

United States House of Representatives
Committee on Resources
Subcommittee on Water and Power Resources
The Honorable John Doolittle, Chairman

FINANCING THE BAY-DELTA SOLUTION

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Washington, D.C.
May 12, 1998

Mr. Chairman and Members of the Subcommittee:

Thank you for the invitation and opportunity to present the views of the Environmental Defense Fund on the important subject of "CALFED Financing."

As a signatory to the 1994 Bay-Delta Accord, EDF has devoted considerable time and resources over the past 3-1/2 years assisting the CALFED Bay-Delta program in its efforts to develop a comprehensive solution that restores ecosystem health and improves water management throughout the massive Sierra Nevada-Central Valley-San Francisco Bay/Sacramento-San Joaquin Delta Estuary watershed.

For example, EDF staff currently serve on the Bay Delta Advisory Committee (BDAC), the Ecosystem Roundtable, and the Roundtable's scientific advisory panel (a.k.a. the "Integration Panel"). We have also participated actively in the BDAC Ecosystem, Assurances, and Finance workgroups (among others), as well as the CALFED Operations Group. We are founding members of the California Bay-Delta Water Coalition, the stakeholder-initiated funding collaboration that took shape around the successful 1996 effort to secure enactment of state Proposition 204 and its federal counterpart, the California Bay-Delta Environmental Enhancement and Water Security Act (the "Bay Delta Act"), in the passage of which this subcommittee played a crucial role. We were also recently named to the California Secretary of Resources' Water Finance Advisory Committee, a group established to provide guidance on research now being conducted at the University of California on "the extent and capacity of the private sector to provide financing for the actions that ultimately emerge from the CALFED process."

Both Finance and Funding are Critical Perhaps the single most important issue at stake in the entire discussion of the CALFED Bay-Delta program is who, in the end, will be asked to pay for what.¹ An important variant of this issue, and one that in our view remains central to the development of a sustainable long-term solution, involves the need for and use of different types and sources of funds for different elements of the program -- such as the need for and creative management of reliable, sustained, and sufficient use-based funds as part of the long-term ecosystem restoration effort. Although there are important inter-relationships between these "finance" and "funding" issues, my testimony today will focus primarily on key issues relating to the finance side of the equation.

Public vs. User Funds As the members of this Subcommittee are no doubt aware, the principal public discourse on these important matters has been shaped of late not so much by the ideas and issues set forth the CALFED Phase II Draft, but by the recent provision of public ecosystem funds under Proposition 204 and the Bay-Delta Act and, more recently, by Governor Wilson's proposal to include anywhere from \$50 million to \$500 million (or more) for "CALFED Water Facilities" as part of a 1998 general obligation state water bond.

Under Proposition 204, the absence of "user funds" in support of Bay-Delta ecosystem restoration was a significant problem -- in Sacramento as well as statewide -- that was only resolved in part by ensuring that CALFED would, in the end, develop "an equitable allocation of program costs among beneficiary groups" as part of its formal charge. Responding to this charge has been a principal concern of the BDAC Finance Workgroup ever since, as summarized in various parts of the Phase II Draft.

Unfortunately, the current version of the proposed state water bond incorporates language developed by a self-described group of "supporters of surface storage" which attempts to pre-define an "equitable" result for CALFED in a way that (1) ignores history and (2) justifies the proposed use of public funds for private gain as follows:

"[t]o date, a \$1.5 billion revenue stream has been provided from federal, state, and water user funds for near-term ecosystem improvements, and *there is an equally pressing need for new [public] investment in water quality, water supply, and flood protection to prepare the state for the 21st century*" (emphasis added).²

¹ The CALFED Phase II draft indicates that "common program" costs will sum to approximately \$4-5 billion in 1996 dollars over a 20-30 year timeframe, while its "variable elements" -- storage and conveyance facilities -- will, if implemented, range from \$2-8 billion. These are likely to be "low end" estimates, however, as they do not appear to include interest on debt for capital outlays or bond financing (where applicable), nor the ongoing costs of operation and maintenance, administration, management, stewardship, monitoring, adaptive management, etc.

² Other proposed findings and declarations are substantially biased in favor of the purported need for new dams, etc.

Quid-Pro-Quo? The above justification is both incorrect as a matter of fact³ as well as a gross distortion of the essential "deal" that led EDF, and many other environmental organizations, to support a significant "downpayment" for the CALFED ecosystem program under Proposition 204 and the Bay-Delta Act, despite the criticisms levied by some that public ecosystem restoration funding is nothing but a disguised water-user bailout. Make no mistake: we stand by those agreements, and we continue to believe that every dollar authorized to-date will be needed if the health of the much-degraded Bay-Delta ecosystem is ever to be restored.⁴

In response to the Governor's initiative, however, we found it necessary to set forth our views in no uncertain terms in a lengthy letter to the state legislative sponsors of the proposed water bond. Our basic position, then and now, is that

"...water users, not the public, should pay for the costs of all water supplies developed for their benefit. In addition, given the tens of billions of dollars in public subsidies already provided for statewide water development in the past [and] the massive environmental damage that is, we believe, a direct result of such historic subsidy policies, ... no new or additional public subsidies should be provided for water development projects or programs that are meant to facilitate, in whole or in part, the depletion of additional waters from California's beleaguered aquatic environments. One way or another, the longstanding practice of giving the public's water away for free must finally come to an end..."⁵

³ For example, this figure appears to be based upon a summation of (1) CVPIA federal ecosystem funds (i.e., approximately \$238 million from all sources obligated since 1992, or an assumed \$480 million over the 10-year period spanning FY 1993-2002), (2) bond funds already obligated for Category III purposes from Prop 204 (\$60 million), (3) bond funds available for state CVPIA cost sharing from Prop 204 (\$93 million), (4) sequestered Bay-Delta ecosystem funds from Prop 204 (\$390 million), (4) authorized and appropriated federal ecosystem funds under the Bay-Delta Act (\$85 million), (5) authorized but not (or not yet) appropriated federal ecosystem funds under the Bay-Delta Act (\$345 million), and (6) stakeholder contributed Category III funds under the Bay-Delta Accord (\$33 million). However, even with CVPIA funds included (they should arguably be viewed separately as part of the pre-Accord baseline), the amounts actually provided for ecosystem purposes since 1992 still only amount to about \$416 million -- by no means a trivial sum, but only about 28 percent of the \$1.5 billion claimed to have "provided from state, federal, and water user sources" for these purposes to date. (The \$1.084 billion "balance" includes funds that will likely be available but which are by no means assured, as well as funds that are either highly speculative, substantially encumbered, or simply no longer available.)

⁴ This does not, of course, mean that the funds currently authorized are ideal in every respect. For example, our ability to establish acquisition, O&M, and stewardship reserves, or to control the pace of year-to-year outlays in a way that is fully responsive to the needs and opportunities identified and vetted through a rigorous scientific and stakeholder-intensive funding allocation process, is substantially limited given the "use it or lose it" nature of the federal appropriations process and the fact that state funds are derived from bond-issued debt.

⁵ We would be pleased to provide the Committee with a complete copy of our February 3, 1998 letter, which explains these and related points in greater detail.

We went on to offer our support -- as we would again today -- for public-private partnership funding for programs that will provide above-baseline ecosystem restoration benefits (and in many cases a host of indirect but significant water and power user benefits as well), for programs which will serve to reduce overall water use (e.g., conservation and demand management), and for programs which ensure that more end uses can be served without any increase in baseline depletions (i.e., increased end-use efficiency investments through reclamation, recycling, and appropriately structured conjunctive use programs, among others).

As explained further below, however, EDF will oppose the provision of new water development subsidies as part of a "comprehensive" CALFED solution, even if purported environmental enhancements or other alleged public benefits are involved. This brings me back to the Phase II Draft, and the deliberations of the BDAC Finance Workgroup.

The "Benefits-Based" Approach According to the Phase II Draft, "[s]haring the costs of the Solution based on the benefits being created is the cornerstone principle of the CALFED Financial Strategy." (Implementation Strategy, page 15.) While EDF supports the basic notion that those who would benefit from newly developed supplies should pay the "true costs" associated therewith, the benefits-based approach is of ongoing concern in at least two fundamental respects.

No Acknowledgment of How We Got Here The fundamental philosophy behind the benefits-based approach is that "costs will be paid for by the beneficiaries of the actions, as opposed to seeking payment from those who, over time, were responsible for causing the problems being experienced." This, in effect, means that the "playing field" is assumed to be level, all but sweeping under the rug nearly a century's worth of water development activities that have, by virtue of all but ignoring their associated environmental impacts, necessitated CALFED's programmatic efforts in the first place. Taken literally, this version of the benefits-based approach precludes any assessment whatsoever of, among others, a host of historic investments and subsidies biased substantially in favor of environmentally-damaging water development, prior unmet environmental mitigation obligations, the ongoing environmental costs of diversions, depletions, exports, impoundments, and pollution from existing facilities, or the related environmental costs of new water development.

Problematic Definition of Ecosystem Benefits The second major concern relates to the definition of ecosystem benefits. One aspect of the problem (discussed further below) is the need to distinguish between alleged "benefits" and much-needed "repairs." Another is the difficulty in quantifying any number of non-market benefits (and costs). But most egregious to EDF is the assertion that the environment needs new and/or bigger dams, or massive new isolated conveyance canals, in order to deal with problems that have arisen, above all, from the construction and operation of thousands of dams,

thousands of miles of levees and canals, and literally billions of dollars in related water development investments.⁶

The extreme consequences of a benefits-based approach so-defined would be to (1) preclude user-fee assessments or other forms of use-based funding to assist in implementing the CALFED ecosystem restoration program over time, and (2) provide a thinly-veiled justification for public funds to underwrite a new round of water project development – funds that would, once again, serve to understate the true cost of new or expanded dams, diversions, and depletions – i.e., costs that most of the principal proponents of such facilities simply cannot afford.⁷

To its credit, the CALFED Phase II Draft identifies as an outstanding issue "whether or not any adjustment for past impacts is appropriate prior to using the benefits [based] approach." (Implementation Strategy, page 15.) From EDF's point of view, there is no question that the answer to that question is a resounding YES – not to be punitive or divisive, but to ensure that CALFED develops and implements a truly "equitable" result over time – one that acknowledges the problems of the past, sends the right market price signals in the future, and ensures that use-based ecosystem funding in particular is available when needed on a sufficient, sustained, and properly manageable basis.

CALFED's Work in Progress A draft document currently under discussion in the BDAC Finance Workgroup -- *Beneficiaries Pay: Implications for Cost Allocation* – goes a step beyond the Phase II Draft in attempting to sort-through and resolve these important outstanding issues. While it continues to discount the importance of better understanding just how it is we got to where we are today, it proposes in lieu thereof a "forward looking" alternative that includes at least several promising features. These include (1) a proposed surcharge on all water users in the Bay-Delta system, the revenues of which

⁶ See, e.g., the Metropolitan Water District of Southern California's Board Memorandum 9-11 (February 25, 1998), which cites the "broad based benefits accruing from storage facilities, including environmental water, flood control, and recreation," as justification for public funds for storage based on "an equitable apportionment of costs applying the beneficiaries pay principle." (The same memo goes on to suggest that even further public subsidies may be justified "on public policy grounds ... to assist the transition of the water user community into an era of substantially greater environmental responsibility.") In our view, if replenishment of depleted streamflows, re-establishment of pulse flows, or other ecosystem needs are the issue, there are numerous ways to address them without incurring the substantial costs or impacts of new dams – e.g., dry-year option agreements, financial reserve accounts, existing reservoir pass-through agreements, or the banking of unused ecosystem entitlements in existing facilities (among others).

⁷ According to press reports from last month's Subcommittee hearing in Fresno, "farmers can't afford to buy abundant river water now flowing to the Pacific Ocean" (i.e., the flood flows that would presumably be captured by the new or expanded dams that these same farmers want CALFED to build) "because of federal environmental fees." (*Valley farmers want lowered fees for water*, Fresno Bee, April 16, 1998.) Similarly, CVP farmers in the Sacramento Valley have long enjoyed waivers or discounts on these fees because of alleged "payment capacity" problems. Yet the cost of any such "newly developed water" would be at least an order of magnitude greater (and almost certainly a good deal more) than the highly-subsidized price -- including the subject environmental fees -- that these farmers currently pay.

will be used to assist in funding the CALFED common programs, (2) clarification that "the users of [storage and conveyance] facilities must pay the full cost of [these] facilities," (3) assurance that the share of any such facilities dedicated to ecosystem purposes will be treated as a mitigation cost for ongoing water development impacts (i.e., not charged to the public), and (4) assurance that, if public funds are provided for facility planning purposes, they will be cost-shared by user funds "up front" and reimbursed by the eventual contractors should such facilities be constructed.

There are, of course, many important details in this refinement that still need attention – for example, the definition of "ongoing impacts" is currently limited to so-called "direct" impacts (e.g., entrainment), and does not appear to consider such factors as hydrograph alterations, loss of sediment, loss of upstream, riparian, and wetland habitat, water quality and temperature effects, evaporation, depletion, etc. However, on balance, it is clearly a step in the right direction, with one significant exception: we cannot, and should not, sweep the past under the rug.

Why History Matters From the outset, EDF has raised concerns, in the BDAC Finance Workgroup and elsewhere, about CALFED's proposed focus on post-Accord "benefits" to the exclusion of a well-documented understanding of the extent and magnitude of previous water development investments (both public and private) as well as the ecosystem debts outstanding as a consequence thereof. For our part, we acknowledged the role of "other factors" contributing to the demise of ecosystem resources in our support for public ecosystem funding under Proposition 204 and the Bay-Delta Act, and even in our prior support for federal non-reimbursable and state cost share requirements in conjunction with establishment of the user-financed CVPIA Restoration Fund in 1992.

Even so, it remains our view that any honest effort to account for the resources previously dedicated to manipulating the Bay-Delta's water resources to the considerable detriment of its public environmental resources would make clear that (1) the "playing field" is far from level and that (2) "mitigation" for those impacts has not, in any sense, been achieved. For example:

- 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.
- For the CVP, SWP, and California's apportioned share of Colorado River facilities – but excluding hundreds of large "local" projects (and thousands of smaller ones) developed in whole or in part by non-federal, non-state entities -- the major storage dams account for at least 900,000 acre-feet of "lake surface" evaporation each year. (This is roughly the same as the maximum amount of "new yield" that CALFED is

currently examining under its most aggressive, and expensive, water development scenario.)

- 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 95 percent of the best and most productive spawning grounds and streamside habitat for wild salmon and other migratory fish species. (Similar statistics apply to the loss of downstream floodplains and wetlands from the construction of several thousand miles of levees.)
- 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 facilitate the impoundment, regulation, diversion, and ultimately depletion of an estimated 49 percent of unimpaired runoff into the Bay-Delta system each year -- as much as 70 percent or more in drier years.
- The CVP and SWP dams and their associated waterworks alone represent an historic investment of public resources (construction costs only) of approximately \$8.5 billion over time: \$3.4 billion for the CVP (1937-94), and \$5.1 billion for the SWP (1952-95). Stated in current dollars, these investments are equivalent to approximately \$12.5 billion for the CVP (circa 1994) and \$9.2 billion for the SWP (circa 1998) -- a combined total well in excess of \$22.0 billion in current dollars.
- While some of these investments have been or will be repaid with time, there is no question that some very substantial sums will not. For example, our preliminary estimates suggest that irrigation repayment subsidies for the CVP through 1994 amount to approximately \$4.9 billion. (This estimate is based on interest-free irrigation repayments only, and does not include many other well-documented CVP subsidies -- e.g., payment capacity waivers, repayment deferrals, below-market interest rates for the M&I and power repayment functions, and the below-market and no-interest repayments slated to occur over the next 30-40 years.) Similarly, our preliminary estimate of SWP repayment subsidies, based on below-market interest rates and interest free repayments on applicable portions of invested capital over a 64-year repayment period, range from \$3.5 to \$5.0 billion. Note, however, that none of these figures includes the substantial environmental costs that should have been allocated to direct project beneficiaries,⁸ nor any charge for use of the public's water.⁹

⁸ For example, the California Research Bureau notes that, "when DWR allocated costs for Oroville Dam ... [its] calculations on the benefits to fish and wildlife [which are allocated to and paid for by the public]

The overall magnitude of these historic water development investments and preliminary subsidy estimates is especially important given the "quid pro quo" assertions being made by the supporters of surface storage subsidies in the Governor's water bond – i.e., the ecosystem funds provided to-date amount to only about 2 percent of the historic construction investment in CVP and SWP facilities expressed in current year dollars (see above). They are also directly relevant because, according to CALFED, it is expressly assumed that "new storage would provide additional water to SWP and CVP water users" (Phase II Interim Draft, p. 106).

EDF believes that a more comprehensive accounting of exactly this sort, involving all aspects of Bay-Delta water development (i.e., investments, repayments, rebates, subsidies, mitigation and restoration outlays, etc.) would do much to inform CALFED's efforts to resolve the "financial baseline" issue, and would thus help to ensure an "equitable allocation of program costs" moving forward – one that all might support.

Recommendations Expecting, however, that such a rigorous financial baseline accounting will not be undertaken by CALFED during the next six months, EDF recommends the following approach as a basis for guiding the proposed use of public funds in the future to ensure an appropriate, equitable, and durable long-term result:

- the ecosystem restoration program (as well as other common programs) should be implemented through a combination of public and use-based funds, including the funds necessary to secure restorative ecosystem flows when and where needed through direct re-acquisition of water and habitat and acquisition of related interests;¹⁰
- new surface storage and conveyance facilities should be treated as the new water projects that they are and, if implemented, paid for in full – based on their full financial and ecosystem costs, and including an annual "rental charge" for depletion of

did not take into consideration the fact that building the dam would have an [adverse] effect on the existing environment." See *Financing the State Water Project*, California Research Bureau, California State Library, CRB-IS-94-004 (June 1994).

⁹ EDF estimates that the environmental mitigation and restoration surcharges paid by CVP water and power contractors will serve to reduce the project's calculated repayment subsidy over the entire repayment period from approximately 95 percent (pre-CVPIA) to approximately 75 percent. By comparison, it appears that SWP contractors have so far paid about 75 percent of the project's annual "operating expenses" (including debt service as well as O&M and assigned mitigation costs) -- i.e., an estimated subsidy of approximately 25 percent, exclusive of unmitigated environmental costs, Monterey Accord rebates, etc.

¹⁰ For these purposes, a broad-based set of watershed charges linked to diversions, depletions, exports, impoundments, and water quality degradation factors should be used to build upon the payments already required by existing law (e.g., the mitigation and restoration surcharges and increased revenues that fuel the CVPIA Restoration Fund).

the public's water -- by their direct beneficiaries (water and power users, floodplain residents, etc.), not by the public at large; and

- any final dedications of new storage or conveyance capacity, yield, etc. to alleged "ecosystem" purposes should be treated as partial mitigation for the new and ongoing direct and indirect ecosystem impacts that are certain to accompany such facilities.

Above all, whatever CALFED does, it should ensure that, at long last, the true costs of developing and using the public's water -- financial, environmental, and otherwise, including both ongoing impacts and any "newly developed" supplies -- are fully internalized in future water prices and paid for by the direct beneficiaries of those investments. To this end, any number of "conventional" cost allocation practices -- low-interest, interest-free, and deferred repayment provisions, payment capacity waivers, purported recreational as well as fish and wildlife enhancements, non-reimbursable flood control benefits, and the like -- must be discarded: the adverse environmental impacts associated with such policies and practices are well documented,¹¹ and they simply have no place in the future implementation of a "balanced" CALFED solution.

"Better Together?" A principal product of the so-called ag-urban process to-date has been the notion that we must all "get better together" under CALFED -- a slogan that we have elsewhere referred to as an "already time-worn phrase." It's not that the idea itself is objectionable -- to the contrary, a host of current and prospective ecosystem restoration efforts and activities are already achieving this objective, as would, we believe, a more flexible market- and price-based water allocation system -- but rather its selective application by the ag-urban stakeholder group when it appears to suit their agenda.¹²

Thus, when it comes to the overall CALFED goal of improving "water supply reliability," we continue to believe that a strong and sustained commitment to large-scale ecosystem restoration provides the best long-term assurance for all.

In addition, rather than rushing to build the next generation of unaffordable water projects (and asking the public to pay for them), we should instead explore and implement any number of readily-available alternatives -- water banking in existing facilities, acquisition

¹¹ This issue is discussed in detail in several recent publications, including *The Trouble With Dams* (by Robert S. Devine, *The Atlantic Monthly*, August 1995) and in our jointly-authored article, *Reforming Western Water Policy: Markets and Regulation* (by Tom Graff and David Yargas, *Natural Resources and Environment*, Winter 1998).

¹² Never mentioned in this context is the fact that environmental interests were excluded from the closed-door Monterey Accord negotiations between SWP contractors and the Department of Water Resources...nor the efforts of CVP contractors during the 104th Congress to repeal the very foundation upon which the Bay-Delta Accord is based...nor the Kern County Water Agency's recent "takings" litigation under the federal Endangered Species Act...nor the San Luis Delta Mendota Water Authority's lawsuit attempting to enjoin implementation of the CVPIA's dedication of environmental water...

of existing dams,¹³ appropriately structured conjunctive use programs, wet meadow, floodplain, and riparian restoration, and a host of fiscal and market-based approaches – which can be used to promote improved water supply reliability and water use efficiency in a way that takes full advantage of California's already massively-plumbed waterscape. These are, we believe, the most cost-effective, flexible, and environmentally benign ways to achieve our common objectives over time.

Finally, if it is to meet its own "durability" objective, CALFED must finally address the problems that have been used to justify constructing and subsidizing both the state and federal water projects in the past (but which have not, in the end, been addressed). This means that a truly comprehensive solution must include meaningful and comprehensive groundwater management, a finite water-depletion budget, comprehensive water metering, a robust and protective ecosystem baseline, and both market- and price-based reforms for an antiquated water allocation system that continues to significantly undervalue our most precious natural resource – inflating demands, exacerbating shortages, and viewing water left in the stream as water "wasting to the sea."

In closing, I would simply like to add that, the above comments notwithstanding, EDF acknowledges and commends the efforts of our Bay Delta Water Coalition partners in pursuing their "enlightened self interest" through ongoing support for a host of near- and long-term ecosystem restoration efforts. This, we believe, remains the key not only to California's water future, but to our neighbors along the Pacific Coast, the Pacific Flyway, and throughout the Colorado River basin, whose long-term interests are inexorably tied to those of a healthy and restored Bay-Delta ecosystem.

Thank you again for the opportunity to provide these comments.

¹³ For example, the Pacific Gas and Electric Company announced last week that it will decide by this summer whether to sell or spin off to shareholders some 68 hydroelectric plants in California involving approximately 3.2 MAF of surface storage capacity with an estimated book value of \$1.2 billion.