

No. 1

E-mail from Tim Lasko, Dated November 3, 2004

>>> "Tim Lasko" <tim.lasko@fkilogistex.com> 11/3/2004 8:28:41 AM >>>
 Tim Lasko
 1993 Blue Mountain Court
 Cool, CA 95614

November 3, 2004

Buford Holt

16349 Shasta Dam Boulevard
 Shasta Lake, CA 96019

Dear Buford Holt:

The proposed water contracts for Sacramento Valley Settlement Contractors threaten the environment, economy, and communities.

} 1-1

The proposed contracts grant more water than ever used at subsidized prices.

} 1-2

The proposed contracts allow for massive water exports from the Sacramento Valley, which threaten working farms in the valley.

} 1-3

Also, these proposed contracts threaten endangered salmon. For example, to fulfill these and other Central Valley Project water contracts, the Bureau is proposing to change the operation of Shasta dam and reservoir on the

Sacramento River. The agency proposes to eliminate the cold water pool

reserved behind the dam used to sustain the Sacramento River's endangered winter run chinook salmon. Loss of this cold water pool will eliminate

nearly 20 miles of critical habitat for the winter run salmon in the Sacramento River.

} 1-4

By locking in contracts for 40 years, these contracts deny resource managers flexibility in water management as we face climatic shifts, new trends in growth, or new farming practices.

} 1-5

Please amend these contracts to address these serious concerns.

Sincerely,

Tim Lasko
 916.772.6800

- 1-1 Potential impacts on the environment, economy, and communities were addressed in the Draft EIS; see Chapter 3 of the Draft EIS for a more detailed discussion. For additional explanation, see the Final EIS Thematic Response No. 5, Summary of Incremental Impacts. This thematic response provides a comparison of the No Action Alternative and the Preferred Alternative and includes a discussion of the assumptions that formed the basis for impact analysis. Compared to the No Action Alternative, the Preferred Alternative was found to have no environmental impacts.
- 1-2 All but two of the contract amounts included in the Preferred Alternative are for the same volume of water as the No Action Alternative. Two SRSCs, ACID and SMWC, have agreed to contracts for less water than was included under the No Action Alternative. See Chapter 2 of the Draft EIS for a detailed description and discussion of alternatives. Thematic Response No. 3 addresses the amount of water included in the contracts and the needs assessment process. Also, see the Final EIS Thematic Response No. 5, which includes a discussion of the development of alternatives.
- 1-3 The Preferred Alternative proposes to provide for less water than the No Action Alternative. See Chapter 2 of the Draft EIS, Table 2-2. The ability to transfer water exists in both the No Action Alternative and action alternatives considered in the EIS. The federal action being considered by Reclamation does not include specific transfers, although the ability to transfer water exists under the Preferred Alternative, as it does currently. Potential future transfers are subject to separate review and approval on a case by case basis, including compliance with NEPA. See Thematic Response No. 6 for a discussion of water transfers.
- 1-4 As discussed in Chapter 3 of the Draft EIS, Biological Environment, because the Preferred Alternative will not result in any significant change from existing conditions under the existing contracts, it will not have any adverse impacts to fisheries. The primary operational driver for the CVP during the irrigation season is temperature management. Diversion of water by the SRSCs under the terms of the contracts does not affect coldwater management decision-making, which is dictated by temperature and flow requirements upstream of a vast majority of the total diversions. Reclamation does not intend to eliminate the coldwater pool in Shasta Reservoir. See Appendix C to this Final EIS for a description of proposed

E-mail from Tim Lasko, Dated November 3, 2004, Continued

operations of the coldwater pool. Also, Appendix B to this Final EIS evaluated impacts to salmon from revised operations of the CVP (see especially the conditions outlined on page 219 of the BO), including managing the coldwater pool at Shasta Reservoir, and concluded that long-term operations would not jeopardize the existence of threatened or endangered species (page 1 of the BO cover letter).

- 1-5 The existing Settlement Contracts provide for a 40-year term of contract and for renewals of successive periods not to exceed 40 years. Accordingly, the renewal contracts retain a term of 40 years. The 40-year term of the contracts provides certainty to Reclamation and the SRSCs. This ensures the SRSCs of the use of both regulated and unregulated flows for continued beneficial uses of water, and provides for the efficient and economical operation of the CVP by the United States. The 40-year term of the contract facilitates both short- and long-term planning, by avoiding the uncertainties associated with uncoordinated diversions by individual water rights holders. The contracts contain several provisions that ensure flexibility to adapt to changed conditions. See for example, Article 29 of the proposed renewal contract in Appendix C of the Draft EIS, which requires compliance with water conservation and efficiency programs that are periodically updated by Reclamation and the SRSCs in accordance with Reclamation law. In addition, Article 6 of the proposed renewal contracts requires Reclamation and the SRSCs to work in partnership to facilitate better integration within the Sacramento Valley of all water supplies, including the development of operational and management options that may be identified in the future.

At this time, there is no consensus regarding the potential impact of global warming on agricultural demand or climate in the Sacramento Valley, and analysis of potential impacts from climate change is considered speculative at this time. As more information regarding climate change becomes available, the flexibility provided by the contracts will allow Reclamation the opportunity to address this and other important issues in the future.

For additional discussion of the benefits of the Settlement Contracts, see Thematic Response No. 1, History of Settlement Contracts. Also, see Thematic Response No. 2 for additional discussion of the 40-year term of the contracts.

No. 2

E-mail from David Simpson, Dated November 2, 2004

>>> "David Simpson" <ibisboy@hotmail.com> 11/2/2004 2:26:02 PM >>>
 David Simpson
 1815 Virginia St
 Berkeley, CA 94703

November 2, 2004

Buford Holt

16349 Shasta Dam Boulevard
 Shasta Lake, CA 96019

Dear Buford Holt:

The proposed water contracts for Sacramento Valley Settlement Contractors threaten the environment, economy, and communities.

} 2-1

The proposed contracts grant more water than ever used at subsidized prices.

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The proposed contracts allow for massive water exports from the Sacramento Valley, which threaten working farms in the valley.

} 2-3

Also, these proposed contracts threaten endangered salmon. For example, to fulfill these and other Central Valley Project water contracts, the Bureau is proposing to change the operation of Shasta dam and reservoir on the

Sacramento River. The agency proposes to eliminate the cold water pool reserved behind the dam used to sustain the Sacramento River's endangered winter run chinook salmon. Loss of this cold water pool will eliminate nearly 20 miles of critical habitat for the winter run salmon in the Sacramento River.

} 2-4

By locking in contracts for 40 years, these contracts deny resource managers flexibility in water management as we face climatic shifts, new trends in growth, or new farming practices.

} 2-5

Please amend these contracts to address these serious concerns.

Sincerely,

David Simpson

- 2-1 See Response to Comment 1-1.
- 2-2 See Response to Comment 1-2.
- 2-3 See Response to Comment 1-3.
- 2-4 See Response to Comment 1-4.
- 2-5 See Response to Comment 1-5.

No. 3

E-mail from Dan Bacher, Dated November 3, 2004

From: "Dan Bacher" <danielbacher@hotmail.com>
To: "Buford Holt" <bholt@mp.usbr.gov>
Date: 11/3/2004 1:22:29 PM
Subject: Sac Valley Settlement Contracts Flawed

Dan Bacher
 3201 Eastwood Road
 Sacramento, CA 95821

November 2, 2004

Buford Holt

16349 Shasta Dam Boulevard
 Shasta Lake, CA 96019

Dear Buford Holt:

The proposed water contracts for Sacramento Valley Settlement Contractors threaten the environment, economy, and communities. } 3-1

The proposed contracts grant more water than ever used at subsidized prices. } 3-2

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Please amend these contracts to address these serious concerns.

Sincerely,

Dan Bacher

- 3-1 See Response to Comment 1-1.
- 3-2 See Response to Comment 1-2.
- 3-3 See Response to Comment 1-3.
- 3-4 See Response to Comment 1-4.
- 3-5 See Response to Comment 1-5.

No. 4

E-mail from Jonathan McClelland, Dated November 3, 2004

From: "Jonathan McClelland" <jonsonario@juno.com>
To: "Buford Holt" <bholt@mp.usbr.gov>
Date: 11/3/2004 2:11:20 PM
Subject: Sac Valley Settlement Contracts Flawed

- 4-1 See Response to Comment 1-1.
- 4-2 See Response to Comment 1-2.
- 4-3 See Response to Comment 1-3.
- 4-4 See Response to Comment 1-4.
- 4-5 See Response to Comment 1-5.

Jonathan McClelland
 4740 Hall Rd
 Santa Rosa, Ca 95401

November 3, 2004

Buford Holt

16349 Shasta Dam Boulevard
 Shasta Lake, CA 96019

Dear Buford Holt:

- The proposed water contracts for Sacramento Valley Settlement Contractors threaten the environment, economy, and communities. } 4-1
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- The proposed contracts allow for massive water exports from the Sacramento Valley, which threaten working farms in the valley. } 4-3
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Please amend these contracts to address these serious concerns.

Sincerely,

Jonathan McClelland
 707 5790633

No. 5

E-mail from Lindsey Pernell, Dated November 8, 2004

>>> "Lindsey Pernell" <lindsey@friendsoftheriver.org> 11/5/2004
 12:30:42 PM >>>
 Lindsey Pernell
 2500 S St. #2
 Sacramento, CA 95816

November 5, 2004

Buford Holt

16349 Shasta Dam Boulevard
 Shasta Lake, CA 96019

Dear Buford Holt:

The proposed water contracts for Sacramento Valley Settlement Contractors threaten the environment, economy, and communities. } 5-1

The proposed contracts grant more water than ever used at subsidized prices. } 5-2

The proposed contracts allow for massive water exports from the Sacramento Valley, which threaten working farms in the valley. } 5-3

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By locking in contracts for 40 years, these contracts deny resource managers flexibility in water management as we face climatic shifts, new trends in growth, or new farming practices. } 5-5

Please amend these contracts to address these serious concerns.

Sincerely,

Lindsey Pernell

- 5-1 See Response to Comment 1-1.
- 5-2 See Response to Comment 1-2.
- 5-3 See Response to Comment 1-3.
- 5-4 See Response to Comment 1-4.
- 5-5 See Response to Comment 1-5.

No. 6

Letter from Friends of the River, Steven L. Evans et al.,
Dated November 15, 2004

*Friends of the River
Planning & Conservation League ~ Sierra Club California
American Rivers ~ Sacramento River Preservation Trust
Pacific Coast Federation of Fishermen's Associations
California Sportfishing Protection Alliance*

Reply To: Friends of the River ~ 915 20th Street, Sacramento CA 95814 ~ (916) 442-3155 x221

November 15, 2004

Mr. Buford Holt
U.S. Bureau of Reclamation
16349 Shasta Dam Boulevard
Shasta Lake, CA 96019

Re: Comments In Response To Sacramento River Settlement Contractors DEIS

Dear Mr. Holt:

The conservation organizations listed above hereby submit these comments in response to the To Sacramento River Settlement Contractors Draft Environmental Impact Statement (DEIS)

The Bureau of Reclamation proposes to renew long term federal water contracts for 140 water districts and companies that are collectively known as the Sacramento River Settlement Contractors. The contract renewals will provide more than 2.2 million acre feet of publicly subsidized water to the contractors located between Redding and Sacramento in the Sacramento Valley.

In general, we support renewal of contracts that provide water for farms, local communities, and environmental needs in the Sacramento Valley. However, we are concerned the proposed renewal fails to address existing environmental needs and potential future changes in water use in the Valley. More importantly, we are seriously concerned that renewal of the contracts as currently proposed will result in increased export of Sacramento Valley water south of the Delta, resulting in adverse impacts on the Valley's farms, communities, and environment. Furthermore, we are concerned that the contracts renewal and the DEIS fail to meet the mandates of existing laws, including the Central Valley Project Improvement Act, Endangered Species Act, and the National Environmental Policy Act.

No. 6

Letter from Friends of the River, Steven L. Evans et al., Continued

The Sacramento River Settlement Contractors DEIS largely fails to address the serious long term implications of renewing the contracts for the Sacramento Valley’s communities, economy, and environment. These include:

Water Exports – As currently written, the contracts proposed for renewal will not limit the ability of the contractors to sell and export water south of the Sacramento Valley. The Valley’s water supply is targeted by San Joaquin Valley agribusiness and Southern California urban developers as the primary source of water for future development. Renewal of the contracts without any export limitations will increase pressure on Sacramento Valley farmers to sell their water, with significant impacts on groundwater, surface water flows, wetlands, the Valley’s agricultural economy, and local communities.

6-1

Less Water For The Valley – Increased water exports of Sacramento River water could result in the fallowing of productive farm land in the Sacramento Valley. Less water means less farming, which means fewer farm-related jobs and businesses, and adverse economic impacts to local communities. During the last drought, one settlement contractor (Conaway Conservancy) sold its settlement contract surface rights to the State Water Bank. The Conservancy fallowed some its land in Yolo County and substituted groundwater for surface water to grow crops on the remaining acreage. The results were significant groundwater depletion and adverse impacts on farm worker employment and Yolo County’s local agricultural economy.

6-2

More Groundwater Pumping – The DEIS fails to adequately assess groundwater impacts associated with the contracts renewal. Groundwater is commonly substituted for surface water that is sold and exported. Substitution of groundwater to replace surface water exported south is not considered in the DEIS. Increased exports of surface water will put more pressure on groundwater. Increased pumping of groundwater will reduce aquifer levels, dry-up shallow wells, concentrate pollutants, and reduce surface flows in streams and springs. For example, the DEIS documents a draw-down of 22 feet for shallow wells in northern Colusa County during a typical water year, and 36 feet after four years of drought. In some Valley areas, the draw-down will be as much as 50 feet after an extended drought. This draw-down is likely to be greater and occur for longer durations as more surface water is exported and locals depend more on groundwater.

6-3

Less Surface Flows – The DEIS significantly underestimates the impacts of groundwater draw-down on surface flows, particularly for smaller streams that are likely to dry up earlier and more often during drought periods due to increased groundwater pumping associated with the export of contract water.

6-4

- 6-1 See Thematic Response No. 6, Water Transfers, for a discussion of water transfer requirements. The commentor’s assertion that water transfers would increase under the action alternatives is unsubstantiated and speculative.
- 6-2 See Response to Comment 6-1. Individual transfers would be subject to separate environmental review.
- 6-3 Impacts referenced by the commentor relate to potential additional pumping under Alternatives 4 and 5. Relative to the No Action Alternative, there would be no additional pumping under the Preferred Alternative. Again, the commentor’s assertion that water transfers would increase under the action alternatives is unsubstantiated and speculative.
- 6-4 The Commentor is correct in noting that reduced surface water deliveries under Alternatives 4 and 5 would increase pumping relative to the No Action Alternative. However, as shown in Tables 3-11 and 3-14, peak depletion rates are generally very small, especially compared to measured streamflow. For example, Table 3-11 estimates a peak stream depletion rate of 240.7 cubic feet per second (cfs) in the Sacramento River as a result of groundwater pumping, compared to a modeled streamflow of 8,718 cfs. This would be a peak reduction of less than 3 percent. For Butte Creek, the peak depletion rate is 7.6 cfs against a streamflow of 114 cfs, a peak reduction of less than 7 percent. It is important to note that these potential impacts from pumping are the result of a hypothetical drought scenario based on 4 consecutive water years similar to the extreme drought of 1976-1977. As noted in Chapter 3 of the Draft EIS, no impacts to surface flows are caused by operations under the Preferred Alternative relative to no action. Again, the commentor’s assertion that water transfers would increase under the action alternatives is unsubstantiated and speculative.

No. 6

Letter from Friends of the River, Steven L. Evans et al., Continued

Unused Water – The Bureau’s own needs assessment identified 259,000 acre feet of settlement contract water that has never been put to beneficial use by the Settlement Contractors. Nevertheless, the Bureau is proposing to renew the contracts for virtually all the water that was previously contracted for, including the water that was never previously used by the contractors. It is very likely that this historically unused water will be sold for export. Any unused water should, instead, be allocated to Sacramento Valley environmental needs.

6-5

Public Subsidies – Approximately 78% of the Settlement Contract water (called the “Base Supply”) will be provided free. The remainder will be sold at the bargain basement price of less than \$25 per acre foot of water. These rates will not repay the current multi-million dollar public debt incurred to build the Shasta Dam and other Central Valley Project facilities.

6-6

40 Year Contracts – The Bureau proposes to renew the Settlement Contracts for 40 years, in violation of federal law restricting contract renewals to 25 years. These long-term contracts will obligate the Bureau to provide water for 40 years, regardless of the potential future impacts of global warming or changes in environmental or urban needs.

6-7

New Water Projects – Section 6 of the Settlement Contracts obligates the Bureau to work with the contractors to develop new surface water storage, including raising Shasta dam and building the Sites offstream storage reservoir. The Shasta dam raise would violate state law protecting the McCloud River and drown Native American cultural sites used by the Winnemem Wintu tribe. The Sites project would siphon water from the Sacramento River, increase the use of the fish-killing Red Bluff Diversion Dam, and potentially reduce flows needed to sustain the river’s riparian ecosystem and fisheries.

6-8

Threat To Endangered Salmon – To fulfill these and other Central Valley Project water contracts, the Bureau is proposing to change the operation of Shasta dam and reservoir on the Sacramento River. The agency proposes to eliminate the cold water pool reserved behind the dam used to sustain the Sacramento River’s endangered winter run chinook salmon and move the cold water temperature target for winter run salmon from Red Bluff to Balls Ferry, as required by the Bureau’s water rights permit. This will eliminate nearly 20 miles of critical habitat for the winter run salmon in the Sacramento River.

6-9

Fish Doubling Goal – Renewal of the Settlement Contracts will reduce the Bureau’s ability to provide water to meet the federal government’s goal of doubling Central Valley salmon and steelhead populations, and ignores the agency’s obligation to provide CVP water for the environment, as required by federal law.

6-10

6-5 See Thematic Response No. 3 for a discussion of the water needs assessment. Again, the commentor’s assertion that water transfers would increase under the action alternatives is unsubstantiated and speculative.

6-6 Most of the water under these contracts is water to which the contractors have rights (base supply) that are independent of Reclamation. That water is used without payment to Reclamation because Reclamation has no ownership interest in that water. The contract water is made available under terms prescribed by federal law, including provisions for cost recovery. The costs of that water are going up under the proposed contracts. See Thematic Response No. 1 for a discussion of the history of the Settlement Contracts.

6-7 See Thematic Response No. 2 for a discussion of the Relationship of Settlement Contracts to CVPIA and CALFED, including a discussion of the 40-year contract term. At this time, there is no consensus regarding the potential impact of global warming on agricultural demand or climate in the Sacramento Valley. It is possible that an increase in ambient temperatures would increase water demand. It is also possible that a shift in weather patterns could increase or change precipitation patterns, thereby decreasing demand for irrigation. Therefore, it is considered speculative to base future water demand on the effects of global warming. Furthermore, any change would occur regardless of the alternative selected.

6-8 The contract language cited does not comment Reclamation to any specific storage project, and development of potential surface water storage has not been reviewed in this environmental document. Any potential storage project would be subject to separate environmental review. Commitments are only made to cooperate to maximize reasonable beneficial uses. This may involve planning studies, but any implementation decisions would require further environmental review.

6-9 Project operations under the Preferred Alternative would be very similar to those under the No Action Alternative. Therefore, relative to no action, no impact to temperature would occur under the Preferred Alternative. For more information, see Response to Comment 1-4. Also see the October 2004 Biological Opinion on the Long-Term Central Valley Project and State Water Project Operations Criteria and Plan (CVP-OCAP), with regard to impacts to threatened and endangered species from operation of the Central Valley Project and State Water Project. Please see also Thematic Response No. 7.

Letter from Friends of the River, Steven L. Evans et al., Continued

- 6-10 Please note that the CVPIA PEIS Preferred Alternative is the No Action Alternative for the EIS. Thus, fish doubling is considered part of the environmental baseline for this project.
- Fishery restoration flows is an issue related to the operation of facilities to store and deliver water to the contractors, and were addressed in the Central Valley Project Improvement Act (CVPIA) Programmatic Environmental Impact Statement and again in the OCAP Biological Assessment/Biological Opinion consultation. The OCAP Biological Assessment/Biological Opinion addresses operational concerns relating to fishery restoration on the Trinity River. The contracts that are the subject of the Draft EIS concern the delivery of water. Moreover, because the Preferred Alternative renewal contracts are for slightly less water than existing contracts, they could not reduce Reclamation's ability to provide water to meet environmental goals. In addition, the CVPIA has separate programs dealing specifically with fishery restoration flows. This comment relates to issues affecting availability of stored water, whereas the Draft EIS addresses the delivery of water when it is available.

No. 6

Letter from Friends of the River, Steven L. Evans et al., Continued

Red Bluff Diversion Dam – Due to the complete lack of any information in the proposed contracts or the DEIS in regard to where and how the contract water is accessed, it is unclear whether the Red Bluff Diversion Dam (RBDD) is used to divert settlement contract water. However, if it is, the DEIS must address and mitigate the impacts of this facility on salmon, steelhead, and green sturgeon migration. The RBDD is a well-known fish killer. It impedes the migration of more than 70% of the threatened spring run chinook salmon migration that spawn upstream of Red Bluff. It also adversely effects the migration of endangered winter run chinook, threatened steelhead, and sensitive green sturgeon. A proposal to permanently raise the gates of the RBDD twelve months a year and to replace its diversion function with pumps and fish screens appears to have been unilaterally shelved by the Bureau, despite the support for this proposal by numerous other local, state, and federal agencies. Shelving this proposal wastes the more than \$8 million investment of public funds in the RBDD Fish Passage Improvement Project. In addition, it ignores the past and proposed investment of millions more in other projects intended to restore salmon and steelhead that spawn upstream of Red Bluff in the Sacramento River and its tributaries, including Battle Creek, Clear Creek, and others.

6-11

Clear Creek Fish Flows – The contract renewals ignores the Anadromous Fish Restoration Plan goal to establish minimum 200-150 cfs flows in Clear Creek below Whiskeytown Dam to restore and sustain threatened spring run chinook salmon.

6-12

Stony Creek Restoration – The DEIS ignores the role that settlement contracts may play in modifying flows in Stony Creek. It also ignores the goal to establish minimum flows in Stony Creek to restore riparian habitat and recover and sustain salmon and steelhead. The facility originally intended to restore flows in Stony Creek using water (some of which may be settlement contract water) from the Tehama-Colusa Canal is currently used to divert water from the creek.

6-13

American River Flow Standard – The contract renewals ignores the need to establish an American River Flow Standard to restore and sustain salmon and steelhead.

6-14

Water Conservation – The Settlement Contracts lack any meaningful water conservation incentives, including establishing a tiered pricing system that would provide a significant economic incentive for conserving water.

6-15

Colusa Drain Pollution – Much of the water in the heavily polluted Colusa Drain is agricultural run-off from Settlement Contractor fields. Water in the drain currently fails state and federal water quality standards. Polluted water from the Colusa Drain flows downstream into the Sacramento River and eventually into the pumps that provide drinking water for the City of Sacramento. The DEIS fails to address or mitigate this pollution problem.

6-16

6-11 Operation of the Red Bluff Diversion Dam (RBDD) is not affected by water deliveries to the SRSCs. The RBDD is operated primarily to deliver water to the member districts of the Tehama-Colusa Canal Authority, who have water service contracts with Reclamation. Any water potentially wheeled from the Tehama-Colusa Canal to SRSCs would occur under the No Action Alternative and any of the action alternatives. See the Biological Opinion on the CVP-OCAP for a more thorough discussion of the operations and effects of the RBDD.

6-12 Renewal of the Settlement Contracts is not related to minimum flows in Clear Creek for salmon restoration. See the Biological Opinion on the CVP-OCAP for a more thorough discussion of the operations and effects of Whiskeytown Dam and in-stream flow management in Clear Creek.

6-13 See Table 3-11 of the Draft EIS for disclosure of potential impacts to Stony Creek from increased pumping under Alternatives 4 and 5. For Stony Creek, the peak depletion rate is 2.7 cfs in the month of August. It is important to note that these potential impacts from pumping are the result of a hypothetical drought scenario based on 4 consecutive water years similar to the extreme drought of 1976-1977. Any potential impacts to fish species would be *de minimus* and could potentially be offset by in-stream releases of water if necessary. As noted in Chapter 3 of the Draft EIS, no impacts to fishery resources are caused by operations under the Preferred Alternative relative to no action.

6-14 Renewal of the Settlement Contracts is not related to minimum flows in the American River for fish restoration. See the Biological Opinion on the CVP-OCAP for a more thorough discussion of the operations and effects of Folsom Dam and in-stream flow management in the American River.

6-15 The Settlement Contracts contain language outlining conservation requirements. Determination of the adequacy of these conservation requirements, which must comply with federal law, is beyond the scope of the Draft EIS. Reclamation reviews conservation plans, but does not have authority as to their adequacy. Also, it is important to note that the SRSCs have developed the Sacramento River Basinwide Water Management Plan specifically to maximize the beneficial use of water in the basin and quantify the water demands in the basin. See Thematic Response No. 3 for more information about water conservation.

Letter from Friends of the River, Steven L. Evans et al., Continued

- 6-16 Given that water use would not change between the No Action Alternative and the action alternatives, agricultural drainage water quantity and quality within the Colusa Basin Drain would not be different whether the No Action Alternative or one of the action alternatives were adopted. It should be noted that several efforts are underway to characterize and improve the quality of agricultural return flows discharged to the Colusa Basin Drain. These include the programs developed by the California Rice Commission and Sacramento Valley Water Quality Coalition to comply with the Central Valley Regional Water Quality Control Board "Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands." Both the California Rice Commission and Sacramento Valley Water Quality Coalition have submitted Watershed Evaluation Reports and Monitoring and Reporting Programs that will serve as the foundation for a phased water quality management program, including the Colusa Basin Drain area. Both Coalition groups, in coordination with local County Agricultural Commissioners, water districts, other agricultural representatives, and farmers, will be implementing sediment and water quality monitoring programs and efforts to implement and track water quality management practices as determined appropriate based on the monitoring results. Additionally, Colusa Basin Drain water quality is currently being evaluated in coordination with downstream water users to assess the potential for alternative Colusa Basin Drain operation scenarios to improve the water quality of the Sacramento River.

No. 6

Letter from Friends of the River, Steven L. Evans et al., Continued

No Description Of Facilities – Neither the proposed contracts or the DEIS provide any description of diversion and transportation facilities used to access the Settlement Water. At least some of these facilities adversely impact fish migration, flows, and water quality. These impacts should be fully mitigated as a condition of contracts renewal. } 6-17

Despite these important issues, the Sacramento River Settlement Contracts DEIS claims that there will be “no significant impacts” on fish, wildlife, habitat, recreation, groundwater, surface flows, water quality, the Valley agricultural economy, and local communities. We recommend that a revised DEIS fully examine these impacts and propose mitigation measures as needed.

Sincerely,

Steven L. Evans
Conservation Director
Friends of the River

Mindy McIntyre
Water Policy Specialist
Planning & Conservation League

Jim Metropulos
Legislative Representative
Sierra Club California

Steve Rothert
Associate Director
American Rivers

John Merz
Executive Director
Sacramento River
Preservation Trust

Zeke Grader
Executive Director
Pacific Coast Federation
of Fishermen’s Associations

John Beuttler
Board Member
California Sportfishing
Protection Alliance

6-17 See Chapter 3 of the Draft EIS for a discussion of potential impacts to aquatic biological resources. Operation of diversion facilities would remain the same under both the Preferred Alternative and No Action Alternative; therefore, no impacts would occur as a result of contract renewal. However, many of the SRSCs have recently undertaken major projects to develop fish screens at individual diversions, and it is likely that many will continue to do so regardless of which alternative is implemented. See Thematic Response No. 8 for more information on SRSC efforts to promote fish passage and survivability.

No. 7

Letter from Butte Environmental Council, Barbara Vlamis et al.,
Dated November 15, 2004

NOV-15-04 MON 17:20 B.E.C.

5308916426

P. 01



Butte
Environmental
Council



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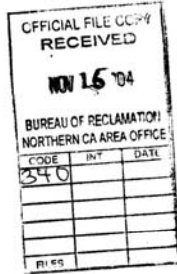
Activities and Events
Environmental Education
Recycling Referrals
Environmental Advocacy
Endangered Species Faire
Bidwell Park Cleanups
Chico Area Creek Cleanups
Wetlands Preservation

Board of Directors
Kathryn Hood
Sally Miller
Tim Strohane
Derek Vail

Executive Director
Barbara Vlamis

November 15, 2004

Mr. Buford Holt
Bureau of Reclamation
Northern California Area Office
16349 Shasta Am Blvd.
Shasta Lake, CA 96019



Re: Draft Sacramento River Settlement Contractors Environmental Impact Statement

Dear Mr. Holt:

The Butte Environmental Council (BEC), representing over 850 members in northern California, is submitting the following comments and questions on the Draft Sacramento River Settlement Contractors Environmental Impact Statement (DEIS) to renew the long-term contracts for the Sacramento River Settlement Contractors publicly subsidized 2.2 million acre-feet of water (project).

BEC supports renewal of contracts that provide water for Sacramento Valley farmers, communities, and the environment, but we are very concerned that the DEIS is inadequate in reviewing the potential impacts to these local needs. In addition, we are concerned that the project and the DEIS fail to meet the requirements of the Central Valley Project Improvement Act, Endangered Species Act, the Clean Water Act, Porter-Cologne Water Quality Control Act, and the National Environmental Policy Act.

Base Supply

Prior to the construction of the CVP, individuals and entities along the Sacramento River were diverting water for irrigation and M&I use under various claims of right. These claims were unencumbered by subsequent modern laws that were developed to protect the public trust. But their ability to divert water was constrained by the natural hydrograph that severely limited the ability of these individuals and entities to extract water from the river during critical irrigation months.

To settle the controversy over assertions of water rights the United States negotiated contracts that allowed those claiming water rights to generously estimate the amount of water they felt entitled to and for this "base supply" water to be reserved without charge out of the publicly funded CVP to their use. Nearly 77% of the water being allocated by the CVP is being supplied free of charge to the "base supply" entities.

With the exception of the ACID and the SMWC these original base supply estimates have not been negotiated to reduction. (Table 2-2 DEIS) The base supply reservations to these claimants would not be available during peak irrigation months without the tax-

7-1

See Thematic Response No. 1, History of the Settlement Contracts, for a description of the water rights of the SRSCs. Also see Thematic Response No. 3, Water Needs Assessment, for a discussion of the water needs of the SRSCs. Also note much of the water diverted in the low flow months is stored water paid for by contractors. Furthermore, rescheduling of water from non-critical months to critical months for a fee under the proposed contracts.

7-1

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Project	CVP
Control No.	
Folder No.	

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Letter from Butte Environmental Council, Barbara Vlamis et al.,
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payer funded CVP storage and conveyance infrastructure, yet the claims remain in full force for every one of the alternatives. The base supply estimates and the irrigation scheduling that determines the management of the water during the irrigation season should be renegotiated so that the public doesn't have to foot the bill for the system that the "base supply" entities are taking advantage of.

Central to the question of the accuracy and legality of the "base supply" water volumes is the recognition by Reclamation that, "If the SRSCs were to fully utilize their senior water rights, Reclamation's current ability of operate the CVP would be compromised" (Page 2-1). BEC vehemently protests the insurmountable legal advantage ceded to the SRSCs on the issue of "base supply" water rights.

BEC requests that public records of the jointly conducted studies and negotiations between the SRSCs and Reclamation in 1964 (page 1-5 draft SRSC EIS) be released for public analysis. The DEIS claims that the Settlement Contracts allowed the government to avoid "expensive adjudication of CVP and other water rights in the Sacramento River watershed" (page 1-6 DEIS). BEC would like to compare the estimated cost of litigation that would protect the public trust with the accumulated value of the water that is being given, free of charge, to the SRSCs.

7-1,
cont'd

Contract Period

The existing Settlement Contracts were originally executed in 1964 with a term not to exceed 40 years. The DEIS may be consistent with the existing contract language by choosing to designate another maximum (40 year) contract period, but it would be in the public's interest to shorten the term to allow better adaptive management to deal with unexpected variations in climate, land-use, environmental needs, geological events (earthquakes, eruptions and catastrophic wildfires associated with warmer-drier weather). BEC recommends a maximum 10-year contract period.

7-2

Groundwater Impacts

The DEIS is inconsistent in its analysis of groundwater impacts that may result from different CVP operation regimes. On one hand the Draft SRSC EIS recognizes that, "Consistent increased use of local groundwater supplies could lead to depletion of groundwater resources, and impacts to local streams and the biological resources reliant on those streams such as wildlife and vegetation of riparian habitats" (page 2-25 DEIS)

On the other hand "Potential increases in groundwater pumping...are anticipated to have less than significant effects on groundwater supplies, even under very conservative modeling conditions.... Also, the increased pumping would not lead to long-term declines in groundwater levels" (page 3-3 DEIS).

7-3

The narrow parameters of climate analysis, groundwater demand analysis, and economic incentive to transfer surface water fails to examine the extreme pressure to increase groundwater drafting that is developing in California. The CVP is a hub of water policy in California and decisions made using the DEIS as a guide will inevitably effect the equilibrium of the existing groundwater treasure that is required by the people of the Sacramento Valley.

Water Conservation

- 7-2 See Thematic Response No. 2, Relationship of the Settlement Contractors to CVPIA and CALFED, for a discussion regarding the length of the contracts.
- 7-3 The commentor is comparing two very different scenarios considered in Chapter 2 and Chapter 3 of the Draft EIS. The pages cited in Chapter 2 refer to consideration of the "No Contract Renewal" Alternative. This alternative would have theoretically limited SRSC diversions to full natural flow of the river (i.e., flows without Shasta operations). This would potentially require that the majority of water demand within the SRSCs' service area be supplied by groundwater. Chapter 3 considers the effect of consecutive drought years on operations. Shortages in drought years would limit supplies to 75 percent of full contract.

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The Settlement Contracts lack any meaningful water conservation incentives, including establishing a tiered pricing system that would provide a significant economic incentive for conserving water. How will Reclamation address this essential component with regards to the "base supply" and purchased water?

7-4

Water Quality

There are severe water quality issues in the Colusa drain that fail both state and federal standards. When and how will you address these violations of the Clean Water Act and Porter-Cologne Water Quality Control Act?

7-5

Climate Change

BEC finds that because the DEIS does not fully consider global climatic changes as potentially altering current and future precipitation and weather pattern estimations in it's analysis, the DEIS is incomplete and has not fully achieved it's aim to "evaluate the potential impacts" (DEIS 1-3) of the Settlement Contracts. The DEIS mentions the undeniable connection between climate and water systems:

- 1) "The seasonal recovery of groundwater levels in the Sacramento Valley through time has been largely due to climate conditions (i.e., precipitation)" (EIS 3-18);
- 2) "The quantity and timing of snow pack melt are the predominant factors affecting the surface and groundwater hydrology" (DEIS 3-19);
- 3) "Groundwater levels are affected by changes in precipitation" (DEIS 3-23).

7-6

BEC feels that the DEIS ignores the admitted importance of climate. The two temporary climate change scenarios cited in the DEIS are both narrow in scope (do not fully consider all implications of low precipitation and are too short term) and insufficient in accounting for possible and likely extreme precipitation reductions (this will be further discussed below). Because the studies and scenarios that the DEIS considers are insufficient, the length of the contract periods are questionable. Extensive research has predicted likely drastic climate changes in California, which will inevitably alter Reclamation's ability to deliver contracted amounts of water in the future. It is unwise and unreasonable to commit to deliveries that will surely be impacted by future precipitation and climate change. Below is an outline followed by detailed description of our concerns.

- A. Data Consideration
- B. Climate Changes
 - a. Drought/decreased precipitation possibilities
 - b. Snow pack reduction
 - c. Storage/transfer facilities
- C. Climate Change Impact on Contract Length

7-4

The Settlement Contracts contain language outlining conservation requirements. Determination of the adequacy of these conservation requirements is beyond the scope of the Draft EIS. Also, it is important to note that the SRSCs have developed the Sacramento River Basinwide Water Management Plan specifically to maximize the beneficial use of water in the basin and quantify the water demands in the basin. See Thematic Response No. 3 for more information about water conservation.

7-5

Contract quantities would not change between the No Action Alternative and action alternatives for contractors whose return water enters the Colusa Basin Drain. Therefore, agricultural drainage water quantity and quality within the Colusa Basin Drain would not be different whether the No Action Alternative or one of the action alternatives is adopted. It should be noted that several efforts are underway to characterize and improve the quality of agricultural return flows discharged to the Colusa Basin Drain. These include the programs developed by the California Rice Commission (CRC) and Sacramento Valley Water Quality Coalition (SVWQC) to comply with the Central Valley Regional Water Quality Control Board "Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands." Both the CRC and the SVWQC have submitted Watershed Evaluation Reports and Monitoring and Reporting Programs that will serve as the foundation for a phased water quality management program, including the Colusa Basin Drain area. Both coalition groups, in coordination with local County Agricultural Commissioners, water districts, other agricultural representatives, and farmers, will be implementing sediment and water quality monitoring programs and efforts to implement and track water quality management practices as determined appropriate on the basis of the monitoring results. Additionally, Colusa Basin Drain water quality is currently being evaluated in coordination with downstream water users to assess the potential for alternative Colusa Basin Drain operation scenarios to improve the water quality of the Sacramento River.

Letter from Butte Environmental Council, Barbara Vlamis et al.,
Continued

- 7-6 At this time, there is no consensus regarding the potential impact of global warming on agricultural demand or climate in the Sacramento Valley. It is possible that an increase in ambient temperatures would increase water demand. It is also possible that a shift in weather patterns could increase or change precipitation patterns, thereby decreasing demand for irrigation. Basing future water demand on the effects of global warming is therefore considered speculative. Furthermore, any change would occur regardless of the alternative selected. See Thematic Response No. 2 for a discussion regarding the length of the contracts.

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Letter from Butte Environmental Council, Barbara Vlamis et al., Continued

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A. Data Consideration

The body of data that supports the research that predicts or at least suggests likely future climate conditions is not reviewed in the DEIS. It appears that Reclamation has considered only a few studies that have provided particular outlooks, so as a result, the DEIS contains short-term optimistic estimates of the future availability of water. Without more comprehensive studies that consider global climate change, the DEIS promotes unsustainable future water obligations and infrastructure expansion throughout California.

The DEIS limits its analysis to the "period of record" (DEIS 2-10) to estimate an average of 4.5 years of shortage out of 40. The level of weather influenced shortage is restricted to the same short geological time period and considers a drought period maximum of four years. What Reclamation claims to be a "reliable predictor" (DEIS 2-10) becomes suspect when considering studies by other reputable organizations. A publication by Katharine Hayhoe states that "the proportion of years projected to be dry or critical increases from 32% in the historical period (1961-1990) to 50-64% by the end of the century" (pg.12,426) in most cases. Even a slight increase in critically dry years will alter the capabilities of California's water obligations.

BEC feels that in order for the final EIS to be complete, it must consider more unbiased data before committing to forty year obligations. Significant research has already been conducted, so Reclamation would find it quite easy to apply already released information to future water delivery scenarios.

7-7

B. Climate Changes

1) Because California's precipitation directly affects the ability to deliver water, precipitation considerations should have been as comprehensive as possible. Again, the DEIS has failed to consider global climate change's implications when predicting future precipitation levels. The maximum four year drought period used as reference in the DEIS is unacceptable when predicting early to mid century precipitation. An article in Catalyst, the magazine of the Union of Concerned Scientists, predicts that, "By mid-Century, the total annual stream flow into major reservoirs in the Sierra Nevada is projected (in most cases) to drop 10 to 20 percent" (Luers 8). In low precipitation conditions, the DEIS briefly acknowledges the implications of extended low precipitation, but pays little or no attention to a long-term connection, which is unreasonable when proposing a long-term contract. "During periods of extreme drought conditions occurring over multiple years, it is likely that groundwater levels would not recover completely each spring, and some residual drawdown would persist into the subsequent irrigation season" (DEIS 3-53). "A decrease in surface water supplies to SRSCs (which is the result of decreased precipitation), and subsequent increase in groundwater pumping, would result in temporary additional drawdown of groundwater levels in the aquifer system underlying the Sacramento Valley Groundwater Basin." (DEIS 3-46). In this statement, drawdown is temporary only because the reference study considers temporary situations. Reclamation is biased if only the currently considered studies are used in the DEIS. It would be wise and true to Reclamation's aim to incorporate extended low precipitation data, which is predicted in global climate change studies, into this EIS. BEC feels that this is an easy task considering other regional studies that take advantage of tree ring, ash and sediment deposit studies that have been used to predict periods of drought that have lasted not just decades, but centuries.

7-8

7-7

As noted above, there is no consensus regarding the potential impact of global warming on agricultural demand or climate in the Sacramento Valley. It is possible that an increase in ambient temperatures would increase water demand. It is also possible that a shift in weather patterns could increase or change precipitation patterns, thereby decreasing demand for irrigation. Basing future water demand on the effects of global warming is therefore considered speculative. However, the commentor is incorrect in assuming that the Draft EIS only assumes a set frequency of drought reductions. Indeed, one of the primary differences between the alternatives is found in the established drought frequencies associated with water supply reductions. Also, the groundwater analysis uses a 4-year theoretical drought whereby the 1976-77 drought (the single most extreme drought on record) occurs in 4 consecutive years. See Chapter 2 of the Draft EIS for a description of the various alternatives and assumptions regarding frequencies of water supply shortages. Also, see Chapter 3 of the Draft EIS for analyses of how the different frequencies affect environmental resources.

7-8

As noted above, there is no consensus regarding the potential impact of global warming on agricultural demand or climate in the Sacramento Valley. The Draft EIS is based on the accepted hydrologic period of record for the Sacramento Valley, which is an acceptable method for this level of analysis. It should also be noted that the use of groundwater is a matter of state jurisdiction and is not regulated by Reclamation.

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"During the period of recent human settlement in the Sierra Nevada, climate was much wetter, warmer and more stable than climates of the past two millennia; successful ecosystem evaluations and planning for the future must factor climate change into analyses. Many resource assessments and consequent land use and management decisions have been made under the assumption that the current climate is stable and indicative of recent past and future conditions. Water delivery systems (dams, diversions, anticipated stream flows) in the Sierra have been designed under the recent favorable climate, and fire-management strategies now being planned reflect forest conditions that developed under the current unusually wet climate. Periods of century-long droughts have occurred within the last 1,200 years and may recur in the near future" (Sierra Nevada Ecosystem Project 1).

2) While there is mention of it, the DEIS fails to incorporate current climate change analysis that predicts a shift in snow pack elevation (higher snowline) and snow pack melt (earlier). "The quantity and timing of snow pack melt are the predominant factors affecting the surface water and groundwater hydrology." (DEIS 3-19) Studies suggest that spring melt-off will come earlier because of increased temperature averages, which will increase the risk of flooding and decrease the amount of snow-melt captured in reservoirs. Current snow pack in California is a natural reservoir for roughly half of our water. If the state of this asset is altered, so, too, is the state of our water delivery system. The same PNAS report cited earlier states that "Declining Sierra Nevada snow pack, earlier runoff, and reduced spring and summer stream flows will likely affect surface water supplies and shift reliance to groundwater resources already over drafted in many agricultural areas in California. This could impact 85% of California's population who are agricultural and urban users" (Hayhoe 12,426). The DEIS is incomplete if it does not consider likely snow pack reductions in its analysis.

7-9

3) If precipitation conditions change, it is likely that current conveyance and storage facilities will become less capable of serving their purpose. In its analysis, Reclamation has not considered possible climate change and subsequently has not considered possible future shortcomings of the facilities currently in service. "Capturing earlier runoff to compensate for future reductions in snow pack would take up most of the flood protection space, forcing choice between winter flood prevention and maintaining water storage for the summer and fall dry period." (Hayhoe 12,426)

7-10

C. Climate Change Impact on Contract Length

Because of the implications of the above listed shortcomings in the DEIS, contract lengths, in the opinion of the BEC, are unacceptable. BEC acknowledges the existence of deficiencies when attempting to predict future climatic conditions in any study, and so should Reclamation in any future EISs. It is impossible to accurately predict future climate conditions; subsequently BEC feels that it is blind and foolhardy to make long-term obligations to Settlement Contractors that Reclamation cannot potentially keep. The more comprehensive and numerous the studies that Reclamation considers, the more accurate and wise the contract decisions will become.

7-11

BEC feels that by ignoring potential climate change they jeopardize the future state of both California's ability to provide water for all of its residents and at the same time nurture it's natural resources. The DEIS compromises National Environmental Policy Act (NEPA)

7-9 As stated previously there is no consensus regarding the potential impact of global warming on agricultural demand or climate in the Sacramento Valley. At this time there are no proposals to alter flood control operations of the various reservoirs in the Sacramento Valley. Accordingly, the Draft EIS does not consider speculative reoperations of reservoirs because of changes in snowmelt patterns.

7-10 See previous responses regarding climate change. For the purposes of NEPA, and this Draft EIS, it is important to note that the commentor's suggested changes in precipitation would occur under all alternatives; therefore, there is no incremental effect resulting from the alternatives that would differ under the commentor's hypothetical scenario.

7-11 For Thematic Response No. 2 for a discussion of contract length. The DEIS's analysis of potential impacts is based on the accepted hydrologic period of record, which constitutes substantial evidence. Because there is no consensus on climate change, and no accepted evidence available of impacts associated with such change, speculation about potential effects of climate change is an inappropriate bases for EIS analysis. The commentor is incorrect in asserting that the renewal of the Settlement Contracts would cause risk to the Environmental Water Account. Settlement Contract renewal would not jeopardize the operations or funding of the Environmental Water Account under a future hypothetical climate scenario. Indeed, the operational consistency provided by the Settlement Contracts allows for better system planning for the CVP.

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requirements by inaccurately or not fully acknowledging global climate change implications. Since the analysis is not comprehensive, the DEIS's Cumulative Impact Analysis is incomplete (4-1). If further consideration of future precipitation possibilities does not occur, violation may result because of knowledge of potential precipitation change (DEIS 5-2). If climate change does adversely affect precipitation conditions, the EWA may be forced to alter SWP and CVP operations to "make environmentally beneficial changes" (DEIS 4-2). If this transpires, compensation to water users must also take place. This is an unnecessary risk that is created by long-term contracts.

BEC suggests that rather than using short-term data from the past 80 years, the DEIS should be using the best available science to offer long-term predictions of climate variations that are likely to occur during the coming decades and centuries. Other governing agencies have incorporated long-term data samples into their analysis. For example:

"Both the amount and timing of winter and spring rainfall in California vary greatly from year to year. For this reason and others, pools may fill to different extents at different times. The duration of ponding of vernal pools also varies, and in some years certain pools may not fill at all. A recent study found evidence of droughts in California, as recently as medieval times, that far exceed in duration and severity anything experienced since the arrival of Europeans" (U.S. Fish and Wildlife Service 2004).

Water Exports

Any new contract for CVP water must include a provision absolutely prohibiting the export of project water out of the basin, either directly or indirectly, for private profit. San Joaquin agribusiness and Southern California urban developers have targeted the Valley's water supply as the primary source of water for future development. Renewal of the contracts without any export limitations will increase pressure on Sacramento Valley farmers to sell their water and overuse ground water.

Habitat and Species

The Biological Opinions that provides a legal foundation for the project include maintaining minimum Habitat Restoration Program funding at current levels, which is \$1.5 million each year. Maintenance of this funding must be a binding requirement of the SRSC renewals or the biological opinions for the renewals would be rendered null, and reinitiation of section 7 consultation would be required.

Growth Inducing

Where are the discussion and analysis of the direct and indirect growth inducing impacts from a 40-year renewal of SRSC water? The renewed contracts will not limit the ability of the contractors to sell and export water south of the Sacramento Valley. As mentioned above, San Joaquin agribusiness and Southern California urban developers have targeted the Valley's water supply as the primary source of water for future development. Renewal of the contracts without any export limitations will have the potential for adverse direct and indirect growth inducing impacts. These impacts are not disclosed in the DEIS.

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See Thematic Responses No. 1 and 6 for a description of water transfers and the requirements for participants who intend to undertake transfers. Also see Chapter 3 of the Draft EIS for a discussion of potential groundwater impacts. As noted in Chapter 3, there are no impacts from implementation of the Preferred Alternative because operations with regard to groundwater would be the same as under the No Action Alternative. This analysis does not consider potential groundwater impacts associated with transfers because transfers are not an element of the Preferred Alternative or any other alternative.

7-13

The commentator's reference to biological opinions is unclear. For a description of the project's relationship to the NOAA-Fisheries Biological Opinion on the CVP-OCAP, see Thematic Response No. 7.

7-14

See Thematic Response No. 6, Water Transfers, for a discussion of the requirements for water transfers. The commentator's assertion that water transfers would increase under the action alternatives is unsubstantiated and speculative. Likewise, the commentator's assertion regarding growth resulting from these theoretical transfers is unsubstantiated and speculative.

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Cumulative Impacts

An essential element of NEPA is the examination, consideration, and analysis of the potential environmental impacts on the ecological, aesthetic, historic, cultural, economic, social, and health of a project or action. This includes not only the direct impacts but also indirect and cumulative impacts (sections 1508.7 and 1508.8)

Cumulative impact - the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Direct effects - are caused by the action and occur at the same time and place.

Indirect effects - are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

This is a project that has the potential to significantly effect the environment. There are central points to consider:

- 1) The current management SRSC water is a major cause of the listing of special status species found in the Sacramento River, its tributaries, and the dependent riparian zones. Where is the disclosure of the expected expansion of the CVP? Continuation of these contracts does not diminish the adverse impacts of the existing project and may increase them when viewed cumulatively with potential future projects that are not specifically mentioned in the Cumulative Impact section of the DEIS such as:
 - a. Sites Reservoir
 - b. Raising Shasta Dam
 - c. Water exports
 - i. Cumulative impacts from water exports are mentioned in the Dry-year Water Purchase Program and Drought Risk Reduction Investment Program section (4-3), but the DEIS fails to analyze the impacts.

7-15

7-15

See Thematic Response No. 7 for a discussion of the project's relationship to Appendix B to this Final EIS. The commentor's assertion regarding special-status species is incorrect in light of the incremental impact of the Preferred Alternative relative to the No Action Alternative. Development of potential surface water storage is not an element of the Preferred Alternative or any other alternative, and hence is not reviewed in this environmental document. Any potential storage project would be subject to separate environmental review. See Thematic Response No. 6 regarding water transfers. Finally, because the Preferred Alternative would result in no adverse change from existing conditions, it cannot contribute to any cumulative impact.

The Cumulative Impact analysis is inadequate under NEPA and must be expanded to meet legal requirements.

Thank you for the opportunity to comment.

Barbara Vlamis, Executive Director
Butte Environmental Council

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Letter from Butte Environmental Council, Barbara Vlamis et al.,
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Jim Brobeck *by B.V.*

James Brobeck
Lassen Forest Preservation Group

Taylor Samuelson *by B.V.*

Taylor Samuelson, Intern
Butte Environmental Council

References

Luers, Amy Lynd. *A Tale of Two Futures: California Feels the Heat*. Catalyst. Vol.3 No. 2 Fall 2004.

Hayhoe, Katharine et al.. *Emissions Pathways, Climate Change, and Impacts on California* in The Proceedings of National Academy of Sciences 101:34. 2004.

Sierra Nevada Ecosystem Project. Executive Summary.
http://ceres.ca.gov/snep/pubs/web/summary/sum_02.html. 1996.

U. S. Fish and Wildlife Service. *Vernal Pool Ecosystem Draft Recovery Plan*. 2004.

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U. S. EPA/OFA

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 REGION IX
 75 Hawthorne Street
 San Francisco, CA 94105-3901

November 15, 2004

Buford Holt
 Northern California Area Office
 Bureau of Reclamation
 16349 Shasta Dam Boulevard
 Shasta Lake, CA 96019

Subject: EPA Comments on the Draft Environmental Impact Statement (EIS) for Renewal of Long-Term Contracts for Sacramento River Settlement Contractors (CEQ # 040459)

Dear Mr. Holt

The U.S. Environmental Protection Agency (EPA) has reviewed the above-referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act. Our detailed comments are enclosed.

Since 1988, EPA has expressed a strong interest in the Bureau of Reclamation's renewal of long-term Central Valley Project (CVP) water supply contracts, and their effects on water quality and the environment. EPA also joined Reclamation and other state and federal agencies in the CALFED Bay Delta program to collectively implement a comprehensive and balanced program for environmental restoration, water supply reliability, water quality, and levee improvement. Over the past 15 years, EPA has urged Reclamation to undertake a rigorous analysis of alternatives in the context of contract renewals in order to reduce environmental impacts, consistent with the Central Valley Project Improvement Act (CVPIA) and CALFED.

Based on our review of the Draft EIS, we have rated the Draft EIS as Environmental Concerns - Insufficient Information (EC-2). Please see the enclosed Rating Factors for a description of EPA's rating system.

EPA is concerned that the environmental impacts of the existing conditions are not fully disclosed, and therefore the impacts of the future with the project are significantly underestimated. Also, the environmental evaluation is based upon an assertion that the future

Letter from United States Environmental Protection Agency,
 Enrique Manzanilla, Dated November 15, 2004

- 8-1 Comment noted. Individual responses are provided for all of the recommendations put forward in the commentator's letter.
- 8-2 Reclamation has fully described affected environment and the incremental effects of the Preferred Alternative compared to the No Action Alternative, consistent with the requirements of NEPA. See Chapter 3 of the Draft EIS for a discussion of affected environment and environmental consequences. The commentator's concerns are based on the following two assumptions: (1) water is overallocated in the Sacramento Valley, and (2) environmental resources are in decline. With regard to proper allocation of water, an evaluation of all known uses of water within the basin is beyond the scope of this document. However, as senior water rights holders in the Sacramento Basin, the SRSCs - as a group - are subject to the same environmental requirements and reviews as other water users in California, but within the guidelines of California water law. A prime example of this is the participation of many contractors in the Sacramento Valley Water Management Program, which is addressing, in part, the improvement of water quality in the Bay-Delta (see Draft EIS, page 1-12). Furthermore, the SRSCs assert, and Reclamation concurs, that water provided under the Settlement Contracts has been put to beneficial use. Because the water is delivered under senior water rights, and has been beneficially used, the commentator's assumption that water has been "overallocated" to SRSCs is incorrect. With regard to the commentator's assertion that environmental resources are in decline, see the CVPIA PEIS and the CALFED ROD for descriptions of programs intended to restore environmental resources. Also, see the 2004 Biological Opinions on the CVP-OCAP). That document provides an analysis of the CVP and SWP system's effect on threatened and listed species in the Central Valley. That document concluded that the proposed operations of the CVP and SWP - including renewal of the Settlement Contracts - would not likely jeopardize the continued existence of threatened or endangered species. Indeed, the biological opinions prepared as part of that effort documented the continuing improvements of some species, notably winter-run salmon.

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} 8-2

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baseline (p. 2-6). However, current management may serve to continue or accelerate adverse environmental impacts when resources are already in decline. The environmental analysis that was appropriately deferred during the CVPIA Programmatic EIS is not provided in this project-level NEPA document. We continue to be concerned with the direct, indirect, and cumulative impacts to water quality that are caused by the long-term overallocation of existing water supplies associated with the contract renewals.


8-2, cont'd

We urge Reclamation to adopt a course of action which affirms commitment to full implementation of CVPIA provisions intended to restore anadromous fisheries and assist Reclamation and water users to better manage CVP water. Water supply conditions in California have changed dramatically in the 40 years since these contracts were signed. With increasing urban population, deliveries in some areas are shifting from agricultural uses to municipal and industrial uses. In the pressure to meet various agricultural and urban water demands, overallocations which have altered natural flows, water quality, and beneficial uses have occurred. We expect these trends to continue in the future. Water policy that promotes conservation and environmental protection continues to be an EPA priority. EPA is concerned that Reclamation is executing long-term contract commitments, without sufficiently disclosing the environmental impacts of these decisions.

8-3

We appreciate the opportunity to review this Draft EIS. When the Final EIS is released for public review, please send two copies to the address above (mail code: CMD-2). If you have any questions, please contact me or Summer Allen, the lead reviewer for this project. Summer can be reached at 415-972-3847 or allen.summer@epa.gov.

Sincerely,



Enrique Manzanilla, Director
Cross Media Division

Main ID# 003723

Enclosures:

Summary of EPA Rating Definitions

EPA's Detailed Comments

8-3

See Thematic Response No. 1, History of the Settlement Contracts, for a discussion of the relationship between Reclamation and the SRSCs. As noted above, the commentor's allegation that water has been over-allocated to SRSCs is incorrect. Also see Thematic Response No. 2, Relationship of Settlement Contractors to CVPIA and CALFED, for a description of the relationship between Settlement Contract renewal and the CVPIA. It is also important to note that the Settlement Contracts contain language outlining conservation requirements. Determination of the adequacy of these conservation requirements is beyond the scope of the Draft EIS. Also, it is important to note that the SRSCs have developed the Sacramento River Basinwide Water Management Plan specifically to maximize the beneficial use of water in the basin through improved water management measures on a regional basis. As noted previously, a full analysis of water use and policy in California is beyond the scope of this document. See the Draft EIS at pages 1-11 and 1-12.

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EPA DETAILED COMMENTS FOR THE DEIS RENEWAL OF LONG-TERM CONTRACTS FOR SACRAMENTO RIVER SETTLEMENT CONTRACTORS, CA, NOVEMBER 15, 2004

Existing Conditions and Future No Action Conditions

1. The Draft Environmental Impact Statement (EIS) equates conditions under the future "no action" alternative with existing conditions (p. 2-6). No Action also represents the "status quo" in terms of the Central Valley Project Implementation Act (CVPIA). In our previous comment letters to the Bureau of Reclamation on interim contract renewals, EPA has argued that the existing condition is characterized by significant environmental impacts associated with the overallocation of existing water supplies. Although the system is dynamic, the overallocation results in significant impacts to water quality, beneficial uses, and discourages conservation. Currently, the flow regime of the Sacramento River does not support riparian habitat recruitment, one of the objectives of the CALFED Ecosystem Restoration Program. Similarly, existing flow and temperature management may not be effective for anadromous fish restoration, which can lead to a decline in populations relative to existing conditions.

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In addition, existing water use does not necessarily resemble future conditions. For example, the No Action alternative (based on the CVPIA PEIS preferred alternative) would include renewal of almost all water supply contracts at maximum contract quantities (p. 2-6). However, the Draft EIS does not provide documentation that historic contract deliveries have reached these quantities.

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Since significant ecosystem restoration elements of the CVPIA implementation have yet to occur, it is inaccurate to equate current and foreseeable conditions on the Sacramento River with a future that includes full CVPIA implementation. EPA notes that successful resolution of fish passage at Red Bluff Diversion Dam, a key measure for anadromous fish passage on the River and access to upstream spawning habitat, has not been accomplished. Under current status quo conditions, the fish are at much greater risk and highly dependent on management of CVP-controlled water.

8-6

Recommendation:

The Final EIS should provide an accurate description of the existing conditions, and report the existing environmental degradation where it exists. The Final EIS should also distinguish the future "no action" scenario from the existing condition. Assumptions regarding environmental improvements associated with other projects should be explicit, noting the anticipated year of implementation, environmental benefits, and responsible parties.

8-7

2. The DEIS provides only general descriptions of the Affected Environment. There is no description of instream flow requirements and conditions, water quality, the timing or amount of Shasta Dam releases, endangered fish compliance requirements, operations to meet Bay-Delta water quality standards, or hydropower generation flows related to the Sacramento River or its tributaries. Although the Glenn-Colusa Irrigation District provides water to the Sacramento, Delevan, and Colusa National Wildlife Refuges (p. 3-94), there is no information on the

8-8

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8-4 The commentor is incorrect in characterizing the No Action Alternative as "status quo" in terms of the CVPIA. To the contrary, as stated on page 2-2 of the Draft EIS, the No Action Alternative is the same as the Preferred Alternative for the CVPIA PEIS. The CVPIA Preferred Alternative incorporates programs and requirements outlined in the CVPIA. Again, commentor's comment inferring that water has been "overallocated" to the SRSCs is incorrect. A review of Reclamation's proposed flow and temperature management in the future was conducted for the Biological Opinion on the CVP-OCAP. That document found that the proposed operations of the CVP and SWP - including renewal of the Settlement Contracts - would not likely jeopardize the continued existence of threatened or endangered species. Also see Response to Comment 8-2.

8-5 The commentor correctly notes that water use could change in the future. However, there are no plans for significant changes in use for SRSCs. Any significant change in use would be subject to future environmental review. The commentor also correctly notes that the No Action Alternative is based on the CVPIA PEIS Preferred Alternative. See Thematic Response No. 3 for a discussion of Reclamation's needs analysis, and its relationship to the amounts of water contained in the contracts. Publicly available diversion records maintained by Reclamation indicate that the SRSCs have used their full contract allotments in the past, and the water needs assessment conducted by Reclamation demonstrates water demand at full contract amounts in the future. Existing contract volumes are consistent with historical use and rights to use. Contract volumes under the Preferred Alternative are decreased compared to the no action condition. See also Thematic Response No. 3 regarding the needs assessment.

Letter from United States Environmental Protection Agency, Enrique Manzanilla, Continued

- 8-6 The commentor notes that certain restoration elements of CVPIA have not been fully implemented, specifically including improvements to RBDD. As noted in Chapter 3 of the Draft EIS, there would be no impact under the Preferred Alternative compared to the No Action Alternative. Analyses in the Draft EIS that concluded there were no adverse impacts from the Preferred Alternative were not dependent on potential future improvements under CVPIA or any other restoration program. See Thematic Response No. 2 for a discussion of the relationship between CVPIA and the SRSCs. For an assessment of risk to fish in the Sacramento River, see the Biological Opinion on the CVP-OCAP. That document found that the proposed operations of the CVP and SWP – including renewal of the Settlement Contracts – would not likely jeopardize the continued existence of threatened or endangered species. Also, regardless of the action alternative selected here, for as long as Shasta Dam is operational, all fish species below the dam will be highly dependent on the management of CVP-controlled water.
- 8-7 Because there is essentially no change between the No Action Alternative and the Preferred Alternative, the conclusions reached in the Draft EIS are independent from environmental improvements associated with other projects. The future no action scenario is covered in detail in the PEIS for the CVPIA, as the PEIS preferred alternative is consistent with the SRSC No Action.
- 8-8 Page 1-10 of the Draft EIS outlines the OCAP Biological Assessment as a related activity. All of the descriptions requested by the commentor are outlined in detail in the OCAP project description, biological assessment, modeling results, and resulting biological assessment. A full evaluation of all the relative reserve water rights is beyond the scope of this document, because of their complex – and possibly controversial – nature. However, the absence of change assures there will be no impact on any reserve water rights.

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importance of this water, Sacramento Settlement Contractors water conveyance facilities, or agricultural drainage water to the refuges. The Draft EIS also briefly states that Indian Trust Assets include federally reserved hunting and fishing rights; federally reserved water rights; or in-stream flows associated with a reservation, rancheria or public-domain allotment. However, the Draft EIS does not state whether these rights apply to the listed tribes (pps. 3-143 to 3-144).

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Recommendations:

The Final EIS should provide a description of operational flow requirements, instream flow requirements, water quality standards (e.g., specific temperature and flow requirements, and compliance points), key water quality issues (e.g., pesticides, temperature), downstream users and their water supply needs, and specific reasonable and prudent measures to meet Endangered Species Act requirements for the Sacramento River and its tributaries. It should also provide a description of the Bay-Delta and its water quality and flow requirements.

The Final EIS should describe the role of Sacramento Settlement Contractors contract water, agricultural drainage and return flows, and conveyance facilities in the management of the Sacramento, Delevan, and Colusa National Wildlife Refuges.

The Final EIS should describe whether the listed Indian Tribes have federally reserved hunting and fishing rights; federally reserved water rights; or in-stream flows associated with a reservation, rancheria or public-domain allotment. If these rights exist, a description of these rights and the potential effects of the proposed action on these rights, should be provided.

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3. The Preferred Alternative for the Central Valley Project Improvement Act Programmatic Environmental Impact Statement (CVPIA PEIS), is virtually the same as the No Action Alternative in this Draft EIS (p. 2-2). Operations of the CVP, including delivery of Sacramento River water to the Sacramento Settlement Contractors, are guided by the adopted CVPIA PEIS Preferred Alternative, which represent the existing conditions for this project (pps. 2-2, 2-6). While the CVPIA PEIS Preferred Alternative would improve environmental conditions for threatened and endangered fisheries, the PEIS clearly states that this Preferred Alternative would continue to have adverse impacts on various resources (Table II-13, CVPIA Final PEIS, p. II-67).

8-10

Recommendation:

The Final EIS should include a detailed description of the CVPIA PEIS Preferred Alternative, state the status of its implementation, and report the potential environmental impacts of this alternative as described in the CVPIA PEIS. The status of actions relevant to the Sacramento region which would improve, environmental water supplies, water supply reliability, water quality, and conditions for threatened and endangered fisheries should be clearly described in the Final EIS.

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Full descriptions of the flow, water quality, and water deliveries of the CVP are included with this Final EIS as Appendix C. Reasonable and prudent measures to meet Endangered Species Act requirements are included in the Biological Opinion on the CVP-OCAP, Appendix A. Reclamation concludes that the Preferred Alternative would not adversely affect the use, quality, character, or nature of the six tribes' trust assets located in the SRSC study area. Likewise, operation of the refuges in the study area would not be negatively affected.

8-10

Contrary to the commentor's assertion, the effects on fisheries and river/Delta conditions associated with the PEIS Preferred Alternative, as summarized in Table II-3 of the Final PEIS at pages II-67-68, are overwhelmingly positive. Notwithstanding the few adverse changes identified in Table II-3, the Biological Opinion on the CVP-OCAP concluded that continued operations of the CVP as proposed by Reclamation are not likely to adversely affect listed fish species. It is important to note that the CVPIA Preferred Alternative is the same as the SRSC No Action. Also see Thematic Response No. 2 for a discussion of the relationship between CVPIA and the SRSCs.

8-11

Because there is essentially no change between the No Action Alternative and the Preferred Alternative of this EIS, the conclusions reached in the Draft EIS are independent from environmental improvements associated with other projects. See page 1-10 of the Draft EIS for a description of the relationship to the CVPIA PEIS. Also see Appendix C for a detailed description of CVP operations.

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Tiering from the CVPIA PEIS

1. The CVPIA PEIS did not address certain region-specific resources and impacts, including groundwater use and impacts, and water quality. Although this Draft EIS provides an analysis of groundwater, it does not address the impacts of water diversion and use on water quality, aquatic resources, and downstream uses. EPA notes that the Scoping Report for the Draft EIS stated that Reclamation intended to evaluate the effects of the contracts on water quality. (See "Comment analysis and response: environmental documentation," p. 14.)

The Draft EIS does not provide current information about State and Federal programs that address agriculture-related water quality problems. Pursuant to Clean Water Act Section 303(d), the State Water Resources Control Board has listed extensive Central Valley waterways as "impaired" due to irrigated agricultural pollution sources. High levels of agricultural pesticides are a problem in the Sacramento River, Colusa Basin Drain, and certain tributaries. To address these problems, the Central Valley Regional Water Quality Control Board is developing a program to remedy significant water quality impairments in the Sacramento and San Joaquin valleys through an irrigated lands waiver program and through Basin Plan Amendments incorporating TMDL (total maximum daily load) implementation.

Recommendations:

The Final EIS should include a more detailed analysis of water quality conditions and impacts on water quality from the alternatives. If appropriate, contract terms should incorporate this information and adjust timing, amount of water allocation, and water conservation.

2. EPA is concerned that the CVPIA PEIS projected impacts for actions to Year 2025 while the study period of this Draft EIS extends to the year 2044. As a result, the NEPA evaluation does not cover the period between 2025 and 2044 and does not persuasively demonstrate that the renewal of long-term contracts for the Sacramento River Settlement Contractors will have no impact.

Recommendations:

The FEIS should evaluate the potential impacts of the CVPIA PEIS Preferred Alternative between 2025 to 2044 and clearly describe projected conditions under this alternative in 2044.

3. EPA has concerns regarding the analysis used to establish existing and future demands. The Draft EIS does not explain if actual measurements of current and past water use were used to substantiate the calculation of "existing demand." EPA is concerned that the calculation of current demand is not supported by data on diversion and application, given gaps in information on groundwater pumping (p. 3-19) and limited measurement of surface supplies (p. 3-109). The needs analysis justifies amounts equivalent to the existing total contract quantity for the renewed contracts and expected future demand, in almost all cases (see Table 2-2). However, this conclusion conflicts with analyses being developed by the State Department of Water Resources. These analyses project a future trend of substantially declining agricultural water demand in the

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Aquatic resources are addressed in the Draft EIS at page 3-75. An assessment of water quality has been added to the EIS; see Chapter 4 to this Final EIS, specifically Chapter 3. No significant impacts were identified.

An assessment of water quality has been added to the EIS; see Chapter 4 to this Final EIS, specifically Chapter 3. No significant impacts were identified.

Projections in the CVPIA PEIS were based on the accepted projections of land use and population projections (see for example DWR Bulletin 160-98 and Bulletin 160-93). The Draft EIS is a project-specific document analyzing the foreseeable impacts of renewing Settlement Contracts. Impact conclusions do not depend on the possible programmatic projections beyond 2025 because the Needs Assessment shows full use by 2025. It is beyond the scope of this document to amend the CVPIA PEIS to include such projections.

See Response to Comment 8-14.

Publicly available diversion records maintained by Reclamation indicate that the SRSCs have used their full contract allotments in the past, and the water needs assessment conducted by Reclamation demonstrates water demand at full contract amounts in the future. Existing contract volumes with three exceptions are consistent with historical use and rights to use. Contract volumes under the Preferred Alternative are decreased compared to the no action condition. Appendix D of the Draft EIS includes actual needs assessments for SRSCs. See also Thematic Response No. 3 regarding the needs assessment. See Thematic Response No. 6 for a discussion of water transfers in the context of the Settlement Contracts.

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Central Valley, including the Sacramento River region (briefings by the Department of Water Resources to the Bulletin 160 State Water Plan Advisory Committee on October 14, 2004, and to the CALFED Agency Coordination Team on October 26, 2004).¹ Factors included in this trend may involve transfer opportunities, shifts in cropping patterns, and urban encroachment.

8-16,
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Recommendations:

The Final EIS should include a summary of the water needs assessment process and results, including a description of key assumptions, and how these water needs were calculated. The Final EIS should also include a description of urban development or other land use influences on specific irrigation districts. It should also discuss how potential opportunities to transfer agricultural water to urban water use affect projections and calculations.

8-17

Environmental Consequences

1. The environmental effects of the No Action alternative are not described in the Draft EIS. In addition, there is little to distinguish the preferred alternative and other action alternatives from the "no action." As a result, the Draft EIS concludes that because the preferred action is similar to No Action, the allocation of 2.3 million acre-feet of water per year for a period of 40 years would have no impact (Chapter 3 Environmental Consequences).

8-18

Recommendations:

We urge Reclamation to fully evaluate the potential impacts of the action alternatives in terms of their effects on the environment rather than providing a general comparison of the action alternative with the No Action alternative.

The environmental consequences analysis in the Final EIS should describe in detail the conditions and environmental effects under the No Action Alternative. The environmental baseline conditions should be clearly established. We recommend including a short description of the historical changes to Sacramento River basin resources and the environmental effects specific to Sacramento Settlement Contractor diversions from the Sacramento River and its tributaries. For example, describe historical effects to water quality, water quantity, in-stream flows, aquatic ecosystem, fisheries, and fish and wildlife habitat. The information should provide the decision-maker and public with a clear picture of the environmental context for these long-term contract renewals.

8-19

The Final EIS should evaluate the environmental effects of reduced contract water quantities or shortage provisions on water quality, the timing and quantity of instream flows, and the amount and quality of agricultural drainage water.

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This comment is addressed in Response to Comment 8-16. See Thematic Response No. 3 for a discussion of the water needs assessment that was conducted by Reclamation. Also see Appendix D of the Draft EIS.

8-18

The Draft EIS describes, in detail, the selection of the No Action Alternative and the similarities of the No Action Alternative to the affected environment/existing conditions. See Draft EIS pages 2-2 and 2-6. The no action condition is described under the Environmental Consequences section for each resource in Chapter 3 of the Draft EIS. In addition, see Thematic Response No. 5 for a discussion of the No Action Alternative. Reclamation contends that the conclusions and the analyses in the Draft EIS comply with the requirements of NEPA.

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See Response to Comment 8-18. For additional historical information or information relating to affected environment, see Chapter 3 of the CVPIA PEIS. Also see the updated water quality analysis in Chapter 4 to this Final EIS. See Response to Comment 8-2 for a discussion of the findings of the CVP-OCAP. Consultation with USFWS and NOAA-Fisheries on a project-specific level is anticipated to be completed prior to publication of the ROD. However, ESA compliance is not anticipated to result in finding of significant impact on threatened or endangered species because the Draft EIS documented no effect to biological resources as a result of the Preferred Alternative.

¹ Additional information on the water demand trends is available at the State Water Plan website: <http://www.waterplan.water.ca.gov/landwateruse/watcruse/wuoview.htm>.

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For projects included in the CVPIA PEIS (e.g., Environmental Water Account, Drought Risk Reduction Investment Program, Environmental Water Program, and South Delta Improvement Program) and other more recent programs, we recommend the Final EIS include additional information on implementation status of these projects and their demonstrated effectiveness in reducing negative environmental effects related to CVP/State Water Project facilities and diversions on water quality, fisheries, and ecosystem indicators.

We recommend the Final EIS also include a short description of the status and results of Endangered Species Act consultations with US Fish and Wildlife Service (FWS) and National Oceanic and Atmospheric Administration (NOAA)-Fisheries for the Sacramento Settlement Contractor contract renewals and related CVP Operations Criteria and Plan (OCAP).

2. The proposed shortage provisions in the negotiated contracts could increase groundwater pumping during dry years. The Draft EIS states riparian vegetation would experience minor reductions in groundwater elevation, as a result of this temporary increase in groundwater pumping. However, it does not address whether there would be negative effects on the acreage of riparian vegetation (p. 3-73) or fisheries, since the drawdown of local streamflow would be small and offset by reduced surface water diversions (p. 3-86). However, EPA notes that the groundwater analysis indicates that some Sacramento River tributaries could have a reduction of flow due to the loss of groundwater seepage (pps. 3-54 to 3-56). A reduction in flow could cause significant adverse effects on sensitive riparian and fishery habitat.

Recommendation:

The Final EIS should evaluate the effect of reduced tributary streamflows on riparian vegetation and threatened, endangered, and sensitive aquatic species. These impacts may be exacerbated by a provision, mentioned on page 3-3 of the Draft EIS, to compensate contractors for additional ground water pumping costs. The Final EIS should clarify this reference to pumping cost compensation and consider whether, absent the compensation, ground water pumping would decline. Also, discuss possible mitigation measures, such as incentives or basin-wide water exchanges, to reduce reliance on groundwater in sensitive areas.

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The commentor is incorrect in asserting that the negotiated contracts (represented by the Preferred Alternative) would increase groundwater pumping compared to the No Action Alternative. Impacts from potential increased groundwater pumping under other alternatives are presented in Chapter 3 of the Draft EIS. As noted in the groundwater analysis, reduced surface water deliveries under Alternatives 4 and 5 would increase pumping relative to the No Action Alternative. However, the reduction in deliveries, relative to the No Action Alternative, could result in additional streamflows for fish, resulting in a potential benefit. As shown in Tables 3-11 and 3-14 of the Draft EIS, peak depletion rates are generally very small, especially compared to measured streamflow. For example, Table 3-11 estimates a peak stream depletion rate of 240.7 cfs in the Sacramento River as a result of groundwater pumping, compared to a modeled streamflow of 8,718 cfs. This would be a peak reduction of less than 3 percent. For Butte Creek, the peak depletion rate is 7.6 cfs against a streamflow of 114 cfs, which is a peak reduction of less than 7 percent. It is important to note that these potential impacts from pumping are the result of a hypothetical drought scenario based on 4 consecutive water years similar to the extreme drought of 1976-1977. Any potential impacts to fish species would be *de minimus* and could potentially be offset by instream releases of water if necessary. As noted in Chapter 3 of the Draft EIS, there is no impact to fishery resources caused by operations under the Preferred Alternative relative to the No Action Alternative.

8-21

See Tables 3-11 and 3-14 of the Draft EIS. Absent the compensation, pumping would likely be less, but it would be unlikely that SRSCs would agree to such terms. If the proposed terms of the Settlement Contract renewals were not mutually agreeable to the SRSCs, individual contractors could conceivably decide to forgo the Settlement Contracts and rely solely on their water rights to natural flow of the Sacramento River and its tributaries. As noted in Chapter 2 of the Draft EIS, it is considered speculative to analyze the effects of SRSCs diverting natural flow solely under their water rights because the final determination of those water rights would be determined by a general adjudication of rights to the use of water of the Sacramento River system. As noted in Response to Comment 8-20, the Draft EIS concluded that impacts to groundwater and stream

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8-21
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levels were not significant. Modeled peak depletion rates under extreme drought conditions ranged from less than 3 percent to less than 7 percent of total flow in affected streams. This change is considered *de minimus*. Thus, mitigation is not necessary or required.

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Water Conservation

The total annual contract water quantity is 2,227,000 acre-feet, approximately 30 percent of total CVP deliveries and diversions from Sacramento River and its tributaries. Fish species and other aquatic resources in the Sacramento River and its tributaries have been under ecological stress, in part, due to large water supply diversions and the quality of agricultural drainage/return water.² According to the California Bay-Delta Authority most agricultural fields in the Sacramento River Settlement Contracts service area do not have measuring devices that meet Reclamation's Water Conservation Guidelines for precision (p. 3-109). The addition of farm gate measuring devices and volumetric pricing of water to growers would likely result in some reductions in average applied water. Reductions in diversions and agricultural drainage/return water could be beneficial in improving the quality of instream flows and reducing impacts to fish.

8-22

The negotiated contract includes direction for the contractor and contracting officer to develop a mutually agreeable surface water delivery water measurement program. This program must be consistent with the conservation and efficiency criteria for evaluating water conservation plans as provided in Article 29(a) of the contract (p. 24 USBR Exhibit 17, Appendix C). Contract Article 29 (a) stipulates that the contractor shall have implemented effective water conservation and efficiency program prior to diversion of Project Water (p. 2-18 and p. 33, USBR Exhibit 17, Appendix C). The water conservation and efficiency program is to be based on the Basin-Wide Water Management Plan. The Draft EIS does not demonstrate whether the contractors are meeting this water conservation requirement.

Recommendations:

The Final EIS should include a more in-depth description of conservation measures being taken or proposed by the contractors. We urge Reclamation to consider additional contract terms which would promote water conservation, allow for adaptive management to changing conditions, and provide opportunities to enhance environmental water supplies.

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We urge compliance with Reclamation's water conservation guidelines and a firm commitment to installation of water measurement devices at farm gates, as soon as possible, as stated in the Draft EIS Environmental Consequences (p. 3-134) and Contract (p. 24, USBR Exhibit 17, Appendix C).

The FEIS should disclose status of development and implementation of the Basinwide Water Management Plan referenced in the DEIS.

8-22

For an assessment of risk to fish in the Sacramento River, see the Biological Opinion on the CVP-OCAP. That document found that the proposed operations of the CVP and SWP – including renewal of the Settlement Contracts – would not likely jeopardize the continued existence of threatened or endangered species. Settlement Contracts contain language outlining conservation requirements. Also, see Thematic Response No. 3 regarding water conservation requirements. Determination of the adequacy of these conservation requirements is beyond the scope of the Draft EIS. Also, it is important to note that the SRSCs have developed the Sacramento River Basinwide Water Management Plan specifically to maximize the beneficial use of water in the basin through improved water management measures on a regional basis. See the Draft EIS at pages 1-11 and 1-12. Finally, it should be noted that some of the problems CALFED seeks to mitigate result from the increase in summer flows relative to pre-development levels. The Sacramento has two, not one, seasonal hydrographic probes as a result of irrigation flows.

8-23

See Response to Comment 8-22. Article 29 of the contracts requires SRSCs to develop and implement a water conservation plan that meets the conservation and efficiency criteria for evaluating water conservation plans established under federal law. Such conservation and efficiency criteria include water measurement requirements. The final Basinwide Water Management Plan was transmitted to Reclamation in October 2004. Many of the larger SRSCs are currently developing a Regional Water Management Plan to comply with Reclamation's regional criteria for evaluating water management plans.

² Water diversions not only deplete instream flows but, unless properly screened, divert fish into irrigation canals. Reducing diversion impacts is an important element of the CALFED Ecosystem Restoration Program. The Central Valley Regional Water Quality Control Board has identified a number of agricultural chemicals which contribute to water quality impairments, particularly in the Colusa Basin Drain and lower Sacramento River, which are affected by return flows from Settlement Contractor water use. (See Clean Water Act Section 303(d) List of Water Quality Limited Segment.)

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Monitoring

EPA is concerned that assumptions incorporated into the Draft EIS environmental analysis may not be supported by reliable data and analysis. Examples of assumptions that are of particular concern to EPA include: groundwater depletions would recover during wet years (p. 3-58), and local streamflow reductions would be offset by a reduction in surface water diversions (p. 3-86). Neither a validation and implementation monitoring plan nor a description of proposed monitoring is provided to monitor the effects of contract renewals. Monitoring and an adaptive management processes are critical given the potential for rapid changes in population growth, climate, water quantity and quality, and water policy over the 40-year renewal period.

Recommendation:

The Final EIS should include a detailed monitoring and reporting plan that includes validates and verifies model assumptions and tracks on-the-ground environmental effects of the contract renewals.

We recommend development of an adaptive management program to ensure incorporation of new information and changing population, land use, and climate conditions into water supply management and operational decisions and actions.

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8-24

The Draft EIS does not identify any significant impacts and, therefore, no monitoring plan or program is required or warranted under NEPA. In addition, the recommended monitoring and reporting plan is best achieved under the CALFED program, perhaps as part of a regional monitoring plan, or through an ongoing DWR regional monitoring plan. See the Groundwater section of Chapter 3 of the Draft EIS. As noted there, current monitoring data indicates that groundwater levels reset to "full" conditions in all but the most severe drought conditions.

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SUMMARY OF EPA RATING DEFINITIONS

This rating system was developed as a means to summarize EPA's level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the EIS.

ENVIRONMENTAL IMPACT OF THE ACTION***"LO" (Lack of Objections)***

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

ADEQUACY OF THE IMPACT STATEMENT***Category 1" (Adequate)***

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, "Policy and Procedures for the Review of Federal Actions Impacting the Environment."

No. 9



NATURAL RESOURCES DEFENSE COUNCIL

November 15, 2004

Mr. Buford Holt
 Bureau of Reclamation
 16349 Shasta Dam Boulevard
 Shasta Lake, CA 96019

RE: NRDC and Bay Institute Supplemental Comments on Draft EIS re Long-Term
Renewal Contracts for Sacramento River Settlement Contractors – Part I

Dear Mr. Holt:

These are supplemental comments of the Natural Resources Defense Council (NRDC) and The Bay Institute (TBI) on the Draft Sacramento River Settlement Contractors Environmental Impact Statement (EIS) concerning the Proposed Long-term Renewal Contracts from the Central Valley Project (proposed contracts), U.S. Bureau of Reclamation, Mid-Pacific Region, Sacramento, CA; September 2004. Our organizations are submitting detailed technical comments on the draft EIS, along with extensive attachments, under separate cover. (A copy of those separate comments, without the attachments, is also enclosed herein for your convenience.) In addition, we are enclosing with these supplemental comments numerous materials that are relevant to the proposed renewal contracts and the draft EIS. We request full consideration of both sets of comments, along with all materials attached to or submitted with each of our comment letters or incorporated or referenced therein.

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1. Request for Extension of Comment Deadline

The Bureau has not provided adequate time for the public to review the EIS or the proposed contracts. For all of the reasons stated in the letters previously submitted to USBR from the Pacific Coast Federation of Fishermen's Associations (PCFFA), Taxpayers for Common Sense, Northern California/Nevada Council-Federation of Fly Fishers, Senators Feinstein and Boxer, and Rep. George Miller and five other Members of Congress, we urge you to reopen or extend (or both) the public comment periods for the contracts and the EIS so that there will be at least 60 days of public comment allowed after the completion and public distribution of the final Biological Opinion of NOAA Fisheries (NMFS) on the new OCAP for the Central Valley Project (CVP) and the State Water Project (SWP). The final NMFS BO on OCAP and this draft EIS are both relevant to the proposed contracts, but the comment period on those contracts had closed when those environmental documents were finally released, thus infringing on public review and undermining meaningful comment.

} 9-2

Letter from Natural Resources Defense Council Part I,
 Hamilton Candee, Dated November 15, 2004

9-1

Attachments to the commentor's letter cover a wide range of important topics relating to CVP operations, contract renewal, ecology, and water policy in general. Not every submittal relates to the Draft EIS. Attachments that are included here are specific to the sufficiency of the Draft EIS. The following attachments were not considered as part of this Final EIS because they did not address the Draft EIS (40 CFR sec 1503.4 (a), (b)):

- NRDC letter to Kirk Rodgers, USBR, dated November 27, 2002, Re: Sacramento River Long-Term Renewal Contracts
- NRDC letter to David Hayes, US Department of the Interior, dated January 9, 2001, Re: Comments on Proposed CVP Long-Term Renewal Contracts for Friant, Hidden, Buchanan, Cross-Valley, Feather River and Delta-Mendota Canal Units
- NRDC letter to Kirk Rodgers, USBR, dated August 13, 2002, Re: Sacramento River Long-Term Renewal Contracts
- NRDC letter to Al Candlish, USBR, dated December 7, 2000, Re: Central Valley Project Long-term Renewal of water service contracts
- Taxpayers for Common Sense National Taxpayers Union letter to Gale Norton, US Department of the Interior, dated May 3, 2004, Re: Central Valley Project water contract renewals
- NRDC letter to Rodney McInnis, NMFS, dated August 27, 2004, Re: Endangered Species Act and Magnuson-Stevens Act Consultations Addressing Coordinated Operations of the Central Valley Project, State Water Project, and the Operational Criteria and Plan ("OCAP")
- NOAA-Fisheries letter to Tom Stokely, Trinity County, dated July 23, 2004, Re: Trinity River Fishery Restoration Supplemental EIS/EIR
- NRDC letter to Donald Bultema, USBR, dated September 3, 2004, Re: Comments on CVP Long-term Contracts for Sacramento River Water Rights Settlement Contractors

Letter from Natural Resources Defense Council Part I, Hamilton Candee, Dated November 15, 2004, Continued

9-1,
cont'd

- NRDC letter to Wayne White, USFWS, dated July 28, 2004, Re: Endangered Species Act Consultation on the Coordinated Operations of the Central Valley Project, State Water Project, and the Operational Criteria and Plan
- California DFG letter to Tom Stokely, Trinity County, dated June 22, 2004, Re: Trinity River Fishery Restoration Supplemental EIS/EIR
- NRDC letter to Donald Bultema, USBR, dated September 7, 2004, Re: Comments on CVP Long-term Contracts for Sacramento River Water Rights Settlement Contractors
- Taxpayers for Common Sense letter to Donald Bultema, USBR, dated September 7, 2004, Re: 140 Sacramento River Settlement Contracts
- US EPA letter to Al Candlish, USBR, dated December 8, 2000, Re: Proposed Long Term Contracts and Associated Environmental Assessments
- US EPA letter to Frank Michny, USBR, dated August 30, 2001, Re: NEPA Compliance for Long Term Renewal Contracts
- US EPA letter to Frank Michny, USBR, dated January 4, 2002, Re: Draft Supplemental Environmental Assessment for the 2002 Renewal of Interim Water Service Contracts
- US EPA letter to Frank Michny, USBR, dated January 23, 2004, Re: 2004 Renewal of Interim Water Service Contracts Supplemental Draft Environmental Assessment
- USBR Mid-Pacific Region News Release: Transfers, Draft environmental documents for Sacramento River Settlement Contractors water transfer program available for public comment, dated January 24, 2003
- Lindley et al. 2004. Population structure of threatened and endangered Chinook salmon ESUs in California's Central Valley Basin. NOAA Technical Memorandum NMFS-SWFSC-370. 45 pp plus 10 plates.

Letter from Natural Resources Defense Council Part I, Hamilton Candee, Dated November 15, 2004, Continued

9-1,
cont'd

- Yoshiyama, R. M., F. W. Fisher, and P. W. Moyle. 1998. "Historical abundance and decline of Chinook salmon in the Central Valley Region of California." *North American Journal of Fisheries Management* 18:487-521.
- Hallock, R. J. 1987. Sacramento River System salmon and steelhead problems and enhancement opportunities. A report to the California Advisory Committee on salmon and steelhead trout. 92 pp.
- McElhany et al. 2000. Viable salmonid populations and the recovery of evolutionary significant units. NOAA Technical Memorandum NMFS-NWFSC-42. 156pp.

9-2

See Thematic Response No. 4, Administrative Process, for a discussion of the length of the comment period.

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Letter from Natural Resources Defense Council Part I,
Hamilton Candee, Continued

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2. The Draft EIS is Legally Inadequate.

The Bureau has failed to correct the numerous deficiencies in its prior environmental review documents pertaining to CVP long-term renewal contracts and interim renewal contracts. These deficiencies are once again repeated in this new draft EIS, which again finds no significant impacts from renewing CVP contracts for over 2 million acre feet for another 4 decades. Numerous comments criticizing these earlier documents have been submitted to the Bureau and are contained in the administrative records on those contracts and their associated NEPA review processes, including NRDC's own extensive comments dated December 7, 2000, which are attached and incorporated herein, and the comments of the Hoopa Valley Tribe (letter of Thomas Schlosser to Frank Michny), which are also attached. Among other things, the Bureau has failed to meet its legal obligation to consider a reasonable range of alternatives, including an alternative that makes meaningful reductions in water quantities in the Settlement Contracts, and failed to disclose and analyze adequately the environmental impacts of the proposed action, including cumulative impacts. Associated CEQA review is likewise insufficient. Some of these defects are more fully addressed below.

9-3

3. The Bureau has failed to address the concerns previously identified by EPA and failed to comply with the Findings of the Council on Environmental Quality.

In a series of letters, the US EPA has expressed repeated concern over the adequacy of the Bureau's environmental review process for its contract renewal program, including but not limited to the attached letters dated December 8, 2000, August 30, 2001, January 4, 2002, and January 23, 2004. Yet the Bureau has failed to adequately address those concerns in its new EIS. Similarly, back in 1989, EPA challenged the Bureau's NEPA compliance on CVP renewal contracts and the Council on Environmental Quality (CEQ) upheld EPA's critique. See 54 Fed. Reg. 28477 (July 6, 1989). The Bureau has numerous copies of the complete record of that proceeding, including in its copies of the court record in *NRDC v. Patterson*, Civ. No. S-88-1658-LKK, and should review and reconsider that record, including EPA's numerous submissions, and the CEQ findings.

9-4

4. The Bureau has failed to adequately consider the effects of its operations and proposed contracts.

Among many other defects, the Bureau has failed to adequately consider the impacts to fish species and fish habitat from its proposed operations on the Sacramento River, including but not limited to its changing carry-over storage requirements (or lack of them) at Shasta Dam, revisions to the temperature compliance point on the Sacramento River, the operation of Red Bluff Diversion Dam and the Bureau's new overall OCAP.

9-5

9-3

See pages 2-24 through 2-26 of the Draft EIS for a discussion of the alternatives considered and eliminated from detailed discussion, including potential reductions to total contract volumes. See Thematic Response No. 5, Summary of Incremental Impacts, for a discussion of the No Action Alternative and the Preferred Alternative and the range of alternatives. Appropriate California Environmental Quality Act (CEQA) review is the purview of the various CEQA lead agencies involved in the approval of the contracts and is not addressed in the Draft EIS.

9-4

It is not possible to determine the commentor's specific comments with regard to the Draft EIS. To the extent the commentor is addressing the adequacy of the No Action Alternative as described in the Draft EIS, it is important to note that the EIS and the scope of the analysis were developed consistent with NEPA regulations and guidance from the Council on Environmental Quality, and in conformance with the direction provided in *NRDC v. Patterson*, Civ. No. S-88-1658 (*Patterson*) which specifically addressed the application of NEPA relative to contract renewals. In *Patterson*, the court found that "...[o]ngoing projects and activities require NEPA procedures only when they undergo changes amounting in themselves to further 'major action.'" In addition, the court went further to state that the NEPA statutory requirement applies only to those changes. The analysis in the EIS finds in large part that the renewal of the contracts is in essence a continuation of the "status quo," and although there are financial and administrative changes to the contract, they perpetuate the existing use and allocation of resources (i.e., the same amount of water is being provided to the same lands for existing/ongoing purposes). The analysis in the EIS therefore addresses the proposed changes to the contract and the potential effects of those changes. The basis of this comparison is the evaluation of the proposed contractual changes as compared to the No Action Alternative that in essence reflects a continuation of the status quo. Use of the status quo as a No Action Alternative is supported by CEQ's opinion concerning renewal of some Settlement Contracts that appeared in the Federal Register on July 19, 2001, and their guidance document addressing the "Forty Most Asked Questions" (on NEPA regulations). We have addressed these types of comments in our response to comments. As indicated in the EIS, such contract changes would not result in significant effects to the environment.

Letter from Natural Resources Defense Council Part I, Hamilton Candee, Continued

- 9-5 As noted previously, attachments to commentor's letter cover a wide range of important topics relating to CVP operations, contract renewal, ecology, and water policy in general. Refer to Response to Comment 9-1 for a list of previous comment letters. As discussed in Chapter 3 of the Draft EIS, Biological Environment, because the Preferred Alternative will not result in any significant change from existing conditions under the existing contracts, it will not have any adverse impacts to fisheries. The primary operational drivers for the CVP during the irrigation season are water quality in the Delta and temperature management. Diversion of water by the SRSCs under the terms of the contracts does not affect carryover storage requirements. Rather, requirements of the OCAP BO, such as the previously mentioned water quality requirements and carry over storage requirements determine how much water is available for delivery. See page 3-15 of the CVP OCAP (Appendix C to this Final EIS) for a description of proposed operations of Shasta Reservoir with regard to carryover storage requirements and page 3-14 for a description of temperature compliance. The NOAA-Fisheries BO for OCAP evaluated impacts to salmon from revised operations of the CVP (see especially the conditions outlined on page 219 of the BO), including managing the coldwater pool at Shasta, and concluded that long-term operations would not jeopardize the existence of threatened or endangered species (page 1 of the cover letter to the BO). Also, see Thematic Response No. 5, Summary of Incremental Impacts, for a discussion of No Action Alternative and the Preferred Alternative and the range of alternatives.

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Letter from Natural Resources Defense Council Part I,
Hamilton Candee, Continued

Mr. Buford Holt, Bureau of Reclamation
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9-6

See pages 2-24 through 2-26 of the Draft EIS for a discussion of the alternatives considered and eliminated from detailed discussion, including potential reductions to total contract volumes. See Thematic Response No. 3 for a discussion of conservation requirements included as part of the proposed contracts. Also see Thematic Response No. 5, Summary of Incremental Impacts, for a discussion of No Action Alternative and the Preferred Alternative and the range of alternatives.

In addition to the information provided in and referenced in our separate technical comments on this EIS, we also attach and direct your attention to the following relevant documents, and incorporate each of them by reference:

- a. July 11, 2003 letter from NRDC and The Bay Institute to Ms. Ann Lubas-Williams on the Draft OCAP and Draft OCAP Biological Assessment.
- b. July 28, 2004 letter from NRDC to Mr. Wayne White of US FWS re ESA Consultation on OCAP.
- c. August 27, 2004 letter from NRDC to Mr. Rodney McGinnis of NMFS re ESA Consultation on OCAP.

9-5,
cont'd

Similarly, the EIS disregards the concerns, findings and analysis previously provided on these Sacramento River environmental issues by the Bureau itself or other federal agencies, including but not limited to the attached letter of July 23, 2004 from NMFS to Mr. Thomas Stokely, the attached letter of June 22, 2004 from CA Department of Fish & Game to Mr. Thomas Stokely and Mr. Russell Smith, and the August 2002 Draft EIS/EIR for the Fish Passage Improvement Project at Red Bluff Diversion Dam, available at www.tccafishpassage.org.

5. The Bureau fails to analyze meaningful alternatives on the key terms of the contracts including price and water quantity.

Numerous members of the public have written to the Bureau in past years urging the Bureau to evaluate a broader range of alternatives to its current policy of rolling over most water quantity terms in its long term renewal contracts and keeping water prices significantly below cost and below market without any adjustment for conservation incentives or environmental repayment. The EIS has utterly failed to evaluate such alternatives, including those discussed in the attached May 3, 2004 letter of National Taxpayers Union & Taxpayers for Common Sense, the attached letter of September 7, 2004 by Taxpayers for Common Sense, the attached letter of January 9, 2001 of NRDC, and the additional comments filed by other conservation and fishing groups in September of this year on the proposed Settlement contracts. Moreover, the Bureau has failed to seriously consider and address the issues raised in the four attached NRDC letters specifically addressing the Settlement Contracts dated August 13, 2002; November 27, 2002; September 3, 2004 and September 7, 2004, all of which we incorporate herein by reference.¹

9-6

¹Although the Bureau has apparently ignored these comments, it appears at least one of the contractors took note of them. In March 2003, the Bureau received a lengthy and mostly rhetorical letter from a law firm representing GCID purporting to respond to NRDC's August 2002 letter. Since it is not clear how seriously anyone at the Bureau

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Letter from Natural Resources Defense Council Part I,
Hamilton Candee, Continued

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9-7

Reclamation is operating in a consistent and deliberate manner with regard to NEPA compliance for contract renewals. The CVPIA required the preparation of a Programmatic EIS, which was completed in January 2000. Here, Reclamation prepared a subsequent Draft EIS for consideration of effects of renewal of the Settlement Contracts, as previously requested by the commentor (see Draft EIS at pages 1-4 and 1-5). This sort of tiering is expressly recommended under NEPA, and provides a more geographically specific environmental review. See Draft EIS at page 1-10 for a description of the relationship between the Draft EIS and the CVPIA PEIS. See Thematic Response No. 4, Administrative Process, for a discussion of the length of the comment period, and Thematic Response No. 5, Summary of Incremental Impacts, for a discussion of No Action Alternative and the Preferred Alternative and the range of alternatives. See Thematic Response No. 7 for a discussion of the relationship between CVP OCAP Project Descriptions and the Draft EIS.

6. The Bureau is acting in an arbitrary and capricious manner in its NEPA process on contract renewals.

This EIS is part of a larger pattern of arbitrary NEPA compliance by the CVP in addressing its OCAP and contract-renewal program. For example, the Bureau is proposing significant changes in its operations in its OCAP, yet failing to do any NEPA or CEQA review. The Bureau is conducting an EIS on these Sacramento River Settlement Contracts, the American River Division renewal contracts and the San Luis Unit renewal contracts, yet relying on a mere EA/FONSI for its Sacramento River Division contracts and other north of Delta renewal contracts. The 3 different versions of the OCAP BA, the final OCAP itself, the final FWS and NMFS Biological Opinions on OCAP all involve different project descriptions, and none of those new project descriptions has been properly analyzed in a single NEPA document. In sum, the approach is irrational and arbitrary and contrary to NEPA and its implementing regulations. We urge you to withdraw the draft Settlement Contractor EIS and proceed with a more adequate and thorough analysis in a revised draft EIS on the proposed contracts that is re-circulated for further public review and comment.

9-7

Sincerely,



Hamilton Candee
Senior Attorney

took the law firm's self-serving diatribe, we are reluctant to dignify it with a long response. However, we will note the letter was filled with groundless and condescending allegations that appear to reflect more on the arrogance of GCID's Sacramento law firm than the views of the staff and landowners in GCID. An example of the law firm's absurd claims include the charge that the Settlement Contractors' failure to use over 500,000 acre feet of their contract supplies between 1997-2001 could not possibly suggest a "misallocation" of water in these contracts. The letter was so patently out of touch with reality it should be disregarded by the Bureau.

No. 10

Letter from Natural Resources Defense Council Part II,
Hamilton Candee, Dated November 15, 2004



NATURAL RESOURCES DEFENSE COUNCIL

November 15, 2004

Mr. Buford Holt
Bureau of Reclamation
16349 Shasta Dam Boulevard
Shasta Lake, CA 96019

RE: NRDC and Bay Institute Supplemental Comments on Draft EIS re Long-Term
Renewal Contracts for Sacramento River Settlement Contractors – Part II

Dear Mr. Holt:

These are further supplemental comments of the Natural Resources Defense Council (NRDC) and The Bay Institute (TBI) on the Draft Sacramento River Settlement Contractors Environmental Impact Statement (EIS) concerning the Proposed Long-term Renewal Contracts from the Central Valley Project (proposed contracts), U.S. Bureau of Reclamation, Mid-Pacific Region, Sacramento, CA; September 2004. Our organizations are submitting detailed technical comments on the draft EIS and additional supplemental comments, both with extensive attachments, under separate cover. We request full consideration of all three sets of comments, along with all materials attached to or submitted with each of our comment letters or incorporated or referenced therein.

10-1

Our previous letters describe some of the numerous defects in the proposed contracts and the draft EIS. One of our principal concerns is that the Bureau fails to analyze meaningful alternatives on the subject of water quantity, and fails to reduce the proposed quantity terms as required by law. Our earlier comments documented the contractors' failure to actually divert and use much of the water under their contracts. We have repeatedly requested that the Bureau analyze the impacts of these contracts should these contractors choose to divert some or all of the additional water – in excess of their recent usage – to which this contract would grant access.

10-2

We believe that the Bureau faces a simple choice. If the Bureau believes that these contractors are capable of using any of this additional water consistent with federal and state requirements of reasonable and beneficial use, then this document must analyze fully the impacts of such increases in diversions. On the other hand, if the Bureau determines that these contractors are have not and are not beneficially using some of this additional water, then the Bureau is compelled, as a matter of law, to reduce the quantities in the draft contracts accordingly.

10-3

10-1

See Response to Comment 9-1.

10-2

The Draft EIS is consistent with NEPA with regard to the range of alternatives (see Draft EIS Chapter 2 for a full discussion of the alternatives). The Draft EIS includes consideration of alternatives that have greater frequencies of drought-year supplies than the No Action and Preferred Alternatives. See Table 2-3 in the Draft EIS for a year-by-year description of drought supplies under the various alternatives. As noted in Chapter 3 of the Draft EIS, the reduced water supplies under these alternatives could be used for purposes other than supply to SRSCs. Thus, the commentor's request for a "reduced contract" alternative is functionally the same as alternatives with greater frequencies of drought-year supplies. See Thematic Response No. 5 for a discussion of the range of alternatives and the requirements of NEPA. The Reclamation Project Act of 1956 and the Reclamation Project Act of 1963 require renewal for existing contract amounts when beneficially used. The needs analyses were completed to identify the amount that could be beneficially used by each of the SRSCs. The alternatives considered in the Draft EIS are consistent with the needs analyses. Also see Thematic Response No. 3, Water Needs Assessment, for a discussion of the water needs of the SRSCs.

10-3

Publicly available diversion records maintained by Reclamation show that all but three of the contractors covered in this EIS have used their full contract allotments in the past, and the water needs assessment conducted by Reclamation demonstrates water demand at full contract amounts in the future. Existing contract volumes are consistent with historical use and rights to use. Contract volumes under the Preferred Alternative are decreased compared to the no action condition. See also Thematic Response No 3 regarding the needs assessment.

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It is, we believe, reckless to ignore the tremendous economic pressure to expand recent water use to fully utilize the generous quantities provided by these contracts. At current market prices in California, this unused water is worth billions of dollars over the life of the contracts.

It is not surprising that these contracts have not been fully utilized previously. Non-drought year water marketing is a recent phenomenon in the Sacramento Valley. Significant north of Delta to south of Delta non-drought transfers began only in the last few years. Yet recognizing the future potential for highly profitable resale of cheap (or free) federal water is not sufficient to establish current reasonable or beneficial use, nor current entitlement to a new long-term federal water contract. Indeed, just the opposite is true: if the only justification for awarding these overly generous water quantities to these selected farming customers of the Bureau is the likelihood that at some future date they may use the water in a non-farming enterprise selling the cheap federal water to far away cities or districts at vast profit, then the Bureau's existing "water needs analysis" is clearly deficient and cannot provide the basis for these proposed contracts. Not only is the prospect of future profiteering via sales outside the district insufficient basis for renewal, it also ignores the legal pre-requisite that the Bureau first use the water to meet the unmet fish & wildlife needs of the CVP as set out in CVPIA section 3406(b). Those unmet needs are a current priority obligation for the Bureau and CVPIA makes clear that water from expiring contracts that is not currently being put to reasonable and beneficial use must be allocated first to these priority environmental needs. CVPIA section 3406(b)(1)(b).

In order to investigate the potential impacts of this critical water supply dimension of these proposed contracts, NRDC commissioned a modeling analysis by the Natural Heritage Institute. We asked their professional computer modelers to evaluate the potential impacts if these contracts were renewed and their excess water allocations were fully exercised. The attached document summarizes the results of their analysis, which used the CALSIM II model widely relied on by both the Bureau and DWR.

Before summarizing the results of this analysis, we wish to emphasize that our use of CALSIM II should not be misinterpreted as a wholesale endorsement of this model. Recent scientific review of CALSIM II suggests that it is a deeply flawed tool. We share many of the concerns raised by these reviews. However, CALSIM II is used extensively by agencies (including the Bureau) for planning purposes and to evaluate the potential impacts of proposed changes in operations. In addition, the results summarized below reflect commonsense conclusions regarding the likely impacts of these contracts, impacts ignored by the draft EIS. Because the Bureau has failed to address any of the significant impacts predicted by this analysis, we believe the entire EIS is flawed.

- 10-4 See previous response regarding water use by the SRSCs. Also see Thematic Response No. 6 for a discussion of water transfers. The commentor's assertion that water transfers would increase under the action alternatives is unsubstantiated and speculative.
- 10-5 The referenced memorandum incorrectly assumes that water is available for rescheduling. See previous responses regarding historical use of water and the water needs assessment. Reclamation has reviewed the referenced memorandum regarding CALSIM II and has found the analysis to be inconsistent with established protocols for use of CALSIM II as a planning model. Specifically, the superimposing of actual water use onto previous water years is not necessarily representative of long-term operations. Also, there are numerous unresolved questions about the assumptions for reallocated water that are not clarified in the memorandum. See the CALSIM II modeling results for CVP-OCAP for an example of proper application of CALSIM II protocols and assumptions.

10-4

10-5

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It is also important to note that some of critiques of CALSIM II suggest that it is overly optimistic in predicting the projects' ability to deliver water South of the Delta. Thus, it is possible that CALSIM II may underestimate some potential impacts.

The CALSIM II analysis is described in detail in the attached NHI document. In brief, this analysis evaluated the potential impacts of Sacramento Valley contracts, should they be renewed and fully exercised. This analysis focused on five years (1997-2001) for which we were provided the Bureau's data for the 11 largest Sacramento Valley CVP contractors, comprising 80 percent of CVP deliveries in the Sacramento Valley. As is explained in the attached document, for technical reasons, NHI completed an analysis for three of these five years (1998-2000). In addition, the analysis assumed that the remaining CVP contractors (which receive 20 percent of CVP Sacramento Valley deliveries) will reflect the same usage and diversion patterns as the larger contractors for which we have data.

The results of this analysis are remarkable. The analysis found that, if the proposed quantity terms were fully exercised, these contracts could have a significant impact on the Bay-Delta ecosystem, as well as on the ability of the CVP and the State Water Project to make deliveries to other water contractors.

In the three years for which we did an analysis, CALSIM II predicted an average of 633,000 acre-feet of additional diversions from the Sacramento River. These added diversions would reduce Bay-Delta outflow by 315,000 acre-feet. In order to provide these deliveries and maintain South of Delta deliveries, the analysis also predicted an average reduction of end of year carry over storage in the CVP of 167,000 acre feet per year. The analysis also predicted a reduction of 75,000 acre -feet per year, on average, of carry over storage for the State Water Project. This decrease in SWP storage results from the CALSIM II prediction that the Sacramento Valley contracts would result in an increased burden on the SWP to meet Bay-Delta standards.

These predicted changes in operations could have many significant environmental impacts, including but not limited to the following, none of which have been adequately analyzed in the EIS.

1. Increased reservoir drawdown and related temperature impacts.
The reduction in carry-over storage could result in a reduction of storage at Shasta Lake, thereby reducing the cold water available to meet the temperature needs of salmonids. The Bureau and NMFS recently eliminated the 1.9 million acre-feet end of year carry over storage requirement for Lake Shasta. The Bureau and NMFS also relaxed temperature protections for the Sacramento River. These contracts, in combination with these reductions in regulatory protections could lead to significant harm to salmonids on the

10-6

As noted previously, Reclamation has reviewed the referenced memorandum regarding CALSIM II and has found the analysis to be inconsistent with established protocols for use of CALSIM II as a planning model. The limited selection of water years and use of water years that do not match the period of record are not considered appropriate protocols for the model. Typical CALSIM II analyses compare changes against an established, accepted baseline. The commentator's analysis does not appear to use an established study as the basis for comparison.

10-7

As noted previously, Reclamation has reviewed the referenced memorandum regarding CALSIM II and has found the analysis to be inconsistent with established protocols for use of CALSIM II as a planning model. Output from CALSIM II is not considered representative when presented in this manner. The difference noted by the commentator is a result of the "setting" of diversions, not a function of CALSIM II calculation. CALSIM II uses consumptive use calculations from accepted land use studies, not an artificial time series of diversions. Also, it is important to note that the 633,000 acre-feet of additional diversions appears to be data input by the modelers, not data calculated or "predicted" by the model. As a result, Reclamation does not agree that renewal of the contracts would result in increased diversions or a reduction in carryover storage in the CVP or SWP compared to existing conditions. Note that commentator's assertions in Comments 10-8 through 10-11 are based on faulty application of CALSIM II as outlined above. The commentator's predicted impacts in the subsequent comments would not occur under the Preferred Alternative.

10-8

Project operations under the Preferred Alternative would be very similar to those under the No Action Alternative. This would result in carryover storage management that is also almost identical in both the No Action and Preferred Alternatives. Therefore, relative to no action, no impacts to temperature would result from decreased carryover storage under the Preferred Alternative. Also see the October 2004 Biological Opinion on the CVP-OCAP with regard to impacts to threatened and endangered species from operation of the CVP and State Water Project.

10-6

10-7

10-8

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Sacramento River, including species listed under the state and federal ESA's, particularly during dry years.

} 10-8,
cont'd

2. Worsening flow related conditions for fisheries and riparian habitat.

In addition to the temperature related impacts discussed above, the changes in operations that would likely result from these contracts could worsen flow-conditions for fisheries as well. They could result, for example, in increased stranding of redds and juvenile fish due to more aggressive ramping practices. Further, the reduction in carry-over storage could harm the Sacramento and other rivers by causing likely changes in ramping rates that could harm the riparian community. It is important to note that, as a result of the integrated operations of CVP and SWP facilities, the reductions in storage could result in impacts on the American River, from reductions in CVP storage, and on the Feather River, from reductions in SWP storage. These impacts are not adequately evaluated in the EIS.

} 10-9

3. Impacts from reduced refuge water supplies.

Over time, the predicted reductions in storage would certainly result in a significant reduction in south of Delta water deliveries. Such reductions could have an impact on, for example, water deliveries to wildlife refuges. These impacts are not adequately analyzed in the EIS.

} 10-10

4. Cumulative impacts.

We believe that the document fails to adequately evaluate the cumulative impacts of related actions which would modify the operations of the CVP and the SWP. These related actions include the combined effects of the relaxation of Sacramento River temperature standards, the relaxation of the Shasta carry-over storage requirement and the proposal to increase the SWP pumping limit to 8,500.

It is important to note that the three years that were evaluated in the attached modeling summary were analyzed in isolation. For example, we did not modify the 1999 start-of-year storage conditions to reflect changes in 1998 end-of-year storage predicted by CALSIM II. Clearly, over time, the reductions in storage predicted by CALSIM II as a result of these contracts would accumulate, requiring other changes in operations, such as reduced deliveries and worsened environmental conditions. Thus, under actual operating conditions, these contracts would likely have even greater impacts than predicted by this analysis. Yet the Bureau's EIS utterly fails to address these impacts.

} 10-11

In summary, the attached CALSIM II analysis suggests that the renewed contracts would harm the Bay-Delta ecosystem, as well as other CVP and SWP water users. These impacts are not adequately addressed in the EIS, and the EIS should therefore be revised and re-circulated to fully evaluate each of these issues and potential impacts.

10-9

Project operations under the Preferred Alternative would be very similar to those under the No Action Alternative. Therefore, relative to the No Action Alternative, no impacts to fishery flows would occur under the Preferred Alternative. Also see the October 2004 BO on the CVP-OCAP with regard to impacts to threatened and endangered species from operation of the CVP and SWP. It is also pertinent to note that summer flows under the operation of the CVP are substantially higher than the natural flows during the irrigation season.

10-10

As noted previously, the results from the commentor's referenced CALSIM II analysis are not considered representative of actual operations. See Thematic Response No. 5, Summary of Incremental Impacts, for a discussion of No Action Alternative and the Preferred Alternative.

10-11

The cumulative analysis included in the Draft EIS references a number of projects and processes. See Table V-1 in the Draft EIS for a complete list. See page 1-10 for a list of projects included in the CVP-OCAP Project Descriptions. Notably, the Draft EIS found that the reduction in total contract amounts in the Preferred Alternative relative to no action would increase the flexibility of the CVP in meeting future obligations. As noted previously, the results from the commentor's referenced CALSIM II analysis are not considered representative of actual operations.

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Letter from Natural Resources Defense Council Part II,
Hamilton Candee, Continued

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Thank you for considering our comments.

Sincerely,



Hamilton Candee
Senior Attorney

Barry Nelson
Senior Policy Analyst

No. 10

Attachment to Letter from Natural Resources Defense Council Part II,
Hamilton Candee, Dated November 15, 2004**CALSIM-II MODELING OF CHANGING CONSUMPTIVE DEMANDS FOR CVP
SACRAMENTO RIVER SETTLEMENT CONTRACTORS**

Prepared by
Brian Joyce, NHI Staff Hydrologist
David Purkey, NHI Senior Hydrologist

Background

The US Bureau of Reclamation (the Bureau) is negotiating the renewal of approximately 145 existing Sacramento River Settlement Contracts for Central Valley Project (CVP) water. The contractors claim water rights that predate the CVP and which needed to be factored into the operation of the CVP infrastructure. The existing Settlement Contracts were originally executed in 1964 with a term not to exceed 40 years, implying that they be re-negotiated by 2004. The total amount of water currently under contract to the Settlement Contractors is approximately 2.2 million acre-feet. This water supply is intended to provide irrigation water to approximately 440,000 acres of land in the Sacramento Valley between Redding and Sacramento.

Based on the results of the Final Water Needs Assessment conducted in 2002 in preparation for Settlement Contract re-negotiation, the Bureau recognizes that current contracts may exceed the amount of water that can be put to beneficial use by the Settlement Contractors. For the eleven largest Settlement Contractors, the Final Water Needs Assessment concluded that of the full contract amounts offered to these contractors (see Table 1), 259,000 acre-feet could not be beneficially utilized based on current land use, cropping and water management patterns in the Settlement Contract area.

Table 1. Sacramento River CVP contractors considered in USBR's June 3, 2002 Final Water Needs Assessment

Contractor	Contract Amount (acre feet)
Anderson-Cottonwood ID	175,000*
Glenn-Colusa ID	825,000
Maxwell ID	17,980
Meridian Farms Water Co.	35,000
Natomas Central Mutual Water Co.	120,000
Pelger Mutual Water Co.	8,860
Princeton-Codora-Glenn ID	67,810
Provident ID	54,730
Reclamation District #1004	71,400
Reclamation District #108	232,000
Sutter Mutual Water Co.	267,900

*ACID's annual contract amount has changed to 128,000 acre-feet, but was not updated for the purpose of NHI's analysis, since the change occurred after the analysis was already underway. This change, however, is expected to have relatively minor implications on the results of the CalSim-II simulations.

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Attachment to Letter from Natural Resources Defense Council Part II,
Hamilton Candee, Continued

Upon review of the Final Water Needs Assessment, the Natural Resources Defense Council (NRDC) agrees with the conclusion that that current amounts covered by the Settlement Contracts exceeded that amount that could be beneficially used. However, based on an analysis of actual recent water diversions made by the eleven largest settlement contractors, NRDC felt that the Bureau underestimated the difference between the amount of water needed to irrigate the lands in the Settlement Contract area and that offered in the current Settlement Contracts. By evaluating recent published diversion data for the eleven largest Settlement Contractors for the 5-year period between 1997 and 2001, NRDC found that the average of the actual annual Sacramento River diversions was 561,000 acre-feet below their full CVP Settlement Contract amounts. If the Bureau structures contract renewals according to the higher assessments of contract water "need" or "demand" as claimed by the Final Water Needs Assessment, then the CVP Settlement Contractors will be in a position of having contracts for water in excess of the water actually utilized to satisfy their own irrigation requirements during a recent 5-year period.

This observation raised the issue of quantifying the impact of the Settlement Contractors using different amounts of water (e.g. the full current contract amount or the amount actually diverted) on the overall operation of the Central Valley water system. The best way to examine this question is through the use of the CalSim-II model that was developed by the California Department of Water Resource and the Bureau in order to simulate the operation of the Central Valley water system under different management scenarios. NRDC asked the Natural Heritage Institute (NHI) to configure and run CalSim-II in order to evaluate the system-wide impact of various levels of irrigation demand in the Sacramento Valley.

CalSim-II Modeling

The CalSim-II model is often updated as new data are introduced and/or operational criteria change. The most recent version of CalSim-II was released in June 2004 by the Bureau's Central Valley Operations Office as part of their Operations and Criteria Plan (OCAP) and can be obtained at <http://www.usbr.gov/mp/cvo/ocap.html>. NHI used the OCAP study #2 (OCAP_2001D10A_TODAY_B2_011904) as the baseline for the modeling investigation proposed by NRDC.

One immediate challenge in using CalSim-II for this investigation is that the model does not simulate the actual land use, cropping and water management conditions at any particular point in time. Instead the model used a fixed "level of development" that describes some representation of all of these features and then uses models external to CalSim-II to assess the water demand that would be associated with these patterns under the variable climatic conditions observed during the period between 1922 to 1994. This raises a second challenge for the investigation, namely that the years for which data was provided to us on actual water diversions by the eleven largest Settlement Contractors, 1997-2001, are not included in the hydrologic record used in CalSim-II.

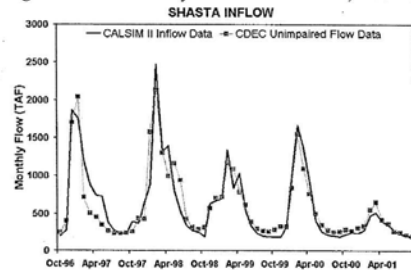
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Attachment to Letter from Natural Resources Defense Council Part II,
Hamilton Candee, Continued

In response to these challenges, NHI proposed and implemented a series of steps designed to approximate the conditions observed during the 1997-2001. The first step involved finding years in the CalSim-II hydrologic record that were similar to the hydrologic conditions observed in 1997-2001. Representative water years were selected by comparing the 1922-1994 reservoir inflow data contained in CalSim-II to the 1997-2001 monthly unimpaired flow data for the Sacramento, Feather, Yuba, American, Stanislaus, Tuolumne, Merced, and San Joaquin Rivers available from the California Data Exchange Center (CDEC). For each year of the recent 5-year period, the monthly unimpaired inflows were compared with the CalSim-II reservoir inflows in order to find the CalSim-II water year that minimized the root mean squared error (RMSE) between the data sets. This error term was calculated based on inflows to Lake Shasta alone as well as the sum of all inflows on the rivers that comprise the 8-River Index. RMSE was chosen as the basis of comparison in order to assure that both the annual volume of water and the monthly pattern of inflows were considered in the selection of representative water years from the CalSim-II input database. Because of the importance of Lake Shasta operations on the provision of water to the Settlement Contractors, greater importance was placed on the minimization of the RMSE between CalSim-II and CDEC representations of Lake Shasta inflow than on the RMSE of all rivers in the 8-River Index.

By applying this methodology, the representative CalSim-II water years were 1956 (1997), 1958 (1998), 1927 (1999), 1940 (2000), and 1944 (2001). In general, the flow patterns and monthly volumes of the CalSim-II input data matched well with the unimpaired flow data (Figures 1 and 2).

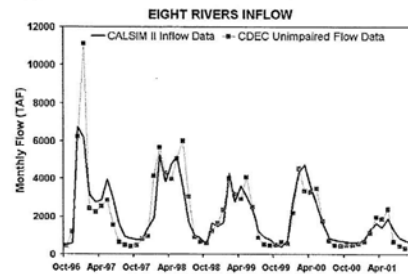
Figure 1. Total monthly inflow to Lake Shasta, 1997-2001



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Hamilton Candee, Continued

Figure 2. Total monthly inflow of the eight major rivers of the Central Valley, 1997-2001



The second step made in conducting the investigation was to prepare CalSim-II to run in a year at a time mode. This was required because the conditions leading up to the representative CalSim-II water years would have been different than the conditions leading up to the water years in the recent 5-year period. These differences have the potential to create different storage conditions in the system that could influence the way in which the system is operated. As such, prior to running CalSim-II in a year at a time mode it was necessary to set the initial storages to historic levels for each of the reservoirs considered in the model. End of September storage obtained from CDEC for each of the years 1997-2001 was used to define the initial storage at the start of five separate year at a time CalSim-II runs in the following reservoirs: Trinity, Whiskeytown, Shasta, Keswick, Oroville, Thermalito, Folsom, Natoma, Pardee, Camanche, New Hogan, New Melones, Tulloch, Don Pedro, Lake McClure, Eastman, Hensley, Millerton, and CVP and SWP storage in San Luis.

The final step taken in conducting the investigation rested on the assumption that the diversion requirements associated with the eleven largest Settlement Contractors, which are calculated external to CalSim-II, could be adjusted to force CalSim-II to deliver a user-specified amount to these water users (e.g. the actual diversion observed in the 5-year, 1997-2001 period). Based on this assumption, two scenarios were considered for each water year. The first scenario adjusted the project diversion requirement such that Settlement Contractors fully exercised their current Settlement Contracts. The second scenario adjusted the project diversion requirement such that simulated deliveries to Settlement Contractors approximated the observed deliveries during the recent 5-year period on a monthly basis.

In implementing this step, some constraints associated with the current structure of CalSim-II were encountered. These constraints are associated with the way in which water users in the Sacramento Valley are aggregated into computational units. There are six regions along the Sacramento River into which Settlement Contractor consumptive demands are aggregated. These regions are referred to as depletion study areas, or

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DSA's, and are identified by a number. Three DSA's (12, 15, and 58) contain 88 percent of the annual volume of water contracted to the Sacramento River Settlement Contractors, including ten of the largest Settlement Contractors listed in Table 1 (with the exception of the Natomas Central Regional Water Company). Adjustments to the project diversion requirements were focused on these three DSA's. In addition to the diversion requirements associated with the Settlement Contractors, however, diversion requirements associated with the CVP Agricultural Service Contractors and other non-Project water users are also aggregated into these DSA's, which complicates the adjustment of diversion requirements associated with the Settlement Contractors alone.

In response to the aggregated structure of CalSim-II, NHI adopted the assumption that the month-by-month consumptive demands of individual water users are proportional to their contract demands. This allowed for the calculation of an adjustment to the project diversion requirement such that in scenarios two the simulated diversions to the ten large Settlement Contractors in DSA's 12, 15, and 58 were consistent with observed deliveries. The result of this assumption is, however, that all other diversions to smaller Settlement Contractors and to Agricultural Service Contracts in these DSA's are reduced by an identical proportion relative to their contract amounts. In other words, the assumption is that other contractors in each DSA left the same portion of the contracts undiverted as did the ten contractors for which actual diversion data is available.

CalSim-II Results

The results for 1997 were problematic because the total observed diversion to the Anderson-Cottonwood Irrigation District (ACID) totaled 11,750 acre feet (relative to a contract for 175,000 acre-feet) for the entire year and occurred only in April. Whether this is a data error or an actual reduction associated with some unique management situation in the ACID service area, based on the proportionality assumption described above the entirety of DSA 58 would experience a similar dramatic reduction. This was not found to be a plausible scenario. Water year 2001 also posed some problems based on the proportionality assumption. The year was considered dry and resulted in CVP allocations to all contractors that were below their full contract amounts. These reductions are not uniform between the various users that are lumped in a DSA, however, making it difficult to invoke the proportional reduction assumption. There was insufficient time to make the appropriate coding alterations to be able to handle this complication.

For the remaining years, 1998-2000, the results of the two CalSim-II scenarios are summarized in Table 2. This table presents the differences between scenario two that forces diversions to the levels actually observed and scenario one which assumes that all Sacramento Valley water users divert their full contract amount. The annual increase in settlement contractor deliveries under scenario one are higher than the undelivered water observed for the ten large Settlement Contractors, which were 777 TAF in 1998, 428 TAF in 1999, and 418 TAF in 2000, because of the proportional adjustment assumption. The increased deliveries to CVP contractors in the Sacramento Valley under scenario one relative to scenario two were balanced by the sum of increased return flows to the

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Attachment to Letter from Natural Resources Defense Council Part II,
Hamilton Candee, Continued

Sacramento River, reduced delta outflows, changes to total delta exports, and changes to carryover storage. It should be noted, however, that there is not an exact numerical balance between the runs associated with the two scenarios due to the effects of stream-aquifer interactions and reservoir evaporation, which are affected by changes in river flow and storage.

Table 2. Net annual impacts of increasing CVP Sacramento River diversions from historic levels up to the full contract amounts (TAF)

	1998	1999	2000
Increased Annual Deliveries to CVP Settlement Contractors	840	516	511
Increased Annual Deliveries to CVP Settlement Contractors and TCCA	954	584	579
Increased Return Flows from Service Areas to the Sacramento River	208	126	147
Increased Sacramento River Inflow to the Delta	-598	-312	-36
Increased Delta Outflow	-598	-295	-52
Increased CVP Delta Exports	31	-11	-1
Increased SWP Delta Exports	-31	-6	16
Increased CVP Carryover Storage (Trinity, Shasta, Folsom, San Luis)	-31	-111	-355
Increased SWP Carryover Storage (Oroville, San Luis)	-166	-40	-20

The adjustments made to the project diversion requirements in scenario one include increases to consumptive use, deep percolation, conveyance losses, and non-recoverable losses relative to scenario two. The portion of the increase attributable to changing consumptive use is presented in Table 3.

Table 3. Required increase in consumptive use (TAF)

	1998	1999	2000
Increase in Consumptive Demands Required	586	309	277

The three water years analyzed responded differently to increases in deliveries to settlement contractors in scenario one. This was due to a combination of the inflow to and initial reservoir storage in Lake Shasta. While the storage in Lake Shasta in 1998 started well below initial storage in both 1999 and 2000 (Table 4), the higher flows into Shasta in 1998 allowed all years to start the delivery season (end of February) with roughly equal volumes of storage in Shasta (3.25 MAF in 1998, 3.46 MAF in 1999, and 3.25 in 2000). In addition, the higher inflows to Shasta in 1998 extended through the spring, which resulted in higher flows below Shasta throughout the water year.

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Attachment to Letter from Natural Resources Defense Council Part II,
Hamilton Candee, Continued**Table 4.** Initial reservoir storage and total annual inflow to Lake Shasta

	1998	1999	2000
Initial Reservoir Storage in Lake Shasta (MAF)	2.3	3.4	3.3
Total Annual Inflow to Lake Shasta (MAF)	9.7	6.9	7.0

The 1998 water year had the biggest negative impact on the State Water Project (SWP). Because of the wet conditions in 1998, additional releases from Lake Shasta were not necessary to meet contract deliveries. For most months, the added water that was abstracted from the Sacramento River was balanced by a decrease in inflows to the delta and outflow to the San Francisco Bay. The cumulative impact of the decreased delta inflows triggered a need to release water from storage in July to meet water quality criteria in the delta. CalSim-II met this demand by releasing water from Oroville storage, resulting in significantly less carryover storage for the state. The SWP also had to release water from San Luis to make up for water that it did not export from the delta, which was instead pumped by the CVP to the Cross Valley Canal.

The 1999 and 2000 water years required the CVP to release more water from storage to satisfy the increase in deliveries to its contractors on the Sacramento River. Despite having similar changes in deliveries and return flows, the impacts on delta outflow, delta exports, and carryover storage between the two years were quite different. These differences, however, were not observed until the final month of the water year. In September 1999, CalSim-II stored water in Lake Shasta at the expense of delta outflow and exports, while in September 2000 the model continued to release water from Shasta.

Conclusions

Each of the years 1998-2000 were considered 'above normal' or 'wet' water years by the Sacramento River and Shasta water year indices. This suggests that full contract deliveries to settlement contractors may not have actually been made during this period because there was local storage and/or residual soil water sufficient to meet some of the irrigation demands that is typically met by surface water diversions. It is difficult to say with confidence the magnitude of this offset in demand. However, it is an important factor to recognize when considering the required increases in consumptive demand.

The selection of three wet water years resulted in full allocations to CVP contractors south of the delta for all CalSim-II scenarios. Because these allocations are a driving force for CVP exports from the delta in CalSim-II, there was little change to delta pumping when the settlement contractor deliveries were increased. It is reasonable to assume, however, that increasing deliveries to settlement contractors would further reduce allocations in years when CVP allocations are below 100 percent. Further analysis of these years would be necessary to fully understand the implications to delta pumping, but requires recoding of the CalSim-II logic that was not feasible for this analysis.

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Attachment to Letter from Natural Resources Defense Council Part II,
Hamilton Candee, Continued

In particular, it is important to note that the increased levels of diversion and consumptive use in scenario one are met via reductions in delta outflow and in carry over storage. In essence the model has been set up so that in a year-by-year mode it will meet the increased demand in scenario one partially by lowering storage. In reality, this decrease storage would carry over to the next year while in the year-by-year mode used in this analysis the storage is reset to the historic level at the start of each simulation. It is possible, perhaps likely, that eventually accumulated reductions in carry over storages would result in reduced allocations and exports south of the delta, even during the relatively wet 1998-2000 period. In order to test this hypothesis, the three representative water years would have to be run in sequence, which is complicated by the fact that the years actually represent 1958, 1927 and 1940 in the CalSim-II input data base. Funds available for this investigation did not allow for the development of a strategy for developing a three-year simulation.

The most important conclusion of this investigation is that it matters, in terms of the management of the Central Valley water systems, just how much water one assumes needs to be delivered to the Settlement Contractors in the Sacramento Valley. The volumes in question are large enough to significantly influence the way in which CalSim-II simulates the operation of the system, at least in terms of conditions in the delta and the operation of the SWP, and likely the level of exports to the CVP contractors south of the delta. Further analysis, perhaps using a version of CalSim-II that overcomes some of the structural constraints encountered in this investigation, is warranted as part of the Settlement Contract re-negotiation process.

November 15, 2004

No. 11

E-mail from Tom Rider, Dated November 5, 2004

>>> "Tom Rider" <tomrider@comcast.net> 11/5/2004 10:55:45 AM >>>
 Tom Rider
 1900 MIDDLE TWO ROCK RD
 PETALUMA, CA 94952

- 11-1 See Response to Comment 1-1.
- 11-2 See Response to Comment 1-2.
- 11-3 See Response to Comment 1-3.
- 11-4 See Response to Comment 1-4.
- 11-5 See Response to Comment 1-5.

November 5, 2004

Buford Holt

16349 Shasta Dam Boulevard
 Shasta Lake, CA 96019

Dear Buford Holt:

The proposed water contracts for Sacramento Valley Settlement Contractors threaten the environment, economy, and communities.

} 11-1

The proposed contracts grant more water than ever used at subsidized prices.

} 11-2

The proposed contracts allow for massive water exports from the Sacramento Valley, which threaten working farms in the valley.

} 11-3

Also, these proposed contracts threaten endangered salmon. For example, to fulfill these and other Central Valley Project water contracts, the Bureau is proposing to change the operation of Shasta dam and reservoir on the

Sacramento River. The agency proposes to eliminate the cold water pool reserved behind the dam used to sustain the Sacramento River's endangered winter run chinook salmon. Loss of this cold water pool will eliminate nearly 20 miles of critical habitat for the winter run salmon in the Sacramento River.

} 11-4

By locking in contracts for 40 years, these contracts deny resource managers flexibility in water management as we face climatic shifts, new trends in growth, or new farming practices.

} 11-5

Please amend these contracts to address these serious concerns.

Sincerely,

Tom Rider

No. 12

E-mail from Megan Ahlstrom, Dated November 8, 2004

>>> *Meg
>>>
Megan Ahlstrom
149 Oak
Lake Jackson, TX 77566

November 8, 2004

Buford Holt

16349 Shasta Dam Boulevard
Shasta Lake, CA 96019

Dear Buford Holt:

The proposed water contracts for Sacramento Valley Settlement Contractors threaten the environment, economy, and communities. } 12-1

The proposed contracts grant more water than ever used at subsidized prices. } 12-2

The proposed contracts allow for massive water exports from the Sacramento Valley, which threaten working farms in the valley. } 12-3

Also, these proposed contracts threaten endangered salmon. For example, to fulfill these and other Central Valley Project water contracts, the Bureau is proposing to change the operation of Shasta dam and reservoir on the Sacramento River. The agency proposes to eliminate the cold water pool reserved behind the dam used to sustain the Sacramento River's endangered winter run chinook salmon. Loss of this cold water pool will eliminate nearly 20 miles of critical habitat for the winter run salmon in the Sacramento River. } 12-4

By locking in contracts for 40 years, these contracts deny resource managers flexibility in water management as we face climatic shifts, new trends in growth, or new farming practices. } 12-5

Please amend these contracts to address these serious concerns.

Sincerely,

Sr. Megan Ahlstrom

- 12-1 See Response to Comment 1-1.
- 12-2 See Response to Comment 1-2.
- 12-3 See Response to Comment 1-3.
- 12-4 See Response to Comment 1-4.
- 12-5 See Response to Comment 1-5.

No. 13

E-mail from Tyana Maddock, Dated November 9, 2004

From: "EARC" <EARC@csuchico.edu>
To: <bholt@mp.usbr.gov>
Date: 11/9/2004 1:05:07 PM
Subject: no on water contract

Dear Mr. Buford Holt:

It scares me that the Bureau is possibly renewing the federal water contracts with the Sacramento River Settlement Contractors, without any export limitations! The 40 year extent of the contract also worries me--doesn't federal law restrict renewals to 25 years? Furthermore, I am concerned about the loss of the reserve behind Shasta dam that is historically used for the Sacramento's winter run of Chinook--this, too, will go to the contractors?

} 13-1
 }
 } 13-2

Please consider the needs of our valley before you renew this contract for such low prices and in such a large quantity (need the contract include the extra 259,000 acre feet of water the Settlement Contractors did not put to beneficial use previously?!?)

Thank you for being a conscientious administrator of our precious resources.

Tyana Maddock
 1133 Normal Ave.
 Chico, CA 95928

CC: "EARC" <EARC@csuchico.edu>

13-1

See Thematic Response No. 6 for a discussion of water transfers. Also see Thematic Response No. 2 for a discussion of the length of the contracts. See Thematic Response No. 7 for a description of the OCAP process. That document provides an analysis of the CVP and SWP system's effect on threatened and listed species in the Central Valley. That document concluded that the proposed operations of the CVP and SWP - including renewal of the Settlement Contracts - would not likely jeopardize the continued existence of threatened or endangered species. Indeed, the Biological Opinions prepared as part of that effort documented the continuing improvements of some species, notably winter-run salmon. Operations of Shasta Reservoir with regard to carryover storage requirements and temperature management in the Sacramento River are outlined on page 219 of the NOAA-Fisheries BO for CVP-OCAP.

13-2

See Chapter 3 of the Draft EIS for a discussion of the environmental impacts of the alternatives. Further discussion is available in Thematic Response No. 5. Also, see Thematic Response No. 3 for a discussion of the water needs analysis.

No. 14

E-mail from Julie Sullivan, Dated November 10, 2004

From: "Julie Sullivan" <willsail4free@yahoo.com>
To: "Buford Holt" <bholt@mp.usbr.gov>
Date: 11/10/2004 7:45:03 AM
Subject: Sac Valley Settlement Contracts Flawed

Julie Sullivan
 8100 Seawall Blvd. Apt. 317
 Galveston, TX 77551

November 10, 2004

Buford Holt
 16349 Shasta Dam Boulevard
 Shasta Lake, CA 96019

Dear Buford Holt:

The proposed water contracts for Sacramento Valley Settlement Contractors threaten the environment, economy, and communities.

} 14-1

The proposed contracts grant more water than ever used at subsidized prices.

} 14-2

The proposed contracts allow for massive water exports from the Sacramento Valley, which threaten working farms in the valley.

} 14-3

Also, these proposed contracts threaten endangered salmon. For example, to fulfill these and other Central Valley Project water contracts, the Bureau is proposing to change the operation of Shasta dam and reservoir on the Sacramento River. The agency proposes to eliminate the cold water pool reserved behind the dam used to sustain the Sacramento River's endangered winter run chinook salmon. Loss of this cold water pool will eliminate nearly 20 miles of critical habitat for the winter run salmon in the Sacramento River.

} 14-4

By locking in contracts for 40 years, these contracts deny resource managers flexibility in water management as we face climatic shifts, new trends in growth, or new farming practices.

} 14-5

Please amend these contracts to address these serious concerns.

Sincerely,

Julie Sullivan
 409-454-5595

- 14-1 See Response to Comment 1-1.
- 14-2 See Response to Comment 1-2.
- 14-3 See Response to Comment 1-3.
- 14-4 See Response to Comment 1-4.
- 14-5 See Response to Comment 1-5.