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June 30, 1998

Mr. Rick Breitenbach
CALFED Bay-Delta Program
1416 Ninth Street, Suite 1155
Sacramento, CA 95814

Re: Comments on the Draft Programmatic EIS/EIR

Dear Mr. Breitenbach,

On behalf of the Board of Directors for the Tuolumne River Preservation Trust (Trust) we want to thank you for the opportunity to comment on the CALFED Bay-Delta Draft Programmatic Environmental Impact Statement-Environmental Impact Report (DEIS/R). At this time we have limited our comments to the Ecosystem Restoration Program Plan (ERPP), the Water Quality Program, the Watershed Management Strategy, and the Project Alternatives sections of the DEIS/R. We are also signatories to the joint comments submitted by the Environmental Water Caucus.

The Trust applauds the effort by CALFED to bring these issues to the public through the many public hearings and the availability of CALFED program staff. As this is an exceedingly complex issue your increased attention to inform and include the public has been invaluable. We look forward to working within this expanded public process as we proceed. Such a cooperative approach will inevitably result in an improved solution.

I. Ecosystem Restoration Program Plan

The slightly revised ERPP fails to provide an ecosystem restoration plan capable of meeting CALFED's program objectives. It is essential that clear and specific performance goals and targets be developed and supported on the basis of a sound ecological foundation. These performance measures should be measurable so that progress toward meeting them can be gauged. They should be clearly stated so the public can monitor the progress, or lack of progress, towards achieving the goals and targets. It is accountability to the public and their scrutiny that provide the program with its long-term credibility.

We also support increased research regarding diversion effects on fisheries and Delta flow patterns. Understanding these issues is crucial to the long-term health of the fisheries populations and needs to get underway as soon as possible so we can make informed decisions. It should not however, be limited to just fisheries. All living resources which are directly impacted by entrainment or indirectly impacted by changed Delta flow patterns should be included in the program's technical efforts to resolve these issues.

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San Joaquin River Ecological Zone

One of our major concerns is that the ERPP gives limited consideration to the restoration of the San Joaquin River. It is impossible for CALFED to seriously consider any strategy for restoration which excludes the entire reach of the San Joaquin River - one of the two major rivers flowing into the Delta. This is particularly true when considering the San Joaquin once supported healthy populations of spring and fall run salmon, steelhead and many other native species of fish. The demise of these fisheries is due in part to many factors, diversions from Friant Dam being key among them. This dam renders large stretches of the river dry and thus uninhabitable by fish. The de-watering of the San Joaquin has also led to the degradation of water quality in the Bay-Delta. Restoring the San Joaquin and its riparian corridor would provide benefits beyond the ERPP (e.g., expanded floodways and greater flexibility with flood management) and generate significant water quality improvements for drinking water, for the ecosystem, and for Delta farmers.

In addition, a recent decision by the federal Ninth Circuit Court of Appeals held that the federal government failed to adequately consider the impact of Friant Dam operations on endangered species, and that the Central Valley Project Improvement Act (CVPIA) did not preempt California State Fish and Game Code Section 5937, which requires that a dam operator release sufficient water to maintain the fishery below the dam. In light of this ruling, CALFED must revise the ERPP to include the comprehensive restoration of the San Joaquin River and its anadromous fishery.

Tulare Basin Ecological Zone

The Phase II Interim Report includes a map of the Sacramento/San Joaquin Delta watershed. The ERPP should include, at minimum, this entire area. We recommend adding a Tulare Basin Ecological Zone, which was historically and is currently hydrologically connected to the San Joaquin River.

East San Joaquin Basin Ecological Zone

Many of our comments on the first draft of the ERPP submitted in October 1997 appear to have been incorporated into this version, although not in their entirety. These comments focused on three main issues: (1) minimum streamflows; (2) maximum flows; and (3) artificial propagation of fish. The ERPP has adopted the new FERC flow schedule on the Tuolumne as the minimum streamflows required, but these are not appropriate targets to set for the ERPP (Target 3, page 420). As we recommended previously, doubling the Tuolumne's salmon production, as required by the CVPIA, should be the baseline for species recovery. This includes setting target flows which shape and sustain the habitats required to support this increased population.

Our recommendation related to peak flows is presently under Natural Floodplain and Flood Processes (pages 425-426). The expanded 20,000 cfs Tuolumne floodway needs to be linked more clearly to the Streamflow section, which should include targets for minimum and maximum peak flows required by healthy alluvial river ecosystems.

Unfortunately, our earlier artificial propagation comments do not appear in this revised draft. CDFG has recently developed another proposal to build a Tuolumne River salmon hatchery, this

time under the guise of a San Joaquin Basin Supplementation Program. In the light of overwhelming documentation regarding the negative impacts of hatcheries on natural populations, we continue to oppose this proposal. As though to lend support to our position, CDFG released 470,000 unmarked hatchery salmon from the Merced hatchery in May 1998, almost half the total released for the entire year. Before we consider expanding hatchery production in the San Joaquin basin, we must develop and enforce measures to improve our management of existing hatchery facilities.

We also urge caution with the representation of the San Joaquin River Agreement and the Vernalis Adaptive Management Program (VAMP). The Agreement and VAMP are a compliance proposal to meet the 1995 Bay-Delta Water Quality Control Plan - it is not a restoration program or project. While the proposal may have merit and improve conditions in some years, it is not intended to satisfy the state and federal requirements to double natural (not hatchery) anadromous fish production.

Finally, the Tuolumne River Technical Advisory Committee has developed a river corridor restoration plan. This draft was released on June 17, 1998. The Turlock and Modesto Irrigation Districts have committed to include a copy of this draft in their comments to CALFED before the July 1, 1998 deadline.

II. Water Quality Program

The present Water Quality Program falls short of articulating a comprehensive vision necessary to improve water quality in the Bay-Delta ecosystem and for beneficial uses of this water throughout California.

We support the recent process initiated by the Water Quality Technical Group to further refine program objectives and actions, and the commitment to convene an expert review panel to address drinking water quality issues. However, further work is needed to develop a more robust, grounded, and scientifically supported program.

Drinking Water Quality

We believe that safe drinking water is a critically important environmental and public health issue. However, in our brief review of the existing program it appears that the discussion may have been short-circuited. The bromide issue has received an overwhelming percentage of the attention to date, but bromide is not a contaminant. The problems associated with bromide emerge from the drinking water treatment process.

In the simplest terms, drinking water is treated because of pathogens, which can either be removed from the water physically or killed (chlorination). In the case of the Delta, which is an estuary, organic matter is naturally present (measured in part as TOC). Chlorination of water from the Delta with organic matter is what creates the problem, carcinogenic disinfection by-products (THM's). However, the amount of chlorine added (and the corresponding formation of by-products) depends on the quality of the source water.

As mentioned, bromide is a naturally-occurring element in the Delta. Chlorination of Delta water also creates disinfection by-products related to bromide. However, we know more about the by-products related to bromide from ozonation, which was initially proposed to replace chlorination to solve the THM problem. Clearly chemical treatment technologies are complex, and will always result in uncertainty and risk related to formation of by-products.

With that background, we believe greater effort should be placed on: (1) exploring the feasibility and cost of physical treatment technologies at the drinking water facilities (as opposed to the point of diversion); and (2) improving the quality of source water relative to pathogens and toxics. Source water improvements will also provide additional environmental and public health benefits.

Coordination with Other Water Quality Programs

The Water Quality Program should contain a process for coordinating implementation of CALFED Action Items with implementation of existing, related programs, such as the Coastal Nonpoint Pollution Control Program, established by the Coastal Zone Reauthorization Amendments of 1990 ("CZARA"), Section 6217 (16 U.S.C. § 1455b), to control polluted runoff. The State Water Board and the Coastal Commission, which jointly administer this program, have decided to implement it statewide.

Similarly, the State Water Board is mandated to control polluted runoff under Section 319 ("Nonpoint Source Management Programs") and Section 303(d) ("Total Maximum Daily Load" program) of the Clean Water Act. CALFED polluted runoff activities should be closely integrated with these related polluted runoff activities in order to maximize the effective use of limited funds. CALFED should insist that the State Board (and appropriate Regional Boards) establish TMDL's for parameters of concern in the Delta, and should include development and implementation of TMDL's as a benchmark in the staged decision-making process.

The DEIS/R also does not adequately evaluate the impacts on Delta water quality of changing the relative balance of Sacramento and San Joaquin waters in the Delta. Each of the conveyance alternatives as proposed could have dramatic consequences on loadings of various parameters of concern. The impacts of diverting or rechanneling substantial amounts of Sacramento River flows, barricades at Old River and other proposed approaches could dramatically alter contaminant loadings in the Delta such as selenium and pesticides. Dredging under the conveyance alternatives could unleash huge loads of metals like mercury and copper into the system with consequences for fish and human health alike.

Enforcement

While voluntary programs can be an effective mechanism to attain compliance CALFED should not limit itself solely to cooperative programs to meet water quality objectives. CALFED agencies have direct enforcement/ regulatory control over water quality including non point source pollution. CALFED needs to use a combination of incentives and disincentives for achieving water quality objectives.

It is only practical for CALFED to include full implementation of existing laws and programs as part of the baseline. As currently written, the Water Quality Program fails to identify the programs available to enforce controls when voluntary programs prove ineffective. The next draft of the DEIS/R should identify relevant legislative and administrative authorities, particularly with respect to enforcement. For example, the Porter-Cologne Water Quality Control Act, Calif. Water Code 13000 et seq., gives the state the authority to regulate dischargers of nonpoint source pollution through the issuance of waste discharge requirements. In addition, the CZARA Section 6217 program also requires the state to implement and enforce measures to control polluted runoff.

The program should include a discussion of available legislative and administrative tools, and identify clear, specific and automatic triggers for moving from voluntary implementation or incentives to the use of enforcement tools. This should include a program to track voluntary water quality improvement activities and results for a set period through mandatory reporting. If inadequate progress is achieved via voluntary compliance within that time period, or if reports on voluntary activities are not prepared, then the state should automatically move to regulatory enforcement of the action items.

Such a process will not only improve water quality but will provide additional benefits to those who comply by taking action against the "bad actors" who avoid voluntary compliance.

Data Gaps/Additional Research

Nutrient loading from agricultural drainage and other runoff into waters south of the Delta have not been adequately addressed for their contribution to degraded water quality. Under some alternatives we may be spending billions to start with a "cleaner" source only to continue to degrade it on its way to the end user. It may be more cost effective to focus on water quality improvements that can be made to water as it moves through the rest of the system rather than putting all of the investment in moving the Delta intake.

We urge CALFED to dedicate the necessary resources to a basic research and comprehensive monitoring program in the Delta and its tributaries. This research and monitoring should be geared toward developing a better understanding of mass loading, spatial distribution, transport, fate, and synergistic effects of contaminants in the estuary and their impacts to biological life and human health. Contaminate issues include pesticides, selenium, mercury, nutrient loading, as well as sources of "unknown toxicity."

III. Watershed Management Strategy

CALFED's draft watershed management strategy is not a strategy - it describes the intent to develop a watershed strategy based on an as-of-yet undefined process. The document does a reasonable job of describing the major issues, including accountability, implementation, and monitoring, but fails to establish a clear process for addressing these issues. The document also fails to describe how this new common program will integrate with the other elements of the CALFED Bay-Delta Program, especially the ERPP and the Water Quality Program.

As CALFED staff work to expand and refine this program, we ask that the group of stakeholders involved in the process be expanded to include a wider range of interest groups.

IV. Project Alternatives

CALFED has failed to examine a reasonable range of alternatives. The DEIS/R has looked only at structural options for addressing water management issues. In its next round of environmental review CALFED should consider an alternative that maintains the existing Delta configuration (with minor changes such as moving the Clifton Court intake to the northeast corner and installing more effective screen and bypass systems) but operates this configuration to optimize water supply, water quality, and ecosystem benefits. This should include modeling operation of a fish-friendly pumping schedule, delayed filling of San Luis Reservoir, flexible export/import ratios to decrease impacts during low flow periods, etc. These scenarios should also include expanded use of water transfers, conjunctive use, conservation and recycling to mitigate economic impacts, if any, of this operational regime.

Fishery sampling and monitoring programs have documented the long term decline of anadromous and estuarine fish in the Central Valley watershed which has coincided with increased water exports from the Delta. Impacts on fisheries include both direct entrainment effects as well as indirect effects. CALFED must better determine mortality associated with indirect effects of water export prior to increasing export capability in the Delta.

Storage

California already contains vast amounts of surface storage. Approximately 5,300 dams - roughly 2,000 "large" dams and another 3,300 "smaller" dams (below 25 feet in height or 50 AF of capacity) - have been constructed throughout California during the last 50-100 years. Our statewide surface storage capacity (including California's apportioned share of Colorado River storage) already exceeds 60,000,000 acre feet.

California's dams - located on every major river but one throughout the entire Bay-Delta system - have combined to cut off access to more than 80 percent of the historical spawning grounds and in-stream habitat for rearing and migrating salmon and other migratory and resident fish species. Similar statistics apply to the loss of floodplain and channel interactions, wetlands, and riparian habitat, from the construction of several thousand miles of levees, which provided habitat for fish and waterfowl, migratory birds, and thousands of other species. More than 90 percent of the Central Valley's riparian and wetland acreage has been lost due to the land and water development practices of the last 150 years.

During the last 30 years, Delta exports have grown from approximately 1.5 million AF/year to an average of 6.0 million AF/year, with a 1989 peak of 6.7 million AF. During this time, populations of longfin smelt, Delta smelt, striped bass, steelhead, and every run of chinook salmon except the hatchery-dominated fall-run have declined by 80-95 percent or more from their 1967 base. (Data are only sporadically available before that time.) The San Joaquin River's mainstem spring run chinook population went extinct in the early 1950's, following completion of Friant Dam.

Taken together, the combination of existing federal, state, and local water projects impound, regulate, divert, and ultimately deplete half of the runoff into the Bay-Delta system in an average year, and as much as 70 percent or more in drier years.

The DEIS/R contains little if any evidence demonstrating that additional surface storage is needed as part of the CALFED program. Certainly before we decide to build additional dams and reservoirs we should explore the opportunities for market based mechanisms and conservation strategies to yield similar benefits for water supply reliability.

Additional diversions to storage will create new environmental impacts, including increased potential for direct entrainment and indirect impacts. Creation of these reservoirs will, of course, have terrestrial impacts as well. CALFED has not only failed to fully assess these impacts, it has not disclosed the unit cost of developing this water and compared it to other alternatives. CALFED should evaluate these costs, including dry year figures, and compare them to the cost of water supplies developed through conservation, recycling, reclamation or transfers. The external costs of any new project must be internalized to reflect a better estimate of the "true" project costs.

Many of CALFED's studies incorporate options for "environmental storage" in new reservoirs at off-stream locations both north of and south of the Delta. Water would be diverted to these reservoirs during periods of high flows and released back into the river to meet the ERPP pulse flow targets. The DEIS/R contains little if any evidence that storage for environmental purposes would be possible or effective. There is no analysis of how or whether these hypothetical environmental benefits would offset the considerable environmental harm entailed in the diversion of even more water out of the system. As noted in the Phase II interim Report "The validity and appropriate role for 'the time value of water' concept in California water management have not been fully discussed within the stakeholder communities. Additional work remains to identify and resolve controversy related to the concept, determine specific parameters (flow rates and timing), and scientifically evaluate the potential effects of this approach." (Phase II Report p.33)

We question whether environmental storage is either the most cost-effective or environmentally sound approach to securing new water supplies for the environment. Other means, including a water acquisition program, should be explored on a per-unit cost and environmental impact basis to obtain water supplies for the environment. As with other program elements, the acquisition of these water supplies should include appropriate protection for the source watersheds. We also note that many of these off-stream reservoir sites are actually small or intermittent streams. Some of these areas represent the last fragments of vernal pool complexes in the Central Valley. We request that CALFED substitute "off-stream" with "small-stream" to better reflect the environmental setting of these proposed reservoir sites, and that the present environmental condition of these sites be documented and weighed on a regional level before pursuing a feasibility study regarding additional storage.

Conveyance and Fisheries

CALFED should use the first phase of program implementation to: 1) focus research and develop and implement adaptive management experiments to help improve understanding of the causes of

fish mortality; and 2) to refine system management to provide for increased species benefits. For example, great gains for fish protection may be achieved by shifting timing and volume of diversions from the Delta and using releases from upstream storage to provide improved instream conditions and operational flexibility.

CALFED should not look for the "silver bullet" solution to fisheries protection in the Delta because it does not exist. Each of the Delta alternatives could potentially result in some level of benefit and impact for each of the species of concern, but none of the existing alternatives provides benefits for all species and lifestages. Rather CALFED should implement, monitor, and assess as many "ecosystem restoration" efforts as possible including flow/hydrograph restoration, shallow water habitat restoration, screening of diversions, riparian corridor restoration, improved interactions between floodplains and channels, sediment management, and watershed planning. In total, CALFED should aim to identify areas of uncertainty as far as fisheries protection is concerned, under current operational conditions, and then figure out how to address these knowledge gaps over the next 5-7 years while implementing common program elements.

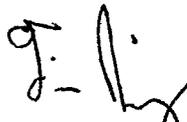
V. Conclusion

In conclusion, we support the extensive evaluation CALFED is undertaking to restore this natural and complex treasure. At the same time, we urge you not rush this process and to refrain from irretrievable commitments of resources. The CALFED program presents all Californians with a unique opportunity to shape our future land and waterscapes. We look forward to participating in this planning process.

Sincerely,



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