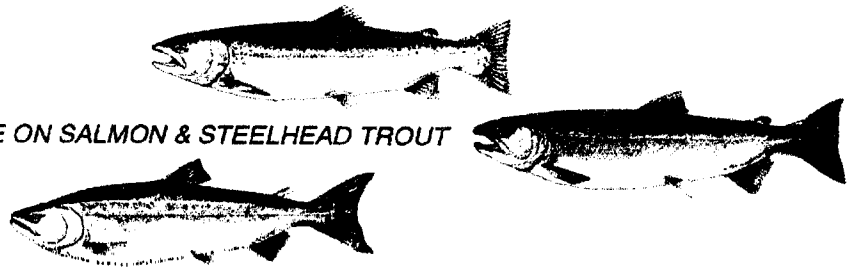
CALIFORNIA ADVISORY COMMITTEE ON SALMON & STEELHEAD TROUT
P. O. Box 291 Trinidad, CA 95570



November 26, 2002

Mr. Art Bullock, General Manager
Tehama-Colusa Canal Authority
P.O. Box 1025
Willows CA 95988

Mr. Bob Hight, Director
California Department of Fish and Game
1416 Ninth St., 12th Floor
Sacramento, CA 95814

The Honorable Assemblymember Virginia Strom-Martin, Chair
The Legislative Joint Committee on Fisheries and Aquaculture
State Capitol, Room 3146
Sacramento, CA 95814

Dear Mr. Bullock,

The California Advisory Committee on Salmon and Steelhead Trout (CAC) is a public committee authorized by the Legislature to provide recommendations to the Legislative Joint Committee on Fisheries and Aquaculture and to the Director of the Department of Fish and Game on matters related salmon and steelhead resources. The CAC has a long history of seeking improvement to the conditions at Red Bluff Diversion Dam that have had significant negative impacts to the salmon and steelhead resources of the Sacramanto River. After our review of the EIS/EIR for the Fish Passage Improvement Project at the Red Bluff Diversion Dam (RBDD), the CAC would like to provide the following comments:

The CAC supports the adoption of the Tehama/Colusa Canal Authority's Preferred Option of the Alternative 3- "Gates Out" action to provide the greatest recovery benefits to ESA/CESA "threatened" listed Spring-run chinook salmon

After review of the "Purpose and Need Statement", the CAC recommends that only the Alternative 3- "Gates Out", and Alternative 2A-"Two Month Improved Ladder" should be considered as meeting the intended purpose to "Significantly improve the long-term ability to reliably pass anadromous fish and other species of concern, both upstream and downstream, past RBBD". All of the other alternatives clearly should be determined to not qualify as fish passage improvements, and if implemented, could only be regarded as water conveyance facility improvements (except for the No Action Alternative). Meeting the significant monetary expense of constructing any new pumping stations without an irreversible commitment to opening the

gates at RBDD for fish passage should be the responsibility of the beneficiaries of the Tehama/Colusa Canal and future off-channel water storage facilities.

Only Alternative 3-"Gates Out" and Alternative 2A- "Two Month Improved Ladder" meet the CALFED Environmental Restoration Program's elements as expressed in the CALFED Programmatic EIS/EIR Record of Decision to minimize fish passage problems at the RBDD and restore ecosystem function in the upper Sacramento River. These goals are enumerated in the U.S. Fish and Wildlife Service Draft Coordination Act Report for the Fish Passage Improvement Project. Further, there are specific Congressional mandates requiring RBDD to "minimize fish passage problems" in the Central Valley Project Improvement Act in order to meet the goal of restoring the fishery and doubling the population of anadromous fish (CVPIA 3406 (b) (1)) that should be clearly stated in the document.

The EIS/EIR does not adequately state that lake based recreation is not an authorized purpose of the Red Bluff Diversion Dam. Neither does it address the fact that salmon population improvements were used as a significant economic justification for the original cost/benefit analysis for construction of RBDD. The document needs to address that rather than increasing salmon populations, the past operation of RBDD has been a significant cause for the decline of several runs of chinook salmon, causing major economic impacts to other regions in California and Oregon.

The use of the event promoter's (A&J Events) proprietary information in the socioeconomic analysis of the economic losses associated with the loss of the Nitro Nationals Drag Boat Races without independent analysis of the data should not be allowed. The document also needs to include a further analysis of simply rescheduling the Nitro Nationals event to within the two-month gates in operation options to give an accurate picture of socioeconomic impacts. The economic impacts to a much broader geographic area of failing to achieve timely recovery of species listed under state and federal endangered species acts need to be stated to put any local impacts in proper perspective.

Additionally, the document needs to include the positive economic benefits to in-river and delta fisheries, as well as the significant economic benefit to coastal communities via ocean sport and commercial fisheries that occur from San Luis Obispo to northern Oregon.

The EIS/EIR needs to clearly state that the two-month gates in alternatives meet, at a minimum, the objectives of the CALFED ROD, the mandates of the CVPIA, and of the National Marine Fisheries Service's Sacramento River Winter-run Chinook Recovery Plan, and are therefore reasonable and prudent actions by the project proponent. If the two-month gates-in options meet these objectives, then the Alternative 3- "Gates Out" option can be considered as enhancement due to the additional benefits to the fishery resources and the environment.

Thank you for the opportunity to provide comments on the Public Draft of the Red Bluff Diversion Dam Fish Passage Improvement Project's EIS/EIR. If you have any questions, please contact me as the Chair for the California Advisory Committee on Salmon and Steelhead Trout.

Sincerely,

Mitch Farro

Mitch Farro, Chair

(3)

Attention: Mr. Art Bullock, General Manager
Tehama-Colusa Canal Authority
P.O. Box 1025
Willow, CA 95988

RE: Written Comment on the Draft EIS/EIR for the Fish Passage Improvement Project published in the Federal Register on August 30, 2002

Dear Mr. Bullock:

My comments are intended to address the issue of the analysis of the impact of various alternatives on Recreation.

Of the 6 alternatives proposed, we are supporting the Alternative 1a that retains the gates-in 4 months, improves the fish ladders and that also provides for a pumping facility to meet the water needs of the TCCA into the future.

The Recreation Use Study of Red Bluff Diversion Dam Area and the Sacramento River by Chico State is quoted as the reference source for evaluation of the impact on recreation. In the second printing dated January 19, 1996, the study reveals on page 2 that attendance was not counted at the Boat Drag Races or the 4th of July evening fireworks events. Therefore, no comparative analysis on the impact of loss of these events was provided in the DEIS/EIR. The DEIS/EIR document could lead the reader to believe that no statistics are available when they are available from the event organizers. As such, they should be included for purposes of comparative analysis and decision making. If the available statistics were reported, the Recreation Impacts Summary Matrix, Figure 3.5-6 in the EIS/EIR document, would show Lost User Days for Alternative 3 (Gates Out) at twice the reported level or over 38,000 user days. This oversight alone would demonstrate the inaccuracy of the representation provided and the unreliable nature of the Chico State report as a source document. Carrying on the statistical imperative of counting this one event, the lost user days would be three times higher than reported for either Alternatives 2A or 2B (Two month Gates operation).

The further impact of lost events such as the July Family Fourth on the River, the May Antique Car Show at River Park, the annual RC Fly-in at Lake Red Bluff Recreation Area in June, the tubing festival on Labor Day, not to mention countless smaller public and private events attracted to our parks by virtue of the lakeside setting in the summer are not addressed in this simple analysis here tonight for sake of time. Mr. Rob Gibbs, Director of the City of Red Bluff Parks and Recreation Department has statistical reports for group use of River Park that demonstrates a large segment of user day activity not accounted for by the Chico State study. Lack of attention to this statistical oversight is disappointing to say the least and it borders on a prejudicial misrepresentation at worst.

My specific questions are: What justification is there for understating this important and measurable recreation component in the analysis? Will the analysis provided for the panel prior to the Record of Decision include the accurate portrayal of recreational use as modified by inclusion of this available information?

Lastly, if the potential for increased recreation opportunities due to dramatic enhancement of the fishery resource by the gates out or 2 month gates operation is stated as offset or mitigation, why does the DEIS/EIR project at best only 704 user days gained by these Alternatives (reference same Fig 3.5-6)? Where is the "world class fishery" that proponents of these Alternatives believe would result from selecting either of these Alternatives?

A substantive revision of the presentation on recreation impacts in the document should be the proper response to this comment.

Nov. 25, 2002

Gentlemen:

I support Ken Say's proposal.

Please consider and support it.

It is most logical.

Very truly yours,

Maxine Anderson

Maxine Anderson
350 Gilmore Rd Spc 72
Red Bluff, CA 96080-3557

P.S. I hope to see Lake Red Bluff

to be continued.

SUPPORTER
NATIONAL FEDERATION OF THE BLIND

Attention: Mr. Art Bullock, General Manager
Tehama-Colusa Canal Authority
P.O. Box 1025
Willow, CA 95988

RE: Written Comment on the Draft EIS/EIR for the Fish Passage Improvement Project published in the Federal Register on August 30, 2002

Dear Mr. Bullock:

As a public citizen, I want to ask questions about the panel chosen for the selection of the alternative and the public record of bias.

Of the 6 alternatives proposed, I am supporting the Alternative 1a that retains the gates-in 4 months, improves the fish ladders and that also provides for a pumping facility to meet the water needs of the TCCA into the future.

In light of the decision of the lead agency for the State, Tehama Colusa Canal Authority, to commit to the gates out alternative (Alternative 3), made on December 5, 2001 and reaffirmed on February 6, 2002, months before the DEIS/EIR was prepared or available to the public or to the agencies and since the fisheries agencies, in their Planning Aid Memo dated October 19, 2001 stated: except for the No Action alternative, "All remaining alternatives appear to meet, to various degrees, the intent of the needs and purpose statement."

My questions are:

1. Should not the State appoint an independent agency such as the Department of Water Resources to make the final recommendation?
2. Should not TCCA, as a beneficiary of the process, recuse itself?
3. Since the consultant for the project, CH2MHILL, has demonstrated an ongoing professional design and engineering services inclination, should not the final response to proposal questions be crafted by an objective engineering/biological resources firm?
4. Substantive questions raised about the DIES/EIR require substantive answers. Will the responses given by CH2MHILL be submitted for peer review, by objective third party resources such as the National Academy of Science?

644 MAIN ST
RED BLUFF CA
96080

Tehama
Tomorrow
Vision • Resources • People

Mr. Art Bullock
General Manager
Tehama-Colusa Canal Authority
PO Box 1025
Willows, California 95988

November 27, 2002

Dear Mr. Bullock,

By way of introduction Tehama Local Development Corporation is the lead economic development agency for Tehama County. Representing both public jurisdictions and private industry. We have reviewed the Red Bluff Diversion Dam EIS/EIR prepared by the Tehama Colusa Canal Authority and have several concerns.

In summary we feel that the Socioeconomic (Section 3.10) grossly underestimates the long-term impacts for the community of Red Bluff. In an effort to understand these impacts we commissioned an independent analysis of the 2002 Lake Red Bluff Nitro Nationals. The study completed by CSU Chico Center For Economic Development with the help of the Red Bluff Chamber of Commerce and A& J Events, was accomplished using the most conservative and accurate data available. Like the consultants that prepared the EIS/EIR CSU also employed IMPLAN Modeling to determine the effects on the local economy.

Interestingly our modeling indicates a lower [1] TOTAL IMPACT form the event $ 2.6 (M) compared to $3.1 (M); which presents a stronger case for our long term Secondary Impact Analysis. Based upon our report, it is our opinion that EIS/EIR Secondary Impact Numbers are VERY low for an area like Red Bluff. According to Mr. Warren Jenson with CSU Center for Economic Development, a multiplier of 1.19 like that used by the consultant preparing the EIS/EIR are more characteristic of places like Alturas and Loyalton where there are few retail goods available.

[1] See attached report Economic Impact Brief - page 2

Tehama Local Development Corporation
P.O. Box 1224 ▪ 1790 Airport Boulevard ▪ Red Bluff, CA 96080 ▪ Tel: (530) 529-7100 ▪ Fax: (530) 529-0453 ▪ (800) 683-4262

A Secondary Impact of 1.54 formulates some considerable differences with regards to long-term economic impacts for the community.

Annual Impact	TLDC Study	EIS/EIR	Variance
Indirect Spending of Local Industry	$246,000	$196,000	$50,000
Indirect Spending of Local Employees	$632,000	$304,000	$328,000
Total Employment Loss	55	49	6

These Secondary Impacts are extremely important to the long-term economic base of the community. For example; over the course of 10 years an event like the loss of the Nitro Nationals will cause a loss of $2.4 (M) in industry spending and $6.3 (M) in employee spending. Resulting in a significant impact to local retailers, governments and the quality of life for residents.

Ten Year Impact	TLDC Study	EIS/EIR	Variance
Indirect Spending of Local Industry	$2,460,000	$1,960,000	$500,000
Indirect Spending of Local Employees	$6,320,000	$3,040,000	$3,280,000
Total Employment Loss	550	490	60

In light of the above information it is our position that the EIS/EIR inadequately addresses that long-term impacts to the community. Subsequently, Tehama Local Development Corporation requests that a more comprehensive socioeconomic impact analysis is necessary before any of the alternatives can be considered.

Sincerely

Dexter Wright
Executive Director

Cc Red Bluff Chamber of Commerce
City of Red Bluff

Economic Impact Brief

Impact of the 2002 Lake Red Bluff Nitro Nationals on Tehama County

Analysis and brief prepared by the Economic Studies Program at the Center for Economic Development, California State University, Chico

For questions or comments, please contact

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Center for Economic Development
California State University, Chico
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Dan Ripke, Director
Warren Jensen, Program Manager
Maya Maas, Editor

CED

Center For Economic Development

1. Direct Impact of Red Bluff Drag Races

The Nitro Nationals is an annual drag racing event held at Lake Red Bluff in Tehama County, California. If Lake Red Bluff were to be altered such that the Nitro Nationals event could no longer be held at this facility, the economic impact to Tehama County would be substantial.

Economic Development On-Call provided CED with extensive detail regarding the direct impact of this event. Table 1 presents the information provided that was used in determining of the overall economic impact.

Table 1 - Direct Impact Information on 2002 Lake Red Bluff Drag Races Provided by Economic Development On-Call

	Average Per Spender	*Assumed Number of Spenders*	*Number of Days*	*Direct Bus. & Org. Revenue*	*Model Industry*
Event organization					
Total spending of event organization	n/a	n/a	n/a	$ 100,040	Racing and track operation
Participants					
Hotels	$ 99.00	550	3	$ 163,350	Hotels and other lodging places
Eating Places	$ 41.00	750	2	$ 61,500	Eating and drinking places
Service Stations	$ 20.00	240	1	$ 4,800	Automotive dealers and service stations
Entertainment	$ 20.00	750	3	$ 45,000	Amusement and recreation services
Total local spending of event participants				$ 274,650	
Non-local attendees					
Friday dinner	$ 26.00	2,740	1	$ 71,240	Eating and drinking places
Saturday breakfast	$ 7.00	3,045	1	$ 21,315	Eating and drinking places
Saturday event	$ 40.00	5,582	1	$ 223,280	Eating and drinking places
Saturday dinner	$ 28.00	4,364	1	$ 122,192	Eating and drinking places
Sunday breakfast	$ 7.00	6,475	1	$ 45,325	Eating and drinking places
Sunday event	$ 40.00	10,202	1	$ 408,080	Eating and drinking places
Sunday dinner	$ 25.00	4,317	1	$ 107,925	Eating and drinking places
Monday breakfast	$ 7.00	3,422	1	$ 23,954	Eating and drinking places
Miscellaneous	$ 10.00	7,993	1	$ 79,930	General merchandise stores
Automobile expenses	$ 12.50	1,570	1	$ 19,625	Automotive dealers and service stations
Hotels	$ 70.00	600	2	$ 84,000	Hotels and other lodging places
Bed & breakfasts	$ 95.00	15	2	$ 2,850	Hotels and other lodging places
RV parks	$ 25.00	38	2	$ 1,900	Hotels and other lodging places
Transient occupancy tax (10% of lodging)	n/a	n/a	n/a	$ 25,210	State and local government
Total local spending of non-local attendees				$ 1,236,826	
Total direct impact				$ 1,611,516	

The total budget for event organization, provided by A&J Events, was $272,000. Of this amount, $100,000 was spent at businesses and organizations in Tehama County. Participants spent an estimated $275,000 and non-local attendees spent an estimated $1.24 million in Tehama County during the weekend of the event. Non-local attendees is used because it cannot be assumed that local attendees would not spend these same dollars locally if the Nitro Nationals were not held in Red Bluff.

Overall, the direct impact of the Nitro Nationals on business and organizational revenue in Tehama County, the total value of the organizational budget plus estimated local business spending by participants and attendees, is estimated at $1.61 million.

2. Summary of Impacts

The following is an economic impact analysis of the direct impact of the Nitro Nationals event on Tehama County.

Table 2 – Economic Impact of 2002 Red Bluff Boat Drag on Tehama County

Impacts	*Bus. & Org. Revenue*	*Employment*	*Labor Income*
Direct impact	$ 1,612,000	42	$ 603,000
Indirect impact of local industry spending	$ 246,000	3	$ 89,000
Indirect impact of local employee spending	$ 632,000	10	$ 291,000
Total impact	**$ 2,661,000**	**55**	**$ 983,000**
Multiplier	1.54	1.31	1.63

Source: Center for Economic Development at California State University, Chico

The $1.61 million spent directly by the event organizers, participants, and attendees supports 42 jobs earning $603,000 in labor income in Tehama County.

These businesses spent an estimated $246,000 this year at other local businesses. This facilitates the addition and retention of about 3 jobs earning $89,000 in labor income.

New and retained employees that result from direct and indirect business and organization revenue also spend an estimated $632,000 at other local businesses, facilitating the addition and retention of 10 jobs that earn $291,000 annually.

In total CED estimates economic activity in Tehama County resulting from the Nitro Nationals event totaled $2.66 million in business and organizational revenue, which allowed for the employment of 55 persons earning $983,000 annually.

The multiplier for revenue, employment, and payroll is included in Table 2 to show the ratio of direct impact to indirect impact. For example, a revenue multiplier of 1.54 shows

that for every dollar spent in Tehama County by A&J Events, participants, and non-local attendees related to the Nitro Nationals results in an additional $0.54 in revenue to other businesses in Tehama County, for a grand total of $1.54 in the economy for every $1.00 of spending.

The fact that the multiplier for employment is lower than that for labor income shows that local jobs supported by the 23 businesses pay more than the county average. This further emphasizes the importance of the local jobs supported by the Nitro Nationals event.

3. Indirect Impact by Industry

Not all industries are impacted to the same degree by the Nitro Nationals event. The indirect impact of local industry and employee spending is distributed among the 141 industry sectors present in Tehama County in the economic model. CED analyzed indirect impact by industry in order to analyze which industries were impacted the most as a result of the Nitro Nationals event.

Table 3 – Indirect Business and Organization Revenue Impact by Industry Due to the Nitro Nationals Event

Industry	*Total Indirect Revenue*
Banking	$ 58,000
State and local education	$ 51,000
State and local government, excl. education	$ 49,000
Real estate (rental)	$ 41,000
Existing residential dwelling sales	$ 38,000
Eating & drinking places	$ 38,000
Hospitals	$ 30,000
New residential dwelling sales	$ 28,000
Nonspecific business services	$ 28,000
Motor freight transport and warehousing	$ 27,000
Non-residential maintenance and repair	$ 27,000
Automotive dealers and service stations	$ 24,000
Wholesale trade	$ 23,000
Doctors and dentists	$ 22,000
Insurance carriers	$ 21,000
Food stores	$ 17,000
Other state and local government enterprises	$ 16,000
General merchandise retail stores	$ 16,000
Management and consulting services	$ 16,000
New industrial and commercial buildings	$ 15,000

Source: Center for Economic Development at California State University, Chico

Table 3 shows the top 20 industries impacted in terms of increase in business and organizational revenue. This is revenue generated other than directly by A&J Events, participants, or non-local attendees.

Financial industries are the primary beneficiaries of indirect spending in Tehama County, including banking, property sales, rental real estate, and insurance services. Governmental sectors are also present in two of the top three sectors, split nearly evenly between revenue for public education and other government revenue. This does not take into account the increase in demand for public education, but public education includes all K-12 schools and colleges that are state supported.

Five of the nine retail trade sectors are present in the top 20, including eating and drinking places (again, not including direct spending of participants and non-local attendees), auto dealers and service stations, food stores, and general merchandise stores. Two of the four health care sectors are also present, including revenue for the local hospital and for local doctors and dentists.

The remaining industries represent a wide range of sectors, including 3 from construction and maintenance, 2 from services, and 1 from transportation. Wholesale trade and government enterprises are also present.

The top 20 industries represent $585,000 of the indirect business revenue impact, or 67 percent of the $878,000 in total indirect impact.

4. Economic Model

In order to make the estimates above, a regional economic model was built for Tehama County using the IMPLAN economic impact analysis system by the center. IMPLAN models the economy through pre-input matrices measuring dollar flows from industry to industry, from industries to households, and from households to industries. This is called an input-output economic model and can be used to measure how changes in spending by households or industries produce changes in spending by all households and all industries. The input-output economic model charts the flows from one industry or household to another through a matrix. A matrix is a mathematical equation that is capable of solving for multiple variables in the same matrix or equation.

A model based on the social accounting matrix (type SAM model) was used to determine the effects of these businesses in the local economy. IMPLAN's type SAM model is the most widely used model as of the date of this study. It is used by a majority of economic analysis consulting firms who work with local governments and economic development organizations to analyze the impact of changes to the local business structure.

The indirect impact shown in Table 1 was entered into the model. The model produces estimates of the two types of indirect impact. The total impact was then calculated by CED.

For some activities not specifically related to industries, the center used an industry that most closely matched the inputs and outputs of these types of facilities. For example, an insurance claim processing service in Tehama County was included in insurance agents and brokers, which is a service using similar purchasing patterns, customers, and wage levels as insurance claim processing.

5. Definitions

Business revenue is the total value of goods and services produced by establishments in Tehama County. All values are given in year 2002 dollars.

Employment is the total number of full-time equivalent jobs in Tehama County. All direct employment is assumed to be full-time; however, indirect employment is full-time equivalent and likely includes some degree of part-time employment (two 20-hour per week jobs equal one job).

Labor income is the total wage, salary, and proprietary income estimated to be earned annually by local employees and proprietors.

The **direct impact** is the aggregate revenue, employment, and labor income (payroll) of all of the businesses upon which the economic impact analysis is based. These are detailed in Table 1.

There are two types of **indirect impacts**, the impact of local industry spending and the impact of local employee spending, each of which are calculated separately. The indirect impact of industry spending is based on the economic model's regional purchase coefficient by county and by industry, or the estimated amount of money spent locally versus nonlocally. In the case of this analysis, where a sub-county region is analyzed, the regional purchase coefficient applies to just Tehama County. The indirect impacts are detailed in Table 2.

Total impact is direct impact plus indirect impact.

The **multiplier** is the ratio between total impact and direct impact. It is calculated by dividing total impact by direct impact.

Subj: **Vote for Alternative 3**
Date: 11/27/2002 11:46:20 PM Pacific Standard Time
From: atilley20@attbi.com
To: tcwaterman@aol.com
Sent from the Internet (Details)

I strongly support Alternative 3, please lift the gates and allow the Salmon and Green Sturgeon to rebuild there numbers back to there natural state. The cost of the pump system does not over-ride the natural evolution of these species.

Thank You,
Tony Tilley

Subj:	**Support for Alternative 3**
Date:	11/29/2002 1:48:28 PM Pacific Standard Time
From:	mark@eyestudio.net
To:	tcwaterman@aol.com

Sent from the Internet (Details)

Hi folks,

Just wanted to express my support for Alternative 3 on the Red Bluff Diversion Damn. I'm a lifetime fisherman who would like to see the mighty sacramento restored (as much as is possible) to it's free flow, unobstructed state. There is no doubt in my mind that it would positively affect not only the local community, but also downstream fisheries in the greater bay area - where I live. I hope the powers that be will make the right decision on this important and historic event.

best regards
Mark R. Culpepper
2279 Pine Street
San Francsico, CA 94115
415-931-3149

Subj: **red bluff diversion dam**
Date: 11/30/2002 2:51:57 PM Pacific Standard Time
From: rioahso@snowcrest.net
To: tcwaterman@aol.com
Sent from the Internet (Details)

The following is a cry for help from the residents of Tehama County and many other citizens of Northern California.

The Bureau of Reclaimation (BOR) is planning the removal of the Red Bluff Diversion Dam (RBDD) in the very near future. The BOR along with the Dept of Fish and Game and BOF have been led to believe that the RBDD is the cause of the decline and possible endangerment of the King salmon from the Sacramento River. They are basing their beliefs on inaccuraate and outdated statistics and appear to be unyealding in their determination to follow thru with the dams removal in difference to thousands of citizens who have signed petitions to protest its removal and to the updated facts that show it is not the cause of salmon decreases.

It is now proposed to remove the diversion dam, install ten to twelve high intake irrigation pumps, dig a very large intake forebay in the river bottum to supply the water from the river, turn on the electricity, and send water down already existing canal. A giant step forward claims the BOR. We now just open the gates to the canal and let nature take its course. The BOR has already installed 3 test pumps at a cost of $50 million dollars (projected cost was 5 to 25 mil) and has already experienced mechanical problems and shut downs with electric bills that are astronomical in a time of energy shortages and budget deficits.

The RBDD was built over 40 years ago in the 1960's. It raises the river level approximately 12 feet and with the fish ladders on both sides of the river it has never been a deterrent to fish migration. A back up of migrating fish below the RBDD has never been reported in all these years. It should also be noted that the Colman fish hatchery north of Red Bluff, on the Sacramento river, in 1999, 2000, and 2001, had more salmon arrive via the river from the ocean, than it could process which is to strip the eggs from the females and fertilize with the males sperm. The hatchery will process thousands of fish a season. The excess fish are given to cannerys who package the salmon and the hatcherty is returned one can for every 3 that is packaged and then given to various state and federal instutions for consumption. There is no shortage of salmon.

The BOR is not mentioning the real reason they are pressing for the dam removal. The presure they are receiving from various agricultural areas and organizations is the main factor for their wanting the dam removed and pumps installed. There is fear in the agricultural community that there could be a repeat of the water shortages that the Klamath Basin area experienced which was brought on the the possible endangerment of a sucker fish. Water for fish but not for crops or farmers is a justifyabley scary proposition. The RBDD has not and never will cause the problems seen in the Klamath Basin.

Putting in more high pressure pumps that require daily maintance to remove dead fish that have been sucked into their protective screens is not an alternative. If it's not broken, don't try to fix it. The present system of delivering water to the water districts below Red Bluff is a very effective, low maintanence, low cost operation. Please help to keep it that way.

Sincerely,

Kenneth Hill

Subj: **additional input on RBDD - letters sent to state and federal politicians**
Date: 11/30/2002 3:18:39 PM Pacific Standard Time
From: rioahso@snowcrest.net
To: tcwaterman@aol.com
Sent from the Internet (Details)

The Federal government is again planning to usurp California states rights, against the wishes of many northern California voters, and remove a small dam from the Sacramento Rilver.

The Bureau of Reclamation (BOR) is planning the removal of the Red Bluff Diversion Dam (RBDD) in the very near future. The BOR has been led to believe that the RBDD is the cause of the decline and possible endangerment of the King salmon from the Sacramento River.They are basing their beliefs on inaccurate and outdated statistics and appear to be unyielding in their determination to follow thru with the dams removal in difference to thousands of citizens who have signed petitions in protest of its removal and to the updated facts that show it is not the cause of salmon decreases. The RBDD was built over 40 years ago in the l960's. It raises the river level approximately 22 feet and with the fish ladders on both sides of the dam it has never been a deterrent to fish migration. A back up of migrating salmon below the dam has never been reported in all these years. It should be noted that the Coleman fish hatchery north of Red Bluff, on the Sacramento River, in 1999,2000.2001, had more salmon arrive via the river, past the dam, than could be processed, and the hatchery processes thousands of salmon a season. The excess fish were given to canaries which package the salmon and the hatchery in return is given one of every three cans packaged, which are in turn given to state and federal institutions for their consumption. Seasons will vary, but there is no shortage of salmon in the Sacramento River.

The BOR now proposes to remover the diversion dam, install ten to twelve more high intake irrigation pumps, dig a very large forebay in the river bottom, under the pumps to supply them with river water. Then turn on the electricity and send water down the already existing diversion canal. A giant step forward claims the BOR. We now just open the gates to the diversion;no canal and let the law of gravity do its thing. The BOR has already installed 3 test pumps at a cost of $50 million dollars (the projected cost had been 5 to 25 mil) and has already experience mechanical difficulties and shut downs, and incurred electrical bills that are astronomical in a time of energy shortages and budget deficits. Putting more high pressure pumps that will require daily shut down to remove the dead fish that have been sucked into the protective screens, the very fish that they are trying to protect, is not the answer. If it's not broken, don't try to fix it. The present system of delivering water to the water districts below Red Bluff has been a very effective for over 40 years, it is low maintenance, it requires very little energy, and is low cost of operate. Let's try to keep it that way.

Ken Hill - P.O.Box 815, R.B.

Subj:	**Red Bluff Diversion Dam**
Date:	11/30/2002 8:46:01 PM Pacific Standard Time
From:	trout@snowcrest.net
To:	tcwaterman@aol.com
Sent from the Internet (Details)	

Subject: Red Bluff Diversion Dam

Our vote would be to leave the gates up year around. The City of Red Bluff does not need "Lake Red Bluff" to survive. Business is booming up here and there does not seem to be one bit of difference whether the gates are up or down. Redding seems to grow and grow. They do not have a "Lake Redding". As far as water for irrigation, let those farmers install their own pumps. If they don't have enough ground water for that, then they shouldn't be farming there in the first place.

In your decision, you need to look at the big picture. The dam has done more damage to fish than any other source. Just take it out or leave the gates up and see what happens for the next few years. That would be the wise choice.

Fred and Carol Richelieu
10611 65th Ave.
Los Molinos, CA 96055

Subj: **Red Bluff Dam**
Date: 12/1/2002 7:36:59 PM Pacific Standard Time
From: cessna@snowcrest.net
To: tcwaterman@aol.com
Sent from the Internet (Details)

My friends and I all agree that the dam should remain as it is. Between people and fish we all weigh in favor of people over fish and a dam in place, over tearing it down. If you doubt the correctness of this decision please go to Klamath Falls and ask if people should come above sucker fish.
Bill Heins

Subj: **Comments on DEIS/EIR for RBDD Fish Passage Improvement Project**
Date: 11/30/2002 8:42:03 AM Pacific Standard Time
From: bgfong@msn.com
To: tcwaterman@aol.com
Sent from the Internet (Details)

Dear Mr. Bullock:

Several members of the California-Nevada Chapter of the American Fisheries Society have jointly prepared DRAFT comments on subject document, which await approval by the Chapter Executive Committee at our next meeting to be held on December 3, 2002. Because of the importance of the fish passage issue at RBDD and the complexity of the project, I would like to request a time extension to send our final comments to you by no later than Friday, December 6, 2002. Your help in granting this extension will be appreciated!

Chuck Knutson, President
California-Nevada Chapter, American Fisheries Society
(916) 441-4144,)916) 445

State of California - The Resources Agency
GRAY DAVIS, Governor
DEPARTMENT OF FISH AND GAME
http://www.dfg.ca.gov
601 Locust Street
Redding, CA 96001
(530) 225-2300

November 27, 2002

Mr. Art Bullock, General Manger
Tehema Colusa Canal Authority
P.O. Box 1025
Willows, California 95988

Mr. Michael J. Ryan, Area Manager
Northern California Area Office
U.S. Bureau of Reclamation
1639 Shasta Dam Boulevard
Shasta Lake, California 96019-8400

Gentlemen:

The Department of Fish and Game (Department) has reviewed the Draft Environmental Impact Statement/Environmental Impact Report (DEIS/EIR) for the Fish Passage Improvement Project, Red Bluff Diversion Dam. The Tehama-Colusa Canal Authority (TCCA) and the U.S. Bureau of Reclamation (Reclamation) propose to implement modifications to the structure and/or operation of the Red Bluff Diversion Dam to minimize the impacts of the dam on upstream and downstream migration of juvenile and adult anadromous fish while improving the reliability of agricultural water supply in the canal system.

Red Bluff Diversion Dam has been identified by Reclamation and cooperating fishery agencies as one of the major causes of the decline in salmon and steelhead in the upper Sacramento River (USBR 1985). Providing unimpeded fish passage to anadromous fish at Red Bluff is crucial as more than 75 percent of the naturally spawning fall-run chinook salmon spawn upstream of the dam. More importantly, the entire population of winter-run and spring-run chinook natal to the Sacramento River must pass the diversion dam without delay for reliable reproductive success. This is because Red Bluff is the downstream limit of temperature control for Shasta Dam (USBR 1991). In addition, the same is true for populations of salmon natal to the river's tributaries above the diversion dam as there are discrete times when the river's tributaries are accessible to salmon due to flow and temperature. Safe downstream passage is impeded by the diversion dam because the tailrace and lake created

by the dam provide for species that prey on juvenile salmon, significantly reducing their overall survival rates. Over the past decade the passage problem was eliminated for a discrete portion of the anadromous fish population present during the seasonal removal of the diversion dam; however, some portions of the anadromous fish population still require passage improvement because they encounter the dam.

The project is part of the CalFed Program and the DEIS/EIR for the project tiers from the CalFed Programmatic EIS/EIR. Although most of the action alternatives in the document meet the program objectives of the CalFed Environmental Restoration program and its Multispecies Conservation Plan, there are significant exceptions that will be described in detail later.

We concur that it is feasible for a pumping plant with state of the art fish screens to supply the agricultural needs without adversely impacting any of the biological resources in the project area. The alternatives employ different pumping plants and fish passage facilities depending on when and how long the diversion dam is installed. The fish facilities proposed for each of the alternatives are described in the table below:

Alternative Description	Dam	Ladders
No Action – Existing ladders	5/15 to 9/15	Two @ 676 cfs*
Four months w/dam and improved ladders	5/15 to 9/15	Two @ 1,631cfs
Four months w/dam and fish bypass	5/15 to 9/15	One @ 800cfs + 1000 cfs bypass
Two months w/dam and improved ladders	7/1 to 8/31	Two @ 1,631cfs
Two month w/dam and existing ladders	7/1 to 8/31	Two @ 676 cfs
No dam year round	none	none

*cfs is cubic feet per second

GENERAL COMMENTS:

Environmental Decision Making Process

Reclamation has not identified a preferred alternative. TCCA has identified a preference for the large pumping plant associated with the no dam alternative; however, TCAA does not have a clear preference for fish facilities under any type of combined alternative approach. The U.S. Fish and Wildlife Service (USFWS) Draft Coordination Act Report, with which the Department concurs, identifies the no dam alternative as the most certain remedy that fully meets the CalFed program objectives. This report identifies the reduced dam installation of two months a year either with or without enlarged fish ladders as

the next best alternative that provides needed fish passage improvement. The alternatives using the current dam installation of four months with fish ladders or a fish bypass for fish passage only offers less than substantial improvement in fish passage. The bypass fish passage device was considered experimental with less than substantial improvement in fish passage.

In order to assist in the decision making process, we have focused our comments on applying the best available information to the biological and institutional criteria pertinent to decision making for this project. We believe the pertinent criteria include achieving:

(1) Congressional mandates requiring Red Bluff Diversion Dam to "minimize fish passage problems" in the Central Valley Project Improvement Act (CVPIA) action specific to Red Bluff Diversion Dam (CVPIA section 3406(b)(10)), and the goal to restore the fishery and double populations of anadromous fish (CVPIA 3406 (b)(1));

(2) Elements in the Record of Decision for the CalFed Programmatic EIS/EIR pertinent to minimizing fish passage problems at the Red Bluff Diversion Dam, species recovery and restoring ecosystem function in the upper Sacramento River (enumerated in USFWS Draft Coordination Act Report for the Fish Passage Improvement Project).

(3) Support timely recovery of species listed under State and Federal acts as threatened or endangered as well as species of special concern as developed in the CalFed Multispecies Conservation Plan and National Marine Fisheries Service Sacramento River Winter-run Chinook Recovery Plan (1997);

(4) Purpose and need statement for reliable fish passage improvement in the DEIS/EIR

The following matrix summarizes our conclusions on whether or not each alternative can be expected to attain the criteria described above:

Alternatives	Purpose and Need Statement	CVPIA Minimization of Passage Problems	CalFed multi-species conservation plan milestones	Provide Timely Recovery of listed species	CalFed Riparian habitat objectives
No Action-Four-Month Dam	not reliably attained	not attained	not attained	not attained	not attained
Four-Month Dam; Enlarged Ladders	not reliably attained	not attained	not attained	not attained	not attained
Four-Month Dam; Bypass	not reliably attained	not attained	not attained	not attained	not attained
Two-Month Dam; Enlarged Ladders	attained	attained	Attained	attained	not attained
Two-Month Dam; Existing Ladders	attained	attained	Attained	attained	not attained
No Dam – Year-round	attained	attained	Attained	attained	attained

The evidence supporting conclusions in the matrix includes biological analyses in the DEIS/EIR and other past documentation. Attached is a pertinent summary of the analysis from the DEIS/EIR (see Attachment 1) displaying estimated adult fish passage improvement for each alternative compared to the no Action Alternative. Past documentation includes: the USFWS Planning Aide Memorandum for the project, Draft Coordination Act Report for the Fish Passage Improvement Project, Final Supplemental Coordination Act Report for Red Bluff Diversion Dam, CalFed Ecosystem Restoration Plan and Multispecies Conservation Plan, and relevant literature on accepted design standards for fish passage facilities.

No Dam Alternative (No.3): Conclusions in the matrix indicate that the "no dam alternative" is the environmentally superior alternative. It has the highest certainty of achieving the timely recovery of listed species with respect to the operation of the diversion by all measures. An alternative that has high certainty for reliable passage is equally certain to provide uninterrupted diversion capability for out of stream uses of water due to its regulatory certainty. The no dam alternative is the only one that provides the valuable attribute of a functioning riparian corridor in one mile of public land along the Sacramento River.

Two-Month Dam Alternatives (Nos. 2A and 2B): The "two month dam alternative" yields up to 137 percent improvement in passage over "No Action" for spring-run chinook versus a 157 percent increase with "no dam" (Attachment 1). For winter-run chinook and steelhead, the improvements yielded by the "two month dam alternative" are similar to the "no dam alternative". Reducing the dam installation to two months is expected to eliminate the tendency for predatory fish like Sacramento Pikeminnow to congregate below the dam during their migration period because there will be no dam present during any of their migration period. This avoids the negative impact on the survival of downstream migrant anadromous fish that is influenced by the presence of the dam.

We believe the two-month alternative provides an overall level of improvement for adult and juvenile listed species that is significant, because it minimizes upstream and downstream fish passage problems to the point it supports their timely recovery. This alternative is consistent with the recommendations for passage improvement for winter-run chinook in the National Marine Fisheries Service Sacramento River Winter-run Recovery Plan (1997) and the Department's recommendations in the Status Review of Spring-run Chinook in the Sacramento River Drainage (1998). In addition, the two-month dam alternatives provide for the passage of adult green sturgeon, a candidate species that finds fish ladders ineffective for passage (U.S. Army Corps of Engineers 1991). Considering the small population of these fish and limited understanding of their life history, passage should be managed such that population of reproductive adults is not separated by the diversion dam. In small populations it is essential that the individuals of each sex be able to find each other (Soule 1986) especially if there is differential migration timing among the sexes.

Although the dam is installed for the two months of July and August, there is minimal effect on the assemblage of native anadromous fish because of minimal migration rates in these months. Evidence of this is indicated by the minimal difference in passage improvement between the two-month dam and no

dam alternatives (Attachment 1). A riparian corridor is precluded with this alternative due to inundation of the river banks for two months of the growing season.

Four-Month Dam Alternatives (Nos. 1A and 1B): The alternatives leaving the dam in for four months and constructing enlarged fish ladders on both river banks are not expected to substantially improve fish passage on a reliable basis (USFWS Planning Aide Memo). There are sizable portions of important anadromous fish populations encountering the dam in May and June including the adult spring-run, the late migrating segment of the winter-run chinook and green sturgeon. During May and June there are flow events sufficiently large to make the enlarged fish ladders unreliable in terms of meeting the accepted basic standard for being able to attract fish to the ladders. This basic standard targets a maximum delay of three days using a design that produces attraction flow at the two ladder outlets constituting 10 percent of the river flow (Kattapodis 1992, USFWS 1997, DWR 2001; USFWS 1984). More stringent standards are sometimes considered or required for Pacific salmon (Katapodis 1992). In a review of the passage problem at Red Bluff Diversion Dam, Reclamation concluded (USBR 1985) that delays to upstream migration of Pacific salmon are considered unacceptable and should be avoided. The existing ladders are estimated to delay adult chinook salmon for up to 21 days which exceeds the basic design standard sevenfold and a stringent standard twentyfold. New ladders cannot be enlarged to the point they reliably overcome the large exceedances in standards documented in the existing condition nor can they convey ten percent of the river flow during high runoff events in the spring. In addition to ladder effectivness, reliability is affected by the way water passes under the Red Bluff Diversion Dam gates creating a condition known as a hydraulic jump which disorients fish migrating upstream and impedes passage especially at flows in excess of 10,000 cfs (USBR 1985).

Reproductive failure occurs when spring-run chinook and late migrating winter-run chinook end up spawning below Red Bluff because they are unable to pass the diversion dam. Spawning in marginal areas below dams is a problem associated with passage problems at dams (Kattapodis 1992). For these two populations, the only spawning habitat in the Sacramento River that reliably maintains water temperatures suitable for survival of early life stages of these salmon (U.S. Fish and Wildlife Service 1999) is upstream of Red Bluff (U.S. Bureau of Reclamation 1991, U.S. Fish and Wildlife Service 1990). There are also spring-run chinook natal to the tributaries upstream of Red Bluff Diversion Dam that may loose access to their natal tributary by very short delays at the dam during the warmer months when low flows and thermal barriers can develop

quickly at the terminus of tributaries . A chronic loss of spawners from the small and remnant populations found in these tributaries can decrease the sustainability of the populations at a genetically viable level. The Interim Biological Opinion for the Central Valley Project identifies passage delay at Red Bluff Diversion Dam as one of the main limiting factors affecting the likelihood of survival and recovery of spring-run chinook (National Marine Fisheries Service 2002).

The expected inadequate reliability of enlarged ladders, leads us to believe the four-month dam alternatives will not be capable of attaining a timely recovery for the listed species or candidate species. Although fish ladders may stabilize the weak populations or segments of populations (in the case of winter-run chinook), the stabilizing influence will not adequately minimize the fish passage problem to the point it can support needed recovery and attain CVPIA and CalFed objectives in such a crucial part of the ecosystem. In previous environmental decision making processes Reclamation has taken into account on how reliable an action is in terms of its ability to support recovery of listed species, such as in the Shasta Dam temperature control device decision. This final EIS concluded the powerhouse bypass alternative stabilized but did not support recovery; while the selected alternative of the temperature control device supported recovery of listed species (USBR 1991 Appendix D).

The Central Valley Project Improvement Act specifically calls for a remedy for the fish passage problem at Red Bluff Diversion Dam. Such listed remedies are to be "fully implemented" for Central Valley project mitigation to be deemed complete. The operation of the Central Valley Project must meet all obligations under the Federal Endangered Species Act. It is not appropriate to leave any parts of the CVP with unmet mitigation; especially in crucial reaches of the upper Sacramento River designated by the California legislature as a prime salmon and steelhead spawning area (Fish and Game Code Section 1505).

In the four-month dam alternative with the bypass option there is less improvement than with the enlarged ladders and less certainty because it is experimental. In addition, during the annual shut-down of the device, fish that are in there at the time could get stranded as they follow receding waters across the large irregular surfaces.

Decision Making for Funding the Selected Plan

The elements of CVPIA and the CalFed Record of Decision pertaining to this Fish Passage Improvement Project oblige the CalFed agencies to select alternatives that have fisheries and ecosystem benefits called for in supporting programmatic documents. It is important to note that the Biological Opinion for CalFed Programmatic EIS/EIR identified annual amounts of funding for projects supporting timely recovery of threatened and endangered species. When considering the funding of projects having costs that represent a significant portion of the annual allotment for supporting recovery of species, like the fish passage improvement project (approximately 80 million dollars), it is essential to be reasonably certain the investment is effective in supporting species recovery. This type of scrutiny is necessary to meet the milestones in the Multispecies Conservation Plan. Based upon our analysis we recommend selection of the no dam alternative. However, should Reclamation determine it is necessary to closely balance among competing authorized project purposes, the two-month dam alternatives with or without the ladder is a suitable selection that in our opinion would be expected to warrant consideration for funding from the CalFed Ecosystem Restoration Program or CVPIA. We recommend against the four-month dam alternatives based on the findings they do not minimize fish passage problems (per CVPIA) to the point it supports recovery of listed species (CalFed Record of Decision and Endangered Species Act).

Economic Analysis of the Fishery

We understand that Reclamation's decision making process will also require an examination of the cost and benefits of the alternative according to required principles and guidelines. We believe it is necessary to develop an extensive economic analysis of the fishery improvement benefits for the region over the long-term. This analysis should address the entire region where the anadromous fishery is utilized for sport or commercial purposes. Unfortunately, the environmental document omitted any quantitative description of the economic benefits for anadromous fisheries, stating they are too speculative. Based upon previous experience, we believe these benefits are not too speculative to consider. For example, economic benefits of the fishery improvements were described as a cumulative effect in the CalFed Programmatic EIS/EIR and included in the CVPIA Programmatic EIS. They were also analyzed at the project level in the region for the Shasta Dam Temperature Control Device.

Fishery benefits are an authorized purpose of the CVP (Central 3406 (a) (2)) with a congressionally assigned priority that is higher than other activities examined for economic consequences in the DEIS/EIR. Specifically, the authorized CVP purpose of power production (Section 3406 (a) (2)) is a lower priority than mitigation protection, and restoration of fish and wildlife; and the single day of drag boat race lacks both a specific authorization as a CVP purpose and an assigned priority. Also we note for the two-month dam installation alternatives, only the drag boat race schedule is impacted--not the drag boat race itself as stated in the document. It is technically feasible to conduct a drag boat race in July and August on Red Bluff Lake as well as any time on other lakes in the region within the Red Bluff trading area. Historically, nitro drag boat race schedules have shifted among all the venues. Given the fact that any action implemented at Red Bluff Diversion Dam would not take effect for several years, lead time is available to work out schedules. Ultimately, the nitro drag boat race should be balanced according to the authorized purposes of the CVP and their priorities assigned in the relevant Federal acts. Appropriate levels of mitigation could be considered under California Environmental Quality Act.

We believe the fishery economics analysis can be accomplished without much additional effort. We have researched the economic methodology for fisheries improvement that Reclamation and the Fish and Wildlife Service applied on the Shasta temperature control device (USBR 1991, USFWS 1990). This methodology is applicable and should require little effort to update. Documents have been provided to the consultant to the lead agencies and we are available to assist in adapting this analysis. The temperature control device and fish improvement projects are very similar in that they affect the same segment of the anadromous population and have a similar scale of estimated cost and potential fishery benefits. The USFWS also completed an economic analysis of the fishery affected by Red Bluff Dam in 1984 (USFWS 1984).

An additional economic consideration is that the fishery benefits from hundreds of millions of dollars invested in fishery habitat upstream of Red Bluff (including the temperature control device and Iron Mountain Mine remediation) cannot be realized unless fish passage problems at Red Bluff Diversion Dam are fully minimized.

Department of Fish and Game angler surveys document significant effort in the Central Valley sport fishery, primarily focusing on chinook salmon. The most recent report available (DFG 2001) shows that anglers expended over 1.5 million hours fishing for chinook salmon to harvest over 93,000 fish. Over half of this salmon fishing effort was in the upper Sacramento River (Colusa to

Redding). The ocean sport and commercial fishing comprises an additional effort that is part of the region for this resource and is larger and more valuable than the in river fishery. Selecting a fish passage improvement alternative at Red Bluff Diversion Dam that supports timely recovery of the listed stocks of anadromous fish would contribute to the eventual relaxation of angling regulations once there is recovery. The removal of fishing closures would produce more angling effort during the longer seasons as well as increased harvest. More anglers should mean more money being spent and thus improved local economies in the region.

Time Period for Selected Management Action

The DEIS/EIR makes it clear that the enlarged fish ladders would become a permanent feature of the project. It is also clear that the dam is not going to be decommissioned and would be permanently maintained as a unit of the Central Valley Project. Those alternatives reducing dam installation to two months or year-round lack a clear description of how many years the action would last. We recommend this description be included along with a description in the adaptive management program indicating how overarching management of dam installation relates to active and passive adaptive management activities. Specifically, how the management of dam installation might change with development of new information, reliable fish passage technology; or perhaps changes in the status of the listed species, should be specified.

SPECIFIC COMMENTS:

Section 1.2.3, Legislative and Management History, Page 1-7. Include the Central Valley Project Improvement Act. Specifically the section specifying fish passage problems at Red Bluff Diversion Dam should be minimized, anadromous fish populations should be doubled and mitigation of the Central Valley Project is not considered complete until all the actions specified in CVPIA are complete.

Page 1-8, Paragraph 2. It is appropriate to disclose that in the past the fish ladders were modified and monitored and there were no substantial improvements in fish passage(USBR 1994).

Page 1-8, Paragraph 3, Sentence 2. The word "barrier" is not adequately descriptive where a dam impedes or prevents passage of a part of a fish population under certain conditions. As a universal comment for the document we recommend using the nomenclature described in the Fish and Game Code specific to passage of dams in this reach of the Sacramento River. Regarding passage conditions for fish, it is inconsistent with the California Fish and Game Code (5901) to "construct or maintain in any stream in (the) District (that includes Red Bluff Diversion Dam), any device or contrivance which prevents, impedes, or tends to prevent or impede, the passing of fish up and downstream". The term barrier should be replaced with impeded passage or partially prevent passage as appropriate.

More explanation is required up front in the document to present a clear and consistent explanation of the nature and extent of the fish passage problem as related to the provisions of CVPIA specific to the diversion dam. Regarding passage conditions for salmon, Reclamation concluded (USBR 1985) that: "The impact of delay on upstream migrating salmon varies depending on the race of fish, the season of the year, climatological and hydrological conditions, etc. Generally, delays to upstream migrating adult salmon are considered unacceptable and should be avoided". In addition to the ladders the dam impedes passage as described by Reclamation (USBR 1985): "Water passing under the Red Bluff Diversion Dam Gates creates a condition known as a hydraulic jump which disorients fish migrating upstream.... Flows in excess of 10,000 cfs may impede the migration of adult salmon upstream past Red Bluff Diversion Dam."

Additional discussion on fish passage at the diversion is included in the comment for page 3-14.

Page 2-8, Stony Creek Diversions Section. We recommend disclosing any water right constraints that limit reliability of the diversion.

Page 2-26, Last paragraph, First sentence, Adaptive Management Section. We recommend the sentence be changed to reflect the fact that the uncertainty here is the diversion structure's interaction with the fish populations, not the inherent uncertainty of fisheries. As an overall comment for the section, it would be helpful to discuss active versus passive adaptive management. This section focuses on active adaptive management in a series of experiments . There should be a discussion of the management overlay in the form of the selected alternative and associated effectiveness monitoring to provide passive adaptive management.

Page 3-5, Last Paragraph, Life History and Habitat Requirements Section. We recommend discussing the habitat requirements of water temperatures suitable for spawning and incubation for winter-run chinook and spring-run chinook. These have been established for the upper Sacramento River (USFWS 1999). Reproductive failure occurs when spring-run chinook and late migrating winter-run chinook end up spawning below Red Bluff because they are unable to pass the diversion dam. Spawning in marginal areas below dams is a problem associated with passage problems at dams (Kattapodis 1992). For these two populations, the only spawning habitat in the Sacramento River that reliably maintains water temperatures suitable for survival of early life stages of these salmon (U.S. Fish and Wildlife Service 1999) is upstream of Red Bluff (U.S. Bureau of Reclamation 1991, U.S. Fish and Wildlife Service 1990). There are also spring-run chinook natal to the tributaries upstream of Red Bluff Diversion Dam that may lose access to their natal tributary by a short delay at the diversion dam during the warmer months when low flows and thermal barriers can develop quickly at the terminus of the tributaries. A chronic loss of spawners from the small and remnant populations found in these tributaries can decrease the sustainability of the populations at a genetically viable level. The interim biological opinion for the Central Valley Project identifies passage delay at Red Bluff Diversion Dam as one of the main limiting factors affecting the likelihood of survival and recovery of spring-run chinook (National Marine Fisheries Service 2002).

Page 3-14, Paragraph 1, Sentence 7 at Reference to CDFG, 1998. Correct the misquote in this sentence referencing to the Department of Fish and Game Status Report to the Fish and Game Commission (Commission) on Spring-run Chinook Salmon. The sentence states "the existing fish ladders at Red Bluff Diversion Dam **may be** inefficient in passing spring-run Chinook salmon." The Department's report to the Commission states: "the fish ladders at Red Bluff Diversion Dam **are** inefficient in passing spring-run chinook salmon". This discussion should include the limitations of fish ladders in a river the size of the Sacramento in relation to the ladders ability to reliably meet the accepted fish passage standard for flow capacity sizing as discussed in the General Comments.

Page 3-27, Paragraph 3, Sacramento Pikeminnow Section. This section should disclose the relevant facts included on page 3-52, Paragraph 2.

Page 3-33, Methodology for Fishtastic Model: The DEIS/EIR should disclose the limitations of the model being used and why it is appropriate as an analysis technique for purposes of environmental documentation. The model is able to

compare relative differences in performance of the alternatives in a consistent fashion. Limitations should include those derived from the assumptions in the model and the models sensitivity.

Although we believe the model has sufficient sensitivity to serve as a decision making tool for the National Environmental Quality Act and California Environmental Quality Act, we do not believe the model is sufficiently sensitive to disclose significant impacts to listed species for the Biological Analysis in the Appendix of the DEIS/EIR. For example there are significant impacts to the late migrating component of the winter-run chinook population that are not disclosed when viewing an index that averages impacts for the entire population. The winter-run recovery plan (NMFS 1997) recognizes the need to consider the impacts the diversion dam causes to this late migrating portion of the population. The discussion in the DEIS/EIR should distinguish between the intended application of the Fishtastic model for environmental decision making--versus the inappropriate application of this model to general fishery management and especially the management of species listed as threatened and endangered species.

Significance Criteria, Page 3-34: The designation of "no measurable impact" means the model lacks sufficient sensitivity to measure or detect a response in less than plus or minus 10 percent of the index. This means when a reviewer is comparing two estimated values they could be 20 percent different and represent a similar actual value as described above. With respect to California Environmental Quality Act and the California Endangered Species Act it cannot be concluded the impact to less than 10 percent of a population is not significant, and a 20 percent decrease in performance would be especially significant. Concentrating an adverse affect on one segment of the population has more harmful biological consequences than spreading the adverse affect evenly over the entire population. This concept is applied in Reclamation's Upper Sacramento River Temperature Task Force when the cold water reserves are budgeted to benefit winter-run chinook spawning over the entire period, even though total survival can be increased by allocating more cold water at the peak spawning period at the expense of the late spawning period. It is recognized that each segment of the population having certain timing for migration and spawning represents a life history strategy relating to survival under dynamic hydrological and climatological conditions. For example, an early spawning component would be more resistant to surviving extreme dry hot conditions and a later component more resistant to late spring floods that scour redds.

Page 3-35, Paragraph 2, Last Sentence and bolded comment in the right margin stating. "No alternative resulted in significant (measurable) adverse impacts to adults of any of the native anadromous species": Strike the word significant and use the word measurable per comment for page 3-34.

Page 3-43, Operations Related Impacts. It is stated that there would be no significant adverse impacts on fishery resources under alternative 1A. We believe the operation of this alternative would have significant impacts according to the model output indicating the dam would still impede or prevent, or tend to impede or prevent the movement of spring-run chinook and late migrating winter-run chinook fish upstream (per Fish and Game Code Section 5901). In addition; it could indirectly impact species, such as spring-run and winter-run chinook, if the currently limited funds available for timely recovery of listed species are used for actions not expected to provide for recovery or just stabilize the populations.

In order to facilitate environmental decision making it is necessary to disclose if the operation of the alternative meets the purpose and need statement and the milestones in the CalFed multispecies conservation plan that part of the Cal Fed Record of Decision as well as the requirements of CVPIA. We do not believe the operation of this alternative attains these criteria as described in the General Comments.

With respect to mitigation, the Central Valley Project Improvement Act calls for a specific remedy for the fish passage problem at Red Bluff Diversion Dam. The act requires that remedies for problems such as the diversion at Red Bluff be "fully implemented" in order for the Central Valley Project to be deemed to meet the mitigation, protection and restoration purposes established (CVPIA 3406(b)(1)). In addition, the operation of the Central Valley Project must meet all obligations under the Federal Endangered Species Act. This language establishes the need for the DEIS/EIR to disclose how the alternative addresses any unmet mitigation such as impeding passage of a portion of a native population of anadromous fish.

The DEIS/EIR should develop a suggested mitigation monitoring plan for the mitigation needs developed for this alternative per CEQA.

Operations Related Impacts, Page 3-43. Same as Page 3-43 with the following addition: Use of a bypass instead of fish ladders is expected to require mitigation for the take of listed fish species due to the high potential for stranding when the structure is shut-down. The structure is irregular and not reliable compared to the time tested designs. Overall there is less certainty due to the experimental

nature of the bypass structure and the use of unconventional materials to construct pools and weirs. Additional mitigation or modification may be required during as the mitigation monitoring documents problems with the structure.

Water Quality, Page 3-91, Last paragraph: The discussion is not entirely correct regarding temperature reduction at Red Bluff since 1990. According to the biological opinion and the final EIS for the Shasta temperature control device, the location of Red Bluff some 67 miles downstream of Shasta Dam makes it too distant to be reliably and significantly influenced by temperature control operations at Shasta Dam. The final EIS also discusses the relationship between storage, runoff and river flows and the resultant temperature regime in the river. On average the last decade had favorable storage and/or runoff conditions that produced what the DEIS/EIR attributes to operation of the temperature control device. In addition, there were other temperature management actions prior to 1990 that make comparisons irrelevant. We recommend stating that Red Bluff is too far downstream for Shasta Dam temperature control operations to have a reliable or significant effect.

Mitigation 1A-BR9, page 3-184 and Table 4.6-1. Under Impact 1A-BR9: valley elderberry longhorn beetle (page 3-160), the document states "Shrubs E28 through E33 occur in the staging area south of the proposed conveyance pipeline. Multiple exit holes were observed in the shrubs in this area." In Mitigation 1A-BR9 the document should include a statement that, if these plants cannot be avoided and it is determined that valley elderberry longhorn beetle are present, an incidental take permit or take statement must be obtained from the U.S. Fish and Wildlife prior to transplanting. Table 4.6-1 should also be amended to include this statement.

Mitigation 1A-BR11, page 3-184 and Table 4.6-1: The document states "Prior to the start of construction activities, the two platforms supporting osprey nesting would be removed." The document should state, "...all three platforms that can support osprey nesting would be removed." According to Figure 3.4-4, all three of the nesting platforms are within the footprint of the project. Although only two nesting platforms were found to be active during the 2002 surveys, the third nesting platform would become the only available nest site representing a potential construction impacts to the species. Table 4.6-1 should also be amended to address the removal of three platforms.

Section 4.3 Irreversible and Irretrievable Commitments of Resources and Significant Impacts that Would Remain Unavoidable Even After Mitigation, page 4-16. The last sentence of the second paragraph states "The following impacts

are identified as potentially significant and unavoidable." At the end of the information regarding each impact the document should state whether or not the impact is significant and unavoidable or less-than-significant following mitigation.

Table 3.5-1: This table should be put into an annual basis to allow determination of the annual percent change. It is difficult to understand the data. During May, June and September, it is predicted when the dam is removed and there miles of river are in the vicinity of Red Bluff: boat use will decrease to less than one boat per day, jet ski use will be zero, and less than one person a week will swim. The Department's creel census data shows that the river reaches in the vicinity of Red Bluff supports more than one boat per day in the summer months. During the summer, the river in the vicinity of Redding supports raft rental businesses that could not exist if boat use for river reaches in the vicinity of towns in the region averaged one boat per day. As described in the document, regardless of the installation of the dam, there is limited swimming use in the upper Sacramento River region of the project area. This is because summer river water temperatures between Redding and Red Bluff since the completion of Shasta Dam ranged between the mid-50 to upper 60 degrees F. For this reason we recommend that swimming not be included in the significance criteria for the recreation analysis in the DEIS/EIR. The description of swimming use in the DEIS/EIR implies that it is not a significant recreational activity due to the water temperatures. Jet ski use in the river in Redding occurred at such a high level that the City of Redding proposed an ordinance to control their use. Jet ski users apparently decided the river was valuable enough for their sport that it was worth responding with litigation to maintain that use.

Page 3-292, Paragraph 5, last sentence. This sentence states: "From this, it can be concluded .... that increased loads from Alternative 2A would have an insignificant effect on Western's Power marketing, except in winter." Does this mean there are loads that exceed the significance criteria in the winter? If so how can there be a conclusion impacts to power resources would be less than significant? This comment applies to other sections of the report where it occurs for all alternatives expanding the gate operation.

Page 3.10, Socioeconomics Section. This section is missing an extensive quantitative discussion of economic effect of the project related to fishery improvements. As discussed in the General Comments there are several sources that have compiled fish improvement analyses relevant to the region affected by what is titled: "Fish Passage Improvement Project". Significance criteria need to be developed for the fisheries improvements that are related to the CVPIA and CalFed Programmatic EIS/EIR. This section needs significance

criteria for the other elements that are being analyzed. It is recommended the significance criteria give weight to how the authorization of the Central Valley project recognizes and prioritizes the use being analyzed.

Cumulative Impact Analysis, Page 4-12, Last paragraph, Second to the last sentence: The sentence states that all the actions were designed to meet the objectives of the CalFed programmatic EIS/EIR identified for the diversion dam. In addition it states the diversion dam was identified in CVPIA. It is necessary to make further findings in both the Cumulative Effects section and the decision making sections of the DEIS/EIR. We find that, although there was an effort made to design the alternative to attain the objectives in CalFed and CVPIA, the design effort did not include what we consider to be all the pertinent items nor did it fully attain the objectives in those programs as discussed in the General Comments section.

Recreation Sections Table 4-6-1. It would appear from the table that some of the major impacts are mitigatable. It is understandable there is an economic loss from not having the drag boat races, but those numbers are from confidential information and it is possible the event could be rescheduled or relocated somewhere else in the region. CEQA considers recreational impacts on a regional basis and the region should be larger than just Lake Red Bluff. It would be appropriate for the DEIS/EIR to clearly address CEQA Recreation Guideline sample questions:

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

We believe it is important that the document disclose the fact that the Sacramento River at Red Bluff is designated by the State as navigable water and a public way under Section 105 of the Harbors and Navigation Code. This designation is significant for recreation that includes angling by boat and rafting. There is significant commerce and economic value associated with guided angling trips and raft and canoe rental for river float trips. The navigability issue was examined when the project was first proposed and the analysis is included in the original project documents. The analysis considered installation of boat locks and selected installation of a boat ramp above and below the dam. The removal

of the dam is a significant improvement to the navigability of a public way that is used for commerce and the impacts and benefits should be disclosed and compared for each alternative.

Impact summary Tables 4-6-1 Recreation Section and also in the Socio-economic Section under the heading "3. Gates-out." There is a description under both sections that begins with "Fish-runs". The paragraph following this description states: "the potential for positive economic impact is uncertain and should be viewed as speculative." We do not believe this is an adequate or correct analysis of the economic and recreation impacts of the "Fish Passage Improvement Project" on the fishery. We recommend using the measures outlined in the General Comments section of this letter to adequately address this deficiency for each of the alternatives.

Thank you for your consideration of our comments. If there are any questions regarding our comments, please contact Environmental Specialist Harry Rectenwald at (530) 225-2368.

Sincerely,

for Donald B. Koch
Regional Manager

cc: Mr. Michael Tucker
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Attachment

bc: Mr. Mitch Farrow
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Messrs. Randal C. Benthin,
SteveTurek, Phil Warner
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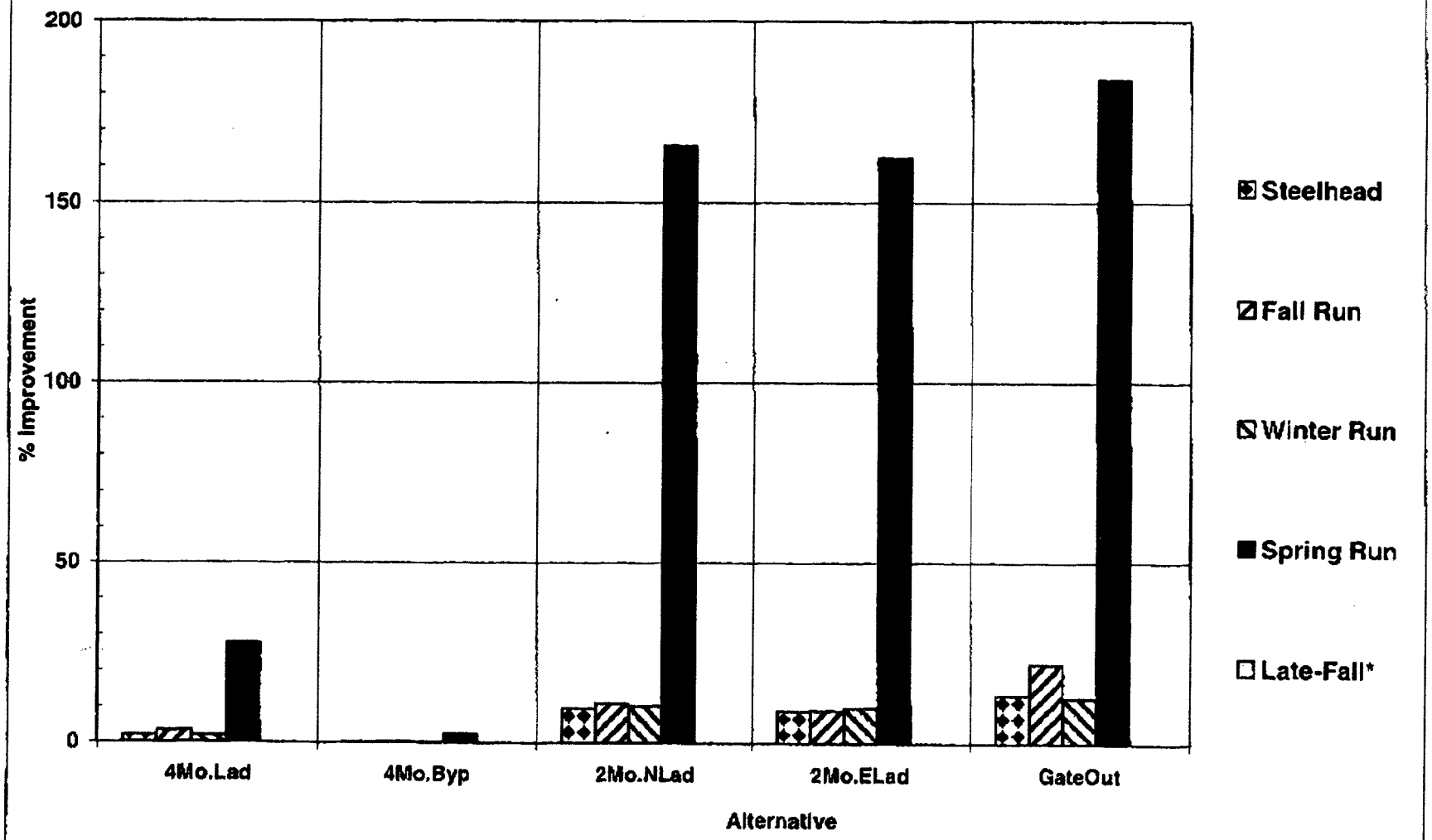
Rectenwald:pm S:\Harry\ARTBULLOCK1.doc

Attachment 1

Source: Fish Passage Improvement Project
Draft DEIS/EIR Appendix B
After Page B-10

Figure 2. Relative Adult Passage Index Improvement from No Action for the Entire Year



* *No impairment to the species and no change compared to No Action.*

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U.S. National Marine Fisheries Service. 1997. NMFS Proposed Recovery Plan for the Sacramento Winter-run Chinook. Southwest Region Long Beach, California.

Subj: **Informal Comments on Draft EIS/EIR for RBDD Fish Passage Improvement Project**
Date: 11/27/2002 8:51:04 AM Pacific Standard Time
From: hintonr@water.ca.gov
To: tcwaterman@aol.com
CC: MUrkov@CH2M.com
Sent from the Internet (Details)

By now Art Bullock has received the Department of Water Resources' formal comments on the Draft EIS/EIR for the Red Bluff Diversion Dam Fish Passage Improvement Project. This email provides informal comments on minor issues and editorial suggestions. I am providing these additional comments as a resource specialist on the TAG and SWG, and these comments may/or may not represent the official views of DWR.

Executive Summary

Page iii – 2nd bullet following third paragraph: Delete "only".

Page viii – Fishery Resources, line 5: Add "occurs" following the word "rearing".

Page x – Third paragraph: The water level rises about 14 feet, rather than 12 feet (252.5-238.5) = 14.0

Page xi – Second paragraph, third line: Replace the word "below" with "better than"

Page xiii – Third paragraph, last sentence: "No mitigation has been identified that would reduce this impact". Mitigation is possible and should be identified; some ideas are provided in DWR's formal comments and in the Section 3.5 comments in this email.

Page xiii – Sixth paragraph, fourth and fifth sentence: Add the words "and docks" following the words "boat ramps" in both sentences.

Page xiii – Sixth paragraph, sixth sentence: "No mitigation is available to offset these impacts". Again, DWR's formal comments and the Section 3.5 comments in this email provide some ideas for mitigation. The two public and two semi-private boat ramps that would no longer be usable could be replaced by a new public boat ramp in River Park that would allow access to the river at a wide range of flows.

Page xvi - sixth paragraph, end: Add " or roughly $7,000 to $31,000 per property".

Page xviii - Traffic and Circulation, second paragraph, last sentence: A traffic control plan is not likely to mitigate these impacts to less than significant. See comments on Section 3.14.

1.0 Introduction

Page 1-4 – Legislative and Management History – 1937 – Central Valley Project Authorization: Does this 1937 act really require the USBR to submit a detailed feasibility plan to President Truman? Or just to "The President"? In 1937 they couldn't have known that Truman would become President eight years later.

Page 1-7 – Third paragraph: This passage suggests that recreation was recognized as a project benefit, although traditionally it was not considered a project purpose in those days.

Page 1-7 – Project Setting, first paragraph: The lake is cited as 4 miles long in other references (Pages 3-189, 3-222). I think I have seen 6 miles in some other places.

2.0 Description Alternatives

Page 2-1 – Third paragraph, fourth bullet: Cost may have been a secondary screening criteria, but the Draft EIS/EIR has no cost information on the various alternatives. Cost information developed to date should be presented in the EIS/EIR to aid the decision-makers.

Page 2-10 – 4-month Bypass Alternative: This alternative requires an amendment to the Mendocino National Forest Land and Resource Management Plan, which may not be forthcoming, because the USFS opposes this Alternative.

3.0 Environment and Environmental Consequences

Page 3-14, fourth line: Replace "and" with "at".

Page 3-14, second paragraph: Nearly 10 years have passed since the gate operation was changed to 9 months gates-out, 3 months gates-in. This has improved fish passage for the bulk of the winter-run and fall-run chinook salmon and steelhead adults. The greatest remaining effect on adult passage is to spring-run chinook. Conditions for downstream migration of the same species has also improved, although large numbers of winter-run and late-fall chinook and steelhead downstream migrants pass during the gates-in period. Has there been any measurable increase in the populations of these species during the past 10 years that could be attributed to the revised gate operation? This would go a long way to convince skeptics that opening the gates year around is important to fish passage and might help increase fish populations.

Page 3-27, Rainbow Trout: How are adult rainbow trout differentiated from adult steelhead. (Size or appearance?)

Page 3-28, third paragraph: "In recent times, flow reductions caused by dams and diversions have increasingly prevented splittail from upstream access to the large rivers, and the species is now restricted to a small portion of its former range; however, during wet years, they migrate up the Sacramento River as far as RBDD." This sentence is misleading in context. I assume it is a general statement about splittail migration in large rivers in the Central Valley. But, it is then tied to a specific statement about the Sacramento River. I doubt that flows have been so reduced in the Sacramento River that splittail are unable to migrate up the Sacramento at any time.

Page 3-36, Table 3.2-6: Spring-run Chinook Salmon, 4-month Improved ladder Alternative: Change Effect from "No Measurable Benefit" to "Measurable Benefit".

3.3 Water Resources

Page 3-73: fourth paragraph: "The difference in the pre- and post-RBDD flows reflect both the natural variations in winter rainfall and evolving operational changes during the summer months." I question this statement. It is more likely that this change is simply a reflection of

the Trinity River diversions to the Sacramento Valley during this time. The RBDD operation doesn't significantly change flows in the Sacramento River.

Page 3-74, fourth paragraph: Write out "CHO" and explain what it is. Most people will not recognize CHO without explanation.

Page 3-86, first bullet: "Place within a 100-year flood hazard area structures or vegetation that would impede or redirect flood flows."

Page 3-90, Impact 3-WR2: Hydrology and Water Management: Alternative 3 is likely to cause increased riparian growth in the footprint of the former Lake Red Bluff. As noted in DWR's formal comments this could increase flood levels and this potential impact should be evaluated in the Final EIS/EIR.

3.4 Biological Resources

Page 3-118, first paragraph: There are also many non-native invasive plants in the local riparian zone, including star thistle, sticky weed, tree-of-heaven, pyracantha, and pampas grass. Even the blackberry is thought to be a non-native invasive species.

Page 3-142, last paragraph: Perhaps the large number of Mexican free-tail bats living in this large building could provide a recreational opportunity. Many people visit Carlsbad Caverns to view the bats emerging from the cave at night. Perhaps an interpretive program could be developed by the Discovery Center to educate the public and students about these bats.

Page 3-179, 3: Gates-out Alternative, second paragraph: In addition to star thistle, many other non-native species are likely to invade these areas, based on what is present in the current riparian area. A vegetation management program is needed to ensure that the resulting riparian vegetation is primarily native species that would provide additional wildlife habitat. The current riparian area at the Sacramento River Recreation Area has not been well managed, as demonstrated by the ill-advised "thinning" program last spring. However, there is a wonderful opportunity here if a good management program can be established.

3.5 Recreation

Page 3-191, Figure 3.5-1 and 3-195, Figure 3.5-3: These graphs visually suggest quite clearly the magnitude of recreation on the Sacramento River at Red Bluff with and without Lake Red Bluff. Recreation use dependent on the lake may be slightly greater than you estimated in Table 3.5-2 and Figure 3.5-6, but clearly at least two-thirds of the recreation occurring at Lake Red Bluff could occur along or on a flowing river in the same area. The EIS/EIR should make that point. However, your estimates may not fully credit the scenic value of nearby water provided by the lake and the current ease of access to the lake. Without some mitigation, there would be limited and more difficult access to the river with the gates out. In addition, the estimated "gain" in non-lake dependent or improved recreation without the lake (Figure 3.5-6), is a bit of a stretch. This seems to reflect people who ride dirt bike or all-terrain vehicles, or just walk in the footprint of Lake Red Bluff when the gates are out. The USFS tries to restrict off-roading in this area, and certainly people could walk on the paths just as well as on the lake bottom. However, overall, I think your evaluation of the recreation uses and the potential impacts are very good.

Page 3-219 and 3-220, Alternatives 2A and 3: As discussed in DWR's formal comments, these

suggested mitigation actions are inadequate. Generally, they could be characterized as "just get used to it". There are a number of actions that could be taken to mitigate the loss of recreation on Lake Red Bluff with Alternatives 2A and 3. Providing better access to the river and reducing the visual impacts caused by the proposed project should be the focus. I sent Mike Urkov a copy of the Recreational Trails Feasibility Study prepared for Tehama County in 2000. This report provides conceptual proposals for trails that could tie other trails around the City of Red Bluff with existing trails at the Red Bluff Recreation Area. DWR's formal comments provide several other specific ideas, which should be discussed further at future TAG and SWG meetings. Those actions with merit and local support could be included in the Final EIS/EIR

3.10 Socioeconomics

Page 3-315, third paragraph: The extent of potential decline in property values with the loss of Lake Red Bluff is somewhat uncertain, but important to local property owners. The Draft EIS/EIR discusses the potential loss of the Nitro National drag boat races and potential economic losses from reduced lake-dependent recreation and tourism in great and specific detail. The loss in property value potentially would be a similar magnitude and so should be discussed in the Final EIS/EIR.

The EIS/EIR contains the information needed to make more specific conclusions, and it should do so. Property owners would lose more than just a view of Lake Red Bluff for a few months. For many, the view of the river would not be nearly as good (or as visible) as the view of the lake. The Raging Fork Riverfront Grill is an obvious example. The restaurant diner's view of the lake is replaced with a view of a large gravel bar when the gates are open. The riparian vegetation screen along the river will certainly change. The existing vegetation may die, or willows may become so dense there is no longer a view of the river. When the gates are open and the lake is gone, there is an ugly "bath tub ring" view throughout the area inundated by the lake. People with boat docks (about 21) would lose the use of their dock and boat access to the lake from their property. The docks would not provide direct access to the river, as they did to the lake.

Page 3-18, Table 3.10-14: Here are some specific conclusions derived from the information presented in the EIS/EIR. There are 88 residential and small commercial properties on the lake, with an assessed value of $15.4 million. The EIS/EIR suggests a potential decline in value of 4 to 18 percent. This suggests a potential decline in property values of $616,000 ($7,000 per property) to $2,772,000 ($31,500 per property). These are pretty large impacts to individual property owners. Obviously, the specific loss for each property would depend on its particular view and whether or not there is a boat dock on the property. A more detailed breakdown could be made of the impact on city properties versus the unincorporated county properties, because the properties and potential impacts are different. There is not likely to be a sudden decrease in property values if the gates are open permanently. Certainly, the properties would not be reassessed at a lower value. Rather, the properties would likely sell for less in the future than they would otherwise. (Page 3-315, second paragraph). So, the loss in property tax revenue to the city would not be immediate, but would be about one percent of the above declines in property value over the long term, or about $6,000 to $28,000 annually.

Page 3-322, 3: Gates-out Alternative: DWR's formal comments provide some ideas for mitigation of scenic values and public access to the river which would help to mitigate the identified socioeconomic impacts to property values and recreation use.

3.12 Aesthetic and Visual Resources

The discussion, summaries, and photographs in this section do an excellent job of explaining and visually depicting the aesthetic and visual impacts of the proposed project.

3.14 Traffic and Circulation

Page 3-482-Mitigation 1A-TC1: A traffic control plan is not likely to mitigate heavy vehicle damage to Altube Avenue, as noted above on the page, so repaving when the project is complete should be recommended as mitigation.

4.0 Other Impacts and Commitments

Page 4-11, Integrated Storage Investigations Program: DWR's staff on this program provided a number of editorial suggestions on this section and Table 4.1-1, to bring them up-to-date with the current status of the investigation. Rather than indicate all of the suggested revisions it is probably easier to provide a corrected version. Please replace the text in the Draft EIS/EIR with this:

4.1.12 Integrated Storage Investigations Program, Specifically the North-of-the- Delta Offstream Storage Investigation

The North-of-the-Delta Offsream Storage could result in offstream reservoir capacity of up to 3.0 million acre-feet north of the Bay-Delta in the northern Sacramento Valley. The study of offstream storage north of the Delta was authorized by Proposition 204 and has been identified in concept through the CALFED Integrated Storage Investigations program. The storage concept was further developed through the 2000 CALFED Programmatic EIR/EIS (PEIR/EIS). The PEIR/EIS resulted in the adoption of a long-term comprehensive program to restore ecological health and improve water management for beneficial uses of the San Francisco Bay/Sacramento-San Joaquin River Delta system and its tributary watersheds. The NODOS is a specific action that would implement, in part, the Preferred Programmatic Alternative adopted by the PEIR/EIS.

The objectives of NODOS are as directed in the PEIR/EIS Record of Decision and consist of enhanced water management flexibility in the Sacramento Valley, reduced water diversion from the Sacramento River during critical fish migration periods, increased reliability of supplies for a significant portion of he Sacramento valley, additional storage, and operational benefits for other CALFED programs (including Delta water quality and the Environmental water Account). Specific details on the beneficiaries of these objectives, conditions under which diversion could occur, means of conveyance, associated costs to beneficiaries for acquiring the water, and other implementation and operational details are being developed.

The NODOS is currently undergoing separate environmental analysis and feasibility study. The state lead agency is DWR and the federal lead agency is USBR. Multiple federal, state, and local agencies have also been identified as participants in the analysis and study process, in addition to interested members of the public. Public scoping was conducted from October 2001 through January 2002. The DEIR/EIS and the Feasibility Study are expected to be available to the public in June 2004. It is expected that a ROD will be certified in August 2005.

Alternatives to the project, including a Preferred Alternative, are currently undergoing development. In addition to a No Project Alternative (existing conditions) and a No Action

Condition (anticipated 2030 conditions if the project is not approved), the possible project alternatives as presented in the Notice of Preparation/Notice of Intent are summarized in Table 4.1-1.

The NODOS EIR/EIS will analyze a specific implementation action for program elements previously identified in the PEIR/EIS and therefore will tier from the programmatic document. The NODOS EIR/EIS will specifically identify the benefits and impacts of the proposed offstream storage project and determine the significance of these impacts. Initial evaluation and scoping have identified that potential impacts may occur to environmental resources and socioeconomic conditions as a result of the construction and operation of surface storage, diversion and conveyance facilities associated with the NODOS. Table 4.1-2 summarizes the environmental resources and socioeconomic conditions that could be affected. The degree of the impact and potential mitigation if the impact is found to be significantly adverse is being developed as part of the EIR/EIS process.

Page 4-13, Table 4.1-1: Delete the two sentences describing the subalternatives for Sites and Newville Reservoirs. These concepts are no longer being considered.

Thanks for the opportunity to work with CH2M-Hill and the representatives of the resource agencies in preparing this EIS/EIR. It has been a struggle to review all this information, but the data and analysis you have compiled should help those responsible for making the important decisions make the right choices.

Ralph Hinton

Subj:	**Red Bluff Diversion Dam**
Date:	11/26/2002 5:27:35 PM Pacific Standard Time
From:	Mregi@frk.com
To:	tcwaterman@aol.com
Sent from the Internet (Details)	

PLease do not divert more water than what is presently being diverted. I have performed studies in college with the whole estuary system of the delta and not to mention how it affects the ecology and watershed all the way up to the Red Bluff area. I don't believe a dissertation would be valid at this writting, but please take a moment to understand everyone's side of this issue.

How will this affect my quality of life and standard of living? Well if could only show my son what it is like to catch a Steelhead or a freakin legal Salmon not only would I be happier, but the whole way I try to teach the next generation by example is really getting difficult when there are no fish to show for it. I could go on with the quality of the water, it's visibility etc, but please again, listen to the people who boat in it, swim in it, fish in it, hunt out of it and lastly, look back at the meliniums and see that actually leaving the real estate alone actually has balanced itself out year after year, decade after decade, melinium after meliniums.

Someone who cares about ALL of it !

Manny Regi
Account Administration
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