits and long flowing ditches have led to reduced dissolved oxygen concentrations in the lower river (Carl Mesick Consultants and S.P. Cramer & Associates 2002). Comment: There is no data to support this statement since DO has not been consistently and continuously measured at any location other than Ripon. *(Entered On:4/27/2010 11:46:11 AM)*

s82 c515-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-118, Embryo Incubation-Water Quality section states: Gravel mining and the subsequent production of pits and long flowing ditches have led to reduced dissolved oxygen concentrations in the lower river (Carl Mesick Consultants and S.P. Cramer & Associates 2002). Comment: There is no data to support this statement since DO has not been consistently and continuously measured at any location other than Ripon. *(Entered On:4/27/2010 11:46:11 AM)*

s82 c518-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-118, Juvenile Rearing And Outmigration-Water Quality section states: Dissolved oxygen concentration reach critical levels during the summer months between Goodwin Dam and the Orange Blossom Bridge (where most steelhead juvenile rearing occurs)(Carl Mesick Consultants and S.P. Cramer & Associates 2002). Comment: This statement is incorrect. Data does not exist in this reach, but dissolved oxygen is monitored much further downstream at Ripon where concentrations generally range from 7 to 10 mg/L. *(Entered On:4/27/2010 11:46:11 AM)*

s82 c520-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-118, Juvenile Rearing And Outmigration-Flow Conditions section: Furthermore, the referenced analyses (Mesick 2008, Mesick and Marston 2007) are not listed in the references section so we cannot review the source documents. This is of particular concern because several analyses drawing similar conclusions and by the same authors have been found to be substantially flawed by multiple expert reviewers and should not be used for any purpose. *(Entered On:4/27/2010 11:46:11 AM)*

s82 c521-- O'Laughlin Timothy -- San Joaquin River Group Authority

Carl Mesick Consultants and S.P. Cramer & Associates 2002, is an incomplete draft that should not be cited for any purpose. *(Entered On:4/27/2010 11:46:11 AM)*

s82 c550-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 220, Key Threats and Stressors and Key Actions: We reiterate our principle concern of lack of data or research to substantiate the majority of these conclusions. *(Entered On:4/27/2010 11:46:13 AM)*

s82 c562-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 198, 2.10.36.1: Temperatures are described in the threats assessment as adequate for immigration, holding, spawning, and incubation; and there is no supporting information provided in the document to justify the statements that "High water temperatures during summer months are likely a limiting factor for steelhead rearing in the lower Tuolumne River. Water temperatures are particularly problematic at low flows." *(Entered On:4/27/2010 11:46:13 AM)*

s82 c729-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 225: The citation to Miller 2008 is not in the bibliography. *(Entered On:4/27/2010 11:46:14 AM)*

s82 c730-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 225 states: Currently, steelhead are present in the Merced River and spawn between Crocker Huffman Dam (RM52) and Highway J59 Bridge Crossing (RM42). Comment: What is the source for the statement that steelhead are present in the Merced River and spawn between Crocker Huffman Dam and Highway J59 Bridge? *(Entered On:4/27/2010 11:46:15 AM)*

s82 c731-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 225 states: At this time, there are three obstructions to migrating fish: Crocker Huffman irrigation diversion near Snelling, Merced Falls Dam, and Exchequer. Comment: There are currently four dams on the Merced River, not three. And, there were impassable darns on the Merced River since the 1850s that predated the dams listed here. There are also numerous temporary irrigation diversion dams installed every year in the river. *(Entered On:4/27/2010 11:46:15 AM)*

s82 c745-- O'Laughlin Timothy -- San Joaquin River Group Authority

According to NMFS, this draft plan is not to be cited; yet, there are numerous instances where NMFS staff has cited the document. *(Entered On:4/27/2010 11:46:14 AM)*

s82 c748-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 41, Lindley et al. (Lindley et al. 2006) estimated that historically there were at least 81 independent Central Valley steelhead populations distributed primarily throughout the eastern tributaries of the Sacramento and San Joaquin rivers. The estimates by Lindley, et al. are just thatâ€"estimates. There is no evidence that viable steelhead populations existed to the extent estimated by Lindley. The report is just an educated guess as to the extent of habitat that steelhead may have occupied. *(Entered On:4/27/2010 11:46:14 AM)*

s83 c357-- Hoffman-Floerke Dale -- Department of Water Resources

Quite often the document cites a lack of information as the primary reason for not assessing Feather River spring-run salmon; however, there is a significant amount of data available on Feather River spring-run salmon (collected by DWR and the Feather River Hatchery) that may provide the basis for this analysis. *(Entered On:4/27/2010 10:53:10 AM)*

s83 c361-- Hoffman-Floerke Dale -- Department of Water Resources

There is existing information that refutes statements in the Draft Plan (i.e., contradictions on San Joaquin steelhead, Feather River spring-run salmon data, extinction rate of

steelhead, the number of spring-run salmon Antelope Creek can sustain and water availability). *(Entered On:4/27/2010 10:53:10 AM)*

s83 c364-- Hoffman-Floerke Dale -- Department of Water Resources

Section 1.1 The Great Central Valley of California, page 2, last sentence in section: Regarding the statement: [No San Joaquin coast range streams] "are known to have supported anadromous salmonids". This is contradicted by Lindley et al. 2006 who predicted, through GIS models, that some of these streams could have supported steelhead. *(Entered On:4/27/2010 10:53:10 AM)*

s83 c372-- Hoffman-Floerke Dale -- Department of Water Resources

Section 2.3.7 Reasons for Listing/Threats Assessment, 1st paragraph: Regarding the statements "The CV TRT could not assess the viability of this DPS using the quantitative approach. However, qualitative information does suggest that the Central Valley steelhead DPS is at a moderate or high risk of extinction..." are from Lindley et al. 2007 and should be cited as such. Regarding the next statement, Lindley et al. 2007 states: "In all cases, hatchery-origin fish likely comprise the majority of the natural spawning run, placing the natural populations at high risk of extinction (emphasis added), therefore, this statement should be changed so that it reads "...qualitative information suggest that the CV steelhead DPS is at a high risk of extinction (Lindley et al. 2007)" If you have other sources that indicate that CV steelhead is at a moderate risk of extinction, then these should be cited. *(Entered On:4/27/2010 10:53:10 AM)*

s83 c373-- Hoffman-Floerke Dale -- Department of Water Resources

Section 2.3.8 Conservation Measures, 1st paragraph: Regarding the statement "The CVP Section 7 consultation with [USBR] likely contributed to habitat improvements benefiting the CV steelhead DPS, such as flow and temperature improvements". This statement is speculative. Specific measures and known positive responses by steelhead should be stated and cited or the above sentence should be deleted. Given the proclivity of management agencies to implement Chinook salmon conservation measures and then claim, without evidence, that they provide ancillary benefits for steelhead (see discussion in D. McEwan 2001), specific examples are needed here. Also, on which rivers was the consultation based? Specificity is an important consideration and needs to be addressed. *(Entered On:4/27/2010 10:53:10 AM)*

s83 c379-- Hoffman-Floerke Dale -- Department of Water Resources

Section 3.2.2 Central Valley Spring-run Chinook Salmon, page 60: States that the current status of FR spring-run Chinook population is unknown due to insufficient data. There is a significant amount of data including numbers of adults returning to the FRH by date, spawning success both in the FRH and in-river, and spawn timing. *(Entered On:4/27/2010 10:53:10 AM)*

s83 c389-- Hoffman-Floerke Dale -- Department of Water Resources

Northern Sierra Diversity Group/Antelope Creek, page 108: Estimate of sustainable population of 2000 (Rectenwald 1998) is not supported by historical DFG estimates (-500), the USFS Watershed Assessment (1998), or conversations with Colleen Harvey-Arrison (DFG). She indicated that based on available habitat in the mainstem a population of several hundred (200-300) is likely sustainable. Habitat in the North and South forks are only available to spring-run in above normal water years and therefore limit the potential sustainable production. *(Entered On:4/27/2010 10:53:11 AM)*

s83 c394-- Hoffman-Floerke Dale -- Department of Water Resources

Northern Sierra Diversity Group/Feather River, page 139: The existing population of steelhead in the Feather River is considered to be at high risk of extinction so data was clearly available to perform the VSP analysis. I would suggest that a far greater amount of data exists on spring-run Chinook so a similar analysis should be tenable. *(Entered On:4/27/2010 10:53:11 AM)*

s83 c396-- Hoffman-Floerke Dale -- Department of Water Resources

Recovery Action 1.1.1, page 155: California's human population is projected to increase by 20.1% by the year 2020 (US Census Bureau http://quickfacts.census.gov/qfd/states/06000.html), which would negate any water savings associated with this action. *(Entered On:4/27/2010 10:53:11 AM)*

s83 c397-- Hoffman-Floerke Dale -- Department of Water Resources

Delta 1.5.5(6), page 157: Is 8,000 cfs even available in all years? The feasibility of this action occurring on an annual basis is questionable. Consider modifying annual to a frequency that is more closely aligned with historical patterns (3 out of 5 years, maybe). *(Entered On:4/27/2010 10:53:11 AM)*

Editorial, Clarification, and Consistency

Category EDI 1 -- Editorial:
Editorial comments related to the Draft Recovery Plan have been provided, and NMFS will respond to them individually.

s51 c586-- Stoecker Matt -- Stoecker Ecological

p. 47- Table 2-6, Threat 2.6.1 Under Recovery Action(s), include â€œProvide fish passage upstream of Keswick and Shasta Damsâ€ *(Entered On:3/16/2010 4:12:08 PM)*

s51 c587-- Stoecker Matt -- Stoecker Ecological

p.65- Table 2-7, Threat 2.7.4 Under Recovery Action(s), include â€œAssess the removal of Englebright Dam.â€ *(Entered On:3/16/2010 4:12:08 PM)*

s53 c619-- Shutes Chris -- California Sportfishing Protection Alliance
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

NMFS Draft Recovery Plan, Page 122. The list of watersheds with historic populations of steelhead has omitted several Southern Sierra Nevada Diversity Group rivers, such as the Stanislaus, Tuolumne, and San Joaquin Rivers. It looks as if a column has been omitted in the Recovery Plan after the letter â€œPâ€. *(Entered On:4/27/2010 11:39:13 AM)*

s64 c81-- Albrecht David

Possibly Change # 3 wording: "Existing barriers in most of Cow Creek tributaries and resultant ... " [in the Cow Creek Watershed Profile: Appendix A; pages 143-149, Key Threats and Stressors] *(Entered On:4/23/2010 11:52:52 AM)*

s64 c82-- Albrecht David

Given the proposal to decommission; a layman (with first hand knowledge of the hydrology and landownership use) would swap the order for the number 2 and 4 actions. [in the Cow Creek Watershed Profile: Appendix A; pages 143-149, Key Actions] *(Entered On:4/23/2010 11:52:52 AM)*

s66 c90-- Okita David -- Solano County Water Agency

The Bay-Delta Region and the Pacific Ocean handout incorrectly labels the Sacramento Deep Water Ship Channel as the Sacramento River. *(Entered On:3/23/2010 11:36:02 PM)*

s66 c94-- Okita David -- Solano County Water Agency

Page 55, Figure 3-3, depicts the Central Valley Steelhead Diversity Groups. Putah Creek is listed twice; the river downstream of Camanche Reservoir should be labeled as the Mokelumne River and not Putah Creek. *(Entered On:3/23/2010 11:36:02 PM)*

s66 c96-- Okita David -- Solano County Water Agency

Page 125, Figure 5-3, also mislabels the Mokelumne River as Putah Creek. *(Entered On:3/23/2010 11:36:02 PM)*

s70 c126-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

Page 176, Key Actions Suggest that you consider finishing your list by adding something to the effect of: Work with stakeholders including private land owners, local and state government, and the Mendocino National Forest to develop a Coordinated Resource Management Plan (or planning group) for Thomes Creek to help recover CV salmon and steelhead in this watershed. The needs and opportunities cross many ownerships and interests, and involve many jurisdictions. *(Entered On:4/22/2010 2:04:08 PM)*

s76 c326-- Sykes Richard -- East Bay Municipal Utility District

Page 201 Appendix A states: "Thus, New Hogan Reservoir captures most of the rainfall into the watershed, and local runoff in the lower Mokelumne River below New Hogan Dam seeps quickly into the groundwater table (USFWS 2003)." "lower Mokelumne River" should be Calaveras River. *(Entered On:4/27/2010 11:22:35 AM)*

s80 c346-- Reedy Gary -- South Yuba River Citizens League

p.116 â€“ The Yuba Accord flow schedules are believed to provide suitable cold water flows for all life stages of salmonids, but these flow schedules are undergoing evaluation as per the Yuba Accord Fisheries Agreement and River Management Team. I suggest the first bullet item for this scenario be revised to state â€œContinue implementation and evaluation of the Yuba Accord flow schedules to provide â€¦â€. *(Entered On:4/22/2010 2:08:33 PM)*

s80 c349-- Reedy Gary -- South Yuba River Citizens League

p. 161 â€“ The first sentence of section 1.9.6.1 requires editing. I suggest â€œa phased approach to reintroduction to historic habitatsâ€¦â€ *(Entered On:4/22/2010 2:08:34 PM)*

s82 c455-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 199 states: Flow conditions (i.e., low flows, flood flows) affecting attraction and migratory cues for adult immigration and holding. Strikeout this statement. *(Entered On:4/27/2010 11:46:08 AM)*

s82 c459-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 199 states: Flow dependent habitat availability affecting juvenile rearing and outmigration. Strikeout statement. *(Entered On:4/27/2010 11:46:07 AM)*

s82 c463-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 201, Hydrology section, second paragraph, last sentence, should refer to Calaveras River- not Mokelumne. *(Entered On:4/27/2010 11:46:07 AM)*

s82 c464-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 202 states: range from 20 to 50 cfs to meet downstream municipal water supply demands. In drought years, non-irrigation season releases are less. Comment: insert "a minimum" between "range from" and "20-50 cfs." Change from "are less" to "may be less, dependent on adaptive management determinations that will be made between SEWD and NMFS during implementation of the Calaveras River Habitat Conservation Plan." *(Entered On:4/27/2010 11:46:08 AM)*

s82 c466-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 202 states: ...via a Rainy Well system. Change to "infiltration gallery". *(Entered On:4/27/2010 11:46:07 AM)*

s82 c476-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-114 states: There is no evidence that water quality, other than temperature, may limit juvenile rearing (Fishery Foundation of California 2004). Comment: strikeout ", other than temperature,". *(Entered On:4/27/2010 11:46:09 AM)*

s82 c481-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 179, 2.10.2.1: Implement monitoring of passage through the existing Bellota weir fish ladder and monitor upstream and downstream passage and stranding, as recommended in the Habitat Conservation Plan. Comment: For Involved Parties, remove Reclamation (Reclamation exercises no discretion on New Hogan operations) and replace Fishery Foundation of California with "Various NGOs" since there is more than one NGO that works in the basin. *(Entered On:4/27/2010 11:46:09 AM)*

s82 c482-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 179, 2.10.2.2: Replace Bellota weir incorporating a permanent fish ladder and screened diversion as recommended in the Calaveras River Fish Screen Facilities Feasibility Study. Comment: For Involved Parties, remove Reclamation (Reclamation exercises no discretion on New Hogan operations) and replace Fishery Foundation of California with "Various NGOs" since there is more than one NGO that works in the basin. *(Entered On:4/27/2010 11:46:09 AM)*

s82 c483-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 180, 2.10.2.3: Implement recommendations for permanent upstream and downstream passage of salmonids between the Delta and Bellota weir from the Calaveras Habitat Conservation Plan and DWR Calaveras River Fish Passage Improvement Plan. Comment: For Involved Parties, remove Reclamation (Reclamation exercises no discretion on New Hogan operations) and replace Fishery Foundation of California with "Various NGOs" since there is more than one NGO that works in the basin. *(Entered On:4/27/2010 11:46:09 AM)*

s82 c484-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 180, 2.10.2.4: Implement the Calaveras River fish passage improvement project (AFRP website 2005). Comment: For Involved Parties, remove Reclamation (Reclamation exercises no discretion on New Hogan operations) and replace Fishery Foundation of California with "Various NGOs" since there is more than one NGO that works in the basin. *(Entered On:4/27/2010 11:46:09 AM)*

s82 c490-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 190, 2.10.21: It appears that the inclusion of the Calaveras River in the "Population" column for this "threat" is incorrect. Strikeout Calaveras River. *(Entered On:4/27/2010 11:46:10 AM)*

s82 c539-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 145, Local efforts to investigate steelhead presence, habitat utilization and restoration opportunities targeting steelhead have been minimal in most of these watersheds. Comment: A more accurate statement would be "Government efforts to investigate steelhead presence, habitat utilization and restoration opportunities targeting steelhead have been minimal in most of these watersheds." *(Entered On:4/27/2010 11:46:12 AM)*

s82 c552-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-120, Adult Immigration And Holding-Harvest/Angling Impacts section states: The Tuolumne River, from La Grange Dam downstream to the confluence with the San Joaquin River supports a catch and release recreational trout fishery from January 1 through October 15. Therefore, it is possible that redds could be inadvertently disrupted by wading anglers. Comment: The statement regarding redd disruption should be removed since it does not apply to adult immigration or holding. *(Entered On:4/27/2010 11:46:13 AM)*

s82 c733-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 227 states: Passage impediments/barriers at the Crocker Huffman, McSwain, and New Exchequer dams blocking/impeding adult immigration. Comment: There are four dams on the lower Merced River. Also, one of the three dams listed on

page 227 is different than one of the three dams listed on page 225. *(Entered On:4/27/2010 11:46:15 AM)*

s82 c773-- O'Laughlin Timothy -- San Joaquin River Group Authority

Strikeout Threat # 2.10.14 and associated recovery actions (2.10.14.1 and 2.10.14.2). Please refer to comment Main Document, Page 147(2) provided above. *(Entered On:4/27/2010 11:46:13 AM)*

s83 c395-- Hoffman-Floerke Dale -- Department of Water Resources

Recovery Scenarios and Recovery Actions: Currently, the Recovery Scenario section gives more bulleted actions than the Recovery Actions section (e.g. the Lower Yuba and San Joaquin actions are clearly defined in the Scenarios but not listed in the Recovery Actions section). I suggest making the Recovery Scenario section more general with more explanation as to why certain types of actions promote recovery. Then, make the Recovery Actions section more specific. *(Entered On:4/27/2010 10:53:11 AM)*

s83 c399-- Hoffman-Floerke Dale -- Department of Water Resources

Mainstream SJR 1.10, page 162: This should be moved under 1.11 - Southern Sierra Nevada Diversity Group with the other San Joaquin Actions. *(Entered On:4/27/2010 10:53:09 AM)*

Category EDI 2 -- Editorial:
Certain discussions and conclusions made in the Draft Recovery Plan need further clarification or elaboration. Current wording of text is misleading in some places, and should be clarified as well.

s4 c284-- Harthorn Allen -- Friends of Butte Creek

It seems that NMFS needs to review the FERC relicensing documents and the Yoshiyama and Kier reports and rewrite the introduction to better reflect the reality of Butte Creek flows and temperature and the existence of salmonids. *(Entered On:4/27/2010 11:29:33 AM)*

s19 c186-- Sanchez Jack -- Save Auburn Ravine Salmon And Steelhead

[from Appendix A, Watershed Profiles, Auburn Ravine/Coon Creek Watershed Profile] In the western portion of the watersheds, the creeks have been largely confined to narrow channels and the riparian plant community reduced to a narrow band along the banks. (comment: eastern channels are much better and should also be described) *(Entered On:4/22/2010 1:58:59 PM)*

s40 c568-- Chotkowski Michael -- U.S. Bureau of Reclamation

Reclamation suggests that such language is confusing two separate pieces of the ESA. Section 7(a)(2) requires Federal agencies to "insure [sic] that any action authorized, funded, or carried out by such agency ... is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary ... to

be critical." The obligation upon Federal agencies, with an proposed Federal action, is thus to avoid jeopardizing the species, not to recover the species. A section 7(a)(2) consultation is not a consultation on what the Federal agency must to do to recover species, nor is it a consultation to evaluate the proposed action's ability to recover the species. Reclamation does note that one prong of the analysis of a proposed Federal action's effects on designated critical habitat relates to the action's effect on the ability of designated critical habitat to contribute to recovery. Whether the proposed action is decreasing the ability is the threshold, however, not whether the action is increasing the ability. Recommendation: Reclamation recommends removing the language in the PLan that is in conflict with the language of the statute. *(Entered On:4/27/2010 11:33:59 AM)*

s40 c570-- Chotkowski Michael -- U.S. Bureau of Reclamation

Page 211 - The Plan asserts that "To date, most Federal agencies have not complied with the section 7(a)(1) requirement to develop conservation programs for Central Valley Salmon and steelhead."... Recommendation: Reclamation recommends that the language described in Comment 5 be modified to reflect that Federal agencies attempt to fulfill their 7(a)(1) obligations, within resource allocation constraints. *(Entered On:4/27/2010 11:33:59 AM)*

s40 c571-- Chotkowski Michael -- U.S. Bureau of Reclamation

A nonessential experimental population is only treated as threatened if located within a National Park System or a National Wildlife Refuge System unit. All populations of a species, including populations designated as experimental, are considered to be a single listed entity when making jeopardy determinations or otehr analyses in a section 7 consultation. Because a nonessential experimental population is not essential to the continued existence of the species, a proposed action impacting a nonessential population could not lead to a jeopardy determination for the entire species (U.S. Fish and Wildlife Service and NMFS, 1998). Recommendation: Reclamation recommends adding the language in the previous paragraph to further clarify what is meant by the last sentence cited in Comment 6, and also to provide assurances and minimize opposition to reintroduction programs. *(Entered On:4/27/2010 11:33:59 AM)*

s40 c572-- Chotkowski Michael -- U.S. Bureau of Reclamation

Page 103 - The Plan states, "Conduct a feasibility study of moving and/or modifying Coleman Hatchery operations to prevent adverse impacts to wild populations of spring-run Chinook salmon in Battle Creek."... Recommendation: Reclamation recommends revising the language to state: "Conduct a feasibility study of modifying Coleman Hatchery operations to prevent adverse impacts to wild populations of spring-run Chinook salmon in Battle Creek." *(Entered On:4/27/2010 11:33:59 AM)*

s52 c634-- Scott Dougald -- Northern California Council of the Federation of Fly Fishers, Incorporated

The potential effects of increased numbers of resident O. mykiss on anadromous steelhead need to be addressed more thoroughly in the Plan. Appendix B (Threats

Assessment), Section 4 (Steelhead) would be the appropriate place for this discussion. However, the problem should be noted in Sections 2.3.3, 2.3.9 and 3.3.1 followed by a detailed analysis in the threats assessment in Appendix B. *(Entered On:4/27/2010 11:20:58 AM)*

s53 c624-- Shutes Chris -- California Sportfishing Protection Alliance
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

In the Merced River, the flow conditions and habitat for steelhead trout have been significantly altered by the New Exchequer dam and agricultural diversions: â€œThe magnitude, duration, and frequency of elevated spring flows in the Merced River has been altered by operations of Crocker-Huffman Dam which may negatively impact migrating juvenile steelhead. A strong correlation has been established between annual spring flow magnitude and the production of salmon smolt outmigrants from the tributary, survival of smolts in the Delta and the production of adults in the escapement and ocean harvest (Mesick 2008, Mesick and Marston 2007).â€□23 These findings should be thoroughly discussed in main body of the Recovery Plan (e.g., Section 4.4, Threat Abatement Criteria). *(Entered On:4/27/2010 11:39:14 AM)*

s64 c77-- Albrecht David

[Cow Creek Watershed Profile: Appendix A; pages 143-149] Watershed/Ecosystem Restoration: Description is almost all negative; and possibly should be more balanced with somewhat more optimism for some of the tributaries. *(Entered On:4/23/2010 11:52:52 AM)*

s64 c80-- Albrecht David

Section would be significantly improved with a 3 x 5 "fish species/tributaries" matrix table for "potential"; ie., (winter run, spring run, steelhead) x (Little Cow, Oak Run, Clover Creek, Old Cow, South Cow)..." [in the Cow Creek Watershed Profile: Appendix A; pages 143-149, Viability Potential] *(Entered On:4/23/2010 11:52:52 AM)*

s64 c83-- Albrecht David

Somewhat more description would be appropriate [in the Cow Creek Watershed Profile: Appendix A; Watershed Description Overview, Little Cow Creek, Oak Run Creek, Clover Creek, Old Cow Creek, South Cow Creek, and Land Use; pages 145-147] *(Entered On:4/23/2010 11:52:52 AM)*

s64 c84-- Albrecht David

Statement in 2nd paragraph is very misleading: "According to DFG, no summary data readily exist for information on diversion rights (ie., ownership, magnitude, and

duration)." [in the Cow Creek Watershed Profile: Appendix A; pages 143-149, Fisheries and Aquatic Habitat] *(Entered On:4/23/2010 11:52:52 AM)*

s66 c99-- Okita David -- Solano County Water Agency

Page 133, under Putah Creek, last sentence states "Migratory rainbow trout with a steelhead-like life history continue to spawn in the upper tributaries", what does steelhead-like life history here mean? Migratory rainbows are anadromous (steelhead-which these fish are clearly not), limnodromous or potadromous. *(Entered On:3/23/2010 11:36:02 PM)*

s70 c117-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

The discussion of the Thomes Creek watershed within the Forest Boundary is confusing in the recovery plan, especially related to steelhead. *(Entered On:4/22/2010 2:04:07 PM)*

s70 c129-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

Appendix B, Page 3-89- "Thomes Creek does not support a consistent or sustaining population of spring- run Chinook". Stray fish are not normally considered a population. It would probably be fair to say that (my wording) Thomes may have once supported a viable population of spring Chinook, but that population is believed extirpated by changing habitat conditions following the 1964 flood. *(Entered On:4/22/2010 2:04:08 PM)*

s71 c247-- Patten Joseph -- CH2M HILL

Your Figure 2-2 on page 17 shows the first year's count to be in 1970. This is misleading to me. What you need to look at is the first 3 years of the actual count at RBDD starting with 1967. *(Entered On:3/16/2010 12:16:41 AM)*

s76 c332-- Sykes Richard -- East Bay Municipal Utility District

Page 4-109: Gravel mining is implied to occur in various areas. There is only one off channel gravel mining operation left on the lower Mokelumne River. The operation actually provides the gravel used for the spawning gravel enhancement project in the area below Camanche Dam. *(Entered On:4/27/2010 11:22:36 AM)*

s76 c337-- Sykes Richard -- East Bay Municipal Utility District

Page 195, Appendix C: Recovery actions for Mokelumne River steelhead to address the threat of flow conditions limiting juvenile rearing habitat availability in the Mokelumne River is inconsistent with NMFS' own guidance regarding the development of recovery plans. This guidance notes that when identifying recovery actions, options should not be overly prescriptive or limiting and should leave sufficient flexibility to allow for creative or innovative solutions. The measure, which mentions both an action that is not necessarily appropriate at this stage and a proceeding that simply seeks to continue an

existing authorization, fails to satisfy these criteria and should be removed from the recovery plan. *(Entered On:4/27/2010 11:22:36 AM)*

s80 c345-- Reedy Gary -- South Yuba River Citizens League

p. 115 â€“ Only one paragraph describes reintroduction to the upper Yuba River watershed, as primary reintroduction priority of the Draft Plan. â€œ...the conceptual recovery scenario does not further discuss specific restoration actions associated with reintroduction in deferral to NMFS currently evaluating feasibility and evaluations â€œyet to be finalizedâ€ as part of the Upper Yuba River Studies Program. Please do provide more explanation of the concepts for reintroduction, even if based on preliminary work by NMFS and a limited Habitat Assessment Report by UYRSP necessitating qualifications. It is misleading to imply that the UYRSP, which effectively died in 2007, will someday finalize its evaluations. *(Entered On:4/22/2010 2:08:33 PM)*

s80 c347-- Reedy Gary -- South Yuba River Citizens League

Due to common professional opinion of their being a difference between spawning gravel augmentation and spawning rehabilitation, I suggest a careful choice of words here. Spawning rehabilitation, including potential treatment of altered bed surfaces (mining and shotrock) and placement of gravel, better describes the restoration scenario. *(Entered On:4/22/2010 2:08:33 PM)*

s80 c350-- Reedy Gary -- South Yuba River Citizens League

Section 1.9.6.2 requires editing and clarification. I reiterate the need to emphasize spawning habitat rehabilitation over the more narrow meaning of gravel augmentation. *(Entered On:4/22/2010 2:08:33 PM)*

s81 c675-- Aikens Curt -- Yuba County Water Agency

Thus, identification of recovery actions in. Appendix C includes their characterization as being "Very High" or "High" relative to other actions, based upon the stressors provided in Appendix B, which were based on a scale of the relative effects of various stressors. It is not clear how the transition was made from "Very High" or "High" stressots to "Priority 1" and "Priority 2" actions, nor is any explanation provided in the Draft Plan of why "Priority 2 actions" are necessary or how they would "prevent a significant decline in population numbers, habitat quality, or other significant negative impacts short of extinction". The Draft Plan should be revised to clearly describe these definitions and linkages. *(Entered On:4/27/2010 11:10:53 AM)*

s82 c440-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Pages 18 and 24: Clarify that the Calaveras River "winter-run" were not an "indigenous natural run because the Calaveras River (a low elevation stream) originally did not have year-round conditions suitable to support the native winter run (Yoshiyama et al. 2000)." Although not indigenous, some potentially "winter-run" Chinook may have "somehow [temporarily] colonized the Calaveras after the dam was put in (Yoshiyama 2001)" between 1972 and 1984. According to Yoshiyama et al.

(2000), these fish "probably established [themselves] as a result of, and were maintained by, coldwater releases from New Hogan Reservoir, but [were] evidently later extirpated by unfavorable environmental conditions [i.e., drought]." *(Entered On:4/27/2010 11:46:07 AM)*

s82 c449-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 162, Number 1.11.2.1 states: Develop long-term instream flow schedules and requirements based on physical habitat modeling and critical riffle analysis. This should be changed to identify that long-term instream flow schedules have been developed as conservation measures that will be implemented as part of the Calaveras River Habitat Conservation Plan. *(Entered On:4/27/2010 11:46:07 AM)*

s82 c452-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 197 states: Surveys on the Calaveras River over the past several years indicate that small numbers of steelhead continue to run up the river with the first fall rains and during the winter (USFWS 2003). Elaborate on "small numbers." *(Entered On:4/27/2010 11:46:08 AM)*

s82 c458-- O'Laughlin Timothy -- San Joaquin River Group Authority

A statement found in Appendix B, page 4-114, which states, "However, water temperatures below Bellota Weir often rise above suitable levels for juvenile salmonids" is misleading. The reach below Bellota is not suitable for any lifestage besides adult immigration and juvenile emigration. Water temperatures below Bellota during the unimpeded migration timeframe (i.e., November through early April) are well within acceptable temperatures for migration. Temperatures are higher below Bellota during the irrigation period when flashboard dams are in place, but migration is not likely to occur in this reach during this period due to flashboard dam barriers. Also, flows are highest in the reach below Bellota during the irrigation period, but temperatures nonetheless are higher than optimal due to solar radiation. *(Entered On:4/27/2010 11:46:08 AM)*

s82 c461-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 199 states: Develop long-term instream flow schedules and requirements based on physical habitat modeling and critical riffle analysis. Comment: This should be changed to identify that long-term instream flow schedules have been developed as conservation measures that will be implemented as part of the Calaveras River Habitat Conservation Plan. *(Entered On:4/27/2010 11:46:08 AM)*

s82 c465-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 202 states: Water diversions from New Hogan Dam downstream to Bellota, including those of Stockton East Water District (SEWD) and the Calaveras County Water District (CCWD), remove most of the river flow, except during the rainy season. A small amount of water is released into the Old River channel and Mormon Slough at Bellota during the irrigation season for downstream users including groundwater recharge; however, the lower channels near Stockton are usually dry except

during the rainy season. Comment: This description is inaccurate and should be changed. Most flow releases remain in the river between New Hogan and Bellota, which provide habitat conditions that support a healthy population of O. mykiss. *(Entered On:4/27/2010 11:46:08 AM)*

s82 c467-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 202: This description is incorrect. Currently, the primary flow channel is the Mormon Slough/Stockton Diverting Canal route, while the secondary channel is the Old Calaveras River. *(Entered On:4/27/2010 11:46:08 AM)*

s82 c473-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-113 states: After construction of New Hogan Dam, and subsequent river regulation, barriers in the lower river became serious impediments to upstream migration causing stranding when flows high enough to pass fish over the barriers drops (Marsh 2007). Comment: Clarify that migration delays or stranding "may" occur during periods between natural freshets and flood control releases when passage over various instream structures can be impeded by low flows. *(Entered On:4/27/2010 11:46:09 AM)*

s82 c479-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-115 states: Juvenile steelhead can become entrained at the Bellota Weir (Marsh 2007). Comment: Clarify that fry may become entrained but not fingerlings or larger. Since 2006, SEWD has operated a temporary screen system at Bellota to help reduce entrainment of juvenile salmonids until a permanent solution is fully implemented. The temporary screens have a mesh size of 3/16-inch which meets the current federal and state screening criteria of 1/4" mesh for fingerlings (>60 mm) but not the 3/32"mesh for fry (*(Entered On:4/27/2010 11:46:09 AM)*

s82 c498-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 41 states: Until recently, CV steelhead were thought to be extirpated from the San Joaquin River system. Recent monitoring has detected small self-sustaining populations of steelhead in the Stanislaus, Mokelumne, and Calaveras rivers, and other streams previously thought to be devoid of steelhead (McEwan 2001). On the Stanislaus River, steelhead smolts have been captured in rotary screw traps at Caswell State Park and Oakdale each year since 1995. Comment: "Self-sustaining" appears to be a misnomer. If a population is self-sustaining and persists despite purported threats, how can that population not be considered viable and have no need for recovery? *(Entered On:4/27/2010 11:46:10 AM)*

s82 c500-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 48 states: Spring-run Chinook salmon have been almost entirely extirpated from both the basalt and porous lava region and the southern Sierra Nevada region4. Footnote 4: Observations of small numbers of Chinook salmon returning to the Stanislaus River in the spring have been reported, but their status as spring-run Chinook salmon has not been confirmed. Comment: Clarify that although the status of these fish

has not been confirmed, they are most likely Feather River fall-run hatchery strays. *(Entered On:4/27/2010 11:46:10 AM)*

s82 c508-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 208: The statement "even with gravel augmentation and flow augmentation" places undue and unsupported emphasis on the need for these actions. As noted elsewhere, NMFS provides no scientific evidence that gravel or flow augmentation is a limiting factor in anadromous or resident 0. mykiss production. Additionally, there is no evidence that "off channel and small tributary habitat" is a limiting factor in anadromous 0. mykiss production. Similarly, no evidence is presented that the Stanislaus River historically consisted of significant off channel and/or tributary habitat that was an important factor in 0. mykiss production. Considering this lack of evidence, it's naive to conclude that "improvements in flow conditions and spawning gravels may give them a fighting chance." Please provide the definition or criteria for "fighting chance." Also, what is the justification for expending precious resources (e.g., water supplies, if it is "unlikely for steelhead to recover a viable population"?) *(Entered On:4/27/2010 11:46:10 AM)*

s82 c509-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 208 states: In the Stanislaus River, nearly 90 percent of O. mykiss sampled were offspring of resident adults (Zimmerman et al. 2008). The uncertain participation of Merced and Tuolumne River water operations in spring pulse flows in the future can affect the diversity and continued existence of the Stanislaus River population and of the Southern Sierra diversity Group. Comment: It is unclear how these two statements are related. *(Entered On:4/27/2010 11:46:10 AM)*

s82 c510-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 216 states: Although the abundance of steelhead is not surveyed in the Stanislaus River... Comment: A weir has been in operation since 2003 to monitor steelhead abundance. *(Entered On:4/27/2010 11:46:11 AM)*

s82 c514-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-116, Embryo Incubation-Harvest/Angling Impacts section: The mention of catch/release and bait/tackle regulations is irrelevant since incubating embryos cannot be caught by hook and line. The fishing season now extends January 1 through October 31. *(Entered On:4/27/2010 11:46:11 AM)*

s82 c516-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-118, Embryo Incubation-Flow Conditions section: Turbidity does not mobilize fine sediment. *(Entered On:4/27/2010 11:46:11 AM)*

s82 c528-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 184, 2.10.10.1, Implement experimental flow design to evaluate fish migration response relating to varying flow levels. Note that the threat is incorrectly stated. Dams directly impact anadromous fish populations by restricting access to otherwise available habitat, but they do not directly "affect" the number of adults returning to the river. *(Entered On:4/27/2010 11:46:12 AM)*

s82 c541-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 146: The statement "It is clear" at the beginning of the paragraph places unwarranted emphasis and legitimacy on the subsequent statements. It is in fact not clear that the long-term viability of anadromous 0. mykiss depends on additional flow or colder water temperatures. If causal links are so well established that it is "clear," please present the evidence. *(Entered On:4/27/2010 11:46:12 AM)*

s82 c547-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 218 states: Currently, steelhead populations in the Stanislaus, Tuolumne, Merced, and Calaveras rivers are the only remaining representatives of the Southern Sierra Nevada (SSN) diversity group of the Central Valley steelhead (NMFS 2009). It should be clarified that this does not imply that these populations are genetically representative of the historic 0. mykiss populations in these watersheds. *(Entered On:4/27/2010 11:46:13 AM)*

s82 c548-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 218 states: However, none of these populations are considered to be viable at this time (Lindley et al. 2007), although they are considered persistent. Comment: The use of terms like viable, self-sustaining, and persistent in reference to steelhead populations is confusing. "Self-sustaining population," a term used throughout the document, appears to be a misnomer, It is defined in the recovery plan as being of "non-hatchery origin." However, "self-sustaining" gives the impression that the cohort replacement rate is 1.0 or greater. In other words the population is stable or growing and there is no need for "recovery". For clarity, we suggest using the term "naturally reproducing". *(Entered On:4/27/2010 11:46:13 AM)*

s82 c554-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-122 states: High daily fluctuations in water temperature at low flows have been observed in the lower river (ranging from 12Â°F to 14Â°F daily) (McBain & Trush 1998). Current FERC flow schedules appear to provide suitable rearing habitat for the first 15 miles downstream of La Grange Dam during non-dry years (McBain & Trush 1998). Temperatures may not be low enough ((*Entered On:4/27/2010 11:46:08 AM)*

s82 c722-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 41: Clarify that juvenile 0. mykiss cannot be definitively identified as "steelhead." Rather, downstream migrating individuals exhibiting smolting

characteristics have the potential to become steelhead if they continue their migration all the way to the ocean. This comment applies to multiple locations throughout the document wherever this or similar statements are made. *(Entered On:4/27/2010 11:46:14 AM)*

s82 c724-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 146, implementation of actions related to flow, water temperature, and habitat specified in the RPA of the 2009 NMFS OCAP BO, but also additional actions, particularly increasing flows in the Tuolumne and Merced rivers (NMFS 2009). Comment: Clarify that the OCAP BO (NMFS 2009) did not address operations for the Tuolumne and Merced Rivers nor did the biological assessment include those operations. *(Entered On:4/27/2010 11:46:14 AM)*

s82 c735-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-124, Spawning Habitat Availability section states: Accumulation and retention of coarse sediment suitable for steelhead spawning has been prevented by flow regulation and sediment capture by dams, likely reducing the quantity and quality of spawning habitat. The description of spawning habitat availability fails to acknowledge that the entire riverbed has been extensively dredger mined as described by Stillwater Sciences. *(Entered On:4/27/2010 11:46:15 AM)*

s82 c758-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 216 states: The reintroduced population of spring-run Chinook salmon should be considered for designation as experimental through section 10(j). This statement is misleading. NMFS is required by law to treat the reintroduced spring-run Chinook salmon in the San Joaquin River as an experimental population. (Omnibus Public Land Management Act of 2009, Section 10011(b).) The discussion here says that it "should be considered" which implies that NMFS has some discretion. *(Entered On:4/27/2010 11:46:15 AM)*

s83 c365-- Hoffman-Floerke Dale -- Department of Water Resources

Section 1.2 Salmon & Steelhead at Risk, pages 2 and 3: It appears from this section that harvest has no impact on steelhead. *(Entered On:4/27/2010 10:53:09 AM)*

s83 c374-- Hoffman-Floerke Dale -- Department of Water Resources

Section 2.3.8, 2nd paragraph: Conservation measures specific to steelhead need to be described here. *(Entered On:4/27/2010 10:53:09 AM)*

s83 c376-- Hoffman-Floerke Dale -- Department of Water Resources

Section 2.3.8, page 49, 2nd paragraph: Discussion of CVPIA actions should list actions that provide demonstrable benefits for steelhead. *(Entered On:4/27/2010 10:53:09 AM)*

s83 c377-- Hoffman-Floerke Dale -- Department of Water Resources

Section 2.3.8 Conservation Measures: This section is deficient. The message that comes across is that nothing specific is being done for steelhead except implementation of angling restrictions. 4(d) Rule requirements can be listed here as well (e.g. screening requirements for diversions), provided that they are being enforced. *(Entered On:4/27/2010 10:53:10 AM)*

s83 c385-- Hoffman-Floerke Dale -- Department of Water Resources

Objectives and Criteria Factor 2, page 79: Add specific language about inland harvest and poaching under 2.1.C. Also, Scientific and Educational Purposes are not clearly addressed. Add as 2.2 and 2.3 respectively. *(Entered On:4/27/2010 10:53:11 AM)*

s83 c386-- Hoffman-Floerke Dale -- Department of Water Resources

Section 4.4 Listing Factors and Threats - Factor 4, Criterion 4.1, page 80: There is no real substance or specificity to this section, hence it will do little to recover steelhead. There should be specific references to existing laws, why they are inadequate, and how they can be made adequate (e.g. NMFS will enforce fish screen requirements as specified in the 4(d) Rules; DFG should actively enforce DFG Code 5937, which requires that sufficient water remains in the stream below diversions; SWRCB should police and enforce water rights allocations; DFG should enforce appropriate DFG Code sections pertaining to stream obstructions). *(Entered On:4/27/2010 10:53:11 AM)*

s83 c391-- Hoffman-Floerke Dale -- Department of Water Resources

Northern Sierra Diversity Group/Feather River(FR), page 113: How does CWT information indicate introgression? Need to provide a better explanation. I would also suggest providing the genetics results that indicate that FR spring-run are more closely related to FR fall-run than they are to other CV spring-run populations. *(Entered On:4/27/2010 10:53:11 AM)*

s83 c398-- Hoffman-Floerke Dale -- Department of Water Resources

Delta 1.5.9, page 158: Why 20,000cfs? Under current conditions this target is met so if it is in place to address variability associated with climate change then note as such, otherwise it appears meaningless. Also, define what is meant by "periodically" twice/weekly/monthly...). Provide supporting analysis. *(Entered On:4/27/2010 10:53:11 AM)*

Category EDI 3 -- Editorial:
Consistency of wording or data presentation needs to be checked throughout the Draft Recovery Plan.

s54 Morse Kathleen -- United States Department of Agriculture, Forest c657-- Service, the Lassen National Forest

Appendix B. Section 3.0, 3.3.1.1. (page 3-15) 1st parapraph in this section states that for spring-run, â€œCurrent spawning habitat is restricted to the mainstem and a few tributaries to the Sacramento Riverâ€□ and that â€œâ€¦the remaining accessible habitat for spawningâ€¦is severly degraded by elevated water temperaturesâ€¦.diversionsâ€¦..etcâ€□. â€œSeverly degradedâ€□, however, does not apply to the â€œremainingâ€□ habitat in the tributaries (e.g. Deer, Mill, etc.). This same statement is noted on the previous page (3-14, 2nd paragraph) and elsewhere in the document and should be corrected. *(Entered On:3/24/2010 12:23:31 AM)*

s70 Holtrop Joel -- United States Department of Agriculture, United States c131-- Forest Service

Appendix B- Page 4-94, 95 Flow Conditions- Thomes flows are adequate in all years for steelhead to access beyond the Forest Boundary as adults and outmigrate as smolt when the flows are still too high for downstream irrigators to install their unscreened diversions. It is admittedly unclear how often steelhead access well up into the watershed. These sections state that the flow conditions do not support a persistent population. So why did NMFS designate the stream as critical habitat, and suggest elsewhere in the document that certain actions are necessary? Sounds like different NMFS writers have different conclusions? *(Entered On:4/22/2010 2:04:08 PM)*

s76 c311-- Sykes Richard -- East Bay Municipal Utility District

The draft recovery plan lists four population diversity groups that salmonids historically inhabited in the Central Valley. The Sierra Nevada region is divided arbitrarily south of the Mokelumne River, but in places the draft recovery plan puts the Mokelumne River in the Northern Sierra Nevada diversity group (pp. 54, 65, 66, 101, 107 and 201) while in other places the Mokelumne River are referenced as being in the Southern Sierra Nevada diversity group (pp. 55, 123, and 145). River steelhead should be listed in only one diversity group, the Northern Sierra Nevada diversity group since most of the recovery actions are made in context to that diversity group. *(Entered On:4/27/2010 11:22:34 AM)*

s76 c312-- Sykes Richard -- East Bay Municipal Utility District

The current draft of the recovery plan has the following references to the Mokelumne River in the Southern Sierra Diversity Group: This inconsistency needs to be corrected. Page 145: "However, the steelhead conceptual recovery scenario for the Southern Sierra Diversity Group includes the maintenance and/or establishment of spawning steelhead populations in the Mokelumne River, Dry Creek and the Calaveras, Stanislaus, Tuolumne and Merced rivers." Page 145: "Extant populations of steelhead in the Southern Sierra Nevada Diversity Group are known or believed to occur in the Calaveras, Stanislaus, Tuolumne, and Merced rivers (NMFS 2009). In addition, a hatchery-dependent steelhead

population is present on the Mokelumne River (Marsh 2007)." Page 55. Figure 3-3 shows the Mokelumne River in the Southern Sierra Nevada diversity group for CV steelhead. Page 123. "These 26 steelhead populations were categorized into four Diversity Groups based on geographic structure described in Lindley et al. (2007), which listed below. Southern Sierra Nevada Diversity Group - Mokelumne River." *(Entered On:4/27/2010 11:22:35 AM)*

s76 c318-- Sykes Richard -- East Bay Municipal Utility District

The listing of this priority 1 recovery action under economic analysis is inconsistent with Table 3-2 on page 66 which lists the Upper Mokelumne River as a secondary focus for recovery in the Northern Sierra Nevada Diversity Group for reintroduction priorities for Central Valley Watersheds. *(Entered On:4/27/2010 11:22:35 AM)*

s81 c674-- Aikens Curt -- Yuba County Water Agency

The Draft Plan Incorrectly Identifies and Characterizes Priority 1 Recovery Actions...The Draft Plan includes Priority 1, Priority 2 and Priority 3 recovery actions. ...These definitions are not entirely consistent with the definitions of these same terms that are presented in Appendix C, and the differences between these two sets of definitions are important regarding the need for and the priority of specific recovery actions. ...The Draft Plan (pg. 153, and other pages as appropriate) should be revised to be consistent with the Appendix C definitions and NMFS' Guidelines (55 FR 24296) *(Entered On:4/27/2010 11:10:52 AM)*

s81 c684-- Aikens Curt -- Yuba County Water Agency

The Yuba River Watershed Profile (Appendix A pg. 68) characterizes the potential for the lower Yuba River to support viable populations of spring-run Chinook salmon and steelhead as moderate. This characterization should be changed to high to be consistent with the Draft Plan. *(Entered On:4/27/2010 11:10:52 AM)*

s82 c433-- O'Laughlin Timothy -- San Joaquin River Group Authority

We believe, but cannot be sure, that inconsistencies regarding the status of resident and anadromous O. mykiss populations stems from the inconsistent use of the word "steelhead." Steelhead appears to be used interchangeably in the document to discuss two different life history forms (resident rainbow trout versus anadromous steelhead), which leads to confusion over abundance versus rarity. The resident form is often abundant but the anadromous form is typically rare. For clarity, we suggest "resident O. mykiss" and "anadromous 0. mykiss" be used to describe the different life history strategies that may be expressed. *(Entered On:4/27/2010 11:46:06 AM)*

s82 c434-- O'Laughlin Timothy -- San Joaquin River Group Authority

The use of terms like "viable," "self-sustaining," and "persistent" in reference to steelhead populations is also confusing. "Self-sustaining population," a term used throughout the document, appears to be a misnomer. It is defined in the recovery plan as being of "non-hatchery origin." However, "self-sustaining" gives the impression that the cohort

replacement rate is 1.0 or greater. In other words, the population is stable or growing and there is no need for "recovery." For clarity, we suggest using the term "naturally spawning." *(Entered On:4/27/2010 11:46:06 AM)*

s82 c441-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 41 states: Recent monitoring has detected small self-sustaining populations of steelhead in the Stanislaus, Mokelumne, and Calaveras rivers, and other streams previously thought to be devoid of steelhead (McEwan 2001). This statement is inconsistent with other statements found throughout the Recovery Plan documents. *(Entered On:4/27/2010 11:46:07 AM)*

s82 c451-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 197 states: A small, apparently self-sustaining population of steelhead exists in the Calaveras River (NMFS 2008). This statement is inconsistent with other statements found throughout the Recovery Plan documents. *(Entered On:4/27/2010 11:46:08 AM)*

s82 c456-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 199 states: Flow fluctuations affecting spawning and embryo incubation. This statement should receive a strikeout because it is inconsistent with Appendix B, page 4-114. *(Entered On:4/27/2010 11:46:08 AM)*

s82 c457-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 199 states: Water temperatures affecting spawning and embryo incubation, and juvenile rearing and outmigration. This statement should receive a strikeout because it is inconsistent with Appendix B, pages 4-112 through 4-114. *(Entered On:4/27/2010 11:46:08 AM)*

s82 c460-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 199 states: Hatchery effects related to redd superimposition, competition for spawning habitat, and genetic integrity and Hatchery effects related to juvenile rearing and outmigration. Comment: These two statements are inconsistent with Appendix B, Page 4-113 and 4-115. *(Entered On:4/27/2010 11:46:08 AM)*

s82 c469-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-5, 4.1.4.2 states: Until recently, Central Valley steelhead were thought to be extirpated from the San Joaquin River system. Recent monitoring has detected small self-sustaining populations of steelhead in the Stanislaus, Mokelumne, and Calaveras rivers, and other streams previously thought to be devoid of steelhead (McEwan 2001). This statement is inconsistent with other statements found throughout the Recovery Plan documents. *(Entered On:4/27/2010 11:46:09 AM)*

s82 c474-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-113 states: Because Calaveras River does not support a persistent population of steelhead at this time...This statement is inconsistent with the Calaveras River containing a "self-sustaining" population describe in numerous locations *(Entered On:4/27/2010 11:46:09 AM)*

s82 c504-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 162, 1. 11.1.2 states: Manage cold water pools behind Goodwin, New Melones and Tulloch dams to provide suitable water temperatures for all downstream life stages. Comment: Revise this statement. Water temperatures for all lifestages are described as suitable in the threats assessment (Appendix B) of this recovery plan. *(Entered On:4/27/2010 11:46:10 AM)*

s82 c507-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 208: A "low to moderate potential" for supporting a population of steelhead is inconsistent with a "self-sustaining population." *(Entered On:4/27/2010 11:46:07 AM)*

s82 c517-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-118, Juvenile Rearing And Outmigration-Water Temperature: This is inconsistent with information in the section regarding flow conditions, which states that "Even during relatively hot spells, releases from the dam provide adequate cooling to the river downstream to about Orange Blossom Bridge." *(Entered On:4/27/2010 11:46:11 AM)*

s82 c524-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-136, 4.4.2.4 Southern Sierra Nevada Diversity Group section: The last bullet in this list is paramount. Nearly all of the other bullets are unsupported by the information in this document or elsewhere. On page 4-116 the Stanislaus River is described as having suitable flows and water temperatures for adult immigration and holding, yet high water temperatures and low flows are listed above as stressors of high importance for this lifestage. Similarly, the list indicates that low flows limit juvenile rearing habitat availability, yet the present flow regime is probably adequate as described on page 4-118. *(Entered On:4/27/2010 11:46:11 AM)*

s82 c732-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 226 states: It is likely that steelhead numbers could be restored to the lower Merced River in better numbers if temperature and flow standards are established that would provide for juvenile rearing. Comment: This statement is inconsistent with previous statements concerning extent of habitat degradation caused by past mining and other activities. What numbers of steelhead would be needed to "restore" the Merced River population? It is quite possible that "restoring" the steelhead is not feasible. *(Entered On:4/27/2010 11:46:15 AM)*

s83 c388-- Hoffman-Floerke Dale -- Department of Water Resources

Recovery Scenarios: OCAP RPA's need to be presented consistently in all sections. For example, they are specified in the San Joaquin section but not in the mainstem Sacramento River or Battle Creek sections (for spring-run). *(Entered On:4/27/2010 10:53:11 AM)*

Genetic Structure

Category GEN 1 -- Genetic Structure:
The Draft Recovery Plan should include the Fall Run and the Late Fall Run of salmon for the Sacramento River.

s22 c6-- Howland Justin

I hope your plans will consider that there are both a fall run and a late fall run of salmon. *(Entered On:2/22/2010 10:42:50 AM)*

s23 c8-- Farquhar Jay

I am concerned that the Public Draft Recovery Plan for the Sacramento River is silent on the fall run and the late fall run. *(Entered On:2/22/2010 10:43:53 AM)*

s24 c10-- Chamberlain Lewis

Pertaining to the Public Draft Recovery Plan for Sacramento River I would humbly request you modify the plan to include the Fall and Late Fall Run *(Entered On:2/22/2010 10:45:35 AM)*

s37 c38-- Tavares Trudy -- Nystrom & Company LLP

please consider including the Fall Run and the Late Fall Run of Chinook within the plan. *(Entered On:2/23/2010 3:00:27 PM)*

Category GEN 2 -- Genetic Structure:
Appraisals of population sizes and viability should include both anadromous and resident life-history components and the recovery actions should be applied to include both components.

s28 c266-- Yoshiyama Ronald -- San Francisco Public Utilities Commission

Because the two life-history components constitute the same populations or gene pools within individual riversâ€"and perhaps between populations spanning several rivers of the Central Valleyâ€"meaningful population evaluations and management efforts cannot be realistically conducted on either life-history component alone. Hence, appraisals of population sizes and viability should include both anadromous and resident life-history components and the fishery management efforts should be applied to include both components. *(Entered On:3/2/2010 12:30:20 PM)*

Category GEN 3 -- Genetic Structure:
The biological and ecological bases of the switching mechanism(s) controlling residency versus anadromy needs to be better understood so that effective management measures can be developed to increase the production of anadromous (steelhead) individuals.

s28 c267-- Yoshiyama Ronald -- San Francisco Public Utilities Commission

There is an urgent need to better understand the biological and ecological bases of the switching mechanism(s) controlling residency versus anadromy so that effective management measures can be developed to increase the production of anadromous (steelhead) individuals. Otherwise, under the current strategy of simply increasing total O. mykiss numbers, the management efforts will probably never produce enough steelhead phenotypes to attain the delisting of that life-history form in the Central Valley. *(Entered On:3/2/2010 12:30:21 PM)*

Category GEN 4 -- Genetic Structure:

The genetic structure of the Central Valley salmon population complex must determine how the populations are managed individually and as parts of larger genetic-evolutionary entities (diversity groups).

s28 c268-- Yoshiyama Ronald -- San Francisco Public Utilities Commission

The genetic structure of the Central Valley O. mykiss population-complex must determine how the populations are managed individually and also as parts of larger genetic-evolutionary entitiesâ€"i.e., diversity groups or the entire Central Valley ESU. *(Entered On:3/2/2010 12:30:20 PM)*

Category GEN 5 -- Genetic Structure:

Separate management of the Nimbus Hatchery steelhead is not appropriate due to the introgression of this population into other Central Valley O. mykiss populations.

s28 c269-- Yoshiyama Ronald -- San Francisco Public Utilities Commission

it is evident that the Nimbus Hatchery steelhead genetic material has been widely introgressed into other Central Valley O. mykiss populations. Hence, separate management of the Nimbus Hatchery steelhead likely is not appropriate and a more effective management strategy may be to incorporate the Nimbus Hatchery (and the related Mokelumne River Hatchery) steelhead into the broader Central Valley management framework. *(Entered On:3/2/2010 12:30:20 PM)*

Category GEN 6 -- Genetic Structure:

NMFS research suggests that above-dam populations of O. mykiss may harbor at least portions of the original or historical Central Valley genomes. The transport of below-dam fish to the upper watershed areas would affect the genetic structure of above-dam stocks, with unknown evolutionary and management ramifications.

s28 c270-- Yoshiyama Ronald -- San Francisco Public Utilities Commission

The NMFS study suggested that the above-dam populations may harbor at least portions of the original or historical Central Valley O. mykiss genomes. Hence, the transport of below-dam fish to the upper watershed areas would affect the genetic structure of the above-dam stocksâ€"the evolutionary and management ramifications of which are not clear. *(Entered On:3/2/2010 12:30:20 PM)*

Category GEN 7 -- Genetic Structure:

NMFS should address the controversy around the genetic integrity of spring-run Chinook in the upper Sacramento River and provide rationale for its position.

s40 c567-- Chotkowski Michael -- U.S. Bureau of Reclamation

More recently, California Department of Fish and Game (CDFG) has questioned the genetic integrity of spring-run Chinook salmon in the upper Sacramento River and state that Chinook salmon that spawn inthe mainstem Sacramento River are more likely to be identified as early fall-run Chinook salmon rather than spring-run.... Recommendation: National Marine Fisheries Service (NMFS) should address this controversy in the Recovery Plan and clearly provide rationale for its position. *(Entered On:4/27/2010 11:33:59 AM)*

Category GEN 8 -- Genetic Structure:

It is difficult to develop an effective recovery strategy without a better understanding of the factors that influence the expression of anadromy versus residency in Central Valley O. mykiss individuals and populations, and the popoulation genetic structure of the Central Valley O. mykiss populations and the extent of hisotrical and ongoing genetic exchange.

s82 c437-- O'Laughlin Timothy -- San Joaquin River Group Authority

We share concerns presented by Ronald M. Yoshiyama on behalf of the San Francisco Public Utilities Commission (December 4, 2009) regarding the difficulty of developing a recovery strategy without a better understanding of (1) factors that influence the expression of anadromy versus residency in Central Valley O. mykissâ€"at both the individual and populations levels; and (2) the population genetic structure of Central Valley O. mykiss populations and the extent of historical and ongoing genetic exchange. *(Entered On:4/27/2010 11:46:07 AM)*

Category GEN 9 -- Genetic Structure:

All naturally spawned steelhead populations within the Central Valley basin are closely related to populations in the genetic groups that include the Eel and Klamath Rivers due to the historic use of Eel River origin broodstock at the Nimbus Hatchery. It is unrealistic to think that juvenille steelhead rearing in the Stanislaus River are not likely hatchery production for this reason.

s82 c523-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-119, Juvenile Rearing And Outmigration-Hatchery Effects section states: Juvenile steelhead rearing in the Stanislaus River are not likely affected by hatchery production. There may be no direct effects since hatchery fish are not planted in the lower Stanislaus River, however, damage has already been done. All naturally-spawned populations within the Central Valley basin are closely related to populations in far northern California, specifically the genetic groups that include the Eel and Klamath Rivers. Since Eel River origin broodstock were used for many years at Nimbus Hatchery on the American River, it is likely that Eel River genes persist there and have also spread to other basins by migration. *(Entered On:4/27/2010 11:46:11 AM)*

Category GEN 10 -- Genetic Structure:
Information presented in the Draft Recovery Plan does not support considering Mill and Deer Creeks as one population in terms of stated diversity group recovery objectives. The fish in these two creeks should be considered as two separate populations.

s81 c669-- Aikens Curt -- Yuba County Water Agency

YCWA Questions the Draft Plan's Characterization of Current Spring-Run Chinook Salmon Populations and the Recovery Status of the Northern Sierra Nevada Diversity Group... information presented in the Draft Plan does not support considering Mill and Deer creeks as one population in terms of stated diversity group recovery objectives. Rather, according the sections of the Draft Plan identified in this comment, the fish in these two creeks should be considered as two separate populations. *(Entered On:4/27/2010 11:10:52 AM)*

Category GEN 11 -- Genetic Structure:
It is unclear whether NMFS feels that all populations supported by hatcheries are not viable, particularly those associated with the Feather River Hatchery.

s83 c366-- Hoffman-Floerke Dale -- Department of Water Resources

Section 2.2.3 Abundance, Trends, and Distribution, page 28: FR spring-run Chinook are not considered "viable". Does this mean that all populations supported by hatcheries are not viable? Clearly there has been introgression between spring and fall run but significant changes in spawning procedures at the FRH are quickly isolating spring and fall run. In addition, introgression in-river is likely not as detrimental as is often described based on spawn timing observed through the spring-run tagging program at the FRH. *(Entered On:4/27/2010 10:53:10 AM)*

Category GEN 12 -- Genetic Structure:
NMFS needs to delineate the differences between steelhead and salmon.

s83 c359-- Hoffman-Floerke Dale -- Department of Water Resources

Please delineate the differences between steelhead and salmon. *(Entered On:4/27/2010 10:53:09 AM)*

Category GEN 13 -- Genetic Structure:
Data on rainbow/steelhead trout planting both above and below New Hogan Dam should be included in the discussions on hatchery influences.

s82 c454-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 197 states: As far as hatchery influences, information on hatchery steelhead was collected below Bellota Weir, however, the carcasses were too deteriorated to determine if the adipose fins were clipped (USFWS 2003). Comment: Rainbow/steelhead trout planting has occurred historically (both above and below New Hogan Dam), but the extent of planting is minimal when compared to other drainages in California. Garza and (2008, page 14) found that the Calaveras River population sample

consistently grouped together with the Junction Kamloops hatchery strain, "possibly indicating some introgression from this strain into Calaveras River steelhead." *(Entered On:4/27/2010 11:46:08 AM)*

s82 c472-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-112 states: However, in many years, the timing and magnitude of flows below Bellota Weir are not sufficient to allow steelhead to migrate upstream during winter months (Fishery Foundation of California 2004). This is inaccurate. Please refer to second paragraph under comment Appendix A, Page 197 provided above *(Entered On:4/27/2010 11:46:09 AM)*

Category GEN 14 -- Genetic Structure:
Clarify the discussion in Appendix B that the Calaveras River "winter-run" could have colonized the Calaveras River after the dam was put in.

s82 c468-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 2-5: Clarify that the Calaveras River "winter-run" were not an "indigenous natural run because the Calaveras River (a low elevation stream) originally did not have year-round conditions suitable to support the native winter run (Yoshiyama et al. 2000)." Although not indigenous, some potentially "winter-run" Chinook may have "somehow [temporarily] colonized the Calaveras after the dam was put in (Yoshiyama 2001)" between 1972 and 1984. According to Yoshiyama et al. (2000), these fish "probably established [themselves] as a result of, and were maintained by, coldwater releases from New Hogan Reservoir, but [were] evidently later extirpated by unfavorable environmental conditions [i.e., drought]." *(Entered On:4/27/2010 11:46:08 AM)*

Category GEN 15 -- Genetic Structure:
Discussion should be added that addresses the issue of steelhead change in life history and evolutionary trajectory by favoring the resident component of the population through moderation of temperature, flows, and other factors.

s83 c378-- Hoffman-Floerke Dale -- Department of Water Resources

Section 2.3.9 Biological Constraints and Needs, page 49: Should address the issue of change in life-history and evolutionary trajectory by favoring the resident component of the population through the moderation of temperature, flows, and other factors due to hypolimnetic releases in tailwater reaches (e.g. upper Sac below Keswick). This could be a key factor in the decline of the steelhead life-history form, and bolster the argument that access to the more natural flow regimes found above impassable dams (e.g. Shasta, Folsom, New Melones) is necessary for their recovery. *(Entered On:4/27/2010 10:53:10 AM)*

Habitat

Category HAB 1 -- Habitat:
Stillwater Creek should be rewatered to restore salmon spawning beds.

s9 c17-- Smith Randall

Stillwater Creek is today over twenty miles of nearly perfect substrate. Lacking summer cold water remains the problem it was seventy years ago. However, the federally enabled Bella Vista Water District has completed the necessary conduit for delivery of proper temperature Sacramento River water to Stillwater Creek. This conveyance is located very high in the Stillwater corridor. Almost sixteen miles of habitat are available for the price of pumping the non consumptive beneficial water. There can be no more readily available site of greater value containing beneficial spawning habitat for listed species in Northern California. *(Entered On:3/23/2010 11:37:20 PM)*

s29 c26-- Fitch Stephen

Also call for study and implementation of the re-watering of Stillwater Creek in Shasta County for critical spawning periods in the final plan. *(Entered On:2/23/2010 11:48:12 AM)*

s30 c27-- Balkovek Gregory

I am particularly aware of the 1940 measure to restore Salmon spawning beds in the Stillwater Creek area that was lost in the wake of WWII. I implore you to look at this vital area for the future of salmon in California. *(Entered On:2/23/2010 11:47:08 AM)*

s37 c39-- Tavares Trudy -- Nystrom & Company LLP

please consider including a provision for non-consumptive water for Stillwater Creek, which would help all four runs of salmon. *(Entered On:2/23/2010 3:00:27 PM)*

Category HAB 2 -- Habitat:
The Feather River low flow section has great potential as spawning and rearing habitat.

s36 c37-- Brown Ryan

The Feather River low flow section has great potential but Iâ€™ve seen little done to increase spawning and rearing habitat conditions. *(Entered On:2/23/2010 2:42:04 PM)*

Category HAB 3 -- Habitat:
The Sacramento River downstream of the Shasta Dam, particularly upstream of Cottonwood Creek could be restored with a program to return lost gravel.

s68 c49-- Wilson Howard -- CH2MHILL

The construction of Shasta Dam greatly affected movement of gravel down the Sacramento River, particularly upstream of Cottonwood Creek. The Federal and State

agencies have programs to restore the gravel lost to the system in this reach of the river. The program results have been sporadic at best mainly because there are not sufficient funds to purchase, wash, transport, and place gravel in strategic locations in the upper river. The development and execution of a simple plan, based on sound geomorphology studies, should be easy to accomplish and should be initiated now. *(Entered On:4/27/2010 11:12:21 AM)*

Category HAB 4 -- Habitat:
Unoccupied portions of the Yuba River above Englebright Dam cannot be considered for designation as critical habitat unless fish passage is provided at the dam.

s58 c66-- Nelson Ron -- Nevada Irrigation District

Unoccupied portions of the Yuba River above Englebright Dam cannot be considered for designation as critical habitat unless and until fish passage is provided at the dam. Without fish passage, the Yuba River above Englebright Dam is not "essential for the conservation of the species" because it is inaccessible to listed species. *(Entered On:4/27/2010 9:49:14 AM)*

Category HAB 5 -- Habitat:
The only suitable steelhead spawning and rearing waters above Black Butte dam, but below Stony Gorge dam, occur in Grindstone Creek on the Mendocino National Forest.

s70 c115-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

The only suitable steelhead spawning and rearing waters above Black Butte dam, but below Stony Gorge dam (which is not mentioned as being made fish passable) occur in Grindstone Creek on the Mendocino National Forest. The lower portions of Grindstone and its lower tributaries do not provide suitable over-summering habitat for juvenile steelhead, though the middle and upper portions of the watershed do support resident rainbow trout, and resident trout occupy the downstream habitat in the cooler months. These streams have elevated erosion, instream sediment and turbidity due to natural instability and past management practices, but appear to be in a fairly stable trend. *(Entered On:4/22/2010 2:04:07 PM)*

Category HAB 6 -- Habitat:
Deep refugia pools on Thomes Creek have never recovered sufficiently from the 1964 floods to provide the stratified cool refugia needed for spring Chinook to over-summer.

s70 c118-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

Thomes Creek up to Willow Creek had large, deep refugia pools needed by adult spring Chinook, but these pools were filled significantly in the 1964 floods by large substrate and the pools have mostly never recovered sufficiently to provide the stratified cool refugia needed for spring Chinook to over-summer. *(Entered On:4/22/2010 2:04:08 PM)*

Category HAB 7 -- Habitat:
Lower Stony Creek below Black Butte dam does not provide viable summer habitat, nor did it historically provide spawning or rearing habitat.

s70 c114-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

It is unlikely that spring Chinook ever existed in the Stony watershed other than as occasional strays; the watershed does not appear to have ever had the physical attributes necessary to support over-summering adult spring Chinook. *(Entered On:4/22/2010 2:04:07 PM)*

s70 c128-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

Appendix B- Page 3-85 It's unlikely that Stony Creek ever had a population of spring run Chinook. It never had suitably large, deep refugia pools in locations with sufficiently cold summer water temperatures. They likely never existed, so they can't be extirpated there. We know of no data suggesting they were there historically. *(Entered On:4/22/2010 2:04:08 PM)*

s70 c130-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

Appendix B- Page 4-90, and following pages It's unlikely that steelhead could be viable in lower Stony Creek below Black Butte dam. Summer water temperatures are too high for rearing steelhead. Access to suitable winter/spring spawning habitat does not create all the conditions needed for their life cycle. We know of no data suggesting that lower Stony was historically steelhead spawning and rearing habitat, or is now of any real value for steelhead, other than for non-natal rearing as river stage allows. *(Entered On:4/22/2010 2:04:08 PM)*

Category HAB 8 -- Habitat:
There is suitable spawning and rearing habitat in the Auburn Ravine/Coon Creek Watershed.

s19 c179-- Sanchez Jack -- Save Auburn Ravine Salmon And Steelhead

[from Appendix A, Watershed Profiles, Auburn Ravine/Coon Creek Watershed Profile] The limiting factor for steelhead in the Auburn Ravine system is suitable spawning habitat...Rainbow trout are known to spawn here, however, steelhead spawning has not been confirmed. (We disagree: there is suitable spawning and rearing habitat that leads to considerable production of steelhead " much of the production is derived from CV steelhead spawning not resident stocked rainbows." DFG states that it has one of the highest production rates for juvenile steelhead the problem is that much of the production is lost to unscreened diversions and poor water quality [temp] during outmigration. You can't take the rainbow trout stance here and then say all trout are steelhead elsewhere.) *(Entered On:4/22/2010 1:58:58 PM)*

Category HAB 9 -- Habitat:
The anticipated impacts of climate change should be considered when deciding which areas will be considered primary for recovery focus.

s76 c321-- Sykes Richard -- East Bay Municipal Utility District

Under global climate change significant habitat will only remain in the Feather and Yuba rivers and remnants of habitat might be found in the upper Sacramento and McCloud rivers, Battle and Mill Creeks and Stanislaus River under a 5 C temperature rise. If this is true why is the upper American River listed as a primary focus watershed while the Stanislaus is a secondary focus watershed? *(Entered On:4/27/2010 11:22:35 AM)*

Category HAB 10 -- Habitat:
The upper Stanislaus River should be considered primary for recovery focus.

s83 c380-- Hoffman-Floerke Dale -- Department of Water Resources

Table 3-2, page 66: For upper Stanislaus River steelhead, Recovery Focus should be "primary". This area has been identified in the NMFS Biological Opinion for the SWP/CVP Operations, Criteria, and Plan as one of three areas for potential introduction above large rim dams. *(Entered On:4/27/2010 10:53:10 AM)*

Category HAB 11 -- Habitat:
The riparian and aquaitc habitats along stream channels would provide viable fall chinook habitats regardless of the current water deliver schedules.

s19 c405-- Sanchez Jack -- Save Auburn Ravine Salmon And Steelhead

Due to the current water delivery schedules and flow volumes, there are riparian and aquatic habitats along tens of miles of stream channel length that would otherwise be absent. (absolutely untrue!! These are fine fall chinook habitats that would be seasonal streams with extensive riparian) *(Entered On:4/22/2010 1:58:59 PM)*

Category HAB 12 -- Habitat:
There is little evidence of O. mykiss usage of floodplain habitats in California.

s82 c503-- O'Laughlin Timothy -- San Joaquin River Group Authority

As per floodplain restoration measures, restoring floodplain habitat along the lower river, if the habitat were extensive and intensively managed to favor salmon and native fishes, could have important benefits for many species. However, one exception may be 0. mykiss since there is little evidence of their usage of floodplain in California. *(Entered On:4/27/2010 11:46:10 AM)*

s82 c557-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-122, Juvenile Rearing And Outmigration-Loss Of Floodplain Habitat section states: Attenuation of peak flows in the Tuolumne River have reduced the frequency of floodplain inundation and severed the frequency of river connection to the

floodplain. Floodplain habitats are not widely used by 0. mykiss. *(Entered On:4/27/2010 11:46:13 AM)*

Category HAB 13 -- Habitat:
The O. mykiss production in the Toulmne River is less than the Merced, Stanislaus and Calaveras.

s82 c536-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Pages 48-49, 124, and 145-146, Some of the most important stressors to steelhead in the southern Sierra Nevada diversity group section: Unfortunately, the carrying capacity for 0. mykiss in the Tuolumne River below La Grange Dam is limited and the reason has nothing to do with flow. The river below the dam is a low gradient, broad floodplain, meandering stream that lacks the physical habitat necessary to be a major producer of 0. mykiss in the San Joaquin Basin. Unlike the Stanislaus, Calaveras, and even Merced rivers, the Tuolumne consists of long, relatively shallow pools with little instream structure, and long, low gradient riffles that are composed primarily of cobble. The long riffles are great adult Chinook spawning habitat and juvenile rearing habitat, but they are not suited to support large numbers of adult 0. mykiss. Further, the broadness of the Tuolumne River channel influences the effect that solar radiation and ambient temperatures have on water temperatures, resulting in natural, relatively fast increases in water temperature, even at higher flows. *(Entered On:4/27/2010 11:46:12 AM)*

s82 c538-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Pages 100 and 106: A plan for reintroduction of spring-run in this location is likely infeasible. The Tuolumne River is located in the southern-most extent of their historical range where spring-run have been extirpated for decades and where there is the lowest fall-run Chinook escapement in the entire basin with less than 200 fish in 2009. Plus, the Tuolumne River that is the least suited to even support smaller, more temperature tolerant, and more adaptable O. mykiss. *(Entered On:4/27/2010 11:46:12 AM)*

s82 c544-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 150, However, steelhead production in the lower Tuolumne River is limited by low flows. We assert that there is no evidence that either resident or anadromous 0. mykiss production is limited by "low flow" in the Tuolumne River. We believe 0. mykiss production potential in the Tuolumne River is less than the Merced, Stanislaus, and Calaveras rivers due to less physical habitat, which is the result of natural channel shape and basin geomorphology. *(Entered On:4/27/2010 11:46:12 AM)*

Category HAB 14 -- Habitat:
The lack of stream gradient and natural geomorphology of the area below La Grange Dam are the primary factors for the lack of instream complexity.

s82 c556-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, PAGE 4-122, Juvenile Rearing And Outmigration-Loss Of Natural River Morphology And Function section: Although controlled flows can cause channel incision and over the long-term reduce channel and habitat complexity, it is important to note that lack of stream gradient and natural geomorphology of the area below La Grange Dam are the factors primarily responsible for lack of instream complexity. *(Entered On:4/27/2010 11:46:13 AM)*

Category HAB 15 -- Habitat:
Non-natal rearing habitat has potential to aid long-term persistence, and habitat that may be utilized by future populations should be preserved now.

s41 c574-- Tussing Steve -- Terraqua Incorporated

The results of Maslinâ€™s work that I believe are pertinent to recovery planning include: 1. The use of non-natal habitats is common; 2. Non-natal habitat use by hatchery fish is uncommon 3. Non-natal Chinook juveniles travel some distance upstream within these temporary stream habitats, in excess of 5 miles; 4. Winter-run juvenile were often found farther upstream than other run types; 5. Juvenile Chinook were more abundant in non-natal tributaries that were in closer proximity to streams that support spawning populations. Relative to recovery planning, I would propose that the capacity to utilize these non-natal rearing habitats is a type of life history diversity, qualifying for preservation and restoration as this diversity has the potential to aid long-term persistence. *(Entered On:4/27/2010 10:53:43 AM)*

s41 c575-- Tussing Steve -- Terraqua Incorporated

Relative to higher non-natal rearing usage in closer proximity to natal streams, I would recommend thinking through what non-natal habitats may be useful to the future re-introduced populations included in this recovery plan. For example, as winter-run and spring-run Chinook populations will be restored in Battle Creek, the non-natal smaller tributaries in that region could see an increase in non-natal winter and spring-run usage. Current usage in the vicinity of Battle Creek may not be the best way to measure the significance of non-natal habitats. *(Entered On:4/27/2010 10:53:43 AM)*

Category HAB 16 -- Habitat:
Diversions in the Auburn Ravine Creek area should be continued and optimized.

s50	**Sanchez**	**Jack**	**-- Save Auburn Ravine Salmon And Steelhead**
c578--	**Otto**	**Ronald**	**-- Ophir Property Owners Association, Incorporated,**
	Egan	**Robin**	**and the Auburn Ravine Preservation Committee**
	Banks	**Percivel**	**-- Granite Bay Flycasters**
	Rockwell	**Mark**	**-- California Salmon and Steelhead Association**
	Williams	**John**	**-- Northern California Council, Federation of Fly Fishers**
			-- Lincoln Open Space Committee

For more than 150 years water has been brought down from the Sierra Nevada and imported into Auburn Ravine Creek and surrounding streams. With diversions begun during the Gold Rush and with the considerable coldwater/anadromous habitat that these diversions create in Western Placer County--habitat that can be used most effectively in NOAAâ€™s Central Valley steelhead Recovery efforts--we believe it of paramount importance to follow through on earlier suggestions that restoration efforts work to assure that the diversions are optimized and that they continue. *(Entered On:4/27/2010 10:54:57 AM)*

Category HAB 17 -- Habitat:
Imported water is crucial to maintenance and recovery actions in Auburn Ravine and other West Placer streams.

s50	**Sanchez**	**Jack**	**-- Save Auburn Ravine Salmon And Steelhead**
c579--	**Otto**	**Ronald**	**-- Ophir Property Owners Association, Incorporated,**
	Egan	**Robin**	**and the Auburn Ravine Preservation Committee**
	Banks	**Percivel**	**-- Granite Bay Flycasters**
	Rockwell	**Mark**	**-- California Salmon and Steelhead Association**
	Williams	**John**	**-- Northern California Council, Federation of Fly Fishers**
			-- Lincoln Open Space Committee

Although very much a two-edged sword, imported water is crucial to maintenance and eventual recovery actions in Auburn Ravine and other W. Placer anadromous streams. *(Entered On:4/27/2010 10:54:58 AM)*

Category HAB 18 -- Habitat:
Auburn Ravine has more potential spawning habitat than all other stream reaches in the area combined.

s50	**Sanchez**	**Jack**	**-- Save Auburn Ravine Salmon And Steelhead**
c581--	**Otto**	**Ronald**	**-- Ophir Property Owners Association, Incorporated,**
	Egan	**Robin**	**and the Auburn Ravine Preservation Committee**
	Banks	**Percivel**	**-- Granite Bay Flycasters**
	Rockwell	**Mark**	**-- California Salmon and Steelhead Association**
	Williams	**John**	**-- Northern California Council, Federation of Fly Fishers**
			-- Lincoln Open Space Committee

Auburn Ravine was found to have more area (94%) of potential spawning habitat than all of the other stream reaches combined. Recommendations in the report [Salmonid Spawning Habitat Surveys for Placer County Streams, March 2004, prepared by Jones and Stokes for the Placer County Planning Department] conclude that, â€œAt this time, Auburn Ravine is the most likely stream to benefit from gravel augmentation because the level of fines is lower than in other streams and the channel is much wider.â€ *(Entered On:4/27/2010 10:54:58 AM)*

s50	**Sanchez**	**Jack**	**-- Save Auburn Ravine Salmon And Steelhead**
c584--	**Otto**	**Ronald**	**-- Ophir Property Owners Association, Incorporated,**
	Egan	**Robin**	**and the Auburn Ravine Preservation Committee**
	Banks	**Percivel**	**-- Granite Bay Flycasters**
	Rockwell	**Mark**	**-- California Salmon and Steelhead Association**
	Williams	**John**	**-- Northern California Council, Federation of Fly Fishers**
			-- Lincoln Open Space Committee

Both anecdotal and empirical evidence of anadromy in Auburn Ravine exist. We submit that a strong argument for a far higher Restoration and Viability Potential can be made for Auburn Ravine Creek and several other W. Placer streams. *(Entered On:4/27/2010 10:54:58 AM)*

Category HAB 19 -- Habitat:
The North Fork and Middle Fork of the Feather River should be added as part of the spring-run Chinook and Central Valley steelhead recovery footprint.

s53 c607--	**Shutes**	**Chris**	**-- California Sportfishing Protection Alliance**
	Johnson	**Brian**	**-- Trout Unlimited**
	Stork	**Ronald**	**-- Friends of the River**
	Charles	**Cindy**	**-- Golden West Women Flyfishers**
	Rothert	**Steve**	**-- American Rivers**
	Steindorf	**Dave**	**-- American Whitewater**
	Martin	**Michael**	**-- Merced River Conservation Committee**

The North Fork and Middle Fork of the Feather River should be added as part of the spring-run Chinook and Central Valley steelhead recovery footprint. *(Entered On:4/27/2010 11:39:12 AM)*

Category HAB 20 -- Habitat:
Butte Creek has historically supported salmonids at least to the Quartz Bowl.

s4 c15-- Harthorn Allen -- Friends of Butte Creek

It is completely incorrect to suggest at the onset of the discussion of Butte Creek salmonids that Butte Creek likely did not support a spring run salmon population prior to the introduction of water from the West Branch Feather River. This ignores the work of Yoshiyama, 1996,(cited repeatedly in this document) who indicated there were clearly spring run in the watershed prior to the arrival of the Europeans. In the map of historical populations in this very document, TRT Reports, Plate 2, page 48, it shows Butte Creek as historically supporting salmon. Historical records from the last Maidu, Ishi, indicated salmon in the upper part of the watershed, at least to the Quartz Bowl. *(Entered On:4/27/2010 11:29:33 AM)*

Category HAB 21 -- Habitat:
Redding's 35 named, now headwater, creeks have all historically hosted Chinook and some still do.

s9 c16-- Smith Randall

The Plan is remiss in not giving more emphasis to Redding's 35 named, now headwater, creeks. All of these once had Chinook, some still host them and steelhead as well. Appendix A records only Clear Creek which has recently had many millions of dollars spent studying and improving conditions for spring run salmon. *(Entered On:3/23/2010 11:37:20 PM)*

Category HAB 22 -- Habitat:
All endangered runs should be included in the Draft Recovery Plan.

s37 c40-- Tavares Trudy -- Nystrom & Company LLP

letâ€™s be sure to include all the endangered runs. *(Entered On:2/23/2010 3:00:27 PM)*

Category HAB 23 -- Habitat:
The Draft Plan should take into account the degree to which the lower Yuba River accomplishes Viable Salmonid Population parameters regarding population viability.

s81 c671-- Aikens Curt -- Yuba County Water Agency

YCWA further suggests that the Draft Plan take into account the degree to which the lower Yuba River accomplishes Viable Salmonid Population (VSP) parameters (abundance, productivity, spatial structure and diversity) regarding population viability. *(Entered On:4/27/2010 11:10:52 AM)*

Category HAB 24 -- Habitat:
Coon Creek watershed should be considered a higher value within the Draft Recovery Plan.

s85 c787-- Bates Gregg -- Dry Creek Conservancy

Lack of urbanization has resulted in a high quality riparian corridor and some of the best habitat in west Placer [in Coon Creek]. Macroinvertebrate surveys show a more diverse community than other west Placer streams....Placing a higher value on the watershed could provide strength to attempts to improve agricultural practices and include adequate conservation measures in potential development. *(Entered On:4/22/2010 2:17:55 PM)*

Category HAB 25 -- Habitat:
Small streams should be given a separate set of standards for recovery goals, objectives, and criteria that recognzies their importance in long term health of Central Valley anadromy.

s85 c780-- Bates Gregg -- Dry Creek Conservancy

Though small lower elevation streams may not produce large numbers of anadromous fish they are an important part of a healthy Central Valley system of anadromy. *(Entered On:4/22/2010 2:17:54 PM)*

s85 c783-- Bates Gregg -- Dry Creek Conservancy

Based on the scientific and advocacy benefits of including small stream recovery in plans for long term persistence of Central Valley steelhead trout perhaps small steams should be given a separate set of standards for recovery goals, objectives, and criteria that recognizes their importance in long term health of Central Valley anadromy. Resources should be directed to small steams to accomplish their part in the recovery plan. *(Entered On:4/22/2010 2:17:55 PM)*

Category HAB 26 -- Habitat:

West Placer streams have a role to play in sustainable anadromy in the Central Valley. There is a large gap in the lower part of the Northern Nevada Diversity Group between the American and Yuba Rivers.

s85 c784-- Bates Gregg -- Dry Creek Conservancy

When we look at the map of Central Valley steams we see a large gap in the lower part of the Northern Nevada Diversity Group between the American and Yuba Rivers. We think the west Placer streams have a role to play in sustainable anadromy in the Central Valley. *(Entered On:4/22/2010 2:17:55 PM)*

Category HAB 27 -- Habitat:

"Suitable rearing habitat" should be defined, as well as what is necessary to maintain it.

s83 c779-- Hoffman-Floerke Dale -- Department of Water Resources

(Recovery Actions Delta 1.5.8, p. 158, E. Chappell)Define "suitable rearing habitat". What is necessary to maintain it? Why 15,000cfs (provide supporting analysis)? Does this analysis consider water temperature? Analysis done by DWR for the Salmon Decision Tree indicated juveniles responded to a combination of flow and temperature not just flow alone. *(Entered On:4/27/2010 10:53:11 AM)*

Category HAB 28 -- Habitat:

Auburn Ravine and Coon Creek were identified with having low potential to support a viable population of steelhead due to limited habitat at marginally suitable elevations. However, American, Feather, Butte, Yuba, Sacramento River, and Clear Creek have similar elevations and habitat as Auburn Ravine and Coon Creek, and were determined to have higher potential. NMFS should provide further clarification around the differences in these tributaries.

s19 c180-- Sanchez Jack -- Save Auburn Ravine Salmon And Steelhead

[from Appendix A, Watershed Profiles, Auburn Ravine/Coon Creek Watershed Profile] The potential for Auburn Ravine and Coon Creek to support a viable population of steelhead is considered to be low due to the limited amount of habitat that provides suitable spawning and year-round rearing habitats, at marginally suitable elevations. The existing population is largely supported by cold water imports from other watersheds. (Comment: This is also true for American, Feather, Butte, Yuba, Sacramento River, Clear Creek â€“ so what is the difference. Auburn and Coon have habitat and suitable elevations like these other tribs.) *(Entered On:4/22/2010 1:58:58 PM)*

Category HAB 29 -- Habitat:
Auburn Ravine and Coon Creek do not need water imported to the watersheds to support viable populations of salmon and steelhead. Steelhead migrate into and use these streams, along with fall chinook.

s19 c187-- Sanchez Jack -- Save Auburn Ravine Salmon And Steelhead

[from Appendix A, Watershed Profiles, Auburn Ravine/Coon Creek Watershed Profile] Without the water imported into these watersheds, most would be dry, or nearly so, for several months of the year. (comment: fact is they do have water and steelhead migrate into and use these streams along with fall chinook) *(Entered On:4/22/2010 1:58:59 PM)*

s19 c406-- Sanchez Jack -- Save Auburn Ravine Salmon And Steelhead

As a result, these streams may support aquatic (Comment: fall chinook historically â€“ steelhead likely occurred pre-European era in spring reaches â€“ such habitat [water sources] was destroyed long ago)species that would not otherwise have found suitable habitat in this region. (Comment: what about the basins where the water came from?) *(Entered On:4/22/2010 1:58:59 PM)*

s19 c408-- Sanchez Jack -- Save Auburn Ravine Salmon And Steelhead

Therefore, streams such as Auburn Ravine likely were not conducive to supporting significant or consistent steelhead populations. (Comment: what about the water source streams from which the water comes from today) *(Entered On:4/22/2010 1:58:59 PM)*

Category HAB 30 -- Habitat:
Vital habitat for anadromous fish may not have been adequately considered in profile discussions and viability assessments within the Draft Recovery Plan.

s50	**Sanchez**	**Jack**	**-- Save Auburn Ravine Salmon And Steelhead**
c582--	**Otto**	**Ronald**	**-- Ophir Property Owners Association, Incorporated,**
	Egan	**Robin**	**and the Auburn Ravine Preservation Committee**
	Banks	**Percivel**	**-- Granite Bay Flycasters**
	Rockwell	**Mark**	**-- California Salmon and Steelhead Association**
	Williams	**John**	**-- Northern California Council, Federation of Fly Fishers**
			-- Lincoln Open Space Committee

Based on water temperature suitability and physical habitat, it was concluded that suitable anadromous fish rearing habitat probably terminates in the downstream area between Joiner Parkway Bridge and Nelson Lane (in the Lincoln area downstream of Highway 65). From this area to the Wise Powerhouse upstreamâ€”the source of much of the cool water imported to the Auburn Ravine---is approximately 13 or more river miles. (also PCP 12â€™2003 Resource Assessment, p 12). We believe that vital habitat for anadromous fish may not have been adequately considered in Profile discussions and Viability assessment. *(Entered On:4/27/2010 10:54:58 AM)*

Category HAB 31 -- Habitat:
Depictions of current Central Valley Steelhead spawning habitat in the headwaters of Ulatis and Alamo Creeks is incorrect.

s66 c92-- Okita David -- Solano County Water Agency

Page 39, Figure 2-9, depicts current Central Valley Steelhead spawning habitat in the headwaters of Ulatis and Alamo Creeks. Despite the fact that there is no suitable spawning habitat in either watershed, salmonids cannot reach either upper watershed as there are numerous drop structures in place since the 1950's that are either temporal or total barriers to passage. The lower parts of both systems are managed flood control channels. Water temperatures during migrating periods (September-October) are typically above 70 degrees in the lower portions of both systems. Once the irrigation season is over (typically mid-October), there is virtually no water in either system. Other than rainfall, there is typically no water in the upper watershed during any time of the year. Thus, even if steelhead could hold in either of these systems and survive elevated water temperatures until mid-October, and pass over several drop structures, there wouldn't be any water (or suitable spawning substrate) upstream to migrate to. *(Entered On:3/23/2010 11:36:02 PM)*

Category HAB 32 -- Habitat:
NMFS has already listed many miles of Thomes Creek as designated critical habitat. The Draft Recovery Plan currently suggests that there is no anadromous passage upstream of Horse Trough Creek. These conclusions are at odds with one another, and should be clarified.

s70 Holtrop Joel -- United States Department of Agriculture, United States Forest Service c120--

NMFS has already listed many miles of Thomes Creek as designated critical habitat, which is at odds with the citations on pages 179 and 180 of the Recovery Plan that CDFG believes there is no anadromous passage upstream of Horse Trough Creek. The citation from "a personal communication from F Barron in TCRCD, 2006" is different than what CDFG biologists said they have said to Mr. Barron. They have told us [USFS] that steelhead passage above different barriers is difficult but not impossible. Suggest that you discuss the cited personal communication from Frank Barron concerning CDFG surveys with CDFG biologists and edit as appropriate. CDFG personnel have told us in the past that they believe steelhead passage through the natural barriers in the lower canyon is likely very difficult, but not impossible at the right stream flows. Please note that juvenile lamprey, and young-of-the year trout that emerge from the gravels co-timed with steelhead fry on other anadromous streams, have been present above the canyon barrier reach in the 2 years of the past decade when USFS surveys were conducted below the 24N01 road crossing. This leads us to agree that NMFS listing of critical habitat for steelhead in Thomes is valid. The way it reads now, it suggests that the listing was in error. Recent fish passage enhancement work at this 24N01 crossing should allow steelhead and lamprey ready access above this point. *(Entered On:4/22/2010 2:04:08 PM)*

Category HAB 33 -- Habitat:
Thomes Creek watershed should not be identified in the Draft Recovery Plan as being currently occupied by spring Chinook. This watershed is unlikely to contribute to recovery due to limiting habitat conditions.

s70 Holtrop Joel -- United States Department of Agriculture, United States c124-- Forest Service

Page 165 Table This table lists Thomes Cr as a Core 3 area, currently occupied by spring Chinook. Only a few stray adults have been documented in the past 20 years and no juvenile production has been noted. This watershed is unlikely to contribute noticeably to recovery under the most optimistic circumstances due to the limiting habitat conditions mentioned above. *(Entered On:4/22/2010 2:04:08 PM)*

Category HAB 34 -- Habitat:
The lower reaches of the Calaveras River could not have historically supported steelhead due to high water temperatures and would have functioned as a migration corridor, which is similar to its function today.

s82 c478-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-114 states: Dewatering of the Old Calaveras River channel and simplification and reduction of riparian cover in Mormon Slough have resulted in higher water temperatures that would not be expected to support significant numbers of rearing juvenile salmonids (Fishery Foundation of California 2004). In contrast to conditions below Bellota Weir, a great deal of rearing habitat is available upstream (Fishery Foundation of California 2004). Comment: This statement is misleading, The lower reaches of the Calaveras including the Old Calaveras River channel and Mormon Slough/Stockton diverting canal would not have historically supported steelhead due to high water temperatures and would have functioned as a migration corridor, which is similar to its function today. *(Entered On:4/27/2010 11:46:09 AM)*

Category HAB 35 -- Habitat:
Tuolumne River has extensive floodplain habitat, and observations indicate that juvenille O. mykiss are far less dependent on large floodplain habitat for rearing than Chinook salmon. Language in the Draft Recovery Plan should be edited accordingly.

s82 c545-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 150, It is reported that the remaining accessible prime spawning reach of the lower Tuolumne River lacks native riparian vegetation and floodplain habitat, and has a high fine sediment load (Tuolumne River Preservation Trust 2002). This statement is incorrect. Due to natural channel shape and basin geomorphology, the Tuolumne River has extensive floodplain habitat. However, direct observations of 0. mykiss habitat preferences in the Calaveras, Stanislaus, and Tuolumne rivers indicate that juvenile 0. mykiss are far less dependent on large floodplain habitat for rearing than Chinook salmon. *(Entered On:4/27/2010 11:46:12 AM)*

Category HAB 36 -- Habitat:

The lower Tuolumne River supports a naturally reproducing population of several thousand individuals and the population has persisted despite dry conditions over the past several years. Language in the Draft Recovery plan should be edited accordingly.

s82 c549-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 219 states: Despite these improvements, the lower Tolumne River does not have the channel complexity, off channel rearing habitats and the tributary habitats to support a thriving population of steelhead, thus the chances for this lower system to support a viable population are tenuous until further flow and gravel augmentation measures are implemented. Comment: The lower Tuolumne River supports a naturally reproducing population of several thousand individuals and the population has persisted despite dry conditions over the past several years. *(Entered On:4/27/2010 11:46:13 AM)*

Category HAB 37 -- Habitat:

Potential viability on Old Cow Creek should be quantified both below and above Whitmore Falls.

s64 c803-- Albrecht David

Potential "viability" on Old cow should be quantified both below, and above Whitmore Falls; including the run above the falls until OC-11 is reached. *(Entered On:4/23/2010 11:52:53 AM)*

Impacts for Consideration

Category IMP 1 -- Impacts for Consideration:
NMFS should investigate a potential conflict between steelhead spawning and Special Uses Permits for whitewater rafting on the Merced River within the Sierra National Forest.

s70 c111-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

There could be conflict with Special Uses Permits [on the Merced River within the Sierra National Forest] for whitewater rafting related to steelhead spawning (Dec-April), although spawning would generally be complete prior to peak runoff flows. Additionally, it is likely that suction dredging for minerals would be affected. *(Entered On:4/22/2010 2:04:07 PM)*

Category IMP 2 -- Impacts for Consideration:
Providing listed fish species with passage above the existing Black Butte dam would create new resource management conflicts with recreational fishing, agency fish stocking programs, grazing management, fuel management, and timber harvest in some watersheds. Potential impacts should be considered and discussed in the Draft Recovery Plan.

s70 c132-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

Providing listed fish species with passage above the existing Black Butte dam would create new resource management conflicts with grazing management, fuel management, and timber harvest in some watersheds. *(Entered On:4/22/2010 2:04:08 PM)*

s70 c134-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

Providing listed fish species with passage above the existing Black Butte dam would create new resource management conflicts with recreational fishing and perhaps the CDFG fish stocking programs. *(Entered On:4/22/2010 2:04:08 PM)*

Category IMP 3 -- Impacts for Consideration:
NMFS concerns about wildfire, and interest in obtaining the most shade and coolest water temperatures possible, could be at odds with wildfire use to obtain resource benefits.

s70 c133-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

[NMFS] concerns about wildfire and interest in obtaining the most shade and coolest water temperatures possible, could be at odds with wildfire use to obtain resource benefits. *(Entered On:4/22/2010 2:04:08 PM)*

Category IMP 4 -- Impacts for Consideration:
Impacts to established trout fisheries from proposed recovery actions should be considered.

s70 c135-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

Eight miles of the McCloud River, a river identified in the Recovery Plan as being critical to the potential success of such reintroduction, is currently classified as a Wild Trout Stream, offering a blue ribbon fishing experience of national acclaim (LRMP, FEIS). Exposing this river segment to migratory anadromous salmon and steelhead once again would certainly change aspects of the existing ecosystem, thereby affecting this blue ribbon resident trout fishery. *(Entered On:4/22/2010 2:04:08 PM)*

s70 c136-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

A portion of the Sacramento River upstream from Shasta Lake has also been identified in the Recovery Plan as being critical for the concept of anadromous salmonid reintroduction to succeed, yet is now renowned for its trout fishery. *(Entered On:4/22/2010 2:04:08 PM)*

Category IMP 5 -- Impacts for Consideration:
The Draft Recovery Plan should provide details about how Shasta Lake itself may be affected by reintroducing the subject stocks above the dam, including the potential for lower lake levels and impacts on established warmwater bass tournaments.

s70 c138-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

The Forest is ... concerned about the possibility that Shasta Lake could get drawn down more readily in the future if reintroduction proves to be successful at least in the short term. This could be based on rationale that reintroduced fish upriver from Shasta Dam takes some pressure off providing cold water releases downstream from Shasta and Keswick Dams to the extent which is provided today, allowing for the possibility of lower Lake levels. *(Entered On:4/22/2010 2:04:08 PM)*

s70 c140-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

The draft Recovery Plan provides no details about how Shasta Lake itself may be affected by the concept of reintroducing the subject stocks of fish above the dam. But if the lake will be subject to providing habitat for any life stage of these introduced species, then ecosystem impacts could be great. An economically important warmwater bass fishery is well established in the Lake, with over 100 bass tournaments occurring annually. Disruption of this successful annual series of tournaments could be very costly, and politically derisive among fishery interests. *(Entered On:4/22/2010 2:04:09 PM)*

Category IMP 6 -- Impacts for Consideration:
Describe how the Recovery Actions associated with Battle Creek will impact the Battle Creek Restoration Project.

s3 c146-- Buzzard Diane -- Special Projects Office/BOR

Hopefully they aren't really considering moving the Hatchery. If so, what was the purpose of the barrier weir, ladder, and the expenditures? How does that affect the Battle Creek Restoration Project (Big Picture)? *(Entered On:4/27/2010 11:28:54 AM)*

Category IMP 7 -- Impacts for Consideration:
Evaluate the financial impacts of the proposed Recovery Actions on [electricity] consumers and Central Valley Power hydroelectric resources.

s32 c152-- Hadley Elizabeth -- Redding Electric Utility

NMFS states on page 176 of the Draft Plan that they "only have the crudest understanding of how salmonid populations will respond.. ." to climate change. Given hture economic uncertainties, it is imperative that the Draft Plan's proposed actions thoroughly assess the financial impacts on consumers. Lacking to do this could result in high costs without producing results. *(Entered On:4/27/2010 9:52:54 AM)*

s32 c157-- Hadley Elizabeth -- Redding Electric Utility

REU will continue to analyze the potential impacts of this Draft Proposal and requests NMFS to consider the potential impacts to the CVP hydroelectric resource in further evaluations and recommendations. *(Entered On:4/27/2010 9:52:55 AM)*

Category IMP 8 -- Impacts for Consideration:
The Draft Recovery Plan does not go far enough in estimating the direct, indirect, and cumulative costs of the long-term implementation of the Recovery Plan, including lost-opportunity costs related to agriculture.

s61 c190-- Fredrickson Justin -- California Farm Bureau Federation

The ESA requires inclusion of the cost estimates and schedules for implementation. In this case, despite the clear far-ranging economic consequences of many of the recommendation actions, NMFS has made little attempt to estimate the direct, indirect, and cumulative costs of the long-term implementation of its plan, including lost-opportunity costs relate to agriculture. *(Entered On:4/27/2010 11:13:38 AM)*

s61 c193-- Fredrickson Justin -- California Farm Bureau Federation

In addition to runoff control, pesticide management, land use and flood control changes not addressed in these comments in detail, recovery actions potentially affecting existing agricultural water supplies in the planning area are a concern of overriding regional and statewide importance. *(Entered On:4/27/2010 11:13:38 AM)*

Category IMP 9 -- Impacts for Consideration:
There are significant impacts to water users and landowers that have not been considered in the Draft Recovery Plan.

s61 c191-- Fredrickson Justin -- California Farm Bureau Federation

Modifications of existing land uses; modifications to water management, passage barriers, and storage; modifications to federal and state requirements, such as waste discharge requirements, Army Corps Section 404 requirements for currently exempt routine agricultural, logging and ranching activities, expanded critical habitat designations in currently unoccupied and inaccessible portions of historic watersheds, and potential new Section 4(d) prohibitions and limits for fish screen design, and levee construction and maintenance activities. All of these concerns, as well as others not detailed, will significantly impact water users and landowners in the Central Valley region. *(Entered On:4/27/2010 11:13:38 AM)*

Category IMP 10 -- Impacts for Consideration:
The Draft Recovery Plan should investigate potential impacts to social service and criminal justice resources.

s20 c295-- N/A Charles

Therefore, in order for the Recovery Plan to succeed, â€œSmart Growthâ€ must be set aside. Otherwise, social service & criminal justice resources will be stretched beyond their elastic limits. *(Entered On:4/27/2010 11:32:19 AM)*

Category IMP 11 -- Impacts for Consideration:
Consider the impacts of Recovery Action 2.7.14.3 on overall carbon emissions, vehicle miles traveled and the economic impacts on local fueling establishments.

s20 c296-- N/A Charles

One recovery action that is certain to increase both overall carbon emissions and VMTs (vehicular miles traveled) is Recovery Action 2.7.14.3, the one that calls for a ban on tanker truck traffic on Highway 32. If that action is implemented, tanker trucks will, of necessity, be forced to use more circuitous routes to reach destinations that otherwise could be reached more directly. Some local fueling stations may even be forced to cease operation, due to their supplies being permanently cut off by the imposition of such a ban. Customers of said establishments will be forced to use alternate refueling sites, many of which will be significantly far away from these customers' normal routes of travel. Therefore, Recovery Action 2.7.14.3 needs to be stricken from the Recovery Plan. *(Entered On:4/27/2010 11:32:19 AM)*

Category IMP 12 -- Impacts for Consideration:
Consider how modifications to the Delta Cross Channel gate operations or controlling access to Georgianna Slough could affect the survival and migration of Mokelumne origin salmonids.

s76 c323-- Sykes Richard -- East Bay Municipal Utility District

Any modifications of the DCC gate operations or controlling access to Georgianna Slough needs to consider how these actions will effect survival and migration of Mokelumne origin salmonids. *(Entered On:4/27/2010 11:22:35 AM)*

Category IMP 13 -- Impacts for Consideration:
The Recovery Plan should include a discussion of the economic benefits of recovery.

s80 c354-- Reedy Gary -- South Yuba River Citizens League

I did not find, however, any discussion of the economic benefit of recovery. Please try to include this in the Final Recovery Plan. *(Entered On:4/22/2010 2:08:34 PM)*

Category IMP 14 -- Impacts for Consideration:
Consider the negative impacts of reducing the State's total hydroelectric capacity through removing dams (e.g. New Exchequer Dam), facility decommissioning, and opening floodgates, along with the social benefits provided by these dams, including flood protection, irrigation projects, and clean, renewable hydroelectric energy.

s20 c413-- N/A Charles

And speaking of bad ideas, one that will, if implemented, impose negative consequences on the environment is that of reducing the State's total hydroelectric capacity vis Ã vis such means as hydro-dam removal, facility decommissioning, pegging FERC licensure stati to such things as surface water temperature & population levels (inter alia), opening a dam's flood gates & keeping them open long enough to make a certain impact on reservoir water levels (especially during times of severe &/or prolonged drought), etc. *(Entered On:4/27/2010 11:32:19 AM)*

s82 c726-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 151, Merced River Section The recovery plan fails to acknowledge the significant societal benefits that have accrued as a result of flood protection provided by New Exchequer Dam, the benefits provided by the irrigation project, and the production of clean, renewable hydroelectric energy. *(Entered On:4/27/2010 11:46:14 AM)*

Category IMP 15 -- Impacts for Consideration:
Provide an up-to-date economic analysis of the Central Valley salmon and steelhead fisheries, including a thorough analysis of financial losses to the commercial and sport fishing industries and regulatory costs that have resulted from the severe depletion of Central Valley salmon and steelhead populations.

s53 c611-- Shutes Chris -- California Sportfishing Protection Alliance
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

To support this strategy, the Final Plan should contain an up-to-date analysis of the economic (as well as societal) benefits of robust Central Valley salmon and steelhead fisheries, as well as a thorough analysis of the financial losses (to the commercial and sport fishing industries, and also the regulatory costs) that have resulted from the severe depletion of Central Valley salmon and steelhead populations. *(Entered On:4/27/2010 11:39:13 AM)*

Category IMP 16 -- Impacts for Consideration:
NMFS should cross-reference recovery actions that are already required as reasonable and prudent actions in final biological opinions. Cross-reference factors effecting sponsorship, funding, and schedules of implementation.

s80 c344-- Reedy Gary -- South Yuba River Citizens League

Some of the recovery actions are already required as reasonable and prudent actions in final biological opinions, some actions are otherwise required by legal processes, and some are subject to near-term decisions (e.g. FERC). I suggest a cross-reference of recovery actions with these factors effecting their sponsorship, funding, and schedules of implementation. *(Entered On:4/22/2010 2:08:33 PM)*

Category IMP 17 -- Impacts for Consideration:
Clarify the relationship between current downstream planning activities and possible major upstream activities that could impact volumes and timing of flows.

s61 c213-- Fredrickson Justin -- California Farm Bureau Federation

Clarify the relationship between current downstream planning activities and possible major upstream activities potentially affecting downstream volumes and timing of flows, long-term regulatory crediting and assurances and proposed infrastructure investments (e.g., Delta conveyance improvement versus fish ladders over major reservoirs and upstream reservoir releases). *(Entered On:4/27/2010 11:13:39 AM)*

Category IMP 18 -- Impacts for Consideration:
NMFS should include a list of small "stresses" that cumulatively could impact species, and what or who is responsible for them. The list could also include mitigation measures.

s48 c422-- Cannon Tom -- Wildlands Incorporated

One thing the recovery plan needs is a list of what critical stresses need fixing and who is responsible for it. Responsible parties are good candidates for funding conservation projects. *(Entered On:4/27/2010 11:10:02 AM)*

s48 c423-- Cannon Tom -- Wildlands Incorporated

Another need is a list of all the small stresses that add up and who or what are responsible for them. Also how they can best be fixed or compensated. *(Entered On:4/27/2010 11:10:02 AM)*

Implementation

Category IPL 1 -- Implementation:
NMFS should prioritize its projects in the Draft Recovery Plan to achieve maximum yield of increasing fish populations per dollar spent. Prioritization should emphasize actions that are broadly-supported, have the highest probability of achieving desired outcomes, and are cost-effective and implementable.

s35 c31-- Ten Pas Brent -- Northern California Power Agency

We also believe it is imperative for NMFS to prioritize its projects in the Draft Plan to achieve maximum yield of increasing fish populations per dollar spent. We are particularly concerned about spending an estimated $150 million for test plans to re-colonize habitats above Shasta and Folsom dams. This program has a low probability of success based on similar efforts in the Northwest, and we believe dollars should be spent on other programs that guarantee a higher level of success. *(Entered On:3/15/2010 3:35:22 PM)*

s61 c209-- Fredrickson Justin -- California Farm Bureau Federation

Focus on more modest, yet effective projects such as small migration barrier passage improvements, gravel augmentation, and fish screensing projects, providing cost-shares and regulatory assurances or other incentives, as part of the improved incentive structure. *(Entered On:4/27/2010 11:13:39 AM)*

s71 c246-- Patten Joseph -- CH2M HILL

I believe reorganizing your priorities might be in order because some of your priorities would be extremely costly (not cost effective) and in my view have a highly uncertain chance for success. *(Entered On:3/16/2010 12:16:41 AM)*

s81 c427-- Aikens Curt -- Yuba County Water Agency

Responsible stewardship of the spring-run Chinook salmon and steelhead populations (as well as public resources and funding) demands that the prioritization of the implementation of the recovery actions emphasize those actions that are broadly-supported, have the highest probability of achieving desired outcomes, are cost-effective and are actually implementable, The Draft Plan needs to be substantially revised to address these points. *(Entered On:4/27/2010 11:10:52 AM)*

s81 c428-- Aikens Curt -- Yuba County Water Agency

The Draft Plan Needs to be Revised So That it Contains Cost-Benefit Analyses and Prioritizations of all of the Proposed Recovery Actions *(Entered On:4/27/2010 11:10:52 AM)*

Category IPL 2 -- Implementation:
NMFS should spend less money and time on administrative efforts and studies, and put the monies on the ground to increase good habitat for the fish instead.

s36 c36-- Brown Ryan

Spend less money and effort on administrative efforts, studies, etc. and put the monies on the ground to increase good habitat for the fish. *(Entered On:2/23/2010 2:42:04 PM)*

Category IPL 3 -- Implementation:
The Recovery Plan must examine all costs associated with the implementation of the recovery actions, including direct costs, indirect costs, and socio-economic costs stemming from recovery measures, including cost projections on measures involving proposed major long-term infrastructure. NMFS should also plan for possible liability in its cost estimations.

s61 c188-- Fredrickson Justin -- California Farm Bureau Federation

The Recovery Plan must examine all costs associated with the implementation of the recovery actions, including direct costs, indirect costs, and socio-economic costs stemming from recovery measures, including cost projections on measures involving proposed major long-term infrastructure. (16 U.S.C. Â§ 1533(f)(1)(B)(iii).) *(Entered On:4/27/2010 11:13:38 AM)*

s61 c189-- Fredrickson Justin -- California Farm Bureau Federation

The Recovery Plan must analyze, account, and plan for any costs to carry out those measures to make the recovery plan successful. (16 U.S.C. Â§ 1533(0(1)(B).) If the implementation measures include modification of existing passage barriers and installation of fish ladders, NMFS, in its cost estimations, must plan for possible liability in the form of damages for breach of contract and just compensation for a taking of property in violation of the Fifth Amendment. Thus, prior to determining recovery plan measures that include modifications to existing passage barriers, additions of fish ladders, and reallocations of water diversions, NMFS must analyze these probable costs and permanent appropriations of water and property. *(Entered On:4/27/2010 11:13:38 AM)*

s81 c429-- Aikens Curt -- Yuba County Water Agency

The last page of the Draft Plan's Executive Summary states that "the estimated cost for implementing recovery actions will range from $1.04 to 1.26 billion over the next 5 years, and over $10 billion over the next 50 years," However, the Draft Plan does not state whether these estimates include the costs of numerous proposed recovery actions listed in Chapter 8 and Appendix C for which no cost estimates are provided, so the actual total costs of all proposed recovery actions may be substantially higher than these estimates. *(Entered On:4/27/2010 11:10:52 AM)*

s82 c743-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 195, 2.10.29.4: Was that conversion [of the hatchery to produce steelhead] included in the cost estimates (Chapter 8)? *(Entered On:4/27/2010 11:46:14 AM)*

Category IPL 4 -- Implementation:
NMFS must take into consideration technical feasibility, economic feasibility, regulatory feasibility, and logistical feasibility when evaluating recovery plan actions.

s28 c271-- Yoshiyama Ronald -- San Francisco Public Utilities Commission

The issue of facilitating the transit of salmon and steelhead over the major barriersâ€"i.e., in both the upstream and downstream directionsâ€"poses formidable engineering and fisheries management challenges. The costs will likely be enormous so it is critical that the specific biological objectives and implementation strategy be carefully developed. *(Entered On:3/2/2010 12:30:21 PM)*

s61 c194-- Fredrickson Justin -- California Farm Bureau Federation

NMFS must take into consideration technical feasibility, economic feasibility, regulatory feasibility, and the like when evaluating recovery plan actions. We urge NMFS to fully evaluate the feasibility of proposed recovery actions in the Draft Plan. *(Entered On:4/27/2010 11:13:38 AM)*

s61 c198-- Fredrickson Justin -- California Farm Bureau Federation

Prior to proceeding with activities that might have the potential to provide some habitat benefits for species, NMFS must examine the economic and logistic feasibility of such proposals and determine if such geographic areas are actually essential for the recovery of the species. Prior to that time, NMFS's discussion of speculative actions which might or might not render currently inaccessible or unsuitable habitats usable as proposed critical habitat is questionable and instead, should be properly reserved for any on-going or potential future planning efforts at the local, regional, or watershed level. *(Entered On:4/27/2010 11:13:38 AM)*

Category IPL 5 -- Implementation:
Improve incentive structures to encourage beneficial actions and voluntary investments in improvements to contribute toward recovery plan goals.

s61 c208-- Fredrickson Justin -- California Farm Bureau Federation

Improve incentive structures to encourage beneficial actions and voluntary investments in improvements to contribute toward recovery plan goals. In particular, make private landowners and resource managers willing partners and allies by much more collaboratively and aggressively putting into practice the "Strategy for Success" identified on page 76 of the Draft Recovery Plan, involving stakeholders, local initiatives, and public support. *(Entered On:4/27/2010 11:13:39 AM)*

s80 c355-- Reedy Gary -- South Yuba River Citizens League

Surely your staff have heard the question, â€œwhere is the money for recovery actions to come from?â€ I encourage you to address this directly, and through a broad economic-systems approach. *(Entered On:4/22/2010 2:08:33 PM)*

Category IPL 6 -- Implementation:
NMFS should plan a strategy for funding both the immediate and longer-term actions that the Recovery Plan recommends, which would include a concerted campaign to secure federal funding.

s53 c610--	**Shutes**	**Chris**	**-- California Sportfishing Protection Alliance**
	Johnson	**Brian**	**-- Trout Unlimited**
	Stork	**Ronald**	**-- Friends of the River**
	Charles	**Cindy**	**-- Golden West Women Flyfishers**
	Rothert	**Steve**	**-- American Rivers**
	Steindorf	**Dave**	**-- American Whitewater**
	Martin	**Michael**	**-- Merced River Conservation Committee**

Simultaneous to the completion of the Final Recovery Plan, NMFS should plan a strategy for funding both the immediate and longer-term actions that the Plan recommends. This will necessarily include a concerted campaign to secure federal funding. *(Entered On:4/27/2010 11:39:13 AM)*

Category IPL 7 -- Implementation:
The Recovery Plan does not recognize the financial constraints of NMFS and other agencies that could severely limit the ability to implement some of these proposed actions now and in the future.

s53 c599--	**Shutes**	**Chris**	**-- California Sportfishing Protection Alliance**
	Johnson	**Brian**	**-- Trout Unlimited**
	Stork	**Ronald**	**-- Friends of the River**
	Charles	**Cindy**	**-- Golden West Women Flyfishers**
	Rothert	**Steve**	**-- American Rivers**
	Steindorf	**Dave**	**-- American Whitewater**
	Martin	**Michael**	**-- Merced River Conservation Committee**

We are concerned that the prioritization process may presume that there will be a lack of will or of financial resources to do the recovery job right. The Recovery Plan should identify various landscape level courses of action based on a wide range of scenarios related to funding availability. *(Entered On:4/27/2010 11:39:13 AM)*

s81 c431-- Aikens Curt -- Yuba County Water Agency

Unfortunately, by simply listing proposed recovery actions without any recognition that the financial and other resources of NMFS and other agencies to implement some of these proposed actions are severely limited now, and are likely to remain so in the future, the Draft Plan does not address these fundamental limitations. As a result, the Draft Plan does not provide a useful list of "site specific management actions as may be necessary to achieve the plan's goal for the conservation and survival of the species", as required by Section 4(f)(1)(B)(i) of the ESA. *(Entered On:4/27/2010 11:10:52 AM)*

Category IPL 8 -- Implementation:
There is concern that the species being considered for recovery have, or may become, extirpated before NMFS takes action. The Draft Recovery Plan appears to emphasize selecting optimal actions over getting things done on the fast track. The Final Plan should consider the trade-offs between certainty and the need for speedy action.

s53 c595-- Shutes Chris -- California Sportfishing Protection Alliance
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

In many watersheds, timing of studies may be crucial to implementing successful recovery actions. We are concerned that the species being considered for recovery have, or may become, extirpated before the NMFS (and other resource agencies) take(s) action. As written, the draft Recovery Plan appears to emphasize selecting optimal actions over getting things done â€œon the fast track.â€ The final Plan should consider the trade-offs between certainty and the need for speedy action. *(Entered On:4/27/2010 11:39:12 AM)*

Category IPL 9 -- Implementation:
The prioritization process should not de-emphasize watersheds where there is a lack of data or where habitats have been more heavily impacted than in other watersheds (i.e. previous mining, hydroelectric, agricultural diversion, or industrial and municipal diversion).

s53 c598-- Shutes Chris -- California Sportfishing Protection Alliance
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

NMFS should assure that the prioritization process does not de-emphasize watersheds where there is a lack of data, or where habitats have been more heavily impacted than in other watersheds (previous historical activities, such as mining, hydroelectric, agricultural diversion, or industrial and municipal diversions). *(Entered On:4/27/2010 11:39:13 AM)*

Category IPL 10 -- Implementation:
NMFS design criteria for fish screens and fish ladders make their installation cost-prohibitive for most small water diverters.

s65 c778-- Moller David -- Pacific Gas and Electric Company

NMFS's design criteria for fish screens and fish ladders make their installation cost-prohibitive for most small water diverters. Our understanding is that NMFS prioritizes its efforts to focus on large water diverters due to its limited resources which leaves many small diverters operating unscreened or without passage. if NMFS were to find lower-cost approaches and solutions, possibly by reducing its efficiency criteria, it might gain more widespread, voluntary implementation. While such screens and ladders may not be as effective as NMFS would ideally like to see, partially effective screens and ladders are still much more beneficial than no protective measures at the numerous unscreened

diversions and impassable barriers in the Sacramento and San Joaquin watersheds. As the use of such devices expands, the technology and cost effectiveness may also improve. *(Entered On:3/15/2010 11:39:46 PM)*

Category IPL 11 -- Implementation:

NMFS did not include the near-term funding and workforce needs for U.S. Forest Service analysis and planning associated with the action item of enhancing watershed resiliency from catastrophic wildfires.

s70 c110-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

One recovery action item identified in the Draft Recovery Plan includes enhancing watershed resiliency by identifying and implementing projects to reduce the potential for, and magnitude of, catastrophic wildfires. Because this component of conservation planning is in its infancy, and priorities within this broad objective are not part of the Draft Recovery Plan, the NMFS does not provide cost estimates for this recovery action. In order for the Forest Service to help "secure the extant populations" of anadromous fish within National Forest System lands, additional near-term needs in the form of both funding and workforce for analysis and planning in this area are anticipated. *(Entered On:4/22/2010 2:04:07 PM)*

Category IPL 12 -- Implementation:

NMFS should identify those projects where successful above-dam reintroductions have been accomplished. The Draft Recovery Plan should identify who will conduct fish passage research and if there is adequate funding available for this research.

s82 c751-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 62 states: Conduct critical research on fish passage above rim dams, reintroductions, and climate change. How successful have above-dam reintroductions been? Please identify those projects where successful reintroductions have been accomplished. Who is going to conduct the fish passage research? Does NMFS have funding available to cover the cost of this research? *(Entered On:4/27/2010 11:46:16 AM)*

Category IPL 13 -- Implementation:

The U.S. Forest Service would appreciate the opportunity to work with NMFS to ensure that estimates of the costs and timeframes associated with this planning, consultation and coordination are included in the implementation schedule.

s70 c801-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

The Forest Service would appreciate the opportunity to work with the National Marine Fisheries Service (NMFS) to ensure that estimates of the costs and timeframes associated with this planning, consultation and coordination are included in Table 8-2. *(Entered On:4/22/2010 2:04:09 PM)*

Peer Review

Category REV 1 -- Peer Review:
It is crucial that NMFS seek independent peer review of the Draft Recovery Plan to ensure that the plan reflects the best available science, commercial data, and analyis of impacts in order to guide the recovery of listed species.

s61 c195-- Fredrickson Justin -- California Farm Bureau Federation

In addition to public review and comments, it is imperative that NMFS seek independent peer review of the Draft Recovery Plan to ensure that the plan reflects the best available science, commercial data, and analysis of impacts in order to guide the recovery of the listed species. Given that peer review is not confined to scientific review, NMFS should seek independent experts to address the feasibility and resulting impacts from proposed recovery actions. Experts from the United States Bureau of Reclamation, dam operators, California Department of Water Resources, Western Power Administration, and Federal Energy Regulatory Commission, local dam owners and operators and others should be contacted to discuss proposed dam or barrier removal, structure modifications, and feasibility of fish ladders. In addition, expertise from and thorough examination by water operators, watershed modelers, agronomists, and economists, especially agricultural economists, should be utilized. *(Entered On:4/27/2010 11:13:38 AM)*

Recovery Actions

Category RAC 1 -- Recovery Actions:
Provide non-consumptive water for Stillwater Creek for all four salmon runs.

s22 c7-- Howland Justin

Hopefully, provision for water for the fish will be provided to Stillwater creek for the sake of all four runs. *(Entered On:2/22/2010 10:42:50 AM)*

s23 c9-- Farquhar Jay

I am also concerned that once again the issue of providing non-consumptive water for Stillwater Creek to help all four runs has not been addressed. *(Entered On:2/22/2010 10:43:53 AM)*

s24 c11-- Chamberlain Lewis

as well as provision of non consumptive water for Stillwater Creek to help all four runs each year. *(Entered On:2/22/2010 10:45:35 AM)*

Category RAC 2 -- Recovery Actions:
Move the Sacramento River levies (especially along the Feather River below Orville Dam) back to expand the river and create natural habitat for the survival of the juvenile salmon.

s11 c18-- Meamber Don

If there is money available to for more recovery, moving the levies of the Sacramento River way back so the River (and that especially includes the Feather River below Oroville Dam) can spread out to create natural habitat for the survival of the juvenile salmon, would help greatly. Having a shore line like a canal does not make conditions safe for juvenile salmon survival. A great deal of land would need to be purchased or leased for River flood plain within the levies. If the levies were moved way back, the farmers may still be able to use the land for farming or grazing, but buildings would need to be removed from within the levies. *(Entered On:3/15/2010 11:11:12 PM)*

Category RAC 3 -- Recovery Actions:
Reduce the bypass flow from Fremont weir from the 8,000 cfs, proposed in the Draft Recovery Plan, to 2,000 cfs to avoid stranding young salmon.

s12 c24-- Cannon Tom -- Wildlands Incorporated

I think 2000 cfs would be fine for Bypass flow from Fremont weir as it inundates most of the bypass without moving waters into backwater that would strand a lot of young salmon. Draft Recovery Plan asks for 8000 cfs. *(Entered On:2/22/2010 4:20:48 PM)*

Category RAC 4 -- Recovery Actions:
Create a state-of-the-art hatchery on the main stem of the Sacramento River below Keswick dam for fall and late-fall fish and steelhead.

s38 c42-- Mlcoch Mark -- NORCAL Guides and Sportsmen's Association

Create a state of the art hatchery on the main stem below Keswick dam for fall and late-fall fish and steelhead. *(Entered On:4/27/2010 11:33:14 AM)*

Category RAC 5 -- Recovery Actions:
Install hatch boxes in Cow, Cottonwood, Bear, and Clear creeks for fall run salmon.

s38 c44-- Mlcoch Mark -- NORCAL Guides and Sportsmen's Association

Install Hatch Boxes in Cow, Cottonwood, Bear and Clear creeks for Fall Run Salmon. *(Entered On:4/27/2010 11:33:14 AM)*

Category RAC 6 -- Recovery Actions:
Build a weir at the mouth of Battle Creek to control overcrowding and end all excessing of fish at the hatchery.

s38 c45-- Mlcoch Mark -- NORCAL Guides and Sportsmen's Association

Build a weir at mouth of Battle Creek to control overcrowding and end all excessing of fish at the hatchery. Make every egg count. Take what you need and leave the rest to spawn in the river. Diversify with fry, fingerling and smolt in staggered releases. Revert to original mitigated numbers of egg production. *(Entered On:4/27/2010 11:33:14 AM)*

Category RAC 7 -- Recovery Actions:
Investigate the use of flushing flows to improve the passage of both hatchery and wild juvenile winter-run and fall-run salmon on the Sacramento River.

s68 c50-- Wilson Howard -- CH2MHILL

As you are aware, based on data from fish traps, aerial surveys, numbers of fish caught both in the river and ocean, we typically have a better return from the ocean during or following average and high water year(s), and fewer fish returning during drought years, such as the last 3 years. Can we improve the return of salmon during dry water years by better use of our storage facilities, particularly at Shasta Reservoir through the development of periodic flushing flows? I strongly believe we need to investigate the use of flushing flows to improve the passage of both hatchery and wild juvenile winter-run and fall-run salmon. In dry years, such as the ones we are experiencing now, would we be better served by reducing the flows, say by 500 cfs in the Sacramento River in the late fall and early winter, and storing the saved water in Shasta Reservoir for 60 to 90 days and then releasing a surge flow during a ten day period in January or February, with surge flows at 10,000 to 12,000 cfs, when Winter-run juvenile salmon migrate downstream? This procedure could also be clone with the Fall-run in March and April. There would be no net loss in storage although there would be a small reduction in the river flows. The timing of the releases could be coordinated with natural occurring storm

events, predator buildup in the lower Sacramento River in the spring, and Delta diversions. *(Entered On:4/27/2010 11:12:21 AM)*

s68 c54-- Wilson Howard -- CH2MHILL

A review of the flow records after the construction of Shasta Dam and prior to 1968 indicated the river flows were higher than currently exist. Just maybe these higher flows were extremely positive to the passage of Winter-run. The abundance of juveniles is highest at Red Bluff in August, September, and October, and at Knights Landing and the Sacramento River from November through February. Possibly a flushing flow in the late fall would increase the passage of juveniles. *(Entered On:4/27/2010 11:12:21 AM)*

Category RAC 8 -- Recovery Actions:
Move the Coleman Fish Hatchery to the base of Keswick Dam.

s68 c56-- Wilson Howard -- CH2MHILL

As I understand it, the USF&W Service is considering moving the Coleman Fish Hatchery to another location, improving the habitat of Battle Creek, and eliminating some or all the hydro-electric facilities on Battle Creek. I would like you to consider moving this hatchery to a location near the base of Keswick Dam. In my opinion the heavy metal pollution problems associated with Iron Mountain Mine have been corrected, water temperatures are no longer a problem, and the spawning salmon could be easily captured and milked of their eggs, possibly as early as the first of September. This hatchery may also be used for Winter-run and Fall-run Salmon (not being a biologist I'm not sure this is possible). The proposed hatchery could be combined (or separated) from the existing Livingston Hatchery currently used for increasing the numbers of Winter Run Salmon. *(Entered On:4/27/2010 11:12:21 AM)*

Category RAC 9 -- Recovery Actions:
Consider the technical, logistical, and financial feasibility of providing fish passage at the Englebright Dam, as well as the flows necessary for a successful introduction of salmon and steelhead upstream of the dam.

s58 c58-- Nelson Ron -- Nevada Irrigation District

In assessing the viability of an introduction plan, the District encourages NMFS to carefully consider the technical, logistical and financial feasibility of providing fish passage at the USACE's Englebright Dam as well as the flows necessary for a successful introduction of salmon and steelhead upstream of the dam. *(Entered On:4/27/2010 9:49:13 AM)*

s58 c60-- Nelson Ron -- Nevada Irrigation District

The Draft Plan proposes to "develop and implement a phased approach to salmon reintroduction planning to recolonize historic habitats above Englebright Dam." With the input of stakeholders and the public, NMFS should carefully and thoroughly consider all relevant factors in order to minimize risk and properly determine whether introduction is feasible and appropriate. *(Entered On:4/27/2010 9:49:13 AM)*

Category RAC 10 -- Recovery Actions:
Recovery efforts on the Merced River should be persistent in order to recover anadromous fisheries and aquatic habitat.

s60 c69-- Brochini Anthony -- Southern Sierra Miwuk Nation, American Indian Council of Mariposa

The primary concern of Southern Sierra Miwuk Nation for the Draft Recovery Plan is the need for the NMFS to evaluate and recover anadromous fisheries and aquatic habitat of the Merced River. The Tribe recommends a persistent and concerted effort by NMFS to focus recovery actions on the Merced River populations. *(Entered On:3/15/2010 11:46:27 PM)*

Category RAC 11 -- Recovery Actions:
Develop more cost-effective criteria and designs for fish ladders and fish screens.

s65 c87-- Moller David -- Pacific Gas and Electric Company

Pacific Gas and Electric Company also recommends that NMFS place a high priority on developing more cost-effective criteria and designs for fish ladders and fish screens to encourage a higher degree and more widespread voluntary implementation of such facilities. *(Entered On:3/15/2010 11:39:46 PM)*

Category RAC 12 -- Recovery Actions:
Clearly define the terms and information used to establish recovery area boundaries and criteria, and use the most up-to-date information available.

s66 c88-- Okita David -- Solano County Water Agency

While we understand NMFS's intent that compliance with the Recovery Plan is "voluntary," our concern is that by identifying recovery actions, such actions become de facto regulatory standard for addressing adverse modification standards in critical habitat during Section 7 consultations as well as ours and numerous others working on regional conservation plans abilities to demonstrate recovery commitments required under Section 10 permits. As such, it is important that terms and information used to establish recovery area boundaries and criteria should be clearly defined and use the most up to date information available. *(Entered On:3/23/2010 11:36:02 PM)*

Category RAC 13 -- Recovery Actions:
Remove all dams on Antelope Creek.

s13 c103-- Richelieu Jeff -- Streamline Engineering

Please act now and take action to remove all dams on Antelope Creek. *Improving the fish ladder on the dam solves nothing. There is a lot of woody debris in this creek and ladders would be constantly getting clogged. Ladders do nothing to address the problem of inadequate in-stream flows due to excessive diversion. *Purchase the water rights for the 120 cfs in this creek and restore the entire flow to the creek. *Stop spending money on fish surveys, studies, and action plans to give the appearance that your organization is

taking action. We know that fish need clean water and access to adequate spawning habitat. Let's spend all available moneys on removing the dam from Antelope creek to completely restore the corridor from the ocean to the headwaters of the creek. *(Entered On:3/1/2010 9:27:00 AM)*

Category RAC 14 -- Recovery Actions:
Close rivers to salmon and steelhead fishing in order to preserve the species, and close the river to power boats during critical spawning periods.

s67 c105-- Roberts Doug

I promote the closure of the river to salmon and steelhead fishing in order to preserve the species. I also promote the closure of the river to power boats during the critical spawning season in order to help promote natural spawning. At least eliminate 2 stroke engines. No power boats allowed from the Giannella bridge to Shasta Dam. *(Entered On:2/24/2010 5:37:47 PM)*

Category RAC 15 -- Recovery Actions:
More analysis needs to be conducted to consider the viability of passing anadromous fish above Black Butte Dam.

s70 c113-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

Neither the rationale, nor the costs and benefits, behind passing anadromous fish above Black Butte Dam are clearly discussed. We suspect that due to the limited amount of available habitat and the many bottlenecks downstream of the Forest, the spawner return would be very small and likely not genetically viable over the long-run. Adding 2 additional passage projects above additional dams could obtain access to more miles of suitable habitat in South Fork and Middle Fork Stony Creek. However we fear that this would unfortunately still not likely yield a viable population in the Stony watershed. We do not understand how passage above Black Butte dam will actually aid in recovery of CV steelhead. It seems imprudent to include this action in the recovery plan without a better understanding of the costs and benefits. We think that more analysis needs to be conducted to consider the viability of these actions towards obtaining recovery. *(Entered On:4/22/2010 2:04:07 PM)*

Category RAC 16 -- Recovery Actions:
Additional data collection and weighing of benefits and risks is needed before considering barrier modification.

s70 c121-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

Barrier modification should only be considered after collecting much more data and weighing the benefits and risks. *(Entered On:4/22/2010 2:04:07 PM)*

Category RAC 17 -- Recovery Actions:
The only steelhead spawning/rearing habitat on Thomes Creek is within the U.S. Forest Service boundary and gravel abundance is not a limiting factor.

s70 c125-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

Page 133 Spawning gravel augmentation plan for Thomes Cr steelhead? The only steelhead spawning/rearing is within the Forest boundary and gravel abundance is not limiting. Juvenile rearing within the forest is within steep canyon lands without floodplains to connect to. Some miles of streams have poor vegetative shade, but this is a natural facet of the stream and generally not something that can be improved by management action. *(Entered On:4/22/2010 2:04:08 PM)*

Category RAC 18 -- Recovery Actions:
The acquirement of key undeveloped lands, such as those adjacent to anadromous fish habitats, and transference of these lands to U.S. Forest Service management to preserve their wild condition, could be the most cost-effective action taken today to ensure the potential recovery of the three fish stocks.

s70 c141-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

Undeveloped lands surrounding the Forest are vulnerable to developments that would normally threaten the integrity of the remaining quality habitats for the stocks of fish in the Recovery Plan. Economic conditions today, conversely, also provide an opportunity whereby some of these key properties (such as those adjacent to key anadromous fish habitats) could be acquired using partners such as the Nature Conservancy or Trust for Public Lands and transferred to Forest Service management to preserve their wild condition. This could be the most cost-effective action taken today to ensure the potential recovery of the three stocks of fish, and would effectively provide immediate, `priceless' results unlike most of the other longer term actions proposed in the Plan. *(Entered On:4/22/2010 2:04:09 PM)*

Category RAC 19 -- Recovery Actions:
Movement of the Coleman National Fish Hatchery is not in line with existing Battle Creek and CALFED agreements and the recently signed Memorandum of Understanding.

s3 c144-- Buzzard Diane -- Special Projects Office/BOR

I was a bit taken back by this article (see below), especially the part about moving Coleman National Fish Hatchery to help fish populations flourish since we've invested significant CALFED funding in the barrier weir project ($11,276,820). Definitely caught me by surprise as the Coleman Barrier Weir and Ladder Sub-Agreement which BOR manages for FWS (funded by our CALFED early ecosystem restoration funds) is part of the CALFED ERP Strategic Plan of which NOAA is an implementing agency. It is also a linchpin for the restoration of the Battle Creek Project and an actual CALFED "construction" project where we show fund accomplishment. Aside from the fact that there was a flaw in the design that will need fixed this fiscal year to complete the project, the project has ended up a success. So now NOAA is recommending moving the entire

Hatchery even though they have been a member ERPIAM and party to the Battle Creek agreement? Given the level of Washington engagement in the Delta issues, the recently signed MOU, our CALFED and Battle Creek agreements, this seems to be off message. *(Entered On:4/27/2010 11:28:54 AM)*

Category RAC 20 -- Recovery Actions:
Consider the use of multiple solutions, such as retrofitting existing structures or the use of non-inflatable seasonal structures to improve sediment transport and fish passage.

s43 c159-- Savage Holly -- Deer Creek Watershed Conservancy

DCWC strongly supports the improvement of existing diversions to improve sediment transport and fish passage, however please be advised that there may be multiple solutions to address this issue, such as retrofitting existing structures or the use of non-inflatable seasonal structures, that may be appropriate. The final design is pending local landowner approval. *(Entered On:4/22/2010 2:00:50 PM)*

s61 c204-- Fredrickson Justin -- California Farm Bureau Federation

In the event that fish ladders are considered or found to be necessary at major dams for species preservation in the future, primary consideration should be given, first, to practical, technical, and economic feasibility and, second, to potential engineering solutions that could reduce economic, water supply, and power conflicts associated with structures, including potential pump-back structures, downstream diversion and recirculation or recapture and incidental power generation features. *(Entered On:4/27/2010 11:13:38 AM)*

Category RAC 21 -- Recovery Actions:
There is no reason to discontinue stocking above Upper Falls in Deer Creek because there is no significant impact to anadromous fish species.

s43 c161-- Savage Holly -- Deer Creek Watershed Conservancy

DFG has reviewed the stocking policies in Deer Creek and found that there was no significant impact to anadromous fish species. Given this recent evaluation, DCWC feels that there is no reason to discontinue stocking above Upper Falls. The area in question is heavily used for public recreation, including sport fishing, and provides some business to the small towns in and around the upper watershed. *(Entered On:4/22/2010 2:00:50 PM)*

Category RAC 22 -- Recovery Actions:
Raise the priority of passage impediments/barriers affecting adult immigration and spawning in Auburn Ravine/Coon Creek Watershed.

s19 c181-- Sanchez Jack -- Save Auburn Ravine Salmon And Steelhead

[from Appendix A, Watershed Profiles, Auburn Ravine/Coon Creek Watershed Profile] Passage impediments/barriers affecting adult immigration and spawning (Comment: yes and these should be fixed and they won't be fixed if you make it low priority.) *(Entered On:4/22/2010 1:58:58 PM)*

Category RAC 23 -- Recovery Actions:
Adjust and broaden the recovery plan strategy to realistically target more doable and cumulatively effective actions for near-term and mid-term implementation, and lower the priority of extremely challenging and infeasible long-term actions as part of a more realistic and achievable long-term recovery plan strategy.

s48 c424-- Cannon Tom -- Wildlands Incorporated

Last is what you think is most important for recovery. After all, our bank efforts should be focused where we can do the most good. The recovery plan does some of all of these things - but maybe not enough. If you had a #1 for CV recovery, what would it be? *(Entered On:4/27/2010 11:10:02 AM)*

s61 c199-- Fredrickson Justin -- California Farm Bureau Federation

Farm Bureau urges NMFS to consider both adjusting and broadening its strategy to realistically target more doable and cumulatively effective actions for near-term and mid-term implementation, and to lower the priority of extremely challenging and infeasible long-term actions as part of a more realistic and achievable long-term recovery plan strategy. *(Entered On:4/27/2010 11:13:38 AM)*

s81 c430-- Aikens Curt -- Yuba County Water Agency

Also, besides dividing the proposed recovery actions into "Priority 1" and "Priority 2" actions, the Draft Plan does not specify the relative priorities of any of these proposed recovery actions. *(Entered On:4/27/2010 11:10:52 AM)*

Category RAC 24 -- Recovery Actions:
Aggressively pursue, prioritize, build upon and expand long-term on Priority 1 Recovery Actions 1.2.12, 1.2.14, 1.2.15, 1.2.16, and 1.2.18.

s61 c201-- Fredrickson Justin -- California Farm Bureau Federation

Consistent with the proposed long-term shift from a mitigation to a conservation-based role for hatcheries and improved hatchery management techniques described on pages 92 and 93 of the Recovery Plan, study, develop and select proposals to physically expand, modernize, supplement and better equip existing 1950s and 1960s hatcheries to actually enhance and protect the genetic diversity and fitness of wild salmon and steelhead populations and, also, to potentially supplement and aid possible reintroduction experiments. In addition, aggressively pursue, prioritize, build upon and expand long-term on Priority 1 Recovery Actions 1.2.12 (hatchery science review panel), 1.2.14 (production levels), 1.2.15 (hatchery procedures to benefit native stocks), 1.2.16 (hatchery spawning protocols and genetic evaluation to maintain genetic diversity), 1.2.18 (tag and fin-clip all or some elevated fraction of hatchery produced fish). *(Entered On:4/27/2010 11:13:38 AM)*

Category RAC 25 -- Recovery Actions:
Prioritize and expand coordination with the Pacific Fisheries Management Council to reassess and improve regulation of ocean fisheries.

s61 c202-- Fredrickson Justin -- California Farm Bureau Federation

Prioritize and expand coordination with the Pacific Fisheries Management Council ("PFMC") to reassess and improve regulation of ocean fisheries using, in particular, marking and mark select procedures and other procedures to prevent and avoid bycatch, as described in Priority 1 Recovery Action 1.3.2, and also improve harvest forecasting techniques, NMFS consultation standards for ESA listed salmon stocks, and ecosystem-based salmon fishery management planning, considering "multi-trophic interactions, ocean currents, upwelling patterns, ocean temperatures, and other relevant factors," as described in Priority 1 Recovery Action 1.3.1. *(Entered On:4/27/2010 11:13:38 AM)*

s61 c215-- Fredrickson Justin -- California Farm Bureau Federation

Consider utilizing hatcheries and inter-basin introductions of salmon and steelhead stocks to enhance long-term survival of species. *(Entered On:4/27/2010 11:13:38 AM)*

Category RAC 26 -- Recovery Actions:
Consider new and expanded surface and groundwater facilities as tools to assist with future climate change and current conflicts between consumptive use demands and asynchronous instream flow needs.

s61 c206-- Fredrickson Justin -- California Farm Bureau Federation

Consider strategies to protect at-risk fisheries in dry and critical conditions, while at the same time continuing to meet and offset water supply losses at other, less sensitive times. *(Entered On:4/27/2010 11:13:39 AM)*

s61 c207-- Fredrickson Justin -- California Farm Bureau Federation

Consider new and expanded surface and groundwater facilities as tools to assist with future climate change and current conflicts between consumptive use demands and asynchronous instream flow needs. Balance benefits of altered operations for traditional reservoir purposes and potential new facilities and infrastructure against reasonable fisheries requirements to reshape hydrographs and improve the timing of flows for listed fish. *(Entered On:4/27/2010 11:13:39 AM)*

Category RAC 27 -- Recovery Actions:
Implement more effective gravel replenishment programs and employ additional techniques, such as hydraulic egg planting device, to jump-start runs in the areas below Keswick Dam.

s38 c47-- Mlcoch Mark -- NORCAL Guides and Sportsmen's Association

Implement hydraulic egg planting to insert fertilized eggs into stream-bed gravels. *(Entered On:4/27/2010 11:33:14 AM)*

s71 c250-- Patten Joseph -- CH2M HILL

We need a more effective gravel replenishment program and we need to employ additional techniques to jump-start these runs in the areas below Keswick. For an additional technique, we could try the hydraulic egg planting device. *(Entered On:3/16/2010 12:16:41 AM)*

s71 c251-- Patten Joseph -- CH2M HILL

There must be over 100,000 cubic yards of good spawning gravel that was previously injected up stream but has now washed downstream and deposited near Turtle Bay (see the enclosed picture of the River near Turtle Bay). This gravel could either be simply leveled to create spawning areas or where after spreading could be injected with eyed eggs. There are many large gravel bars and islands through which either a channel for spawning could be created or properly leveled areas to create refugia or back water rearing areas for out migrants. *(Entered On:3/16/2010 12:16:41 AM)*

s72 c280-- Patten Joseph

I reiterate my suggestion to concentrate on the Sacramento River from Keswick Dam to Red Bluff because this reach of river with an improved gravel injection/manipulation program offers the greatest opportunity for recovery of both the winter and fall runs back to historic numbers. The hydraulic egg planting concept /equipment is a tool with great potential for jump-starting or enhancing underutilized spawning areas. *(Entered On:4/27/2010 11:39:55 AM)*

Category RAC 28 -- Recovery Actions:

NMFS should lend full support for Sites Reservoir, which would meet some of the West Side irrigation demands from Sites during the summer, and return the water from the Sacramento River to Sites Reservoir in the fall.

s71 c252-- Patten Joseph -- CH2M HILL

I would strongly suggest that the NMFS should lend full support for Sites Reservoir. This could be done by meeting some of the West Side irrigation demands (Tehama-Colusa Canal Authority & Glenn-Colusa Irrigation District) from Sites during the summer and then returning the water (from the Sacramento River) to Sites in the Fall. *(Entered On:3/16/2010 12:16:41 AM)*

Category RAC 29 -- Recovery Actions:

The recovery plan should provide strategies and recovery actions to address Delta issues in the following areas: entrainment, migration route flow impacts due to Delta Cross Channel and other operations, predation by non-native species, and loss of Delta rearing habitat.

s76 c306-- Sykes Richard -- East Bay Municipal Utility District

The recovery plan should provide strategies and recovery actions to address Delta issues in the following areas (regardless of whether or not these actions show up in other documents): entrainment, migration route flow impacts due to DCC and other operations,

predation by non-native species, and loss of Delta rearing habitat. *(Entered On:4/27/2010 11:22:34 AM)*

s76 c313-- Sykes Richard -- East Bay Municipal Utility District

Increased protective actions in the Delta will be needed if the natural river production and hatchery program is to be self sustaining and changes to the DCC operations are needed to minimize straying of Mokelumne Hatchery steelhead to the American River. *(Entered On:4/27/2010 11:22:34 AM)*

Category RAC 30 -- Recovery Actions:

Consider rerouting the Mokelumne River to the Sacramento River upstream of the Delta Cross Channel as a recovery action to reduce straying and avoid the high morality rates in the interior Delta.

s76 c307-- Sykes Richard -- East Bay Municipal Utility District

In the BDCP proceedings, EBMUD has proposed recovery actions such as re-routing the Mokelumne River to the Sacramento River upstream of the DCC as an action to reduce straying and avoid the high mortality rates in the interior Delta. These types of actions could be considered in this recovery plan. *(Entered On:4/27/2010 11:22:34 AM)*

Category RAC 31 -- Recovery Actions:

Natural barriers limit habitat restoration opportunities for both spring-run Chinook and steelhead in the region above Pardee Dam; thus restoration efforts should focus on Dry and Sutter creeks and the upper Mokelumne River below Camanche Dam.

s76 c314-- Sykes Richard -- East Bay Municipal Utility District

Instead of reintroducing experimental populations of steelhead above Pardee Dam into the North Fork Mokelumne River, restoration efforts should focus on Dry and Sutter creeks and the upper Mokelumne River below Camanche Dam since PG&E diversions and natural barriers limit habitat restoration opportunities in the Upper Mokelumne River above Pardee Dam for both spring-run Chinook and steelhead. *(Entered On:4/27/2010 11:22:34 AM)*

Category RAC 32 -- Recovery Actions:

The closure of the DCC and placement of barriers in the Georgianna Slough would exclude a significant portion of the Delta as rearing habitat for Sacramento origin salmonid rearing. If the Delta is fixed, then the habitat in the interior Delta should be suitable rearing habitat for juvenile salmonids and thus measures to restrict access migh actually be detrimental to recovery.

s76 c322-- Sykes Richard -- East Bay Municipal Utility District

The draft recovery plan includes several actions to increase floodplain habitat in the Delta, yet the closure of the DCC and placing barriers in Georgianna Slough would exclude a significant portion of the Delta as rearing habitat for Sacramento origin salmonid rearing. If the Delta is fixed, then the habitat in the interior Delta should be suitable rearing habitat for juvenile salmonids and thus measures to restrict access might actually be detrimental to recovery. *(Entered On:4/27/2010 11:22:35 AM)*

Category RAC 33 -- Recovery Actions:
The nature of the Camanache permit and lack of existing data do not support the need to dedicate additional flows to steelhead.

s76 c336-- Sykes Richard -- East Bay Municipal Utility District

Page 195, Appendix C. The recommended recovery actions, particularly the use of the Camanche permit extension proceeding to dedicate instream flow, is not appropriate both because of the nature of the permit extension proceeding and the lack of existing data to support a need to dedicate additional flows for steelhead. *(Entered On:4/27/2010 11:22:36 AM)*

Category RAC 34 -- Recovery Actions:
NMFS should consider having tiered standards for fish screens to make it more economic for small operators to screen their diversions.

s77 c341-- Unknown Unknown

NMFS should consider having tiered standards for fish screens to make it more economic for small operators to screen their diversions. It should consider the same idea for fish ladders on less important reaches. *(Entered On:3/16/2010 4:24:02 PM)*

Category RAC 35 -- Recovery Actions:
Restoration efforts on the Yuba River should include the restoration of habitat complexity and diversity in the form of riparian, large wood and off-channel habitats.

s80 c348-- Reedy Gary -- South Yuba River Citizens League

The last three bullet actions on p. 116 all describe components of the restoration of complex habitat features to support greater diversity and production of threatened populations. Any thorough rehabilitation program of this type would include the provision of large wood. I suggest that the partial restoration of large wood as a habitat feature be added to one of these actions. *(Entered On:4/22/2010 2:08:33 PM)*

s80 c352-- Reedy Gary -- South Yuba River Citizens League

Based on the scenarios section of the Draft Recovery Plan, and several assessment documents (PG&E 1996, LYRTWG 2004, and SYRCL 2008) this action should involve the restoration of habitat complexity and diversity in the form of riparian, large wood and off-channel habitats. *(Entered On:4/22/2010 2:08:33 PM)*

Category RAC 36 -- Recovery Actions:
Clear direction from an overarching plan with recovery as the primary goal for the Feather River is needed if the actions proposed in the Oroville Settlement Agreement are going to achieve the greatest results.

s83 c363-- Hoffman-Floerke Dale -- Department of Water Resources

A clear mechanism for reaching "recovery" of spring-run Chinook on the Feather River is not apparent. If we are to achieve recovery, there must be a true plan that incorporates all

of the different activities needed but that also identifies recovery goals. It is not currently apparent what those goals are and, until they are described, "recovery" will continue to be an elusive goal for the Feather River. Clear direction from an overarching plan with recovery as the primary goal is needed if the actions proposed in the Oroville Settlement Agreement are going to achieve the greatest results. *(Entered On:4/27/2010 10:53:10 AM)*

Category RAC 37 -- Recovery Actions:
Fish ladders must be used in places where dams are contemplated to be removed.

s20 c414-- N/A Charles

Moreover, they exist as alternatives to the decommissioning of hydroelectric facilities, & as such they help to control carbon emissions. And if that is a concern, at all, then fish ladders simply must be used in places where dams are contemplated to be removed. *(Entered On:4/27/2010 11:32:19 AM)*

Category RAC 38 -- Recovery Actions:
Recovery Action 1.6.5., which calls for floodgates to be opened wide and for absolute maximum flow outflow rates during certain portions of the irrigation seasion, would cause the the sudden dislodging of salmonid eggs, the dislocation of salmonid juveniles, and the traumatic disburbance of spawning habitat.

s20 c415-- N/A Charles

Recovery Action 1.6.5 calls for floodgates to be opened wide & for absolute maximum outflow rates during certain portions of the irrigation season, & for those gates to stay open for no fewer than 7 days at a time during those portions of the irrigation season wherein they would be required to be fully open. If inundation due to storms is supposed to be a bad thing (because of the sudden dislodging of salmonoid eggs, the dislocation of salmonoid juveniles, the traumatic disturbance of spawning habitat, etc.), how, then, is it that Recovery Action 1.6.5 is somehow supposed to actually be a good thing? *(Entered On:4/27/2010 11:32:19 AM)*

Category RAC 39 -- Recovery Actions:
All urban coastal areas between Mendocino/Sonoma County Line and the U.S./Mexico border, as well as all bayshore areas between the Mendocino/Sonoma County Line and the U.S./Mexico border, should be required to, at the earliest possible opportunity, use desalinated ocean water for their primary principal source of potable water and must be required to make the fullest possible use of recycled wastewater.

s20 c419-- N/A Charles

Now, two things that should have been included in the Recovery Plan as recovery actions, but were not, are: (a) All urban coastal areas between the Mendocino/Sonoma County Line & the U.S./Mexico Border, as well as all bayshore areas between the Mendocino/Sonoma County Line & the U.S./Mexico Border, should be required to, at the earliest possible opportunity, use desalinated ocean water for their primary principal source of potable water.; (b) All such areas in the immediately preceding (Part (a)) must

be required to make the fullest possible use of recycled wastewater. *(Entered On:4/27/2010 11:32:19 AM)*

Category RAC 40 -- Recovery Actions:
The Priority 1 recovery actions plans identified for the Yuba River should be reassessed. Items listed as Priority 1 that are not necessary to "prevent extinction" of the spring-run Chinook salmon or the steelhead populations should be classified as Priority 2 actions.

s81 c426-- Aikens Curt -- Yuba County Water Agency

YCWA has significant concerns about the Draft Plan's overall treatment of proposed recovery actions and specifically about its identification and characterization of "Priority 1" recovery actions in the Yuba River Watershed, and its treatment of proposed re-introductions of spring-run Chinook salmon and steelhead into the Yuba River Watershed upstream of Englebright Dam. *(Entered On:4/27/2010 11:10:52 AM)*

s81 c676-- Aikens Curt -- Yuba County Water Agency

The Draft Plan Inappropriately Identifies Proposed Action 1.9.6.1 as a Priority 1 Recovery Action...the proposed action 1.9.6.1 is not necessary to "prevent extinction" of the spring-run Chinook salmon or, the steelhead populations in the Yuba River. ...In fact, although YCWA recognizes that spring-run Chinook salmon and steelhead historically inhabited areas upstream of Englebright Dam, and that habitat loss and degradation are issues of concern throughout the Central Valley Domain, information is not presently available to support this proposed recovery action as a Priority 1, Priority 2, or even Priority 3 action, based on the definitions presented on pg. 9 in these comments....Consequently, the Draft Plan should be modified to appropriately identify and prioritize recovery actions for the Yuba River. *(Entered On:4/27/2010 11:10:52 AM)*

s81 c677-- Aikens Curt -- Yuba County Water Agency

The Draft Plan Inappropriately Identifies Proposed Action 1.9.6.2 as a Priority 1 Recovery Action...the proposed action 1.9.6.2 is not necessary to "prevent extinction" of the spring-rim Chinook salmon or the steelhead populations in the Yuba River Basin, and therefore should not be listed as a "Priority 1" action. *(Entered On:4/27/2010 11:10:53 AM)*

s81 c678-- Aikens Curt -- Yuba County Water Agency

YCWA supports this Engiebright Dam Reach spawning habitat rehabilitation project as a proposed recovery action, and believes that it will be one of the most cost-effective arid beneficial recovery actions in the Yuba River Watershed. However, because this proposed action is not necessary to "prevent extinction" of the spring run Chinook salmon or the steelhead populations in the Yuba River Watershed, it therefore should not be listed as a "Priority 1" action. YCWA suggests that this proposed action should be classified as a Priority 2 action. *(Entered On:4/27/2010 11:10:53 AM)*

s81 c680-- Aikens Curt -- Yuba County Water Agency

Reintroduction of Spring-Run Chinook Salmon and Steelhead above Englebright Dam is not an Appropriate Focus to Meet Diversity Group Recovery Criteria...Regarding spring-run Chinook salmon, with two or three presently viable populations (in Mill, Deer, and Butte creeks), and in consideration of the persistent current populations, ongoing recovery efforts and high restoration potential in the lower Yuba River, the diversity group recovery criteria could be met without reintroduction of spring-run Chinook salmon into areas upstream of Englebright Darn. Also, such action would not be the most cost-effective or reasonably implementable action that could be taken during the near-term or probably even during the long-term. *(Entered On:4/27/2010 11:10:52 AM)*

s81 c681-- Aikens Curt -- Yuba County Water Agency

...because the lower Yuba River (below Englebright Dam) already supports Core 1 populations of spring-run Chinook salmon and steelhead (see Draft Plan pg. 65), the Draft Plan should be revised so that it does not include reintroduction of these species above Englebright Dam as a Priority 1 recovery action. *(Entered On:4/27/2010 11:10:52 AM)*

Category RAC 41 -- Recovery Actions:

The steelhead recovery action plans are poorly rationalized with little or no scientific justification presented.

s82 c436-- O'Laughlin Timothy -- San Joaquin River Group Authority

The need for anadromous steelhead recovery is questionable on the Merced, Stanislaus and Calaveras Rivers because of relatively high abundance of resident 0. mykiss populations, and on the Tuolumne due to the lack of physical 0. mykiss habitat. Overall, the majority of "steelhead" recovery actions are poorly rationalized with little or no scientific justification presented. In fact, most of the actions are the same ones proposed over the years to recover Chinook salmon populations. Further, many of the actions (e.g., instream habitat restoration, gravel augmentation, increased spring flows, etc.) have been underway for some years to help recover Chinook populations, with no discernable results. *(Entered On:4/27/2010 11:46:07 AM)*

Category RAC 42 -- Recovery Actions:

There is no need to conduct a feasibility study as part of Recovery Action 2.10.33.2 since trout habitat above the dam is not suitable because of the lack of cold water.

s82 c493-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 196, 2.10.33.2: According to Appendix A (pages 198-199), the "potential to support anadromous steelhead [above New Hogan Dam] is low. Trout habitat above the dam is not suitable because of the lack of cold water. Even with the creation of volitional passage, the habitat carrying capacity for steelhead is not high in the upper watershed." Therefore, there is no need to conduct a feasibility study. As such, delete Recovery Action #2.10.33.2 on page 196 and its associated sub-actions identified on page 197, as follows: â€¢ If the feasibility studies suggest that fish passage can be successful, then design and conduct an experimental fish passage program evaluating

adult distribution, survival, spawning, and production in habitats above New Hogan Dam. â€¢ If the experimental fish passage program demonstrates that passage above New Hogan Darn can substantively contribute to the longterm viability of the DPS, then develop and implement long-term fish passage programs. *(Entered On:4/27/2010 11:46:10 AM)*

Category RAC 43 -- Recovery Actions:
Instream flow evaluation in the Calaveras River is not the appropriate type of study for determining spawning gravel use, and it is unclear what is meant by determining "improved use of existing spawning gravel."

s82 c494-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 196, 2.10.33.3, An instream flow evaluation is not the appropriate type of study for determining spawning gravel use, and it is unclear what is meant by determining "improved use of existing spawning gravel" (emphasis added). Why is there an expectation that fish use might improve where there is existing gravel? *(Entered On:4/27/2010 11:46:10 AM)*

Category RAC 44 -- Recovery Actions:
There is not enough water supply to implement Recovery Action 2.10.54.4.

s82 c497-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 207, 2.10.54.4: Therefore, there is not enough water supply to implement this recovery action. *(Entered On:4/27/2010 11:46:07 AM)*

Category RAC 45 -- Recovery Actions:
The threats assessment for steelhead populations in the San Joaquin River basin indicate that flows are suitable for all lifestages, therefore an instream flow evaluation as proposed in Recovery Actions 2.10.4.2, 2.10.4.3, 2.10.8.3, 2.10.21.2, 2.10.21.3, 2.10.21.4, 2.10.21.5, and 2.10.34.2 are not appropriate.

s82 c526-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 182, 2.10.8.3, Conduct a new instream flow evaluation. there is no need to conduct a new instream flow study when the threats assessment in Appendix B indicates that flows are suitable for all lifestages, except perhaps juvenile migration (which an instream flow evaluation is not appropriate); and at least two instream flow evaluations are already being conducted by Reclamation and USFWS. *(Entered On:4/27/2010 11:46:11 AM)*

s82 c534-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 197, 2.10.34.2, Establish adequate flow regime through OCAP consultations Comment: Strikeout recovery action. *(Entered On:4/27/2010 11:46:11 AM)*

s82 c761-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 181, 2.10.4.2, Improve flow conditions from Friant Dam to the confluence of the Merced River, for juvenile steelhead through implementation of the

San Joaquin River Restoration Program. Strikeout recovery action. Please refer to comment Appendix C, Page 181, 2.10.4.1 provided above. *(Entered On:4/27/2010 11:46:15 AM)*

s82 c762-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 181, 2.10.4.3, Develop and implement steelhead protection and maintenance flow standards specific to the Tuolumne, Merced, Stanislaus, and San Joaquin rivers respectively. Strikeout recovery action. Please refer to comment Appendix C, Page 181, 2.10.4.1 provided above. In addition, FERC flow standards already exist for the *(Entered On:4/27/2010 11:46:15 AM)*

s82 c766-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 190, 2.10.21.2, Strikeout this recovery action *(Entered On:4/27/2010 11:46:14 AM)*

s82 c767-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 190, 2.10.21.3, Strikeout this recovery action. *(Entered On:4/27/2010 11:46:14 AM)*

s82 c768-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 190, 2.10.21.4, Strikeout this recovery action. *(Entered On:4/27/2010 11:46:14 AM)*

s82 c769-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 190, 2.10.21.5, Strikeout this recovery action. *(Entered On:4/27/2010 11:46:06 AM)*

Category RAC 46 -- Recovery Actions:

Therea are too few O. mykiss migrants to determine migration responses to varying flow levels as proposed in Recovery Action 2.10.10.1.

s82 c529-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 184, 2.10.10.1, Implement experimental flow design to evaluate fish migration response relating to varying flow levels. There are too few 0. mykiss migrants to determine migration responses to varying flow levels. *(Entered On:4/27/2010 11:46:12 AM)*

Category RAC 47 -- Recovery Actions:

The suitability of water temperatures for O. mykiss has been demonstrated in the perisistence of O. mykiss populations, thus Recovery Actions 2.10.15.8, 2.10.36.1, and 2.10.36.2 should be removed.

s82 c530-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 188, 2.10.15.8, Pursue 303(d) listing for temperature; establish TMDL's. Strikeout this recovery action. *(Entered On:4/27/2010 11:46:11 AM)*

s82 c561-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 198, 2.10.36.1, Provide water temperatures in the Tuolumne River that meet steelhead thermal requirements based on the spatial and temporal distribution of these fish through FERC processes and ESA consultations; Page 198, 2.10.36.2, Develop agreements with landowners, water districts, and Federal and State agencies to provide additional instream flows or purchase water rights, and/or restore riparian habitat to promote shading in the Tuolumne River (AFRP website 2005). Strikeout these recovery actions. Suitability of water temperatures for 0. mykiss in the Tuolumne River is demonstrated by the persistence of the O. mykiss population. *(Entered On:4/27/2010 11:46:13 AM)*

Category RAC 48 -- Recovery Actions:

Resident O. mykiss abundance can be further improved on the Merced and Tuolumne Rivers by increasing physical habitat complexity with the addition of woody debris, boulders, and other features that promot cover, scouring, shear zones, depth, turbulence, etc.

s82 c542-- O'Laughlin Timothy -- San Joaquin River Group Authority

We suggest that the long-term viability of resident 0. mykiss in the San Joaquin basin includes maintaining suitable coldwater pool storage in successive drought years by not releasing water unnecessarily to "carry" fish downstream and "attract" fish upstream. Resident 0. mykiss abundance can be further improved (to a limited extent) on the Merced and Tuolumne rivers by increasing physical habitat complexity with the addition of woody debris, boulders, and other features that promote cover, scouring, shear zones, depth, turbulence, etc. *(Entered On:4/27/2010 11:46:12 AM)*

Category RAC 49 -- Recovery Actions:

Actions to improve survival in the Delta for the benefit of O. mykiss and several other native species should be higher priority than conducting the Recovery Action 1.11.3.1 feasibility study.

s82 c546-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 162, 1.11.3.1: The time and money to conduct a feasibility study would be much better spent on actions to improve survival in the Delta for the benefit of anadromous 0. mykiss and several other native species, many of which are at high risk since they must reside in or migrate through the Delta. *(Entered On:4/27/2010 11:46:12 AM)*

Category RAC 50 -- Recovery Actions:

Restoration of riparian habitat and instream cover may improve O. mykiss abundance, but a substantial increase in population should not be expected.

s82 c555-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-122, Juvenile Rearing And Outmigration-Loss Of Riparian Habitat And Instream Cover section: we need to view this and similar restoration techniques with cautious optimism. Overall, they can be beneficial to the riparian area and fishery, but they will not turn a low gradient broad channel stream into a high gradient 0. mykiss fishery. So, although O. mykiss abundance may be improved, a substantial increase in the population should not be expected. *(Entered On:4/27/2010 11:46:13 AM)*

Category RAC 51 -- Recovery Actions:

Recovery Action 2.10.5.1 should be removed as a coarse sediment management plan has already been developed.

s82 c558-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 181, 2.10.5.1 Develop and implement a spawning gravel augmentation plan for the Tuolumne River. Strikeout this recovery action. *(Entered On:4/27/2010 11:46:12 AM)*

Category RAC 52 -- Recovery Actions:

Recovery strategies for West Placer streams should address the unique needs and life history of "half-pounder" steelhead population.

s50 c583--	**Sanchez**	**Jack**	**-- Save Auburn Ravine Salmon And Steelhead**
	Otto	**Ronald**	**-- Ophir Property Owners Association, Incorporated,**
	Egan	**Robin**	**and the Auburn Ravine Preservation Committee**
	Banks	**Percivel**	**-- Granite Bay Flycasters**
	Rockwell	**Mark**	**-- California Salmon and Steelhead Association**
	Williams	**John**	**-- Northern California Council, Federation of Fly Fishers**
			-- Lincoln Open Space Committee

â€œHalf-pounderâ€ steelhead have been reported over a number of years in the Auburn Ravine. Recovery strategies for W. Placer streams need to address the unique needs and life history of this segment of the CV steelhead population. *(Entered On:4/27/2010 10:54:58 AM)*

Category RAC 53 -- Recovery Actions:
The major rivers of the Southern Sierra Diversity Group (Calaveras, Stanislaus, Tuolumne, Merced, and lower San Joaquin) should all be given equal and urgent priority. The Merced River in particular should be listed as a Priority 1 for Recovery Actions.

s53 c590--	**Shutes**	**Chris**	**-- California Sportfishing Protection Alliance**
	Johnson	**Brian**	**-- Trout Unlimited**
	Stork	**Ronald**	**-- Friends of the River**
	Charles	**Cindy**	**-- Golden West Women Flyfishers**
	Rothert	**Steve**	**-- American Rivers**
	Steindorf	**Dave**	**-- American Whitewater**
	Martin	**Michael**	**-- Merced River Conservation Committee**

Because of the extreme precariousness of steelhead populations, and the apparent decreasing viability of fall-run Chinook salmon, in the Southern Sierra Diversity Group, actions in all five of its major rivers (Calaveras, Stanislaus, Tuolumne, Merced, and lower San Joaquin) should be given equal and urgent priority. *(Entered On:4/27/2010 11:39:12 AM)*

s53 c591--	**Shutes**	**Chris**	**-- California Sportfishing Protection Alliance**
	Johnson	**Brian**	**-- Trout Unlimited**
	Stork	**Ronald**	**-- Friends of the River**
	Charles	**Cindy**	**-- Golden West Women Flyfishers**
	Rothert	**Steve**	**-- American Rivers**
	Steindorf	**Dave**	**-- American Whitewater**
	Martin	**Michael**	**-- Merced River Conservation Committee**

Fish passage actions on the Merced River should be included as Priority 1 Recovery Actions to complement those already contemplated for the Stanislaus and the Tuolumne.2 *(Entered On:4/27/2010 11:39:12 AM)*

s53 c613--	**Shutes**	**Chris**	**-- California Sportfishing Protection Alliance**
	Johnson	**Brian**	**-- Trout Unlimited**
	Stork	**Ronald**	**-- Friends of the River**
	Charles	**Cindy**	**-- Golden West Women Flyfishers**
	Rothert	**Steve**	**-- American Rivers**
	Steindorf	**Dave**	**-- American Whitewater**
	Martin	**Michael**	**-- Merced River Conservation Committee**

The lower Merced River is identified as a Core 2 steelhead population as priority for recovery focus (Table 3-1) and as a secondary reintroduction priority (Table 3-2). We believe that the Merced River should be included in the Core 1 category for recovery actions, along with all other major San Joaquin River tributaries, *(Entered On:4/27/2010 11:39:13 AM)*

s53 c620-- Shutes Chris -- California Sportfishing Protection Alliance
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

Because the Merced River was placed in Priority 2,19 it was not further evaluated for â€œRecovery Actionsâ€. We recommend that the final plan include placing the Merced River in Priority 1 for â€œRecovery Actionsâ€...We recommend that the Merced River be reclassified to Priority 1 because of its potential for extinction, because of possible modifications of cold water pool in New Exchequer Dam (Lake McClure), because of modifications in anadromous fish passage (lower Merced River), and because of upper river habitats in the South Fork and mainstem Merced River, above Lake McClure have completely natural hydrograpy with no limiting dams and no river flow controls for whitewater rafting or irrigation, for example. *(Entered On:4/27/2010 11:39:13 AM)*

s53 c622-- Shutes Chris -- California Sportfishing Protection Alliance
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

Similar recovery actions for species, duration, involved parties, and 5 year cost estimates should be applied to the Merced River. *(Entered On:4/27/2010 11:39:12 AM)*

s53 c625-- Shutes Chris -- California Sportfishing Protection Alliance
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

The Recovery Plan should present actions and plans to improve flow, temperature and water quality in the Merced River. *(Entered On:4/27/2010 11:39:12 AM)*

s53 c626-- Shutes Chris -- California Sportfishing Protection Alliance
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

We are extremely disappointed that the Merced River is not included in the Priority 1 category in the Recovery Plan25. For recovery of steelhead and spring-run Chinook salmon, we believe that all of the San Joaquin River tributaries are critical to achieve the Recovery Plan's goals. The lower river habitat conditions of the Merced River are better than, for example, the San Joaquin River between Friant Dam and its confluence with the Merced River. The Merced River shares similarities with the Tuolumne River in having suitable and extensive above-rim-dam salmonid habitats. Their research and informational needs are comparable. The upper Merced River basin habitat conditions may be of some of the highest quality, and least developed, of any of the San Joaquin River tributaries. The upper Merced River has a virtually unimpaired hydrology with no limiting dams or river flow controls, unlike the Tuolumne, Stanislaus, and San Joaquin rivers. The upper basin has long-term, in-place habitat protections that are not found in most other basins. If re-introduced, these in-place protections should insure the preservation of the upper Merced River anadromous fish habitats in perpetuity. These protections include Wild and Scenic River designation and Yosemite National Park. The major problem with the upper Merced River is that anadromous fish simply can't get there because of fish passage issues. Because of these factors and conditions, we recommend that the Merced River be considered in the Priority 1 recovery plan grouping, and evaluated as such. *(Entered On:4/27/2010 11:39:14 AM)*

Category RAC 54 -- Recovery Actions:
Central Valley steelhead and spring-run Chinook salmon populations should be re-established above rim dams in every major Diversity Group.

s53 c592-- Shutes Chris -- California Sportfishing Protection Alliance
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

In order to recover Central Valley steelhead and spring-run Chinook salmon, populations of these species need to be re-established above rim dams in every major Diversity Group. This includes re-introduction of spring-run Chinook in many of the watersheds from which they have been extirpated. *(Entered On:4/27/2010 11:39:12 AM)*

s53 c593-- Shutes Chris -- California Sportfishing Protection Alliance
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

Our organizations believe that volitional passage past Central Valley rim dams (and elsewhere) should be established wherever it is feasible. However, we believe that trap and haul options will be necessary in many cases to avoid extinction. *(Entered On:4/27/2010 11:39:12 AM)*

s53 c594-- Shutes Chris -- California Sportfishing Protection Alliance
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

Equal priority should be given to projects and activities that seek to re-establish population connectivity around or over rim dams that is given to projects and activities that attempt to improve remnant "below-dam" populations and habitat. *(Entered On:4/27/2010 11:39:12 AM)*

Category RAC 55 -- Recovery Actions:
Recovery actions in habitat essential to securing extant populations should be given priority.

s54 c651-- Morse Kathleen -- United States Department of Agriculture, Forest Service, the Lassen National Forest

Recovery Area Watersheds (Core) and Reintroduction Area Watersheds (Primary), recovery actions in Core watersheds should be given priority in the near-term as these represent the habitat areas essential to securing extant populations. *(Entered On:3/24/2010 12:23:31 AM)*

Category RAC 56 -- Recovery Actions:
The Lassen National Forest long-term strategy for anadromous fish-producing streams should be considered in the recovery actions.

s54 c654-- Morse Kathleen -- United States Department of Agriculture, Forest Service, the Lassen National Forest

2.2.7 Conservation Measures for Spring-run Chinook salmon and steelhead (Pages 37 and 49, respectively). One additional conservation measure, acknowledged under the Watershed Profile Section for Deer, Mill, and Antelope Creeks (pages 102, 114 and 126, respectively), and also worthy of mentioning in this section is the Long-term Strategy for

Anadromous Fish-producing Watersheds in the Lassen National Forest (USDA FS 2001). *(Entered On:3/24/2010 12:23:31 AM)*

Category RAC 57 -- Recovery Actions:
Reevaluate the need for costly flow evaluations and passage implementation in the Bear River.

s58 c67-- Nelson Ron -- Nevada Irrigation District

With respect to the Bear River, the Draft Plan explains that inadequate streamflow and high water temperatures prevent the establishment of a self-sustaining steelhead population, but goes on to call for an evaluation of "suitable water temperature and instream flows" necessary to support a steelhead population and to recommend the installation of "state-of-the art fish passage facilities." While the Nevada Irrigation District supports feasible and reasonable introduction efforts, we question the need for costly flow evaluations and passage implementation in a river that is designated as "Core 3" and recognized to have a "low recovery potential for steelhead. Introduction of species is a time-consuming, complex and expensive undertaking, and limited resources should first be used to evaluate the feasibility of introduction in the areas where success is most likely. *(Entered On:4/27/2010 9:49:14 AM)*

Category RAC 58 -- Recovery Actions:
An Englebright Dam Reach spawning habitat rehabilitation project should be expanded to include other actions beyond gravel augmentation.

s81 c672-- Aikens Curt -- Yuba County Water Agency

For clarification, it should be noted that spawning gravel augmentation is only one part of a spawning habitat rehabilitation program in the "Englebright Dam Reach" of the lower Yuba River. An Englebright Darn Reach spawning habitat rehabilitation project also should include shot-rock removal, localized grading and contouring, placement of hydraulic roughness elements, initial gravel placement, and long-term gravel augmentation. *(Entered On:4/27/2010 11:10:52 AM)*

Category RAC 59 -- Recovery Actions:
The creation of new side-channel habitats associated with existing stands of riparian vegetation that are not presently hydraulically connected to the Yuba River channel should be listed as Priority 2 actions instead of Priority 1.

s81 c673-- Aikens Curt -- Yuba County Water Agency

It also should be noted that, of the two identified proposed actions regarding juvenile rearing, the actions that would be most beneficial and cost-effective for juvenile rearing habitat, and the actions that would yield the most immediate benefits, are the creation of new side-channel habitats associated with existing stands of riparian vegetation that are not presently hydraulically connected to the river channel. The Draft Plan should be revised to address these points....However, because the creation and restoration of side-channel habitats, and improvements to riparian habitats for juvenile salmonid rearing, are not necessary to "prevent extinction" of the spring-run Chinook salmon or the steelhead

populations in the Yuba River Watershed, these proposed actions therefore should not be listed as "Priority 1" actions. YCWA suggests that these proposed actions should be classified as Priority 2 actions. *(Entered On:4/27/2010 11:10:53 AM)*

Category RAC 60 -- Recovery Actions:
The proposed recovery action of increasing floodplain habitat availability below Englebright Dam is undefined and ambiguous. NMFS should provide further details around this proposed action.

s81 c679-- Aikens Curt -- Yuba County Water Agency

The proposed restoration action of increasing floodplain habitat availability in the Draft Plan (pg. 201) is undefined and ambiguous, If the Draft Plan's proposal to increase floodplain habitat availability means providing sustained inundation of areas outside of the controlled flow channel through high river flows or substantial constructed changes to the floodplain, then YCWA questions whether such a measure would be practical, feasible, or sustainable. Alternatively, if this proposed restoration action means the creation and restoration of side-channel habitats, then YCWA supports this proposal. *(Entered On:4/27/2010 11:10:53 AM)*

Category RAC 61 -- Recovery Actions:
Include the upper Yuba River Basin as a primary-priority area for reintroduction.

s81 c682-- Aikens Curt -- Yuba County Water Agency

In Summary, information presented in the Recovery Scenarios section of the Draft Plan and in the Yuba River Basin Watershed Profile (Appendix A to the Draft Plan) does not support the characterization of the upper Yuba River Basin as a primary-priority area for reintroduction. Relevant sections of the Draft Plan and its appendices should be revised appropriately. *(Entered On:4/27/2010 11:10:52 AM)*

Category RAC 62 -- Recovery Actions:
Instream improvements to the Merced River should be limited to those that will maximize opportunistic use whenever freshets provide migration access to steelheads.

s82 c734-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 232 states: Historically, the Merced River supported spring and fall-run Chinook salmon, and occasionally steelhead trout. Comment: If the Merced River only "occasionally" supported steelhead, then why does NMFS want to "recover" the Merced River to a year-round, annual steelhead population? Instead, any instream improvements should be limited to those that will maximize opportunistic use whenever natural freshets provide migration access. *(Entered On:4/27/2010 11:46:15 AM)*

Category RAC 63 -- Recovery Actions:
The Draft Recovery Plan should evaluate that recovery of Central Valley DPS populations may not be possible, and that the recovery goals established in the recovery plan could be unachievable.

s82 c750-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 49 states: The primary limiting factor to the Central Valley steelhead DPS is the inaccessibility of more than 95 percent of its historic spawning and rearing habitat due to impassable dams. Comment: With an estimated 95% of the habitat no longer available, NMFS has to evaluate that recovery may not be possible and that the recovery goals established in the recovery plan are unachievable. *(Entered On:4/27/2010 11:46:16 AM)*

Category RAC 64 -- Recovery Actions:
The recovery overview scenarios must address political, economic, and financial feasibility.

s82 c755-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 83 states: Recovery overview scenarios. These scenarios do not address political, economic, and financial feasibility. *(Entered On:4/27/2010 11:46:14 AM)*

Category RAC 65 -- Recovery Actions:
NMFS should focus on improving physical habitat, which has been demonstrated to increase O. mykiss production potential.

s82 c760-- O'Laughlin Timothy -- San Joaquin River Group Authority

Since higher flows are unlikely to increase rearing habitat in the stream reaches most utilized by 0. mykiss, we recommend NMFS focus on improving physical habitat, which has been demonstrated to increase 0. mykiss production potential. *(Entered On:4/27/2010 11:46:15 AM)*

Category RAC 66 -- Recovery Actions:
Remove Recovery Action 2.10.21.1, as ambient air temperature has been determined to be the primary factor affecting water temperature in the San Joaquin River basin.

s82 c765-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 190, 2.10.21.1, Provide continued support for and application of San Joaquin Basin integrated water temperature model and flow study (AFRP website 2005). Strikeout this recovery action. Ambient air temperature has been determined to be the primary factor affecting water temperature in the San Joaquin River basin. By the end of May, water temperatures at Vernalis range between 65Â°F and 70Â°F regardless of flow levels between 3,000 cfs and 30,000 cfs (SRFG 2004). *(Entered On:4/27/2010 11:46:15 AM)*

Category RAC 67 -- Recovery Actions:
Extensive restoration is needed in the Cow Creek Watershed for a population to persist.

s64 c777-- Albrecht David

[Cow Creek Watershed Profile: Appendix A; pages 143-149] Watershed/Ecosystem Restoration: In addition, for most of the individual tributaries, water temperatures and flows for rearing steelhead are less suitable than other nearby watersheds. Except for possibly on the South Cow tributary. extensive restoration is needed in the Cow Creek Watershed for a population to persist. *(Entered On:4/23/2010 11:52:53 AM)*

Category RAC 68 -- Recovery Actions:
NMFS should consider a siphon that brings McCloud River water over the Jones Valley Ridge as a recovery action to enable Stillwater Creek to become a year-round natural spawning stream for all four runs of Sacramento River salmon.

s9 c165-- Smith Randall

Literature cited in the DRP lists the seminal 1940 Special Scientific Report #10 authored by Hanson, et. al.,"An Investigation of Fish-Salvage Problems in Relation to Shasta Dam". Surprisingly, the Plan does not mention the highest priority of that prescient federal document: "1. The Stillwater Creek salvage plan is recommended as most nearly meeting the biological requirements of Sacramento River salmon." The authors proposed bringing McCloud River water over the Jones Valley Ridge to enable Stillwater Creek to become a year round natural spawning stream for all four runs of Sacramento River salmon. This siphon was never built because World War II prevented necessary funding for infrastructure. *(Entered On:3/23/2010 11:37:21 PM)*

Category RAC 69 -- Recovery Actions:
The Draft Recovery Plan does not include independent technical rationales for the proposed recovery actions on South Cow and Old Cow Creeks.

s64 c73-- Albrecht David

The description and plans for the Cow Creek watershed that lays just to the north; needs to be set forth in a manner such that this watershed plan does not mislead or technically misinform all stakeholders (Public & Resource Agencies) in terms of the potential payoff / penalties associated with the very significant future changes proposed on the two most southern tributaries of that watershed. In this plan, NMFS (and other Resource Agencies too) have neither put forth independent technical rationales for the proposed key actions on South Cow and Old Cow; nor have they even attempted in any manner to articulate their technical rationale's in Public meetings. *(Entered On:4/23/2010 11:52:52 AM)*

Category RAC 70 -- Recovery Actions:
The Draft Recovery Plan should clarify what fishery purpose is being served by decommissioning and removing the Old Cow Creek Project, along with the probability that potential benefits would be achieved.

s64 c74-- Albrecht David

On Old Cow Creek, Steelhead and salmon (Fall Run?) are typically seen or have been observed on the creek to an elevation of about 1350 feet to the base of Whitmore Falls. This falls is an absolute barrier for salmon; and even for Steelhead except in extremely high flow conditions. The Kilarc hydroelectric project that resides upstream between about 2600 and 3814 feet also has 13 natural barriers in its 4.4 mile bypass region, with one (OC-11) comparable in difficulty to Whitmore Falls. As returning up to 60 cfs to the bypass region of Old Cow will not affect the flow in any way over Whitmore Falls, and will not likely have any meaningful impact on OC-11, it is unclear to members of the local community and the average layman what real fishery purpose is being served by decommissioning and removing this specific hydroelectric installation. It would be beneficial if the NMFS would articulate in their Plan (with input from the other Resource Agencies) the potential fishery benefits of removing the Old Cow Creek Project; and what is the likely-hood (quantify in terms of probability) that those potential benefits are achieved. *(Entered On:4/23/2010 11:52:52 AM)*

Category RAC 71 -- Recovery Actions:

Recovery actions focused on screening unscreened diversions in the Calaveras River should be revised reflect that temporary screens are in place at Bellota Weir.

s82 c485-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 180, 2.10.2.5: Screen unscreened diversions in the Calaveras River beginning with Bellota weir (AFRP website 2005). Comment: This should reflect that temporary screens are in place at Bellota Weir. *(Entered On:4/27/2010 11:46:10 AM)*

Category RAC 72 -- Recovery Actions:

Recovery actions to improve rearing habitat, including "increasing floodplain habitat availability" should receive a separate action, description, and cost estimate.

s80 c351-- Reedy Gary -- South Yuba River Citizens League

Actions to improve rearing habitat, including â€œincreasing floodplain habitat availabilityâ€ warrant a separate action reference number, description and cost estimate. *(Entered On:4/22/2010 2:08:33 PM)*

Category RAC 73 -- Recovery Actions:

Because the Merced River is classified as wild and scenic, this designation would eliminate the possibility of constructing any structures for facilitating passage of steelhead around the four dams on the lower Merced River.

s82 c727-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 151, the upper Merced River and South Fork Merced River are designated as National Wild and Scenic Rivers (National Park Service 2005). Since the Merced River is classified as wild and scenic, this designation would eliminate the possibility of constructing any structures for facilitating passage of steelhead around the four dams on the lower Merced River. *(Entered On:4/27/2010 11:46:14 AM)*

Category RAC 74 -- Recovery Actions:
When providing specific targets (i.e. time scales, flow) in Recovery Actions, please provide information on why those targets are necessary, how they were developed, and any associated analysis.

s83 c356-- Hoffman-Floerke Dale -- Department of Water Resources

When giving specific targets (i.e., time scales, flow, etc) [examples of Recovery Actions Delta 1.5.5, 1.5.8, 1.5.9], please provide, in an appendix, information on why those targets are necessary, how they were developed, and any associated analysis. *(Entered On:4/27/2010 10:53:10 AM)*

Category RAC 75 -- Recovery Actions:
The Feather River population was not assessed by the Technical Recovery Team due to insufficient data. It would be helpful to know what information is needed so the Team can make an assessment.

s83 c387-- Hoffman-Floerke Dale -- Department of Water Resources

Section 5.4.5 Spring-run Chinook Salmon, page 90: The FR population was not assessed by the TRT due to insufficient data. It would be helpful to know what information is needed so the TRT can make an assessment. *(Entered On:4/27/2010 10:53:11 AM)*

s83 c392-- Hoffman-Floerke Dale -- Department of Water Resources

Northern Sierra Diversity Group/Feather River(FR), page 113: Again, FR population is characterized as data deficient and therefore viability cannot be characterized. *(Entered On:4/27/2010 10:53:11 AM)*

Category RAC 76 -- Recovery Actions:
Paynes Crossing should be added as a Recovery Action.

s83 c390-- Hoffman-Floerke Dale -- Department of Water Resources

Northern Sierra Diversity Group/Antelope Creek, page 109: Add Paynes Crossing as a possible action. This in-stream road crossing is in the lower portion of the spawning/holding habitat and in low-flow years limits passage of spring-run into the upper portion of mainstem spawning/holding habitat. *(Entered On:4/27/2010 10:53:11 AM)*

Category RAC 77 -- Recovery Actions:
Proposed recovery actions that rely on assumed floodplain rearing by juvenille steelhead and resident trout should be carefully evaluated and coordinated with any floodplain habitat reconstruction projects.

s28 c274-- Yoshiyama Ronald -- San Francisco Public Utilities Commission

Given the potentially limited use of floodplain habitat by steelheadâ€"at least compared with coho salmonâ€"any proposed recovery actions that rely on assumed floodplain rearing by juvenile steelhead and resident trout should be carefully evaluated before and during implementation of experimental flow management and ideally coordinated with

any floodplain habitat reconstruction projects that are planned. *(Entered On:3/2/2010 12:30:21 PM)*

Category RAC 78 -- Recovery Actions:
Clarify the need and benefits of Sites Reservoir Construction to take pressure off of Shasta Lake.

s29 c25-- Fitch Stephen

Please clearly spell out the need and benefits of Sites Reservoir construction west of Maxwell to take pressure off of Shasta Lake for irrigation and assure volume of cold water releases when needed. *(Entered On:2/23/2010 11:48:12 AM)*

Category RAC 79 -- Recovery Actions:
Recovery actions should focus on the creation and/or restoration of available habitat.

s36 c35-- Brown Ryan

Focus on the creation/restoration of available habitat. Many streams are extremely degraded in the Central Valley. *(Entered On:2/23/2010 2:42:04 PM)*

Category RAC 80 -- Recovery Actions:
NMFS should rely on available temperature data and basic air/water temperature models to infer future climate habitat potential in the Basalt and Porous Lava diversity group streams.

s41 c577-- Tussing Steve -- Terraqua Incorporated

Costly reintroductions of anadromous salmonids into habitats that cannot support these fish under future climatic conditions is probably not a good use of funds. I would recommend relying on available temperature data and some basic air/water temperature models to infer future climate habitat potential in the Basalt and Porous Lava diversity group streams. *(Entered On:4/27/2010 10:53:43 AM)*

Category RAC 81 -- Recovery Actions:
A Recovery Action should be included to expedite requests for scientific anadromous fish study take permits.

s59 c776-- Rabone Geoffrey -- Merced Irrigation District

A specific measure expediting requests for scientific anadromous fish study take permits should be added to the recovery plan to prevent further such roadblocks. *(Entered On:3/24/2010 12:28:19 AM)*

Category RAC 82 -- Recovery Actions:
The feasibility, practicability, and benefits of releasing experimental populations of salmon and steelhead should be evaluated in the Draft Recovery Plan.

s61 c197-- Fredrickson Justin -- California Farm Bureau Federation

NMFS should evaluate the feasibility, practicability, and benefits of releasing experimental populations of salmon and steelhead in the Central Valley region. *(Entered On:4/27/2010 11:13:37 AM)*

Category RAC 83 -- Recovery Actions:
The steelhead currently accessing or historically found in Beegum Creek do not deserve more than a Core 2 Recovery focus within the Northwestern California Diversity Group.

s70 c139-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

The Recovery Plan explains why the current small, and likely larger historic runs of Central Valley Spring-run Chinook salmon found in Beegum Creek were likely never more than ephemeral or dependent populations incidental to the independent populations found elsewhere. The steelhead currently accessing or historically found in Beegum Creek likely played a similar ecological roll, and therefore do not deserve more than a 'Core 2' Recovery focus from within the Northwestern California Diversity Group (Table 3-1, Recovery Plan). *(Entered On:4/22/2010 2:04:09 PM)*

Category RAC 84 -- Recovery Actions:
Recovery actions should focus on flows that are too high for fry, or temperatures that are too cold on McCloud River.

s74 c289-- Franco Mark

Also concerned about running rivers too high for fry and too cold to meet needs of the 4 gens of salmon on McCloud. *(Entered On:4/27/2010 9:53:26 AM)*

Category RAC 85 -- Recovery Actions:
Increasing knowledge of the factors that drive life-history expression would be a more useful recovery action for steelhead on the Stanislaus River than conducting a new instream flow evaluation.

s82 c527-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 182, 2.10.8.3, Conduct a new instream flow evaluation. Increasing knowledge of the factors that drive life-history expression would be a more useful exercise. *(Entered On:4/27/2010 11:46:12 AM)*

Category RAC 86 -- Recovery Actions:
NMFS should clarify whether they intend to convert the Merced River Hatchery to produce steelhead or not.

s82 c742-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 195, 2.10.29.4: Does NMFS plan on converting the hatchery to produce steelhead as well? *(Entered On:4/27/2010 11:46:06 AM)*

Category RAC 87 -- Recovery Actions:
NMFS should clarify how they intend on collecting distribution and abundance data for O. mykiss in habitats accessible to anadromous fish.

s82 c752-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 62 states: Begin collecting distribution and abundance data for 0. mykiss in habitats accessible to anadromous fish. How do you propose to collect data? NMFS has already refused to issue scientific take permits on the Tuolumne River for the purpose of assessing steelhead populations. *(Entered On:4/27/2010 11:46:16 AM)*

Category RAC 88 -- Recovery Actions:
The Draft Recovery Plan should summarize key recovery strategy components, especially those elements of the near-term approach, in order to make the strategy less complex for readers.

s54 Morse Kathleen -- United States Department of Agriculture, Forest c649-- Service, the Lassen National Forest

The strategy contains some very sound components but its complexity makes it difficult to track and find consistency in the document. The plan needs to wrap a very complex set of actions into a logical and persuasive strategy to gain the necessary public/stakeholder support that it needs and deserves.... The recommendation is to summarize the key recovery strategy components especially those elements of the near term approach (e.g. securing extant populations -> via priority core population/watersheds -> recovery opportunities -> priority actions for restoration/protection). *(Entered On:3/24/2010 12:23:31 AM)*

Category RAC 89 -- Recovery Actions:
The Draft Recovery Plan should ensure Priority 1 actions are consistent with the strategy outlined, and further clarify, if necessary, how primary and secondary actions compare and/or fit with one another.

s54 Morse Kathleen -- United States Department of Agriculture, Forest c650-- Service, the Lassen National Forest

There are many components of the DRP that we like very much. Other components could use more attention to make the strategy more consistent throughout.... In summary, the recommendation is to:1) ensure priority #1 actions are consistent with the strategy outlined and 2) if necessary, further clarify how primary and secondary actions compare and/or fit with one another. *(Entered On:3/24/2010 12:23:31 AM)*

s54 Morse Kathleen -- United States Department of Agriculture, Forest c652-- Service, the Lassen National Forest

Additional consistency is recommended in regards to addressing actions within the priority #1 category. *(Entered On:3/24/2010 12:23:31 AM)*

s54 c653-- Morse Kathleen -- United States Department of Agriculture, Forest Service, the Lassen National Forest

The process used in the development and/or prioritization of the actions are not entirely transparent. Some actions represent broad based goals or objectives (vs. watershed and/or site-specific actions), other â€œactionsâ€ lump many (large) items together, origin of others are unknown and, some actions within the priority levels (#1 or #2) are inconsistent.... In summary, the recommendation is to 1) further categorize according to goals, objectives and actions, 2) clarify those that are priority #1 and ensure lists are consistent throughout the document and 3) further screen actions to ensure they are reflective of on the ground conditions/needs and/or, 4) add a caveat that the lists represent a living document to be updated as better information becomes available. Additionally, within each priority #1 and #2 action groups, consider using criteria that facilitates identification of the most critical actions (e.g., â€œto prevent the extinctionâ€ per page 183) and those which might be linked (step 2 canâ€™t or shouldnâ€™t be taken until step 1 is completed as some actions may be futile unless â€œbottlenecksâ€ to population sustainability are addressed). *(Entered On:3/24/2010 12:23:31 AM)*

Category RAC 90 -- Recovery Actions:

NMFS should clarify the value of Diversity Groups when assessing the current distributions and populations.

s54 c655-- Morse Kathleen -- United States Department of Agriculture, Forest Service, the Lassen National Forest

Due to the limited current distribution, however, its not clear what value the Divesity Groups provide in assessing the current situation (given that the short term objective is to â€œsecure all extant populationsâ€). That is, Diversity Groups donâ€™t help accomplish or articulate that, and given all the other components of the plan, they serve to confuse things a little. *(Entered On:3/24/2010 12:23:31 AM)*

Category RAC 91 -- Recovery Actions:

NMFS should clarify who will be conducting the feasibility studies proposed for steelhead in the Merced River. NMFS should also clarify what the next steps would be if fish passage studies were not found to be feasible here.

s82 c736-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 183, 2.10.9.3, What does NMFS plan to do if the feasibility study concludes that fish passage cannot be successful? *(Entered On:4/27/2010 11:46:14 AM)*

s82 c737-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 183, 2.10.9.4: What does NMFS plan to do if the experimental fish passage program is not successful? *(Entered On:4/27/2010 11:46:15 AM)*

s82 c741-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 194-195, Recovery Actions (2.10.29.1-3) pertaining to Threat 2.10.29: Who is going to conduct the feasibility studies identified here? Does NMFS have the funding and personnel to perform the studies? What is the recovery plan if the fish passage studies prove to be not feasible? *(Entered On:4/27/2010 11:46:14 AM)*

Category RAC 92 -- Recovery Actions:

NMFS should provide the rationale or data to demonstrate that pulse flows "attract" steelhead into rivers, thereby resulting in higher annual adult returns.

s82 c502-- O'Laughlin Timothy -- San Joaquin River Group Authority

As per evaluating pulse flows to attract steelhead into the river, please provide the rational, or findings from streams elsewhere, to demonstrate that pulse flows "attract" steelhead into rivers (i.e., result in higher annual adult returns). We believe the concept of "attracting" fish into the river as a way of increasing abundance is inherently flawed because it assumes that returning adults are waiting in the lower river or Delta until they are "attracted" into the river. *(Entered On:4/27/2010 11:46:10 AM)*

Category RAC 93 -- Recovery Actions:

Existing initiatives for restoration of floodplains, riparian, and intertidal wetland habitats should be considered as core recovery elements while impacts to existing flood control and land use patterns should be minimized.

s61 c212-- Fredrickson Justin -- California Farm Bureau Federation

Build upon identified existing initiatives for significant restoration of floodplain, riparian, and intertidal and intertidal wetland habitats as core elements of NMFS long-term recovery strategy as potential alternatives to proposed flow and passage related actions, while at the same considering and avoiding or minimizing impacts to existing flood control and existing land use patterns. *(Entered On:4/27/2010 11:13:39 AM)*

Regulatory Compliance

Category REG 1 -- Regulatory Compliance:
Given that the majority of proposed projects in the Draft Recovery Plan involve federal actions, NMFS should be prepared to conduct proper analysis under the National Environmental Policy Act (NEPA).

s58 c61-- Nelson Ron -- Nevada Irrigation District

Any plan to introduce species above Englebright Dam will, as a preliminary matter, be subject to all required review under the National Environmental Policy Act ("NEPA"). *(Entered On:4/27/2010 9:49:13 AM)*

s58 c64-- Nelson Ron -- Nevada Irrigation District

Any fish passage plans must be subject to appropriate review under NEPA. *(Entered On:4/27/2010 9:49:14 AM)*

s61 c196-- Fredrickson Justin -- California Farm Bureau Federation

Given that the majority of proposed projects outlined in the Draft Recovery Plan involve federal actions, NMFS should be prepared to conduct proper NEPA analysis. *(Entered On:4/27/2010 11:13:38 AM)*

Category REG 2 -- Regulatory Compliance:
The lower canyon section of Thomes Creek is eligible for being designated as Wild under the Wild and Scenic River Management Act (WSRMA). Construction activities in tis reach are not consistent with the current Forest Plan, and USFS policy on management of eligible streams. Additional coordination with the USFS will be required regarding streams designated under the WSRMA.

s70 c109-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

There will be a need to coordinate implementing tasks in the final Recovery Plan with other laws and regulations governing Forest Service programs and activities. Furthermore, additional coordination and planning will be necessary prior to certain proposed recovery actions in sections of stream that are designated or eligible to be designated under the Wild and Scenic Rivers Management Act. *(Entered On:4/22/2010 2:04:07 PM)*

s70 c119-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

This [lower canyon] section of Thomes Creek has been evaluated and deemed eligible for being designated as Wild under the Wild and Scenic River Management Act (WSRMA). Construction activities in this reach are not consistent with the current Forest Plan, and USFS policy on management of eligible streams. *(Entered On:4/22/2010 2:04:08 PM)*

s70 c774-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

Furthermore, additional coordination and planning will be necessary prior to certain proposed recovery actions in sections of stream that are designated or eligible to be designated under the Wild and Scenic Rivers Management Act. *(Entered On:4/22/2010 2:04:09 PM)*

Category REG 3 -- Regulatory Compliance:

The direct benefit to the fish species from changing regulations needs to be established. Regulations include modifications to federal and state requirements for waste discharge, Army Corps Section 404 requirements for currently exempt routine agriculture, and potential new Section 4(d) prohibitions and limits for fish screen design.

s61 c192-- Fredrickson Justin -- California Farm Bureau Federation

Accordingly, the direct benefit to the fish species from changing regulations [modifications to federal and state requirements, such as waste discharge requirements, Army Corps Section 404 requirements for currently exempt routine agricultural, and potential new Section 4(d) prohibitions and limits for fish screen design] needs to be clearly established. *(Entered On:4/27/2010 11:13:38 AM)*

Category REG 4 -- Regulatory Compliance:

Compliance with existing federal and state regulations should not be listed as a recovery action, because is already required and should already be happening.

s20 c294-- N/A Charles

â€œWhy is enforcement of existing ag. applicable clean water reg.s identified as a recovery action listed amongst things yet to be done? Why are these things not already being done, regardless?â€ *(Entered On:4/27/2010 11:32:19 AM)*

Category REG 5 -- Regulatory Compliance:

The Plan should clarify how the recommendations from the Plan will be provided through the Section 7 Consultation process.

s40 c569-- Chotkowski Michael -- U.S. Bureau of Reclamation

Reclamation assumes that NMFS will provide teh recommended actions in the Plan as conservation recommendations (i.e., discretionary actions) in their Biological Opinions. Recommendation: Please clarify how the recommendations from the Plan will be provided through the Section 7(2) consultation process. *(Entered On:4/27/2010 11:33:59 AM)*

Category REG 6 -- Regulatory Compliance:

NMFS must hold parties accountable for take violations in light of almost extinct populations of threatened species in the Central Valley.

s53 c608-- Shutes Chris -- California Sportfishing Protection Alliance
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

Enforcement of the Endangered Species Act, as well as water rights proceedings, should be a very high priority for NMFS and other resources agencies. NMFS must hold parties accountable for take violations in light of almost extinct populations of threatened species in the Central Valley. *(Entered On:4/27/2010 11:39:13 AM)*

Category REG 7 -- Regulatory Compliance:
The Endangered Species Act requires recovery plans to have objective, measurable criteria; yet, the factors identified here are largely subjective and can be easily manipulated to fit a desired outcome.

s82 c753-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 74-75, Population Objectives The ESA requires recovery plans to have objective, measureable criteria; yet, the factors identified here are largely subjective and can be easily manipulated to fit a desired outcome. *(Entered On:4/27/2010 11:46:16 AM)*

Category REG 8 -- Regulatory Compliance:
Coordination is required to ensure identified recovery actions meet regulatory terms and conditions of FERC relicensing negotiations that are ongoing in the upper McCloud River.

s70 c142-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

FERC relicensing negotiations are ongoing today in the upper McCloud River as well. The McCloud River is identified in the Plan as a critical component of potential successful anadromous fish re-introduction above Shasta Dam. Full recognition of and participation in these negotiations is paramount to ensure regulatory terms and conditions are not adopted that could seriously minimize the potential success of fish reintroduction above Shasta Dam if this were to ever materialize. *(Entered On:4/22/2010 2:04:09 PM)*

Category REG 9 -- Regulatory Compliance:
The dedication of instream flows through Section 7 implementation or the Camanche permit extension process is overly limiting and prescriptive since NMFS previously concluded that Section 7 consultation for the JSA was complete for CV steelhead.

s76 c339-- Sykes Richard -- East Bay Municipal Utility District

Table 2-3. Sacramento-San Joaquin Delta Threats and Associated Recovery Actions on Page 201, Appendix C: The dedication of instream flows through Section 7 implementation or the Camanche permit extension process is not appropriate since NMFS previously concluded that Section 7 consultation for the JSA was complete for

CV steelhead. As noted above, the recovery actions are also inconsistent with NMFS' recovery planning guidance because they are overly limiting and prescriptive. In addition, dedication of instream flow as part of an action seeking only to extend a state-issued authorization could hinder future adaptive management efforts. *(Entered On:4/27/2010 11:22:36 AM)*

Category REG 10 -- Regulatory Compliance:
The Draft Plan is missing factors that are included in current regulatory documents or conservation measures (i.e., Central Valley Project Improvement Act actions, Operations Criteria and Plan Biological Opinion's Reasonable and Prudent Alternatives, and regulatory codes).

s83 c362-- Hoffman-Floerke Dale -- Department of Water Resources

The Draft Plan is missing factors that are included in current regulatory documents or conservation measures (i.e., Central Valley Project Improvement Act actions, Operations Criteria and Plan Biological Opinion's Reasonable and Prudent Alternatives, and regulatory codes). *(Entered On:4/27/2010 10:53:10 AM)*

Category REG 11 -- Regulatory Compliance:
The Draft Recovery Plan should cite important FERC relicensing actions for hydroelectric projects in the Merced River, including Section 18 Fishway Prescription and compliance with other federal laws.

s53 c630-- Shutes Chris -- California Sportfishing Protection Alliance
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

The Recovery Plan should acknowledge and cite the two important FERC relicensing actions for hydroelectric projects in the Merced River which may affect listed species: a) Section 18 Fishway Prescription, b) Compliance with the Endangered Species Act, and 3) Compliance with the National Environmental Policy Act. *(Entered On:4/27/2010 11:39:14 AM)*

Category REG 12 -- Regulatory Compliance:
NMFS should work with other resource agencies for the enforcement of State-Federal laws governing streambed alteration, water quality, water quantity, and facilities operations.

s53 c609--	**Shutes**	**Chris**	**-- California Sportfishing Protection Alliance**
	Johnson	**Brian**	**-- Trout Unlimited**
	Stork	**Ronald**	**-- Friends of the River**
	Charles	**Cindy**	**-- Golden West Women Flyfishers**
	Rothert	**Steve**	**-- American Rivers**
	Steindorf	**Dave**	**-- American Whitewater**
	Martin	**Michael**	**-- Merced River Conservation Committee**

NMFS should work with other resource agencies for the enforcement of State-Federal laws governing streambed alteration, water quality, water quantity, and facilities operations. *(Entered On:4/27/2010 11:39:13 AM)*

Category REG 13 -- Regulatory Compliance:
There needs to be a clear distinction between Central Valley Project Improvement Act actions and projects in the Draft Recovery Plan in order to avoid duplicative efforts.

s32 c154-- Hadley Elizabeth -- Redding Electric Utility

It is imperative that NMFS coordinate their recommendations with CVPIA to prevent duplicative recommendations resulting in additional costs with no additional benefits. *(Entered On:4/27/2010 9:52:54 AM)*

s35 c33-- Ten Pas Brent -- Northern California Power Agency

We are also concerned about duplicative efforts. Some of the projects enumerated in the NMFS draft mirror those restoration projects established in the CVPIA. We believe a clear line of distinction needs to be drawn between CVPIA actions and projects in the NMFS draft. *(Entered On:3/15/2010 3:35:22 PM)*

Research, Monitoring, Evaluation Needs

Category RME 1 -- Research, Monitoring, Evaluation:
Available information relevant to the Draft Recovery Plan should be collected, evaluated, and stored in easy to access files.

s68 c51-- Wilson Howard -- CH2MHILL

I understand the NMFS is conducting a workshop concerning the mass marking of salmon this month. The results of this workshop should provide additional useful information on developing a program to manage and monitor the various runs of salmon and improve the management of hatcheries. There is a lot of information available but I doubt if it has been collected, evaluated, and stored in easy to access files. For example we have numerous fish traps along the Sacramento River, and I assume, the data from these traps is analyzed to determine where predator buildup or other issues are occurring along the river? I realize this may be a time consuming/costly effort, but, I feel it is needed. *(Entered On:4/27/2010 11:12:21 AM)*

Category RME 2 -- Research, Monitoring, Evaluation:
Data collection could be improved by installing monitoring instrumentation in the Sacramento River at various key locations to determine the timing and magnitude of fish movement.

s68 c52-- Wilson Howard -- CH2MHILL

Can we improve on the data collection by installing monitoring instrumentation in the river at various key locations to determine the timing and magnitude of fish movement? *(Entered On:4/27/2010 11:12:21 AM)*

Category RME 3 -- Research, Monitoring, Evaluation:
Use existing year-round trout habitat to model steelhead juvenile outmigration to find the number of spawners likely to return to the headwaters of the Stony watershed.

s70 c116-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

The existing year round trout habitat could be used to model steelhead juvenile outmigration, and number of spawners likely to return to the headwaters of the Stony watershed could be obtained. *(Entered On:4/22/2010 2:04:07 PM)*

Category RME 4 -- Research, Monitoring, Evaluation:
When designing proposed feasibility studies, the potential that desirable cool water habitats that are currently blocked could potentially become inhospitable before introduced populations evolve. Current climate change modeling could help with this information, which needs to be included in all habitat evaluations and reintroduction plans.

s70 c137-- Holtrop Joel -- United States Department of Agriculture, United States Forest Service

As NMFS conducts the critical research on fish passage above 'rim' dams and accompanying reintroductions, keep in mind that the currently blocked desirable cool water habitats now characterizing these reaches could in turn become inhospitable long before distinct population characteristics could ever evolve. All of these very real possibilities will need to be included in the proposed feasibility studies, habitat evaluations, and reintroduction plans well before pilot reintroductions should ever get seriously considered. This includes keeping current with climate change modeling each year that ensues. *(Entered On:4/22/2010 2:04:08 PM)*

Category RME 5 -- Research, Monitoring, Evaluation:
In order to begin evaluating the potential residualization problem of juvenile salmonids in reservoirs, some initial research efforts could be undertaken.

s28 c273-- Yoshiyama Ronald -- San Francisco Public Utilities Commission

Some first steps toward evaluating the potential â€œresidualization problemâ€ of juvenile salmonids in the reservoirs would be the following: 1) Experimental plantings of salmon and steelhead juveniles and smolts upstream of reservoirs to determine their behaviors and ability to migrate through the reservoir environment. Estimates of survival rates of the juveniles and smolts within the reservoirs should be obtained. 2) Plantings of spring-run Chinook and steelhead spawners above the reservoirs to determine spawning success rates and juvenile production rates. The above two experimental efforts should be conducted and evaluated well before significant investments are made in constructing fishways or pursuing large-scale trap-and-truck operations. *(Entered On:3/2/2010 12:30:21 PM)*

Category RME 6 -- Research, Monitoring, Evaluation:
A comprehensive research and monitoring program is needed to properly identify O. mykiss abundance and distribution, and most importantly, factors that drive anadromy before appropriate recovery actions can be developed.

s82 c439-- O'Laughlin Timothy -- San Joaquin River Group Authority

Considering the extent of the unknowns surrounding current abundance, distribution, life-history characteristics, and relatedness among stocks, we believe a prudent and more scientifically justifiable approach to recover anadromous populations should start with a comprehensive research and monitoring plan designed to provide an understanding of factors that drive anadromy and residency among O. mykiss populations. *(Entered On:4/27/2010 11:46:07 AM)*

s82 c543-- O'Laughlin Timothy -- San Joaquin River Group Authority

We suggest that research and monitoring is a better strategy to ultimately understand life-history characteristics and successfully recovering and managing anadromous 0. mykiss. *(Entered On:4/27/2010 11:46:12 AM)*

s82 c551-- O'Laughlin Timothy -- San Joaquin River Group Authority

We recommend a comprehensive research and monitoring program to properly identify 0. mykiss abundance and distribution, and most importantly, factors that drive anadromy before appropriate recovery actions can be developed. *(Entered On:4/27/2010 11:46:13 AM)*

Category RME 7 -- Research, Monitoring, Evaluation:
Critical research on fish passage above rim dams, reintroductions, and climate changes (passage around limiting dams in the lower rivers) and the collection of distribution and abundance data for O. mykiss in habitats accessible to anadromous fish should be priorities.

s53 c588--

Shutes	**Chris**	**-- California Sportfishing Protection Alliance**
Johnson	**Brian**	**-- Trout Unlimited**
Stork	**Ronald**	**-- Friends of the River**
Charles	**Cindy**	**-- Golden West Women Flyfishers**
Rothert	**Steve**	**-- American Rivers**
Steindorf	**Dave**	**-- American Whitewater**
Martin	**Michael**	**-- Merced River Conservation Committee**

We suggest that the general order of priorities should be: 1) secure all extant populations; 2) conduct critical research on fish passage above rim dams, reintroductions, and climate change (passage around limiting dams in the lower rivers); and 3) collect distribution and abundance data for O. mykiss in habitats accessible to anadromous fish. For the second and third elements, we suggest that it is equally important to conduct habitat and refugia evaluations (not only passage assessments) in priority upper rivers areas that are not currently accessible to anadromous fish...Habitat evaluations in upper watershed areas should include flow requirements and, where applicable, opportunities for flow augmentation. Habitat evaluations should also include temperature conditions and presence or absence of suitable thermal conditions, along with passage assessments. *(Entered On:4/27/2010 11:39:12 AM)*

Category RME 8 -- Research, Monitoring, Evaluation:
It is fundamentally important to conduct populations surveys of resident O. mykiss in currently disconnected areas to evaluate existing use, possible competition, and the likelihood of successful reintroduction of anadromous salmonids.

s53 c589--

Shutes	**Chris**	**-- California Sportfishing Protection Alliance**
Johnson	**Brian**	**-- Trout Unlimited**
Stork	**Ronald**	**-- Friends of the River**
Charles	**Cindy**	**-- Golden West Women Flyfishers**
Rothert	**Steve**	**-- American Rivers**
Steindorf	**Dave**	**-- American Whitewater**
Martin	**Michael**	**-- Merced River Conservation Committee**

Also, it is fundamentally important to conduct population surveys of resident O. mykiss in currently disconnected areas to evaluate existing use, possible competition, and the

likelihood of successful reintroduction of anadromous salmonids. *(Entered On:4/27/2010 11:39:12 AM)*

Category RME 9 -- Research, Monitoring, Evaluation:
NMFS should conduct follow-up studies where previous or ongoing studies are poorly designed or inconclusive.

s53 c615--	**Shutes**	**Chris**	**-- California Sportfishing Protection Alliance**
	Johnson	**Brian**	**-- Trout Unlimited**
	Stork	**Ronald**	**-- Friends of the River**
	Charles	**Cindy**	**-- Golden West Women Flyfishers**
	Rothert	**Steve**	**-- American Rivers**
	Steindorf	**Dave**	**-- American Whitewater**
	Martin	**Michael**	**-- Merced River Conservation Committee**

NMFS should also conduct follow-up studies where previous or ongoing studies are poorly designed, inconclusive or equivocal. *(Entered On:4/27/2010 11:39:11 AM)*

Category RME 10 -- Research, Monitoring, Evaluation:
Critical studies are needed for Central Valley Steelhead and Spring-run Chinook Salmon, which would evaluate habitat, passage, and environmental conditions on the Merced River to evaluate alternatives and feasibility of recovery actions.

s53 c631--	**Shutes**	**Chris**	**-- California Sportfishing Protection Alliance**
	Johnson	**Brian**	**-- Trout Unlimited**
	Stork	**Ronald**	**-- Friends of the River**
	Charles	**Cindy**	**-- Golden West Women Flyfishers**
	Rothert	**Steve**	**-- American Rivers**
	Steindorf	**Dave**	**-- American Whitewater**
	Martin	**Michael**	**-- Merced River Conservation Committee**

With respect to Central Valley Steelhead and Spring-run Chinook Salmon, We believe seven critical studies are needed to evaluate habitat, passage, and environmental conditions on the Merced River29 to evaluate alternatives and feasibility of recovery actions: Upper River Fish Populations and Habitat; Anadromous Steelhead Habitat; Fish Entrainment; Anadromous Fish Passage; Salmonid Flood Plain Rearing; Chinook Salmon Egg Viability; and Instream Flow. *(Entered On:4/27/2010 11:39:14 AM)*

Category RME 11 -- Research, Monitoring, Evaluation:
In regards to Recovery Action 2.10.57.6 for the San Joaquin River basin, rapid increases and decreases in flows should be evaluated with real-time monitoring to assess affects on migratory response in O. mykiss

s82 c770-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 209, 2.10.57.6, Rapid increases and decreases in flows should be evaluated with real-time monitoring to assess the affects on migratory response in O. mykiss. *(Entered On:4/27/2010 11:46:15 AM)*

Category RME 12 -- Research, Monitoring, Evaluation:
Install new "real-time" fish counters in rivers and creeks.

s38 c46-- Mlcoch Mark -- NORCAL Guides and Sportsmen's Association

New â€œreal-timeâ€ fish counters in river and creeks. *(Entered On:4/27/2010 11:33:14 AM)*

Category RME 13 -- Research, Monitoring, Evaluation:
Recovery actions should mitigate low flow periods in Auburn Ravine, Doty Ravine and Coon Creek watersheds when irrigation season ends.

s19 c185-- Sanchez Jack -- Save Auburn Ravine Salmon And Steelhead

[from Appendix A, Watershed Profiles, Auburn Ravine/Coon Creek Watershed Profile] The critical low flow period generally occurs in October when irrigation season ends and flows from imported sources cease or greatly diminish. Flows during this period (comment: generally early October until winter rains are sufficient to generate additional natural stream flow) are often only a few cfs, resulting in a substantial decrease in aquatic habitat in the low gradient portions of the Auburn Ravine, Doty Ravine, and Coon Creek watersheds (County of Placer 2002). (this should not be allowed â€“ if they are going to have transbasin diversions with impacts then they need to mitigate where the water is going) *(Entered On:4/22/2010 1:58:59 PM)*

Threat Abatement Criteria and Mitigation

Category THC 1 -- Threat Abatement Criteria and Mitigation:
Restrict water use on salt rich west side soil (San Joaquin River) by planting xerics and trees instead of lawns and requiring farmers to intall more subsurface mirco-drip irrigation.

s6 c23-- Unger Arthur

You will need to restrict water use on salt rich west side soil [San Joaquin River]. We will have to plant xerics and trees, not lawns; this includes the Kern and Sacramento River . Farms must install more and more subsurface micro drip. We can raise tree crops and vegetables, not rice, cotton and pasturage. *(Entered On:3/15/2010 2:04:26 PM)*

Category THC 2 -- Threat Abatement Criteria and Mitigation:
Consider reducing predatory species abundance to a level that allows for protection of the protected species.

s61 c200-- Fredrickson Justin -- California Farm Bureau Federation

Focus much more attention and intensified effort on control measures to reduce the adverse effects of non-native predators on out-migrating juvenile salmon and steelhead, including increased research and monitoring regarding potential population level effects of predation, elimination of bag limits on recreational fishing, targeted removal, as well as mapping and filling of unnatural depressions (such as gravel mining pits) and non-native aquatic vegetation that can harbor predators. *(Entered On:4/27/2010 11:13:38 AM)*

s68 c53-- Wilson Howard -- CH2MHILL

When the stripped bass populations build up at the down river locations, should we encourage the taking of these fish? On one hand, we want to rebuild our salmon and steelhead and on the other we encourage the catch and release of their predators. Can we develop a solution where at the times of the year when winter run are spawning we allow for fishing of trout in the river above Red Bluff and later in the summer and fall, when juveniles are migrating out of the system, we encourage the taking of stripped bass? *(Entered On:4/27/2010 11:12:21 AM)*

s68 c55-- Wilson Howard -- CH2MHILL

Should we reduce this predatory specie abundance to a level that allows for protection of the protected species? *(Entered On:4/27/2010 11:12:21 AM)*

s82 c566-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 208, 2.10.55.1: The simplest and most cost-effective way (i.e., free) to quickly begin reducing the impact of non-native predators on 0. mykiss is to eliminate season, size, license, and bag limit restrictions on predator fish. *(Entered On:4/27/2010 11:46:13 AM)*

Category THC 3 -- Threat Abatement Criteria and Mitigation:
Improved understanding of changing conditions (multi-trophic interactions, ocean currents, upwelling patterns, ocean temperatures, and other relevant factors) should be weighed against inland stressors and threats in terms of regulatory allocation of responsibility and integrated with climate change research and findings over the long-term

s61 c203-- Fredrickson Justin -- California Farm Bureau Federation

In addition, improved understanding of changing conditions [multi-trophic interactions, ocean currents, upwelling patterns, ocean temperatures, and other relevant factors] should be weighed against inland stressors and threats in terms of regulatory allocation of responsibility and integrated with climate change research and findings over the long-term. *(Entered On:4/27/2010 11:13:38 AM)*

Category THC 4 -- Threat Abatement Criteria and Mitigation:
Economic and other sanctions should be imposed on tribes that practice reckless gillnetting.

s20 c293-- N/A Charles

We have a choice between one of two options, in re tribal gillnetting: (a) Economic & other sanctions must needs be imposed, should the offending tribes fail to sufficiently & efficaciously curtail the practice of wanton gillnetting; otherwise, (b) there will eventually be no Trinity River & Klamath River salmon runs. *(Entered On:4/27/2010 11:32:19 AM)*

Category THC 5 -- Threat Abatement Criteria and Mitigation:
There is no evidence that instream flows are a factor limiting resident or anadromous O. mykiss production in the San Joaquin River basin, and associated Threats and Recovery Actions in the Draft Recovery Plan should be removed.

s82 c486-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 181, 2.10.6.1: Strikeout Threat #2.10.6 and associated recovery actions (2.10.6.1 and 2.10.6.2). *(Entered On:4/27/2010 11:46:09 AM)*

s82 c487-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 184, 2.10.11.1: Strikeout Threat #2.10.11 and associated recovery action 2.10.11.1. *(Entered On:4/27/2010 11:46:09 AM)*

s82 c488-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 184, 2.10.12.1: Strikeout Threat #2.10.12 and associated recovery actions (2.10.12.1-2.10.12.5). *(Entered On:4/27/2010 11:46:09 AM)*

s82 c531-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, P 188, 2.10.16.1, Evaluate pulse flow benefits for steelhead attraction and passage in the Stanislaus River; if pulse flows are determined to be effective for attracting steelhead, implement the most beneficial pulse flow regime. This recovery action is

intended to apply to Threat #2.10.16 "Low flows reducing adult attraction into the Stanislaus River and limiting juvenile habitat availability." However, Threat #2.10.16 and its associated recovery actions (2.10.8.1-2.10.8.4) should receive strikeouts. *(Entered On:4/27/2010 11:46:12 AM)*

s82 c532-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 189, 2.10.19.1, Adaptively manage releases in the Stanislaus River in consideration of the spatial and temporal distribution of steelhead life stages in the Stanislaus River through the re- operation plan for New Melones Reservoir. This recovery action is intended to apply to Threat #2.10.19 "Flow fluctuations affecting embryo incubation and spawning in the Stanislaus River." However, Threat #2.10.19 and its associated recovery action #2.10.19.1 should receive strikeouts. We are unaware of any studies on egg or embryo incubation on the Stanislaus River that indicate flow fluctuations are a threat, and Appendix B, Page 4-118 indicates that "Flow conditions in the Stanislaus River downstream of Goodwin Dam are likely adequate to support embryo incubation of steelhead." *(Entered On:4/27/2010 11:46:12 AM)*

s82 c533-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 197, 2.10.34.1, Negotiate agreements with landowners, water districts, and Federal and stage agencies to provide additional instream flows or purchase water rights in the Stanislaus River (AFRP website 2005). This recovery action is intended to apply to Threat #2.10.34 "Flow conditions affecting juveniles in the Stanislaus River." However, Threat #2.10.34 and its associated recovery actions (2.10.34.1 and 2.10.34.2) should receive strikeouts. *(Entered On:4/27/2010 11:46:12 AM)*

s82 c563-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 193, 2.10.24.1, Adaptively manage releases in the Tuolumne River in consideration of the spatial and temporal distribution of steelhead life stages in the Tuolumne River.This recovery action is intended to apply to Threat #2.10.24 Flow fluctuations affecting embryo incubation in the Tuolumne River. However, Threat #2.10.24 and its associated recovery actions (e.g., 2.10.24.1 and 2.10.24.2) should receive a strikeout because there is no supporting information provided in the section of the threats assessment pertaining to the effects of flow on embryo incubation. *(Entered On:4/27/2010 11:46:13 AM)*

s82 c564-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 196, 2.10.32.1, Provide for flows that are protective of all steelhead life stages through FERC processes and Section 7 implementation. This recovery action is intended to apply to Threat #2.10.32 Flow conditions limiting juvenile habitat availability and limiting adult attraction into the Tuolumne River. However, Threat #2.10.32 and its associated recovery actions (e.g., 2.10.32.1, 2.10.32.2 and 2.10.32.3) should receive a strikeout because there is no supporting information provided in the section of the threats assessment pertaining to juvenile rearing. In the section of the threats assessment regarding adult immigration and holding flow conditions are

described, but there is no biological context provided to support identification of flow conditions as a threat. *(Entered On:4/27/2010 11:46:13 AM)*

s82 c565-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 202, 2.10.46.1, Evaluate pulse flow benefits for steelhead attraction and passage in the Tuolumne River; if pulse flows are determined to be effective for attracting steelhead, implement the most beneficial pulse flow regime. This recovery action is intended to apply to Threat #2.10.46 Low flows affecting the adult immigration and holding lifestage in the Tuolumne River. However, Threat #2.10.46 and its associated recovery actions (e.g., 2.10.46.1, 2.10.46.2, and 2.10.46.3) should receive a strikeout because there is no information provided in the recovery plan to justify this threat. Flow conditions are described in the threats assessment, but there is no biological context provided. A weir has been in operation on the Stanislaus River since 2003 and to date there is no indication that pulse flows attract steelhead. A weir is now also in operation on the Tuolumne River. *(Entered On:4/27/2010 11:46:13 AM)*

s82 c759-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 181, 2.10.4.1, Develop the San Joaquin Basin water supply plan (AFRP website 2005). This recovery action is intended to apply to Threat #2.10.4 "Flow conditions limiting juvenile rearing habitat availability in the San Joaquin River Basin." However, Threat #2.10.4 and its associated recovery actions (2.10.4.1-2.10.4.3) should receive strikeouts. We do not know of any published literature that suggests that "flow conditions" limit juvenile rearing habitat in the San Joaquin Basin, or anywhere in the Central Valley. *(Entered On:4/27/2010 11:46:15 AM)*

Category THC 6 -- Threat Abatement Criteria and Mitigation:

Remove non-native predatory and competitor fish to restore "downstream" habitat in the lower Stanislaus River, and provide greater food and habitat availability and less predation loss to anadromous O. mykiss.

s82 c506-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 207: The lower Stanislaus River, like all Central Valley steams and the Delta, is full of non-native predatory species deliberately introduced by CDFG for sport fishing purposes. We suggest a more prudent management alternative to restore "downstream" habitat (i.e., Stanislaus River below Riverbank and the Delta) by removing non-native predatory and competitor fish. This will reduce downstream predation and competition, such that anadromous 0. mykiss will have greater food and habitat availability, and experience less loss to predation, through the longest and most perilous part of their migration to the ocean. *(Entered On:4/27/2010 11:46:10 AM)*

Category THC 7 -- Threat Abatement Criteria and Mitigation:

There is no research that indicates that a lack of suitable spawning and rearing habitat may reduce the likelihood of establishing a viable steelhead population in the Stanislaus River.

s82 c525-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 182, 2.10.8.1, Manage releases from New Melones Reservoir in consideration of all steelhead life stages. This recovery action is intended to apply to Threat #2.10.8 "Limited spawning habitat availability in the Stanislaus River." However, Threat 42.10.8 and its associated recovery actions (2.10.8.1-2.10.8.3) should receive strikeouts. *(Entered On:4/27/2010 11:46:11 AM)*

Category THC 8 -- Threat Abatement Criteria and Mitigation:

Information presented in Appendix B of the Draft Recovery Plan indicate that the temperatures in the Stanislaus River are adequate for all lifestages of O. mykiss, thus additional instream flows or riparian habitat to promote shading are not warranted with regard to management temperatures.

s82 c535-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 214, 2.10.63.1, Negotiate agreements with landowners, water districts, and Federal and stage agencies to provide additional instream flows or purchase water rights, and/or restore riparian habitat to promote shading in the Stanislaus River (AFRP website 2005). This recovery action is intended to apply to Threat #2.10.63 "Water temperature in the Stanislaus River affecting the spawning and juvenile rearing life stages." However, Threat #2.10.63 and its associated recovery action #2.10.63.1 should receive strikeouts because there is no scientific justification in this document or elsewhere to support that there is such a threat. Appendix B indicates that temperatures are adequate for all lifestages so additional instream flows or riparian habitat to promote shading are not warranted with regard to managing temperatures. *(Entered On:4/27/2010 11:46:12 AM)*

Category THC 9 -- Threat Abatement Criteria and Mitigation:

There is no information to suggest that the existing flow standards at the La Grange and New Don Pedro dams are unsuitable for spawning.

s82 c560-- O'Laughlin Timothy -- San Joaquin River Group Authority

AAppendix C, Page 181, 2.10.7.1 Implement experimental flow design to evaluate fish spawning response relating to varying flow levels. This recovery action is intended to apply to Threat #2.10.7 La Grange and New Don Pedro dams affecting adults returning to the Tuolumne River. However, Threat #2.10.7 and its associated recovery actions (e.g., 2.10.7.1 and 2.10.7.2) should receive a strikeout because it is specifically referring to effects of flow releases from La Grange and New Don Pedro Dams on adults returing to the river and there is no information provided in the recovery plan to justify this threat. Flow conditions during adult immigration are described in the pertinent section of the threats assessment, but there is no biological context provided. In addition, there is no information to suggest that the existing flow standards are unsuitable for spawning. *(Entered On:4/27/2010 11:46:13 AM)*

Category THC 10 -- Threat Abatement Criteria and Mitigation:

The Recovery Plan should recognize that both Chinook salmon and steelhead have unique life histories that will require different flow regimes and patterns.

s53 c616-- Shutes Chris -- California Sportfishing Protection Alliance
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

In the analysis and discussion of steelhead threats, the Draft Recovery Plan indicates that there are similar threats to Chinook salmon and steelhead.7 While there may be overlapping threats to the two species, the Recovery Plan should recognize that both species have unique life histories that will require different flow regimes and patterns. In the Merced River, management of flows for Chinook salmon has probably favored a trend to have more resident than anadromous O. mykiss. Flow conditions (i.e., low flows, especially spring) associated with attraction, migratory cues, flood flows and the attraction of non-natal fish into the Merced River affect adult immigration and holding. Changes in hydrology (i.e., low flows during summer) affect juvenile rearing and outmigration. *(Entered On:4/27/2010 11:39:13 AM)*

Category THC 11 -- Threat Abatement Criteria and Mitigation:
The Draft Recovery Plan should spell out the rigid enforcement of adipose fin-clipping of hatchery steelhead.

s52 c635-- Scott Dougald -- Northern California Council of the Federation of Fly Fishers, Incorporated

Section 2.3.8 (Conservation Measures) states that 100% of hatchery steelhead are adipose fin-clipped. Granted this is policy, but it is my understanding that it is rarely achieved in actual practice, and a large number of hatchery fish go unmarked. The Plan should spell out that this policy must be rigidly enforced. *(Entered On:4/27/2010 11:20:58 AM)*

Category THC 12 -- Threat Abatement Criteria and Mitigation:
The New Melones Dam on the Stanislaus River should be removed or modified to restore fish access or improve passage to historically accessible spawning habitat.

s52 c637-- Scott Dougald -- Northern California Council of the Federation of Fly Fishers, Incorporated

The Plan rightly calls for the removal or modification of Central Valley dams to restore fish access or improve passage to historically accessible spawning habitat (Section 4.4 Threat Abatement Criteria). This aspect of the Plan is crucial to the recovery effort. However, the New Melones Dam on the Stanislaus River should be included because it is included in the Long-term Fish Passage Plan and Program of the Biological Opinion for the CVP and SWP. *(Entered On:4/27/2010 11:20:58 AM)*

Category THC 13 -- Threat Abatement Criteria and Mitigation:
The Draft Recovery Plan should lay out the steps to improve flow, temperature, and water quality in Central Valley rivers supporting steelhead stocks.

s52 c640-- Scott Dougald -- Northern California Council of the Federation of Fly Fishers, Incorporated

In its discussion of Reasons for Listing (Section 2.3.7, p. 45), the Plan notes that declines in Central Valley steelhead stocks are â€œdue mostly to water development, inadequate instream flows, rapid flow fluctuations, high summer water temperatures in streams immediately below reservoirs, diversion dams which block accessâ€¦â€...The main body of the Plan should include a thorough discussion of these findings, and present a strong statement laying out steps to improve flow, temperature and water quality in these rivers. *(Entered On:4/27/2010 11:20:59 AM)*

Category THC 14 -- Threat Abatement Criteria and Mitigation:
Population growth should be accounted for and integrated throughout the Recovery Plan in regards to reduced water supply and availability.

s52 c641-- Scott Dougald -- Northern California Council of the Federation of Fly Fishers, Incorporated

It is clear that the diversion of natural resources to serve an ever-growing human population was the principal driving force behind the decline of Central Valley salmonids. Water and salmonid habitat are finite resources that will be in much greater demand by a larger future population....Competition for limited resources is likely to create a political environment that is unfavorable to the recovery process. *(Entered On:4/27/2010 11:20:59 AM)*

s52 c642-- Scott Dougald -- Northern California Council of the Federation of Fly Fishers, Incorporated

An example of why population growth needs to be integrated throughout the Plan can be found in Section 6.1.1 Recovery Action Narrative (p. 155). The statewide recovery action calls for improving water conservation â€œin order to reduce state-wide water use by 20 percent per capita by 2020.â€ By 2020 the population will have increased by 9%, negating almost half of the impact of this goal. *(Entered On:4/27/2010 11:20:59 AM)*

Category THC 15 -- Threat Abatement Criteria and Mitigation:
The threats analysis is confusing and difficult to track throughout the document and within the Appendices. The approach should be reconsidered or restructured to provide some clarity to the process.

s54 c645-- Morse Kathleen -- United States Department of Agriculture, Forest Service, the Lassen National Forest

the â€œthreatsâ€ analysis is confusing and difficult to track through the document and within the Appendices. No doubt some confusion is linked to not enough time devoted to understanding the recovery planning process, but because the threats/stressor exercise appears to be the backbone in the development of recovery actions, the approach should be reconsidered, or at a minimum, restructured to provide some clarity to the process. *(Entered On:3/24/2010 12:23:31 AM)*

s54 c646-- Morse Kathleen -- United States Department of Agriculture, Forest Service, the Lassen National Forest

The threats analysis appears to blur two (inferred) objectives under one broad "threats" category. *(Entered On:3/24/2010 12:23:31 AM)*

s54 c647-- Morse Kathleen -- United States Department of Agriculture, Forest Service, the Lassen National Forest

In using the threat abatement criteria, as linked to the listing factors, the same objective doesn't fit well for some of the "threats" listed. For example, on page 77 (Criteria 1.1 Address Threats to Spawning Habitat bullet #1 under 1.1.A), the fact that Shasta Dam cut off access to many miles of historical spawning habitat isn't a threat to the historic spawning habitat that is presently not accessible. The presence of the dam, however, could be considered an impediment (or "threat") to recovery. *(Entered On:3/24/2010 12:23:31 AM)*

s54 c648-- Morse Kathleen -- United States Department of Agriculture, Forest Service, the Lassen National Forest

The conceptual approach to the threats assessment is generally good but the threats assessment (Appendix B) at the watershed level requires additional attention.... In summary, the recommendation is to: 1) further characterize threats to extant populations and/or currently occupied and accessible habitat ("baseline" population and habitat levels) vs threats to recovery of the ESU/DPS by Diversity Group and, 2) provide a more transparent link between the "threats" analysis (e.g. Appendix B) and "outputs" contained in the document and other Appendices (e.g. App. C). *(Entered On:3/24/2010 12:23:31 AM)*

s54 c656-- Morse Kathleen -- United States Department of Agriculture, Forest Service, the Lassen National Forest

4.4 Threat Abatement Criteria. Listing Factors and Threats. (page 76/77) and Table in Appendix C. ...What is the relationship of the threats criteria identified in this section vs. the threats identified in Appendix C (Priority 2 actions)? *(Entered On:3/24/2010 12:23:31 AM)*

Category THC 16 -- Threat Abatement Criteria and Mitigation:
Marine mammal population reductions, under regulation and supervision, could improve species recovery.

s20 c290-- N/A Charles

Predatory marine mammal populations simply must be reduced & thinned, under a regimen of very well regulation & even closer supervision...Given that, why is it that the only proposed recovery action addressing, at all, predation by marine mammals is: (a) a lower tier priority action (Recovery Action 2.2.3.2, in this case); and (b) one that merely calls for further study, & nothing else? *(Entered On:4/27/2010 11:32:19 AM)*

Category THC 17 -- Threat Abatement Criteria and Mitigation:
If sport fishing closure is required as part of recovery, then closures should be applied on a case-by-case basis, not to the DPS as a whole.

s52 c644-- Scott Dougald -- Northern California Council of the Federation of Fly Fishers, Incorporated

Should NMFS determine that the population is endangered and closure of sport fishing is required for recovery, we strongly recommend that such closures be applied on a case-by-case basis, not to the DPS as a whole. *(Entered On:4/27/2010 11:20:59 AM)*

Category THC 18 -- Threat Abatement Criteria and Mitigation:
NMFS should clarify how they have authority under "FERC processes" to compensate for the loss of habitat caused by gravel mining or non-FERC dams.

s82 c738-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 184, 2.10.9.5: What is NMFS' authority for the use of "FERC processes" to compensate for loss of habitat caused by gravel mining? What is NMFS' authority for the use of "FERC processes" to compensate for loss of habitat caused by non-FERC dams? *(Entered On:4/27/2010 11:46:15 AM)*

Threats and Limiting Factors

Category THR 1 -- Threats and Limiting Factors:
Consider pesticides, nitrate and clorimine as causes for population declines.

s2 c4-- Onizuka Galen -- Johnson Hicks Marine Electronics

Just wondering why in reading the proposed plans I see no mention of the pesticide,nitrate & chlorimine as causes for the down fall. *(Entered On:2/22/2010 3:40:35 PM)*

Category THR 2 -- Threats and Limiting Factors:
Consider the influence the Tracy Pumps have had on destroying the water quality of the spawning habitat in the upper Central Valley north of Red Bluff, California.

s42 c48-- Murphy Richard -- RMG Appraisers

I implore you to consider the influence the Tracy Pumps have had on destroying the water quality of the spawning habitat in the upper central valley north of Red Bluff, California. Please scale back the amount of water diverted through the Tracy Pumps! *(Entered On:2/23/2010 3:23:49 PM)*

Category THR 3 -- Threats and Limiting Factors:
Multiple limiting factors should be evauated before implementing Recovery Actions on Putah Creek.

s66 c101-- Okita David -- Solano County Water Agency

Page 133, under Putah Creek, under key restoration actions, Develop and implement fish passage improvements at Solano (Putah Diversion Dam) and Monticello dams. There are many factors that need to be seriously looked at before something like this is even contemplated. Aside from the potential regulatory aspects of such an endeavor, other factors to consider (not an all inclusive list): Increased competition with existing native fish Predation on native fish by salmonids as well as predation of salmonid juveniles by native and non-native fish Increased chance of disease to native fish from salmonids and vice-versa Chance of hybridization of salmonids (stocked rainbow trout in the Inner Dam Reach come from numerous hatcheries throughout California) Genetic effects on native salmonids from stocked (hatchery) fish Spawning Interference Juvenile Competition Life History Effects Recreational Effects (harvest effects, potential gear restrictions, potential closures to fishery) Increased movement of exotic/invasive species (New Zealand Mud Snails are established in Putah Creek, salmonids could carry them to other parts of the Sacramento-San Joaquin Delta and beyond as they are generally indigestible) Brown trout are established in the Inner Dam Reach of Putah Creek. Brown trout can have a negative effect on other native salmonids (large brown trout subsist mainly on other fish). Escapement of brown trout downstream of Putah Creek would need to be accounted for. *(Entered On:3/23/2010 11:36:03 PM)*

Category THR 4 -- Threats and Limiting Factors:
Consider the hundreds of boats on the Sacramento River and their impact on the fish populations.

s67 c106-- Roberts Doug

I also believe the amount of fish that have historically been taken, and the impact of the hundreds of boats on the river must have a negative impact on the fish population. I believe the constant pounding of the boats, through the shallows have negatively impacted if not destroyed the remaining redds on the river. *(Entered On:2/24/2010 5:37:47 PM)*

Category THR 5 -- Threats and Limiting Factors:
Consider road-related erosion and its affects on fish habitat.

s16 c147-- Morgan Lee -- Mendocino National Forest

As we both know USFS has fallen behind in rd maintenance. Stabilizing a basic open road system and putting the rest of the rds into hydrologically safe storage or decommissioning costs more than we have available. Perhaps a little bit more Recovery Plan discussion about USFS and other land managers reducing road related erosion that is affecting fish habitat would be a good big picture item. *(Entered On:4/27/2010 11:31:28 AM)*

s16 c149-- Morgan Lee -- Mendocino National Forest

Thomes Creek probably has the greatest need and hopefully the long-term ability to benefit from better road management to benefit salmonids. *(Entered On:4/27/2010 11:31:28 AM)*

Category THR 6 -- Threats and Limiting Factors:
Dam removal should be considered as the key to species recovery.

s49 c178-- Baker Devin

I agree that the creation of marine reserves and marine protected areas is a good step towards marine wildlife/ecosystem recovery and protection, but I fear that the creation of these reserves will have limited success if part of these programs does not involve dam removal in the United States and elsewhere. *(Entered On:2/25/2010 5:51:10 PM)*

Category THR 7 -- Threats and Limiting Factors:
Sea lions and Humboldt squid should be considered as predators of salmon and steelhead.

s13 c216-- Richelieu Jeff -- Streamline Engineering

The dam has also caused the downstream temperatures of whatâ€™s left of the creek to increase dramatically. This has allowed warm water species of fish to thrive and killed native aquatic insects that need cold water to survive. These species of bass, catfish, and squawfish are well equipped to eat the salmon and steelhead smolts that are attempting their downstream migration. So when the downstream migrants hit the lower section of

the creek, they are finding miles of predator filled waters with little food to sustain them on their journey. This is obviously a major problem that only the removal of the dam and restoration of in-stream flows can cure. *(Entered On:3/1/2010 9:27:00 AM)*

s13 c217-- Richelieu Jeff -- Streamline Engineering

The warm water and lack of in-stream flow has also allowed a tremendous amount of aquatic plant growth to occur at the mouth of the creek. This growth has occurred because of favorable temperatures and lack of flushing flows in the creek to push the silt out of the mouth and into the Sacramento River. At the current time, it would be very difficult and maybe impossible for an adult salmon to pass through this debris. *(Entered On:3/1/2010 9:27:00 AM)*

s71 c253-- Patten Joseph -- CH2M HILL

Two predators that need to be considered are the Sea lions and the Humboldt Squid. *(Entered On:3/16/2010 12:16:41 AM)*

Category THR 8 -- Threats and Limiting Factors:
The major limiting factor and threat to Mokelumne River salmonids is poor survival rates in the interior Delta.

s76 c305-- Sykes Richard -- East Bay Municipal Utility District

Need to address interior Delta issues. While the actions of EBMUD, CDFG and USFWS on the Mokelumne River have improved recovery and will help promote further recovery of Mokelumne River salmonids, the major limiting factor and threat that needs to be addressed in the recovery plan is poor survival rates in the interior Delta. *(Entered On:4/27/2010 11:22:34 AM)*

s76 c317-- Sykes Richard -- East Bay Municipal Utility District

The major factor limiting the potential of the Mokelumne River to support a viable population of steelhead is poor conditions in the Delta. These conditions are the result of many factors as noted in the general comments, not the least of which is the routing large volumes of Sacramento River water across the Delta portion of the Mokelumne River via the Delta Cross Channel and reverse flows in the Lower San Joaquin River and south Delta channels. *(Entered On:4/27/2010 11:22:35 AM)*

Category THR 9 -- Threats and Limiting Factors:
Include the Feather River Hatchery in the list of Reasons for Listing/Threats Assessment as an important factor.

s83 c368-- Hoffman-Floerke Dale -- Department of Water Resources

Section 2.2.6 Reasons for Listing/Threats Assessment, page 36: It is not clear why the list of important stressors does not include the FRH. *(Entered On:4/27/2010 10:53:09 AM)*

Category THR 10 -- Threats and Limiting Factors:
Sportsmen and poachers are still having an impact on salmon and steelhead populations.

s83 c369-- Hoffman-Floerke Dale -- Department of Water Resources

Section 2.2.7 Conservation Measures, page 37: DFG's harvest protective measures are ineffective; indications are that sportsmen and poachers are still having an impact. *(Entered On:4/27/2010 10:53:10 AM)*

Category THR 11 -- Threats and Limiting Factors:
The Draft Recovery Plan must expand on the different threats affecting Central Valley steelhead and spring-run Chinook.

s52 Scott Dougald -- Northern California Council of the Federation of Fly Fishers, Incorporated c636--

There may be overlap in the threats to steelhead and Chinook salmon, but unique threats to steelhead must also be considered. Life history differences exhibited by steelhead require different flow patterns from Chinook salmon. Lumping their flow needs together may contribute to favoring the trend to a higher proportion of resident O. mykiss. *(Entered On:4/27/2010 11:20:58 AM)*

s83 c382-- Hoffman-Floerke Dale -- Department of Water Resources

Sectin 4.4 Listing Factors and Threats, page 76: Changes in flow regimes in the tailwater reaches below dams may be driving a shift in the frequencies of various life history strategies of O. mykiss towards non-anadromy. This is an important concept and potential threat that is unique to steelhead and should be expanded on here. This omission, and the actual text under "Central Valley steelhead", are good examples of why you cannot simply state that threats to CV steelhead are similar to spring-run Chinook. This is a major problem with the recovery plan. *(Entered On:4/27/2010 10:53:10 AM)*

Category THR 12 -- Threats and Limiting Factors:
Consider the potential threat posed against salmonid populations by the Peripheral Canal.

s20 c417-- N/A Charles

Now, one of the greatest potential threats posed against salmonoid populations is that posed by the Peripheral Canal. But salmonoid populations are not the only things threatened by the Peripheral Canal. The Peripheral Canal also threatens water supplies upstream of it. It would, if/when constructed, place significant additional demands on upstream water sources, & that's by design. It threatens salmonoid spawning habitats that depend on water source reliability & on reliability of water temperatures being below 58Â° F. Where reservoir release levels (in terms of cfs (cubic ft. / sec.)) remain static, a Peripheral Canal such as that proposed necessarily would reduce river levels while it would raise river water temperatures. And that, too, is by design. Where reservoir release/draw-down rates (in terms of cfs) are made to rise & fall according to what is deemed necessary to maintain a continual sub-58Â° F. river water temperature, the proposed Peripheral Canal would necessarily force draw-down rates to increase, thus

posing serious threat to water supplies & hydroelectric generation capacity alike. Moreover, water is often needed whenever a serious wildfire needs to be combated. The Peripheral Canal poses a serious threat to future ability to combat wildfires. *(Entered On:4/27/2010 11:32:20 AM)*

Category THR 13 -- Threats and Limiting Factors:
Current annual escapements of steelhead in the Calaveras River may have been influenced by other factors beyond what is noted in the Draft Recovery Plan.

s82 c444-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 147(1) states: Current annual escapements of steelhead in the Calaveras River are limited due to the long-term scarcity of steelhead in the basin (Reclamation 2001). Current annual escapements are not limited due to "long-term scarcity." Factors that drive anadromy in Central Valley O. mykiss populations are complex and not well understood. Potential factors influencing escapement in the Calaveras River are (1) the basin was probably "never one of the stronger systems for steelhead production (Appendix A, Page 199)," (2) numerous instream structures in the lower river can be passage impediments or barriers, dependent on rain-driven flow events, and (3) passage conditions into the spawning reach do not occur every year and are dependent on water year type, which is similar to similar to southern California coastal streams. *(Entered On:4/27/2010 11:46:07 AM)*

Category THR 14 -- Threats and Limiting Factors:
Environmental conditions, such as high water temperatures and low dissolved oxygen concentrations, are not a problem for migrating adult salmonids below Bellota Weir.

s82 c471-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-112 states: Environmental conditions such as high water temperatures and low dissolved oxygen concentrations may be a problem for migrating adult salmonids below Bellota Weir (Fishery Foundation of California 2004). This finding is incorrect for water temperature most likely because it was based on inaccurate immigration timing. Based on thermograph data from 2002 to present (SEWD unpublished data), water temperatures below Bellota weir during the adult immigration season are within an acceptable range for steelhead. *(Entered On:4/27/2010 11:46:09 AM)*

s82 c475-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-114 states: However, water temperatures below Bellota Weir often rise above suitable levels for juvenile salmonids (Fishery Foundation of California 2004). This statement is misleading. The reach below Bellota is not suitable for any lifestage besides adult immigration and juvenile emigration. Water temperatures below Bellota during the unimpeded migration timeframe (i.e., November through early April) are well within acceptable temperatures for migration. Temperatures are higher below Bellota during the irrigation period when flashboard dams are in place, but migration is not likely to occur in this reach during this period due to flashboard dams. Also, flows are highest

in the reach below Bellota during the irrigation period, but temperatures nonetheless are higher than optimal due to solar radiation. *(Entered On:4/27/2010 11:46:09 AM)*

Category THR 15 -- Threats and Limiting Factors:
Predation on juvenile salmonids is very high in Tuolumne River, and snorkel surveys confirm the presence of large numbers of non-native predators, especially largemouth bass.

s82 c537-- O'Laughlin Timothy -- San Joaquin River Group Authority

Many studies have demonstrated that predation on juvenile salmonids is very high in the Tuolumne, and snorkel surveys confirm the presence of large numbers of non-native predators, especially largemouth bass. Increasing summer flow will not make more trout habitat, nor will it reduce year-round predation on 0. mykiss by non-native predators. *(Entered On:4/27/2010 11:46:12 AM)*

Category THR 16 -- Threats and Limiting Factors:
Water temperatures in the Tuolumne River is not a limiting factor for O. mykiss.

s82 c553-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-121, Juvenile Rearing And Outmigration-Water Temperature section states: High water temperatures during summer months are likely a limiting factor for steelhead rearing in the lower Tuolumne River. Water temperatures are particularly problematic at low flows. Steelhead and rainbow trout have high temperature tolerances and seek out thermal refugia. In the Tuolumne River, 0. mykiss have been routinely found at locations exceeding 68Â°F (20Â°C) with a maximum observed temperature of 77.9Â°F (25.5Â°C) for 0. mykiss found at RM 43 in 2001 surveys. Myrick and Cech (2000) noted continued growth of 0. mykiss above 19Â°C. The suitability of water temperatures for 0. mykiss in the Tuolumne River is demonstrated by the persistence of the 0. mykiss population. *(Entered On:4/27/2010 11:46:08 AM)*

Category THR 17 -- Threats and Limiting Factors:
Crocker Huffman Diversion Dam, Merced Falls Dam, McSwain Dam, and New Exchequer Dam should all be identified as stressors.

s53 c612-- Shutes Chris -- California Sportfishing Protection Alliance
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

Crocker Huffman Diversion Dam, Merced Falls Dam, McSwain Dam, and New Exchequer Dam should all be identified as â€œstressorsâ€ (Page 49). *(Entered On:4/27/2010 11:39:12 AM)*

Category THR 18 -- Threats and Limiting Factors:
Habitat loss and water temperature on the Tuolumne River and Merced River are threats to spring-run Chinook salmon and steelhead.

s53 c621-- Shutes Chris -- California Sportfishing Protection Alliance
Johnson Brian -- Trout Unlimited
Stork Ronald -- Friends of the River
Charles Cindy -- Golden West Women Flyfishers
Rothert Steve -- American Rivers
Steindorf Dave -- American Whitewater
Martin Michael -- Merced River Conservation Committee

Two threat categories20 for Spring-run Chinook salmon and steelhead are habitat loss21 and water temperature22 for the Tuolumne River. We suggest that they are equally applicable to the Merced River. *(Entered On:4/27/2010 11:39:13 AM)*

Category THR 19 -- Threats and Limiting Factors:
The Grassland Bypass Project has been a long-time stressor to salmonids in the San Joaquin River and Delta, and should be reflected as such in the Draft Recovery Plan.

s52 Scott Dougald -- Northern California Council of the Federation of Fly Fishers, Incorporated c639--

Grassland Bypass Project, 2010-2019.... Improvement of this long-standing pollution source is crucial to salmonid recovery in the San Joaquin River and Delta, and thus, should be addressed in the Recovery Plan. *(Entered On:4/27/2010 11:20:59 AM)*

Category THR 20 -- Threats and Limiting Factors:
Consider the potentially different impacts of climate change on salmonids in the upper Yuba River Watershed versus on the lower Yuba River.

s81 c683-- Aikens Curt -- Yuba County Water Agency

YCWA Suggests that the Draft Plan 'Expand on the Discussion Regarding Climate Change as it Pertains to the Upper Yuba River Watershed and the Lower Yuba River Because of concerns about lung-term climate changes, recovery actions should be implemented in locations where they will be likely to remain sustainable even if climate conditions change....For these reasons, the Draft Plan should be revised to recognize that, in the Yuba River Watershed, climate change may adversely impact conditions for salmonids in the upper Yuba River Watershed, but climate change is not likely to adversely impact conditions for saimonids in the lower Yuba River. *(Entered On:4/27/2010 11:10:52 AM)*

Category THR 21 -- Threats and Limiting Factors:
Consider temperature increases in the upper watersheds proposed for reintroduction due to climate change.

s82 c756-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 124 states: Therefore, under the expected warming of around 5Â°C, substantial steelhead habitat would be lost. The draft recovery Plan fails to account for temperature increases in the upper watersheds proposed for reintroduction due to climate change. *(Entered On:4/27/2010 11:46:16 AM)*

Category THR 22 -- Threats and Limiting Factors:

NMFS should explain why the discharges from the Lincoln Wastewater Treatment and Reclamation Facility and Auburn Wastewater Treatment Plant are allowed, when they are likely warmer than Auburn Ravine.

s19 c407-- Sanchez Jack -- Save Auburn Ravine Salmon And Steelhead

Flows and water temperatures in Auburn Ravine are influenced by discharges from the Lincoln Wastewater Treatment and Reclamation Facility (WWTRF) and the Auburn Wastewater Treatment Plant (WWTP). These discharges likely are warmer than the receiving waters in Auburn Ravine. (Are they? If so why do you allow it?) *(Entered On:4/22/2010 1:58:59 PM)*

Category THR 23 -- Threats and Limiting Factors:

The majority of the effects and influences on the Southern Sierra Diversity Group related to flows originate from the Mokelumne River, Sacramento River via the Delta Cross Channel, and operations at the State and Federal water projects.

s76 c327-- Sykes Richard -- East Bay Municipal Utility District

Page 4-106: "All steelhead that comprise the Southern Sierra Nevada Diversity Group utilize the lower San Joaquin River as a migration corridor". While there is evidence that Mokelumne steelhead use a short section of the San Joaquin for migration, the majority of the effects and influences related to flows originate from the Mokelumne River, Sacramento River via the Delta Cross Channel, and operations at the State and Federal water projects. *(Entered On:4/27/2010 11:22:35 AM)*

Category THR 24 -- Threats and Limiting Factors:

The Draft Recovery Plan contains no mention of the rebuild of the Woodbridge Dam and state-of-the-art fish screens that NMFS was involved in the design and certification of. Since the ladders went into operation there have been no data indicating that the ladders/dam impedes passage at low flows upstream from Thornton.

s76 c329-- Sykes Richard -- East Bay Municipal Utility District

Within the document there is no mention of the $13.5 million rebuild of Woodbridge Dam along with the $3.8 million for new state of the art fish screens. Both CDFG and NMFS were involved in the design and certification of these projects. Since the ladders went into operation there have been no data indicating that the ladders/dam impedes passage at low flows [upstream from Thornton]. *(Entered On:4/27/2010 11:22:35 AM)*

Category THR 25 -- Threats and Limiting Factors:

The East Bay Municipal Utility District has taken actions since a 1991 California Department of Fish and Game report to alleviate previous lethal levels of dissolved oxygen and hydrogen sulfide along with heavy metal that cause fish kills. These and other actions should be taken into consideration in the Draft Recovery Plan.

s76 c330-- Sykes Richard -- East Bay Municipal Utility District

Page 4-107 "Water Quality" â€“ Based on 1991 CDFG report there are statements regarding frequently occurring lethal levels of dissolved oxygen and hydrogen sulfide along with heavy metal that cause fish kills. Since 1991 these condition have been alleviated by the District with the addition of a hypolimnetic oxygenation system for Camanche Reservoir and a multi-million project by the State of California and EBMUD to remediate the abandoned Penn Mine to prevent further leakage of heavy metals. *(Entered On:4/27/2010 11:22:35 AM)*

Category THR 26 -- Threats and Limiting Factors:

There is no evidence that instream flows or water temperatures are a factor limiting resident or anadromous O. mykiss production in the Calaveras River.

s82 c445-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 147(2) states: Instream flow is reported to be a principal factor currently limiting salmonids in the Calaveras River (CALFED 2000b, as cited in Marsh 2006). Below the Bellota Weir, the spawning gravels are limited and have poor permeability. Several steelhead redds were present in this area in 2002, but water temperatures reached lethal levels for steelhead eggs during the spring (USFWS 2003). Strikeout the statement regarding instream flow. There is no evidence that instream flows are a factor limiting resident or anadromous O. mykiss production in the basin. *(Entered On:4/27/2010 11:46:07 AM)*

s82 c446-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 147(2) states: Instream flow is reported to be a principal factor currently limiting salmonids in the Calaveras River (CALFED 2000b, as cited in Marsh 2006). Below the Bellota Weir, the spawning gravels are limited and have poor permeability. Several steelhead redds were present in this area in 2002, but water temperatures reached lethal levels for steelhead eggs during the spring (USFWS 2003). The referenced document contains erroneous information since it was prepared prior to extensive monitoring efforts that have been ongoing since 2002. *(Entered On:4/27/2010 11:46:07 AM)*

s82 c447-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 148: Strikeout "Improve flow conditions (i.e., low flows) and reduce flow fluctuations." There is no evidence flow conditions need to be "improved," or flow fluctuations need to be reduced. *(Entered On:4/27/2010 11:46:07 AM)*

s82 c448-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 148: Strikeout "Develop and implement restoration actions to reduce water temperatures." There is no evidence that water temperatures limit resident or anadromous O. mykiss production in the Calaveras River. *(Entered On:4/27/2010 11:46:07 AM)*

s82 c450-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 162, Number 1.11.2.2 states: Establish a minimum carryover storage level at New Hogan Reservoir that meets the instream flow and water temperature requirements in the lower Calaveras River. Strikeout this restoration action. There is no evidence to support the need to "improve" instream flows and water temperatures. The current flow conditions in the Calaveras River are the primary reason there is a healthy O. mykiss population. Furthermore, there is no evidence that water temperatures limit resident or anadromous O. mykiss production in the Calaveras River. *(Entered On:4/27/2010 11:46:08 AM)*

s82 c462-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix A, Page 199 states: Establish a minimum carryover storage level at New Hogan Reservoir that meets the instream flow and water temperature requirements in the lower Calaveras. Strikeout this restoration action. There is no evidence to support the need to "improve" instream flows and water temperatures. *(Entered On:4/27/2010 11:46:08 AM)*

s82 c480-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-136: The following do not apply to the Calaveras River "high water temperatures and low-flow conditions during the adult immigration and holding life stage, "flow fluctuations affecting the embryo incubation life stage," and "low flows limiting juvenile rearing habitat availability". *(Entered On:4/27/2010 11:46:09 AM)*

s82 c489-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 186, 2.10.14.1, â€œContinue implementing the lower Calaveras River Salmonid Life History Limiting Factor Analysis (AFRP) to assess flow requirements for anadromous salmonids; and Phase 1 restoration plan for anadromous fish in the Calaveras River (AFRP website 2005).â€ Comment: Strikeout Threat # 2.10.14 and associated recovery actions (2.10.14.1 and 2.10.14.2). Please refer to comment Main Document, Page 147(2) provided above. Appendix C, Page 186, 2.10.14.2, Implement flow conservation measure from the Habitat Conservation Plan. Comment: Please refer to comment Appendix C, Page 184, 2.10.12.1 provided above. *(Entered On:4/27/2010 11:46:06 AM)*

s82 c492-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 193, 2.10.25.1 Implement Phase 1 restoration plan for anadromous fish in the Calaveras River (AFRP website 2005). Comment: This recovery action is

intended to apply to Threat #2.10.25 "Water temperature affecting juveniles, embryo incubation and adults in the Calaveras River." However, Threat #2.10.25 and its associated recovery actions (i.e., 2.10.25.1 through 2.10.25.3) should receive a strikeout. *(Entered On:4/27/2010 11:46:10 AM)*

Category THR 27 -- Threats and Limiting Factors:
There is no evidence that the present flow regime in the Stanislaus River negatively impacts juvenile O. mykiss, and the Draft Recovery Plan should be edited accordingly.

s82 c519-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix B, Page 4-118, Juvenile Rearing And Outmigration-Flow Conditions section: There is no indication that the present flow regime in the Stanislaus River negatively impacts juvenile O. mykiss. Any correlation between spring flows and salmon production should not be assumed to apply to O. mykiss. *(Entered On:4/27/2010 11:46:11 AM)*

Category THR 28 -- Threats and Limiting Factors:
NMFS should provide evidence to support findings that flow fluctuations in the Merced River are affecting steelhead embryo incubation and spawning, as well as providing evidence that temperature is affecting steelhead adults and spawning in the Merced River.

s82 c739-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 194, 2.10.27: What evidence does NMFS have to support the finding that flow fluctuations in the Merced River are affecting steelhead embryo incubation and spawning? *(Entered On:4/27/2010 11:46:14 AM)*

s82 c744-- O'Laughlin Timothy -- San Joaquin River Group Authority

Appendix C, Page 199, 2.10.38: What evidence does NMFS have that temperature is affecting steelhead adults and spawning in the Merced River? *(Entered On:4/27/2010 11:46:06 AM)*

Category THR 29 -- Threats and Limiting Factors:
There are many other factors that have affected habitat besides the loss of habitat caused by dams. Discussions in the Draft Recovery Plan should reflect that.

s82 c754-- O'Laughlin Timothy -- San Joaquin River Group Authority

Main Document, Page 76 states: Factor 1: Destruction, Modification, or Curtailment of Habitat or Range. The focus of Factor 1 is on dams and the loss of habitat caused by them and ignores the many other factors that have affected habitat. *(Entered On:4/27/2010 11:46:16 AM)*

Comment Acknowledged

Category ACK 1 -- Comment Acknowledged:
Includes submissions that do not contain substantive comments pertinent to the Draft Recovery Plan.

s1 c1-- Chainey Steve -- EDAW

How do I access an online copy of the Public Draft Central Valley Recovery Plan (for salmon and steelhead)? The website page shows an outline but no selectable document file. *(Entered On:2/19/2010 1:37:43 PM)*

s3 c145-- Buzzard Diane -- Special Projects Office/BOR

Aside from the fact that NOAA's draft report is recommending moving the entire Hatchery, we still have to deal with the construction fix for wall which requires extending both the Master Agreement and the Sub-Agreement to cover the remaining work even though the funds remain at BOR. Thus we will be needing another one of those No Cost Time Extension Request Letters from the ERPIAMs for Interagency Agreement #00-AA-20-0031 (Improve the Upstream Ladder and Barrier Weir at Coleman National Fish Hatchery in Battle Creek). Dan/Mike will need to work with Scott Hamelberg once everyone has figured out the timeframe needed in the request. *(Entered On:4/27/2010 11:28:54 AM)*

s5 c2- Brown Shannon -- University of California Davis, Center for Watershed Sciences

Please forward this message to someone at NOAA/NMFS who can help with locating a specific map. I'm making a map of current and historical fish distributions in CA. In the recent NMFS Biological Opinion on Ca salmon and trout, is there a map of the historical extent these fish went to? I'm making a map of current and historical fish distributions in CA. In the recent NMFS Biological Opinion on Ca salmon and trout, is there a map of the historical extent these fish went to? I have the area in the Sierra that is historically fishless, and an approximation based of CalFish data of where they extend to today, but need to know how far up the reachers they went prior to humans blocking habitat to complete the analysis. Thank you for your time. *(Entered On:4/27/2010 11:29:53 AM)*

s7 c21-- Queen Dehnert

I ask that my ATTACHMENT be delivered to the members of the panel and that this document be placed on the National Marine Fisheries Serviceâ€™s web site for review and comment by all interested parties. I will deliver additional solutions to the issues addressed in my "Discussion" section in the near future. Also, has the Service set up an internet link such that I can listen to the testimony and discussion? I can be reached by phone or e-mail per below. Thank you for your consideration in these matters. *(Entered On:2/22/2010 3:46:25 PM)*

s15 c13-- Moore MJ

Sustainability is pretty much a moot point now. Why does returning the waterways to their natural habitat have to be a big thing. Just do it. For the fish. Look how fast the H1N1 debauchal was turned around. If it's for the people then let's get on it. When it's about a resource, never mind about the species itself, it's just use it up and move on. Things will work out. I don't get it. *(Entered On:2/22/2010 11:09:20 AM)*

s17 c14-- Smith Randall

Thank you so much for writing and printing today's RecordSearchlight editorial news of Harry Hanson's 1940 Shasta Dam mitigation proposal. There have to be a couple agency people working extra hard tomorrow. They will be trying to find a dusty copy and explain why Stillwater is never mentioned as a companion to the many more expensive ideas being floated very belated to help save king salmon in the Sacramento River. Remember it was USFWS Brenda Olson who archived the original report. Sadly, she doesn't have your power to influence those in positions of responsibility. Keep up the pressure. The whole matter is more political than it is scientific. You are a most important force for getting the right programs accomplished. Bless your heart!! *(Entered On:2/22/2010 11:12:02 AM)*

s18 c5-- Haynes Brenda -- Assemblyman Jim Nielsen

You were my first thought this morning as I read Bruce's editorial. Great job to you, Brenda Olson....and Bravo for Bruce Ross! *(Entered On:2/22/2010 10:35:29 AM)*

s21 c3-- Stubblefield Howard -- Morgan Stanley Smith Barney

Just wanted to express my interest in the work you are doing to protect the plight of salmon. Just came from a very informative meeting at the Redding Rotary Club on this subject and it seems most of our membership is quite concerned about this issue and the important role our specific area plays in the future success of efforts to return the salmon runs to a healthy level. *(Entered On:2/22/2010 10:36:14 AM)*

s25 c151-- Morrison Ed

After hearing a presentation by Dr. Randy Smith, I feel compelled to express my opinion. In my view there are several factors involved some we can control such as the predation by Striped bass and the slaughter of mature fish by the protected sea lions in San Francisco Bay. We must use common sense and not regional politics to manage our scarce water supply so that the valley farms as well as the people of So. California are supplied. We cannot control the climate so we must work to control what we can. The state of Ca. has the best supply of hydrologists, biologists. and agriculture experts in the world. Let's try working together for a change and we can relieve the problem. *(Entered On:3/1/2010 3:20:22 PM)*

s26 c166-- Olson Brenda -- United States Fish and Wildlife Service - Red Bluff Fish and Wildlife Office

Just wanted to clarify that I don't necessarily support the Stillwater Plan as outlined in the 1940 report. With the NMFS Recovery Plan, there will be analyses regarding the best strategies for recovery of salmon and steelhead. Redding area tributaries are identified as Core 2 for steelhead. Definition: Core 2 being population areas form part of the recovery strategy by contributing to geographically diverse populations. These populations are of secondary importance in terms of recommended priority of recovery efforts, but provide an important role in ESU/DPS viability by increasing the diversity, spatial distribution, and abundance of the species. (pg 63 of Public Draft Recovery Plan) Just for comparison, the definition for Core 1 populations are those populations identified as having highest priority for recovery action implementation based on the known ability or significant immediate potential to support independent populations, thereby contributing to meeting the ESU/DPS-level recovery criteria. Core 1 & 2 watersheds form the foundation for recovery of the Central Valley Recovery Domain. It will be interesting to see how the strategy moves forward. Sounds somewhat like a triage approach, "protect the best, restore the rest". *(Entered On:2/25/2010 5:33:35 PM)*

s31 c29-- Schneider Susan

I support the recovery plan for the Central Valley steelhead trout. It will not only help these fish, it will help restore the Calaveras River. The Delta needs all the help it can get to maintain/recover healthy ecosystems that support native fish. *(Entered On:4/27/2010 11:32:40 AM)*

s39 c771-- Dalrymple Maryann -- Stockton East Water District

SEWD has had the opportunity to review the comments submitted by the San Joaquin River Group regarding the NMFS Draft Recovery Plan. SEWD concurs with the comments submitted by San Joaquin River Group relative to the Calaveras and Stanislaus Rivers and hereby incorporates them in full. *(Entered On:3/24/2010 12:26:52 AM)*

s46 c164-- Godwin Arthur -- Mason, Robbins, Browning & Godwin

Are the comments received on the public draft recovery plan going to be made available? If so, how can I obtain a copy? *(Entered On:2/25/2010 5:03:08 PM)*

s63 c72-- Conti CJ -- Del Oro High School

I really liked how there was so much time dedicated to answering everyones questions. I was worried that this was going to be something where they lectured the whole time and we wouldn’t get a say in anything but it was quite the opposite and I really liked that. I like how the plan is going to help the population over long-term instead of just trying to help in the short term. I knew pretty much, nothing about the plan before I came here and now I am quite interested in knowing a little bit more about what is going t happen. It was really informative and very interesting. Thanks. *(Entered On:2/24/2010 1:03:31 PM)*

s73 c283-- Dablio Marianita

Please consider this request for complimentary copies of the CD ROM, Endangered and Threatened Species Recovery Plans. If allowable, we would appreciate if you can send 5 copies to this address: Marianita D.Dablio 467 Kamansi, Iponan 9000 Cagayan de Oro City The Philippines *(Entered On:3/1/2010 12:57:09 PM)*

s79 c343-- Unknown Unknown

Av. 400 Sea Lions X 12 Salmon/Day equals a loss of 4800Salmon spawners per day. Then by Judge Boldts Ruling, Â½ of all hatchery fish are given to the Indians and most of these are taken by gillnets. 1975 " Sea Lions on Pacific Coast approx. 10,000. 2009 â€" Sea Lions on Pacific Coast approx. 300,000, equals no salmon on Pacific coast!!! *(Entered On:3/1/2010 6:26:10 PM)*