By email and mail

July 2, 2008

Phil Isenberg, Chair
Delta Vision Blue Ribbon Task Force
C/o California Bay-Delta Authority
650 Capitol Mall, 5th floor
Sacramento, CA 95814

RE: 6/18/08 DRAFT STRATEGIC PLAN

Dear Chairman Isenberg,

The draft Delta Vision Strategic Plan represents a major step forward toward the eventual reform of how the Delta and its resources are managed. Understandably, some sections of the draft (e.g., governance, ecosystem) are more comprehensive than others (e.g., finance, regional self-sufficiency, wet period diversion) in describing proposed actions and/or performance targets. Our comments focus on areas where further clarification is necessary.

Governance

The multi-part governance structure proposed in the draft Strategic Plan provides an effective and much needed framework for improving management and protection of the beneficial uses of the Delta. We commend the Task Force for recognizing the need for a fundamental overhaul of Delta governance. Although we generally support the approach described, the proposal needs to be fleshed out in much greater detail.

Delta Ecosystem and Water Council: The draft places a great deal of authority and responsibility in a Delta Ecosystem and Water Council. We believe that the strategic plan should include more detail designed to increase the ability of the Council to achieve the Delta Vision's co-equal objectives. Given the scope of the charge for the proposed Council, its membership should be appointed by multiple sources (e.g., the Governor, the legislative leadership, the UC Regents). The membership of the Council should also be strengthened by requiring membership to include both specific areas of expertise (e.g. an independent biologist) and representation of specific stakeholder perspectives (e.g. Delta communities, recreational and commercial fishing). Our recommendations of July 2007

and May 2008 contain a more detailed discussion of options to construct a balanced Council.

Delta Protection Commission: While proposing increased authority for the Commission, the draft here and in the Delta as Place section is missing the extended discussion of proposed changes in state, regional and local control of land use in the Delta that was contained in earlier drafts of and materials developed for the Delta Vision but ultimately deferred to development of the Strategic Plan The draft should be revised to evaluate and propose specific improvements in land use regulation designed to discourage inappropriate and excessive urbanization.

Delta Conservancy: Given the role the Council will play in funding and approving Conservancy activities, the Conservancy should be an independent entity whose members are appointed by multiple sources.

Delta Operations Team: This is perhaps the most problematic element of the proposed governance structure. A multi-agency team to coordinate and make operational decisions is essentially the status quo. This approach has not proven to be successful and has played a major role in the intervention by the courts. The draft should be revised to include an adaptive management entity designed to ensure ecosystem benefits. The Task Force should consider recommending the creation of a new position of Delta Water Master appointed by the Council and advised by an Operations Team, to coordinate and make decisions regarding operations on a day-to-day basis. The Operations Team should include independent experts on biology and operations, in addition to agency staff. The Water Master's charge should specifically include both achieving the Vision's ecosystem restoration goals and ensuring full compliance with state and federal regulatory requirements such as the Endangered Species, Clean Water, and Central Valley Project Improvement Acts. The structure and resources to support the Water Master's activities must be adequate to achieve this charge.

Delta Ecosystem and Water Plan: We support the concept of the Council's creation of a legally binding Plan and oversight of its implementation over decades. Nothing in the Plan, however, may over-ride or otherwise modify the existing statutory responsibilities of the State Water Resources Control Board, the Regional Water Quality Control Boards, and other regulatory and permitting entities under the federal and state Clean Water Acts and other relevant laws.

Revitalizing the Delta Ecosystem

The strategies described in the draft Strategic Plan represent a sound approach to revitalizing the Delta ecosystem. Indeed, the draft proposes a far more visionary approach to ecosystem restoration than has been produced by other Delta planning efforts. We are concerned, however, that the performance targets are both incomplete and insufficient for achieving the ecosystem goals.

Viable Populations of Native Resident and Migratory Species: The performance targets do not address native migratory fish species, which spend a significant portion of their life in the Delta. The draft should be revised to include targets for anadromous fish species consistent with the state and federal requirements to double natural production of Chinook salmon and other migratory species over the 1967 – 1991 baseline. This performance target is particularly important given recent declines in salmon populations and the closure of commercial and recreational fishing in California this year. This target is also important because it will encourage the integration of the operation of the water projects in the Delta and upstream, to provide greater ecosystem benefits.

Open Water Habitat and Flows: The draft Strategic Plan calls for increased open water habitat (Action 4.4) and increased freshwater flows at critical times and locations in spring and fall (Action 5.1). The performance targets and specific measures, however, almost exclusively address improvements in fall conditions. In contrast, spring inflows and outflows represent the most ecologically significant – and most highly altered – feature of the hydrograph. Given the proposed shift to a wet period diversion pattern elsewhere in the draft, which could further alter spring conditions, performance targets for spring flows are essential. See Target 5 in TBI, Attachment 1 to our May 2008 comments for more background and specific recommendations for improving spring flow and open water habitat conditions.

Fish Entrained at Delta Diversions: We are concerned that the targets, while a substantial improvement over existing conditions, do not provide full protection for impacted species. The draft targets would defer 90% reduction to 2060, and even this level of improvement may be insufficient. Recent analysis indicates that entrainment losses are much higher than previously thought (see Kimmerer, "Losses of Sacramento River Chinook Salmon and Delta Smelt to Entrainment in Water Divisions in the Sacramento-San Joaquin Delta," *San Francisco Estuary and Watershed Scienc*e, volume 6, issue 2 [June], article 2). The targets should be revised to limit maximum entrainment to <5% of resident and <2% of migratory species populations. See Target 7 in TBI, Attachment 1 to our May 2008 comments for more background regarding entrainment targets.

Integrating Flood Management and Habitat Restoration: We strongly support the integration of these activities and offer the following comments to strengthen this connection.

- Action 4.2 should be revised to state that floodplain inundation can be produced at greater frequency through careful planning and project design. Agencies should design floodplains so that they flood with the desired frequency. This action should be strengthened by a biologically-driven specific target for frequency and duration of inundation. We recommend that this target be based on *Quantifying Activated Floodplains on a Lowland Regulated River: Its Application to Floodplain Restoration in the Sacramento Valley*, by Philip Williams, et al, currently in submittal to San Francisco Estuary and Watershed Science. Specifically, this paper recommends that floodplains be inundated at least 2 out of 3 years for at least 7 days in the mid-March to mid-May period.

- Action 5.3 should call for Delta habitat restoration work to be integrated with DWR's FloodSAFE and Central Valley Flood Protection Plan programs.

- Recommendations for flow modifications on the San Joaquin River should be designed to meet the needs of spring run Chinook salmon, which, per the San Joaquin River agreement are to be returned to the river not later than 2012.

- The San Joaquin River agreement provides an opportunity to improve flood conveyance on the upper San Joaquin River, which could provide habitat, flood management and groundwater recharge benefits. This opportunity should be included in the specific actions under actions 8.3 and 12.1.

Water Supply Reliability

The draft Strategic Plan's proposed combination of regional self-sufficiency, integrated water management, and shift to a wet period diversion pattern represents in theory a sustainable approach to improving reliability. We particularly appreciate the integration of improved flood management practices and flood conveyance capacity into the reliability framework. There are a number of gaps and uncertainties in the current draft, however, that need to be addressed before the overall approach should be adopted.

The Total Potential of Water Supply Alternatives: The draft discusses a range of alternative supplies. However, it should be expanded to indicate that the state of the Bay-Delta system suggests the need for a fundamental paradigm shift in water supply development. The plan should explicitly recognize that not all water supply tools are

created equal. Alternative tools have the potential to play a central role in advancing the Delta Vision's co-equal goals and reducing the dependence of exporting areas on the Delta.

Wet period capture and reduced dry period diversions may increase the reliability of Delta supplies, while facilitating ecosystem recovery. However, water users should not expect significant increases in total Delta supplies. Indeed, long-term average diversions from the Delta are likely to be below recent record levels. (For example, the draft Strategic Plan indicates that the plan cannot "guarantee water export levels of the recent past" (p. 2.) Increasingly, water users should emphasize alternative supplies to meet future needs. The Strategic Plan should include a call for a dramatic increase in state and water user investments in these alternatives, in order to maximize the water supply obtained from these alternatives and support Delta Vision's co-equal goals. Together, these tools have the potential to produce more water than is diverted from the Delta. The Strategic Plan should explicitly recognize the enormous potential of these alternative supply tools and should include specific water supply targets for each of these strategies. (See NRDC comments dated February 25, 2008 for specific maximum supply targets.)

This paradigm shift suggests that the activities of water managers should be realigned to reflect the potential of alternative supplies. The draft should be revised to include a new action in Strategy 7, recommending that the Department of Water resources and the Bureau of Reclamation, which have traditionally emphasized surface supply management, should significantly increase their capacity to work with local water agencies to maximize alternative supplies and integrated regional planning efforts.

Agricultural Water Use: The agricultural sector uses more than 80% of the state's developed water supply. Yet, while the draft Strategic Plan recommends numerous mandatory improvements in urban water management practices and pricing, it lacks similar recommendations for agricultural water use, which has a much greater impact on Delta conditions. The draft should be revised to include specific performance targets and implementation actions for aggressively improving agricultural water use efficiency.

For example, evaluations of the effectiveness of agricultural water conservation often overlook the potential water quality benefits of conservation. The specific actions discussed under Action 7.4 should include an evaluation by DWR and the SWRCB of the potential for significant increases in agricultural water conservation to assist in improving water quality contamination problems associated with agricultural runoff and comply with regulatory requirements.

In addition, within the Delta Vision's 50 year planning horizon, it is highly likely that a significant amount of drainage-impaired land on the west side of the San Joaquin valley

will be retired, due to the accumulation of salt in soil and groundwater and to adverse impacts to fish, wildlife and water quality associated with the discharge or disposal of selenium and other trace elements. The Strategic Plan should include a specific action calling for the development and implementation of a voluntary land retirement program to eliminate these impacts and reduce overall water use. Any such program should be designed to address impacts to local communities.

Groundwater Use Reporting: We recommend that the specific actions listed under Action 7.1 include annual reporting, by all water users, of groundwater use. Better groundwater data is a necessary part of a vision for improving water management in California. This is particularly true, given the draft's emphasis on wet season groundwater capture, urban stormwater recharge, integrated flood management and regional self-sufficiency – all of which would benefit from improved groundwater data and management.

Transfers: The draft recommends streamlining the regulatory process regarding water transfers (Action 7.7). We recommend that this action include a discussion of the important values that the regulatory process must be designed to protect. Specifically, the regulation of water transfers must be designed to prevent third party and environmental impacts. The latter point is essential to ensuring that the regulation of water transfers supports, rather than undermines Delta Vision's co-equal goals.

AB 32 Implementation: We recommend that the draft be revised to include a discussion of the synergies among water, energy and climate issues. Specifically, water supply strategies that reduce the dependence of the urban community, particularly in export areas, on the Delta, can significantly reduce energy consumption and greenhouse gas emissions. The vision should include an a action that encourages the thorough investigation of this potential by the Air Resources Board, and the aggressive implementation of tools that maximize water supply, energy and greenhouse gas reduction benefits. This intersection of water, energy and climate issues has been understood only recently. It is the kind of new, transformative approach to water management that the Task Force should emphasize in the Strategic Plan.

Learning From California's Energy Efficiency Success: California is a global leader in energy conservation because of a set of particularly effective policy tools, including:

- Establishing a process for determining potential savings and setting targets for reductions.
- Establishing efficiency as the top priority for energy resource investments.
- Requiring independent evaluation of savings and reporting.

- Removing financial disincentives for utilities to invest in efficiency.
- Establishing mechanisms to fund efficiency through a public goods surcharge and procurement funding.
- Integrating efficiency into resource procurement.

We believe that these tools can be adapted to provide similar benefits in the water conservation arena. They provide an alternative, or supplement, to the BMP approach that has dominated the water conservation discussion for the past decade and a half. (See NRDC, *Transforming Water Use: A California Water Use Efficiency Agenda for the 21st Century*) AB 2175, which the draft supports in concept, is designed to adapt the first of these tools to water conservation efforts. . We recommend the addition of a specific action in Action 7.2 to urge the application of these energy efficiency tools to increase the benefits received from and investments in water conservation programs.

Shift to a Wet-period Diversion, Conveyance and Storage System: Reducing diversions during the drier periods and increasing diversions during the wetter periods could provide significant ecosystem and water supply benefits, if done correctly. However, water supply projects have always emphasized wet period capture. The Delta Vision proposes a different approach. The Strategic Plan should be fleshed out to show how this proposal differs from the traditional approach to developing new capacity. In general, making this shift work will require a far more comprehensive set of regulatory protections than are currently in place. Specifically, such protections must recognize a number of important constraints:

- Wet periods provide important ecological benefits. Higher flows are strongly correlated to greater abundance of estuary-dependent aquatic organisms; drive transport of sediments and nutrients from the watershed to the Delta; shape river and Delta channel morphology; allow riparian recruitment; and influence habitat conditions in the San Francisco Bay portion of the estuary downstream of the Delta. For example, longfin smelt abundance and San Joaquin River salmon recruitment are strongly correlated to high flow periods. Any shift must preserve these benefits. The draft should be revised to include boundaries on the proposed shift (i.e., focusing the shift on the wettest 20% of hydrological conditions).

- The current system involves diversion of all water above regulatory minima to the maximum available capacity. Any shift should not perpetuate this approach by encouraging diversion of all water above new ecosystem flow objectives, but instead shift diversions away from all but the wettest periods by identifying thresholds when diversions will have the least impact on the total environment of

the estuary. The draft should be revised to include high flow thresholds for wet period diversions in addition to ecological flow objectives for minimum flows.

- The shift cannot be treated as a zero-sum game for overall Delta exports. Any shift must be executed in combination with improvements in regional self-sufficiency and reductions in total diversions from the Delta. The draft should be revised to include specific performance targets for reliable Delta exports in the future that represent a level of diversion significantly less (e.g., 25 – 33%) than the current level. The economics of infrastructure investments to support wet period diversions also needs to be more closely examined (see comments below).

Surface Storage Options: The draft recommends proceeding with surface storage options without any real criteria for prioritizing potential projects, any examination of the cost-effectiveness and financing of these projects, and a meaningful discussion of innovative storage alternatives:

- The draft appears to suggest that all surface storage options for which current investigations are completed should proceed, and specifically recommends that the state participate in the Shasta Lake expansion if feasible.

- The proposed expansion of Shasta Lake is incompatible with state legal protections for the McCloud River and with the environmental justice actions in the draft, particularly in light of the impacts of Shasta Dam on the Winnemem Wintu tribe. We recommend its deletion.
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- The discussion of surface storage would be significantly strengthened by the addition of an action requiring a careful analysis of the cost-effectiveness of specific projects, the optimal sizing and location of potential projects and the relative cost of alternative approaches (e.g. surface storage, groundwater storage, reoperation of existing facilities, floodplain restoration and storage). Even water conservation and water recycling can provide storage benefits, by allowing groundwater recharge or allowing additional water to be held in storage.

- The value of additional storage north or south of the Delta is influenced strongly by average total Delta diversions. For example, if biological constraints reduce average total diversions, as we anticipate, then the benefits of large investments in storage could be reduced. The draft should be revised to include a discussion of the effect of changes in Delta diversion levels on the cost-effectiveness of various storage options

- The draft focuses on storage options identified by the CALFED Program. Innovative alternative approaches that allow for water to move to natural storage areas, such as transient storage in the Tulare Lake bed or in new flood basins and bypasses along the San Joaquin and Sacramento Rivers, could provide significant benefits at reduced financial cost and reduced environmental risk. The draft should be revised to consider and promote these alternative approaches.

Conveyance: The ecosystem discussion specifically recognizes the benefit of preventing urbanization of parts of the Delta that could provide habitat in the future, as sea level rises. The construction of an isolated canal on the East side of the Delta, along the alignment currently under consideration, would isolate much of this region of the secondary zone from the Delta. This could result in significant constraints on habitat restoration potential in the future. The draft should be revised to acknowledge this potential impact and recommend that it be fully investigated. The Strategic Plan should also recommend the investigation of a pipeline as an alternative that could reduce this impact and increase the reparability of an isolated facility, should one be constructed.

The language at the top of page 62 recommending that necessary permits for a conveyance system be "expeditiously obtained" should be modified. The burden should appropriately be placed on the applicants to provide adequate detail and analysis, rather than on permitting agencies. A major change in Delta conveyance could have dramatic unintended consequences on Delta Vision's co-equal goals. The process of developing specific proposals for facilities and operations, and the analysis of potential impacts, benefits and costs, has just begun. Delta Vision can best support this process by urging the careful development and analysis of alternatives, rather than by encouraging a rush to judgment. The letter approved at the June 27 Task Force meeting included recommendations regarding key areas of investigation regarding Delta conveyance alternatives. We urge the Task Force to include this discussion in the Strategic Plan as a specific action.

Low Impact Development: The capture of urban stormwater offers broad potential benefits. The draft includes some specific actions supporting this relatively new tool. We suggest the addition of the following specific actions.

Under Action 7.3

- Require all new development and redevelopment projects above a specific size to reduce their Effective Impervious Area to 3% of the total project area. Impervious surfaces can be rendered "ineffective" by requiring that all runoff from such surfaces be harvested or infiltrated through properly sized LID features. Studies in California and around the country have shown that watershed

health begins to deteriorate noticeably when the impervious coverage of a watershed exceeds 3%.

- New and redeveloped municipal and state buildings should be showcases of cutting edge water management, including water recycling, low impact development, and water conservation strategies.

Under Action 7.5

- DWR should prepare an analysis of the effectiveness, benefits and cost savings of low impact development projects, and develop a state-wide estimate of the potential water supply that could be generated from the broad application of this tool.
- Local governments should create incentive programs for low impact developent retrofits of existing development, similar to the existing energy and water rebates currently offered in southern California.

Phasing

The draft should be revised to include a discussion of how phasing can facilitate effective implementation, reduce controversy, and inform future decision-making. The Strategic Plan contains dozens of inter-related and ambitious proposed actions. Clearly, all of these actions will not be implemented simultaneously. In addition, the successful implementation of some actions can inform decision-making and reduce concerns regarding other potential actions. In general, operational and governance requirements are more reversible, and represent a lower risk of "sunk costs" than major infrastructure investments. In addition, these major investments generally require extensive additional work before alternatives can be fully evaluated and permits issued. We believe that a phased approach to decision making, as discussed in our comments of July 2007, would be an important addition to the Strategic Plan, to increase the likelihood of its successful implementation. For example, the Strategic Plan should recognize that:

- An improved and functioning program to regulate the management of the CVP and SWP's operations, particularly regarding ecosystem protection and restoration, must be in place and functioning before a commitment is made to transfer either of these projects to a new independent utility. This is particularly true because, absent an improved governance system, such a transfer could undermine the Task Force's co-equal goals.

- The CVP and SWP should not shift to a new "wet period" capture operating regime until after a new and more comprehensive set of regulatory protections are in place to ensure the protection of critical ecosystem functions.

Economics and Finance

We are encouraged that the draft contains several recommendations designed to encourage water users to contribute to the financing of projects from which they would receive benefits and which are designed to mitigate for project impacts. We recommend that the draft be revised to place a greater emphasis on sound economic and financing principles. We have recommended some revisions above in the actions related to storage.

Purchasing Environmental Water and Subsidizing Additional Diversions: We are encouraged that the draft states that water for Delta revitalization will not be purchased (p. 63) and that the use of the state's resources should not be subsidized (p. 25). Inclusion of these principles is appropriate, because the state's water resources belong to the public and consequently making water available to mitigate for the damage of water projects and restore ecosystem health is a requirement for complying with state and federal law. In addition, given the state of the Bay-Delta, it would be inconsistent with the co-equal goal to subsidize additional diversions from the Delta. However, these statements appear to conflict with a statement later in the document (p. 63), indicating that the "condition of the Delta may justify public investment" in surface storage. This statement is of additional concern to us because there is no discussion of a meaningful baseline, assurances or quantification to ensure that promised benefits would be delivered.

Determining Public Benefits: We recommend that the discussion in Strategy 3 be revised to include a call for the clear quantification of proposed public benefits, the development of effective assurances to ensure that those benefits are actually delivered, an evaluation of the cost-effectiveness of those benefits compared to alternative approaches, and a baseline that represents current conditions to be used in determining public benefits.

Economics and Financing Principles: We are also encouraged that the document contains the environmental and water coalition financing principles developed for CALFED. Those principles should be more clearly incorporated into the recommendations in the Strategic Plan. Those recommendations would supplement the recommendations at the bottom of page 25. In addition, we suggest that a recommendation be added to the discussion on the bottom of page 25 calling for public funds to be directed to the most cost-effective solutions.

Thank you for the opportunity to comment on the draft Strategic Plan. Please contact us if you, the other members of the Task Force, or your staff have any questions regarding these comments. We look forward to working with you to provide a comprehensive set of recommendations to the Governor and the legislature.

Sincerely,

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