October 25, 2007

Phil Isenberg, Chair
Delta Vision Blue Ribbon Task Force
655 Capitol Mall, Fifth Floor
Sacramento, CA 95814

RE: DRAFT DELTA VISION DOCUMENT

Dear Chairman Isenberg,

We are writing to commend you and your staff on the October 16, 2007 draft "Vision for California's Delta," which lays out many key elements of an approach to securing a sustainable Delta, to suggest some additional elements, and to raise some concerns regarding what we consider to be an insufficiently thought out component of that vision, namely, a water management approach that calls for new surface storage.

Overall, the draft Vision represents an innovative and welcome approach to managing the Delta. It includes many conclusions and recommendations that we strongly support and that represent significant progress. For example, the draft acknowledges the fragility of the Delta ecosystem and calls for a comprehensive approach to restoring ecological processes and functions; acknowledges the oversubscription of the Delta as a water supply source and transfer station and calls for reducing exports and increasing regional self-sufficiency; and promotes changes in governance and management practices that would improve decision-making about land use, flood hazard, and water project operations.

Water Management Strategy: What is missing, however, is a coherent water management framework for reducing export reliance on the Delta by prioritizing new water supply investments or promoting more efficient use of the existing water supply system. The draft Vision instead offers an inconsistent and insufficiently thought out recommendation for investment in "all available sources" while specifically promoting new surface storage.

The draft Vision states that "new storage, both in ground and above ground, …must be constructed to capture water that is truly surplus to the environment…" This statement overlooks some basic realities.

First, there is no shortage of storage for banking water transferred from Northern California to the San Joaquin Valley and Southern California – or for intra-basin transfers

north and south of the Delta. In the past 15 years, over 6 million acre-feet of new storage has been added to the water supply system south of the Delta. To our knowledge, no analysis has been performed to evaluate what additional benefits would be provided by new investments in storage, given recent court-ordered protections for the Delta and the enormous investment in storage in the past fifteen years. Furthermore, re-operation of existing reservoirs, use of expanded groundwater banking, and access to underutilized transient floodplain storage, could add millions of acre-feet of additional capacity to the system. These opportunities for short-term seasonal storage and environmental enhancement exist in the flood basins north and south of the Delta, within the subsided Delta, and in the Tulare Lake bottom. The draft Vision should be revised to promote the development of new water management strategies that exploit these opportunities and allow conveyance and storage to work synergistically with floodplain and ecosystem functions.

Second, there is no evidence to suggest that there is Delta inflow surplus to environmental needs in any but the wettest years. In fact, a growing body of scientific knowledge indicates that current export levels will need to be reduced during all periods now considered "surplus" – and recent judicial decisions reflect this knowledge. Moreover, diversions upstream of the Delta – which already dramatically reduce Delta inflow – are expected to increase over time. Constructing new storage on the basis of assumed surplus flows is likely to result in highly expensive stranded assets – or in projects that are managed in contravention of their original justification. The draft Vision should be revised to include the principle that new water supplies should not rely on capture of additional surplus Delta flows in traditional storage facilities, but should instead prioritize regional self-sufficiency actions and "work with nature to achieve desired goals in the Delta" (to quote the draft Vision) by improving the conjunctive management of existing surface storage, unused aquifer capacity, and underutilized transient floodplain storage.

Third, market mechanisms and integrated regional planning can far more effectively allocate resources to securing regional water supplies than can a mandate for new storage. Simply put, water districts, individually or in collaboration, will invest in changes to the water supply system that provide real and cost-effective benefits to their customers. Integrated regional water management initiatives also promote regional cooperation in the development of new water supply and demand management opportunities in order to maximize local yield and reduce competition for scarce dollars. Regional recycling and desalination efforts, combined with new interties, have the potential to dramatically increase regional water supply reliability, while reducing costs to any one entity. In contrast, most water users are not interested in paying the billions of dollars necessary to pay for new surface storage facilities – but will not object to reaping benefits if the public subsidizes new facilities. Subsidizing storage facilities in the past has led to widespread environmental degradation and economic inefficiencies. Furthermore, the biggest bang for the buck lies in alternatives to surface storage. According to the State Water Plan, the

low estimates of new water from urban conservation and recycling are each equal to or exceed the high estimate of new water from additional surface storage facilities.

The draft Vision should be revised to reflect the integrated regional approach that is strongly emphasized in the State Water Plan, recent water bonds and the planning of individual water agencies. Rather than simply investing in all tools, a truly integrated approach considers a broad range of benefits and goals, and a full range of tools. These tools are then analyzed on a level playing field to determine the right cost-effective and environmentally responsible solutions to meet specific needs. Given the cost of surface storage, no water agency enters such a planning process assuming the need for a multi-billion dollar surface storage facility. Given the cost of a comprehensive plan in the Delta, the Delta Vision process should not do so either. It would be a mistake to conclude that the state needs new surface storage without carefully considering what the purpose of that storage would be, how that storage would be financed and how surface storage performs compared with a full range of tools. To do otherwise is to risk a mistaken investment or, more likely, a piece of the Delta Vision plan that would simply sit on the shelf.

New storage is not a panacea, and a long-term Delta Vision should not be predicated on what has become more of a political litmus test for some water users than an analytically-based priority for a sustainable future water supply.

Maximizing Water Use Efficiency: Water use efficiency is the one tool that all agencies and stakeholders agree on. The State Water Plan confirms that it has the greatest potential to generate new water to meet future needs. It is cost-effective. In general, conservation is environmentally benign. This tool is also more resistant to the likely future effects of global warming than are other tools. Finally, efficiency offers great potential to reduce greenhouse gas emissions, thus contributing to California's effort to control global warming. To its credit, the draft Vision includes a recognition of the real limits in terms of the amount of water that can be diverted from the estuary. The draft Vision should be revised to indicate that water management in California should move away from a traditional water development approach, to a new paradigm based on efficiency. Specifically, we recommend the inclusion of a new approach for advancing water use efficiency, as outlined in the attached white paper. We believe that California can dramatically accelerate progress in water conservation by developing new tools and policies based on California's experience in advancing energy efficiency. This approach can offer dramatic water supply, energy, greenhouse gas reduction and environmental benefits.

Policy Before Plumbing: The document suggests that the design for storage and conveyance "should not be designed to limit transfer of water…these are policy decisions" (p. 9). We have two major concerns with this statement. First, resolving Delta issues will be expensive and difficult to finance. In order to prevent unnecessary

and expensive investments, we must take care not to overbuild. The second concern, however, is more fundamental. A significant expansion in storage and conveyance has the potential to significantly and additionally harm the Bay-Delta ecosystem. Water projects have long advocated increased "flexibility'" promising environmental benefits. These projects have consistently failed to deliver promised environmental benefits (e.g. Friant Dam, the Trinity River and the CALFED program). In short, efforts to rely on policy mechanisms to protect the environment and prevent the maximum utilization of the capacity of water projects for water supply have a long record of failure. Over the past several years in the Delta, the failure of state and federal water management agencies has been particularly acute, leading to violations of state and federal law and dramatic impacts to the Delta.

These lessons suggest the danger of overbuilding water project capacity and relying on existing governance tools to control operations. In addition, this experience suggests that, prior to making any decisions regarding dramatic expansions in storage and conveyance capacity, new governance institutions must be developed and demonstrated to be effective. This recommendation is consistent with the principle of reversibility in the draft Vision. It is far easier to modify an ineffective governance decision than to reduce the physical capacity of new surface storage or conveyance facilities after construction.

The draft Vision should be revised to include an adaptive management approach to decisions regarding large expansions in surface storage and conveyance – beginning with the reform of Delta policy and governance.

<u>Beneficiary Pays</u>: Addressing the Delta's inter-related problems effectively and securing water supplies for the future will require the investment of tens of billions of dollars. It will not be possible to resolve all of these issues without relying more on funding from beneficiaries than has been true in the past. It is neither feasible nor equitable to expect state taxpayers to bear the majority of the cost of addressing Delta issues. This policy should include, but extend beyond, projects focused solely on water supply. Today, for example, beneficiaries receiving significant benefits from the Delta do not contribute financing to ensure that those benefits continue in the future. Specifically, water exporters do not currently contribute to the financing of Delta levee maintenance and improvements. We recommend that the draft Vision be revised to reflect a vision for the future that includes full financial participation by all beneficiaries and an elimination of "free riders". Such a financing principle is an integral part of an effective Delta Vision.

We look forward to working with you on developing a coherent water management framework and a comprehensive vision that can lead the way to a healthy and sustainable Delta and an environmentally sound and economically efficient water supply system.

Sincerely,

Gary Bobker, Program Director
The Bay Institute

Barry Nelson, Senior Policy Analyst
Natural Resources Defense Council

Encl.

Transforming Water Use:
A California Water Efficiency Agenda for the 21st Century

There is a growing imperative to accelerate water use efficiency in California. Likely impacts of climate change on California's water supplies, the precipitous collapse of the San Francisco Bay-Delta ecosystem, mounting evidence regarding the fragile state of Delta levees and the recent federal court decision to limit freshwater exports from the Delta all strongly suggest that the state must transform its policies and approaches in order to achieve the vast potential water savings from water efficiency.

Numerous studies have indicated the potential for saving millions of acre-feet of water through improving water use efficiency in California. Indeed, the State Water Plan indicates that urban water efficiency is the single most important tool for meeting California's future water needs. Yet the state is not on target to achieve those water savings. A recent analysis by the CALFED Bay-Delta program revealed that in the urban sector the voluntary process based on the *Memorandum of Understanding Regarding Urban Water Conservation in California* "is not working as intended and its impact on urban water use remains well below its full potential."[1] The analysis further noted that the agricultural water use efficiency program received only 10% of the federal and state funding expected in the CALFED Record of Decision, and the program is expected to achieve only 3% of the identified ecosystem and water supply reliability benefits.[2]

California's water efficiency efforts have taken on increasing significance in light of studies by NRDC and others highlighting the energy savings that are associated with saving water, as well as the potential for water efficiency to contribute to the ambitious greenhouse gas emissions limit the state has set, pursuant to AB 32.

California is an acknowledged leader in energy efficiency. We have state policies that:

- Establish efficiency as the top priority energy resource for the state,
- Establish a process for determining the potential savings and setting targets,
- Require independent evaluation of savings and reporting on progress towards meeting those targets,
- Remove financial disincentives for utilities to invest in efficiency by decoupling sales from revenues,
- Establish mechanisms to fund efficiency programs through a public goods surcharge and procurement funding, and
- Integrate efficiency into utilities' resource procurement.

In evaluating the water-energy nexus, the California Energy Commission noted that water efficiency policies, programs, and funding lag far behind those of energy efficiency. As the state faces the prospect of reduced water supplies due to climate change, these policy shortcomings must be addressed. To advance water efficiency in California into the 21st century, NRDC

---

[1] CALFED Bay-Delta Program, *Water Use Efficiency Comprehensive Evaluation*, (Sacramento, CA: August, 2006) p.3.
[2] Ibid. p.2.

proposes the development of an approach modeled upon our remarkable success in energy efficiency.

Below is a discussion of key components for a 21st century water efficiency policy for California.

1.) The State should adopt a loading order that establishes water use efficiency as a top priority.

In 2003, California's principal energy agencies—the California Energy Commission (Energy Commission), the California Public Utilities Commission, and the California Consumer Power and Conservation Financing Authority (Power Authority)—established an energy resource loading order to guide their energy decisions. The loading order requires the utilities to: first, pursue all cost-effective energy efficiency savings; second, meet new generation needs with renewable and clean distributed generation resources; and third, use efficient fossil-fueled generation. The loading order was re-adopted by the energy agencies in 2005 and endorsed by the Governor. The Legislature codified energy efficiency as the top priority resource in 2005, requiring that all utilities "first acquire all available energy efficiency and demand reduction resources that are cost effective, reliable, and feasible."[3]

We propose that the Legislature, the State Water Resources Control Board and the California Public Utilities Commission adopt a similar policy for water:

- First, decrease demand through improved water efficiency as the preferred approach to addressing water supply reliability,
- Second, meet additional supply needs with alternative sources, including water recycling, groundwater clean-up and conjunctive use programs,
- Third, use traditional supply options.

We believe that such a phased approach is entirely consistent with the increased emphasis, by water agencies and the state, on integrated regional water management.

2.) The State should adopt policies and implement programs to operationalize the Loading Order.

While the Loading Order takes the important first step of establishing the state's policy, by itself it is not enough. The state must take steps to operationalize the policy. In its *2003 Energy Report*, the Energy Commission recommended that the state:[4]

- Increase public funding for cost effective energy efficiency programs.

- Standardize and increase the evaluation and monitoring of energy efficiency programs to ensure the delivery of savings and benefits.

- Implement appropriate mandates, incentives, and funding to maximize the energy efficiency potential of existing buildings.

---

[3] Senate Bill 1037 (Kehoe, 2005).
[4] California Energy Commission, *Implementing California's Loading Order for Electricity Resources* (Sacramento, CA:July, 2005) CEC 400-2005-043

These three steps, and others that the state had already implemented, have been instrumental in the state's success in energy efficiency, and are also key to implementing a loading order for water efficiency. In particular, the State should:

A. **Establish a public goods surcharge on every acre-foot of water delivered in California, with the proceeds of that surcharge used to fund efficiency programs.**

B. **Determine water efficiency potential.** Require water use efficiency potential studies by each water agency, or by groups of water agencies engaged in integrated regional planning.

C. **Establish efficiency targets.** Require each agency or groups of agencies to establish targets for water efficiency. The Board should review these targets to ensure they will capture all cost-effective savings.

D. **Integrate water efficiency into water agencies' portfolio.** Require water agencies to invest in all efficiency savings that are cheaper than other alternatives. This funding should supplement the public goods charge to ensure that all cost-effective savings are captured.

E. **Standardize evaluation, measurement, and verification protocols** to determine progress towards meeting these efficiency goals.

F. **Require annual reporting.** Require water agencies or groups of agencies to report annually on their progress towards meeting their targets.

G. **Remove financial disincentives** for water agencies by decoupling revenues from sales so that water agencies are no longer hurt financially by investments in efficiency.

H. **Require urban water system audits and assessment of economically recoverable losses.** To protect against waste and unreasonable use the SWRCB should require urban water suppliers to conduct water loss audits in accordance with International Water Association procedures and to identify and develop a plan to reduce economically recoverable losses.

I. **Implement regulatory and incentives programs** to maximize the water efficiency potential of new and existing development. For example:

   - Adopt water efficiency standards for buildings, landscaping, and appliances,

   - Strengthen LEED water conservation requirements and other green building programs

   - Implement Low Impact Development (LID) requirements through Clean Water Act permits. These LID requirements should be subject to quantifiable measurement so that the supplies "created" through retention or infiltration can be ascertained and compliance with permit mandates verified.

- Support, through allocation of revolving fund monies and by adopting new state water quality policies, improving wastewater treatment so as to make treated wastewater available to offset the use of potable water for applications such as landscape irrigation.

- Offer rebate and incentive programs to help customers save water.

3.) Planning and Research

Conducting additional research on the energy and climate implications of water management, and incorporating that information into water planning, will result in more robust approaches for assuring water supply reliability.

- The State Board should work with the Department of Water Resources (DWR), the Air Resources Board, the California Energy Commission, and the Public Utilities Commission, to complete a study that quantifies energy savings and greenhouse gas emission reductions that would be available from aggressive water recycling and water conservation efforts.

- The State Board and DWR should provide information to local agencies regarding the likely impacts of climate change on state and regional water resources. The State and local water agencies should incorporate that information into water plans.

- The State Board should include specific implementation requirements, and quantifiable overall goals, regarding efficiency in its revised Strategic Plan, which it will be adopting later this year.

- The State Board and DWR should require preparation and submission of agricultural water management plans by all agricultural water suppliers using more than 2000 acre-feet of water. Preparation of agricultural water management plans would facilitate a systematic review of water management alternatives that could reduce water use, improve water quality, and provide other environmental and economic benefits. Given that agriculture uses 80% of California's developed water supply, it is reasonable that these users prepare plans and review opportunities for conservation. These plans should also evaluate the likely impacts of climate change on water supplies and should evaluate the performance of various water management agentives, including water efficiency, under the most likely climate change scenarios.

- The legislature should revise the demand management measures contained in the Urban Water Management Planning Act, which were developed 15 years ago, to reflect new technologies and analysis – such as improved understanding of the energy savings of water conservation.

- The State Board should model the water supplies that could be made available regionally through Low Impact Development practices implemented through Clean Water Act permits.

Conclusion

In summary, water conservation offers unique benefits:

- Largest potential water supply to meet California's future needs.
- Most cost-effective water supply tool available.
- Potential benefits to energy and wastewater utilities who can provide additional resources to support water efficiency efforts.
- Demonstrated effectiveness – conservation has allowed the Bay Area and the City of Los Angeles to maintain the same level of water use for decades, despite significant growth.
- Reduces reliance on pumping from the Bay-Delta and will help implement the recent federal court ruling to protect Delta smelt – and the health of the entire Bay-Delta ecosystem.
- Reduces vulnerability of water supplies to levee failures in the Delta.
- Delivers benefits more rapidly than other strategies.
- Conserves energy and cuts global warming pollution.
- Less vulnerable to the global warming impacts that will reduce water from traditional river diversions, groundwater pumping and surface storage projects.
- Delivers broad benefits throughout California.
- Can result in improved water quality by reducing urban and agricultural runoff.

To capitalize on these benefits the state must transform its policies to prioritize, fund, and assure water efficiency. The state's economic and environmental health depend upon using our water resources efficiently. The agenda laid out above will ensure that our water efficiency record mirrors that of our energy efficiency success.

For more information contact:
Ronnie Cohen, Senior Policy Analyst, NRDC (415) 875-6151 rcohen@nrdc.org