

August 28, 2008

Dear DV reviewers,

I am submitting a second set of comments as invited by the most recent draft:

Comments to improve this draft are welcome at any time. Please send them to:

dv_context@calwater.ca.gov

Comments received before the following dates will be reviewed by staff as the draft strategic plan is revised for discussion at the subsequent Delta Vision Blue Ribbon Task Force meeting:

September 2

September 30

From The 18 strategies:

Strategy 2. Optimize regional self-sufficiency by increasing the diversity of local and regional water supply portfolios.

Comment: Water purveyors in the Sacramento Valley must have their area of origin water rights prioritized, but should not be encouraged to tap groundwater to irrigate land historically irrigated by surface water diversions. Sac Valley groundwater aquifers are particularly vulnerable to damaging draw-down during dry years when the demand for conjunctive exploitation of the aquifer system is the highest.

The strategy should focus “regional self-sufficiency by increasing the diversity of local and regional water supply portfolios” improvements on regions that currently import water from other regions.

Strategy 3. Integrate Central Valley flood management with water supply planning:

Comment: This strategy should not include intentional drawdown of aquifers in the Sacramento Valley. These aquifers are connected to streams and provide critical dry weather base flow.

Strategy 4. Improve the reliability and predictability of water diverted from the Delta Watershed to support the co-equal values.

Comment: Experimental conjunctive water management schemes that seek to develop “new” water supplies from the Sac. Valley must undergo comprehensive environmental review to identify and avoid damage to the valuable economy and environment that is supported by the balanced aquifer.

Strategy 11. Designate the Delta as a unique and valued place:

Comment: The Sacramento Valley and its streams are undeniably a unique and valued place. Our streams, riparian vegetation, groundwater dependent agriculture and quality of life can not be sacrificed to prop up the DV “co-equal values”.

Strategy 15. Create a new governance system to manage the co-equal values and other state interests in the Delta.

Comment: DV made an error by failing to include several representatives from the Sac. Valley Watershed area of origin. The governance system must include representatives from North Valley environmental groups, forest environmental groups and North Valley groundwater dependent groups.

Strategy 16. Create a California Delta Ecosystem and Water Plan to ensure flexibility and consistency of action among state, federal and local entities.

Comment: flexibility must not rest on tapping the Sac. Valley aquifer system to prop up Delta ecosystems. This would provide only a temporary fix while impacting fish habitat upstream during dry years when water purveyors would be ramping up aquifer exploitation.

Pg 4 California's water supply and the Delta ecosystem are both irreplaceable assets of paramount importance to the state's future. Neither can be fully secure if the other fails; the ecosystem will remain under stress if water supplies are unreliable, and the water supply will remain vulnerable to interruptions if the ecosystem is unhealthy.

Comment: The forested landscapes of the Feather River and Sac. River Watershed are the true source of the water that flows through the Delta. More investment into non-timber based watershed management must be part of any state or Delta centered plan.

Pg 7: Two consecutive years of low precipitation and snow pack accumulation led Governor Schwarzenegger to declare an official drought in June 2008 and to declare a drought emergency in nine Central Valley counties a month later.

Comment: Hydrographs from Butte County aquifers clearly show alert stages as defined by the county BMO recommendations. The state must recognize that our aquifers are particularly vulnerable to destabilization during dry years.

Pg 8: Area of origin claims have a priority and may result in reallocation of water rights but do not provide an absolute claim on water uses, remaining subject to reasonable use and public trust. The reasonable use and public trust cases require "balancing" tests for policy making in which no single interest or principle automatically prevails.

Comment: The use of clean water to flush salts in drainage impaired land SOD is not a reasonable use of water. Public trust must include upper watershed assets that are critical to the well being of the citizens of the area of origin.

Water crises around the world

No mention of aquifer overdraft in San Joaquin or Ogallala. One study from Arizona documents a drop in the groundwater table from between 400 - 500 ft., subsidence of the ground's surface dropped over seven feet from aquifer compaction and increased levels of salinity, all results from aquifer overdraft following years of excess groundwater pumping (Cowen, UC Davis). The B-SBAGU report also states the capacity of the Tuscan aquifer is only 30 million acre feet, only 1% of the now severely over drafted Ogallala aquifer, previously containing 3.27 billion acre feet (B-SBAGU, July 06). The Ogallala aquifer experienced severe overdrafts and subsidence in only a few decades, we who reside above the Tuscan aquifer should learn from previous mistakes made with the Ogallala!

Impacts in the San Joaquin from aquifer over-use include dewatered streams and wetlands, disrupting previously robust anadromous fish life cycles and contaminated groundwater.

Pg 10: The Natural Resources Defense Council, for example, has already issued a warning about the possible loss of all salmon in the Delta watershed – almost half of California.

Comment: Butte County is home to the last robust wild-run of Chinook Salmon: Butte Creek. Managing streams requires maintaining the connectivity between groundwater base flows and streams that support spawning and rearing habitat for these charismatic fish.

Pg 13: Ecosystem management is primarily driven by reactive federal court decisions or mitigation projects, rather than a pro-active plan for revitalization.

Comment: Butte Creek has successfully been restored by investing in dam removal and flow management investments. DV must not overlook the success of the Butte Creek salmon fishery restoration. Other wild runs exist on Big Chico Creek and Deer Creek. All three of these streams are supported by groundwater base flows that require balanced aquifer management.

The principles of reasonable use and public trust are not routinely incorporated into the management of the Delta.

Comment: A good start would be to retire drainage impaired land in the San Joaquin valley. DV must consider this strategy to stretch water supplies to more reasonable use.

There is insufficient data about many issues critical to the management of the water system, such as the magnitude of diversions throughout the watershed and within the Delta, and the use of groundwater.

Comment: The state must avoid using the need for more groundwater data as an excuse to plan and implement conjunctive water management schemes NOD.

Pg 15. Governance:

California Delta Ecosystem and Water Plan (CDEW Plan). The CDEW Council should be a small body, numbering five to seven individuals appointed by the Governor and confirmed by the Senate.

Comment: Must include area of origin representatives that are not affiliated with water sales.

Pg 16: The governance structure seeks to link the co-equal values of a healthy ecosystem and a reliable water supply, not only through the CDEW Council and the Delta Operations Team, but also through financing structures. In the proposed structure, water required to revitalize the ecosystem will not be purchased, but will be provided within the state's water rights system by exercising the constitutional principles of reasonable use and public trust.

Comment: The Sierra Nevada Ecosystems Report recommended that reinvestment into the ecosystems that provide the water must be increased. DV must increase attention on watershed management investment that is independent of timber harvest.

Pg 17: Managing Delta water flows in statewide context

Water supply reliability and a revitalized ecosystem must also be linked in the management of water throughout the Delta watershed. *California's hydrology is highly variable. Native aquatic ecosystems, including the Delta, are adapted to that variability, but water users need predictable and consistent access to water (either flowing or stored).* For the co-equal values to be advanced, this difference in needs and priorities must somehow be reconciled.

Comment: Sac. Valley ecosystems evolved with robust connectivity between groundwater and surface water. Groundwater provided the necessary buffer during mega-droughts to allow the continued base flows needed for migrating salmon and valley oak survival. These ecosystems adaptations required balanced aquifers to achieve resilience.

As a general strategic principle, we need to ensure that water can be moved and stored when it is least harmful to the environment, and that the *stored water is accessible to purveyors and users at times of their choosing.* We use the term “wet-period diversion system” as shorthand for this principle...

The more self-sufficient each region of California can be, the less stress is placed on the Delta ecosystem as a “switching yard” for huge quantities of water moving around the state. Two of our key strategies flow from this idea: increasing water use efficiency and conservation in all uses of water in the Delta watershed (Strategy 1), and *maximizing regional water self-sufficiency throughout the state* (Strategy 2).

Comment: Self-sufficiency requires flexibility and response to dry years (and decades). Native ecosystems must not be destroyed by over draft of aquifers to maximize regional water self-sufficiency.

The primary tools to manage the co-equal goals in the Delta – while also meeting the eventual increase in demands from a growing population – are to dramatically improve water use efficiency and to expand locally generated and managed water supplies (i.e. regional self-sufficiency). These include greatly expanding water re-use, water recycling, desalination, and local stormwater capture, along with greatly improved groundwater management and information gathering infrastructure.

Comment: Improved groundwater management should not automatically be translated to include aggressive conjunctive use of balanced aquifers in the Sacramento Valley.

Pg 18: change the operating rules of the reservoirs so that the space thereby freed up can be used for increased water supply storage. With management changes and appropriate infrastructure, it may also be possible to take some of that stored water from the reservoirs and move it at advantageous times to locations where it can be infiltrated into the groundwater aquifers – thereby freeing up still more storage space in the reservoirs.
Comment: Reservoir operation must retain enough water to provide main-stem mitigation habitat (cold water) for anadromous fish that have had their natural habitat destroyed by CVP and SWP projects.

Pg 19: Though we call for the immediate completion of the state's Surface Storage Investigations and implementation of any options that optimize the capture of wet-period flows, we also emphasize the likelihood that *groundwater storage will be a critical part*

of any south-of-Delta storage system. Management of groundwater storage therefore needs to be a key part of regional self-sufficiency planning, as well as being integrated with flood control planning in the manner described above.

Comment: changes in groundwater management must focus on areas of import to improve self sufficiency without spreading negative impacts into are-of-origin aquifer systems NOD.

Pg. 29

Viable Populations

Anadromous Fish (salmon steelhead, sturgeon)

Restoration of anadromous fish populations which migrate through the Delta

Strategies 5, 6, 7, 8, 9, and 10

Percentage of adult salmon, steelhead, and sturgeon surviving migration through Delta

(+)

Percentage of juvenile salmon, steelhead, and sturgeon surviving migration through Delta

(+)

Fish entrained at Delta diversions, outmigrating juvenile salmonids (percent of population) (-)

Comment: Habitat managers must recognize the importance of both spawning and rearing habitat in streams NOD. Outmigrating salmon require viable small stream flow to find adequate rearing habitat.

<http://www.csuchico.edu/~pmaslin/rsrch/Salmon96/Abstrct.html>

Pg. 30

The schedule of phasing seeks to build on existing competencies but begins with bold steps designed to decisively shift the institutional architecture of the State and the Delta, yet it balances these with a realistic allocation of available energy and resources. These “bold steps” consist of six policy initiatives designed to serve as umbrellas under which phased implementation of the 18 strategies can begin to be actualized. The initiatives include:

3. Regional Self-Sufficiency³

3 This includes requiring the development of integrated water management plans along the lines of the checklist for the State’s 190 watersheds, and will require coordination with existing Integrated Regional Water Management plans/planning efforts. The point is that all areas of the State are covered by at least one integrated plan.

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Comment: The Sacramento Valley IRWMP was created without public input by water purveyors. This plan is extremely controversial and not accepted by the majority of the population. DV should not consider the SVIRWMP as a viable planning document as it has not undergone comprehensive legal environmental review.

Pg. 36

Strategy 2. Optimize regional self-sufficiency by increasing the diversity of

local and regional water supply portfolios

Throughout the State, the general concept of regional self-sufficiency is being embraced through Integrated Regional Water Management (IRWM) planning – a framework for actions to address the uncertainties presented to those providing our farms and communities with water. On their own or with the incentive of grant funding, many water management entities are gathering together to look for opportunities to optimize available water supplies, develop new local supplies, and manage demands in a more comprehensive manner – a manner that accommodates expected ranges in the reliability and quantity of specific supplies from various sources. *These collaborative planning efforts must be elevated in their importance and function to ensure regions are adequately addressing risks and investing in strategies to manage an unpredictable future.*

Comment: The SVIRWMP is NOT a collaborative planning document!

Resource flexibility – an inherent component of regional self-sufficiency – requires a diversified portfolio of water management strategies including: (1) creating new places to store supplies - either above or below ground during periods of surplus – for use when particular supply sources are constrained;

Comment: The Sac. Valley aquifer system must not be intentionally drawn down to create storage space for SWP and CVP water supply or for experimental flood mitigation.

Pgs. 36-37

By 2012, all regions of California as defined by the Department of Water Resources (DWR) must collaboratively develop and begin implementing an effective IRWM plan to provide reliable water supplies, water quality protection, public safety, environmental stewardship, and sustained economic prosperity for a growing population in a changing climate.

Comment: The SVIRWMP was created without public input by water purveyors. This plan is extremely controversial and not accepted by the majority of the population. DV should not consider the SVIRWMP as a viable planning document as it has not undergone comprehensive legal environmental review.

Pg. 37:

By 2015, local water agencies must triple the current plant capacity for generating new water supplies through the desalting of groundwater and seawater resources. The State must promote research and implementation of coastal desalination projects that also effectively neutralize the emissions impact of additional energy requirements through the use of renewable energy sources and offset programs.

Comment: Environmentalists and economists have supportable arguments opposing ocean desalination projects. BEC respects these critiques of ocean de-sal.

Pg. 38

Facilitate banking, extraction, and delivery of State and local water supplies

in groundwater facilities through immediate revisions of State and federal place of-use restrictions, adoption of statewide guidelines addressing injection permitting, and continuation of successful DWR and SWRCB grant and loan programs.

Comment: The state must not over ride local groundwater management ordinances and must not sacrifice balanced aquifer ecosystem economies to meet Delta-centric goals.

Does this plan include experimental water banking in the Sacramento Valley?

Does DV envision intentional drawdown of Sacramento Valley aquifers to create storage space?

Pg. 38

DWR and SWRCB shall immediately identify constraints and revise current procedural requirements to allow for efficient evaluation of water transfers through the creation of an inter-agency team coupled with existing buyers and sellers. These policies must incorporate reasonable use and *public trust principles of water rights laws in California and must not reduce or abrogate the constitutional provision that recognizes all waters are the interest of the people of California and for the public welfare*. DWR shall promote concepts of *rotational fallowing as a mechanism to assure reinvestments of transfer funds into local agricultural economies* and evaluate opportunities to *pre-approve some transfers* to create an available “option” pool for emergency needs.

Comment & question: Public trust principles must not be restricted to the Delta. Does the promotion of rotational fallowing imply forced extirpation of Sacramento Valley water rights?

Is there a plan to over ride local groundwater management ordinances?

Will pre-approval of emergency transfers imply truncated environmental review?

Pg. 39

Communities throughout the Central Valley should aggressively pursue stormwater harvesting or infiltration wherever possible.

Pg 40 Beginning immediately, DWR should incentivize additional infiltration and storage of runoff and floodwater upstream of the Delta using both groundwater and floodplain storage in the Sacramento Valley.

Question: Does this strategy include intentional drawdown of balanced Sac. Valley aquifers to create storage space?

Pg 40

Beginning immediately, DWR should incentivize additional infiltration and storage of runoff and floodwater upstream of the Delta using both groundwater and floodplain storage in the Sacramento Valley

By 2012, DWR should study, and if feasible implement, a plan to convey water from storage reservoirs to groundwater infiltration sites to expand storage resources and to improve flood control capacities of the reservoirs.

Over time, work with the U.S. Forest Service to revise the Forest Plans for the National Forests in the Sierra Nevada to encourage greater infiltration.

Comment: Water purveyors and customers must be willing to invest in the ecosystems that produce the water; the forested landscape, especially in the Feather River Watershed. Does this strategy include funding mechanisms for land management that will allow the Forest Service to promote watershed integrity without relying on timber receipts?

Pg 42

We recommend the linchpin to managing Delta water supply and ecosystem functions as co-equal objective will be construction of a new canal isolated from the Delta's natural waterways operate in conjunction with modifications to existing Delta channels...

Comment: Are you saying there is consensus on building a peripheral canal? There is no such consensus!

Pg 44

Relocating intake facilities or modifying the flow of water within the Delta to effectively draw water from flowing Delta channels improves the quality of drinking water and agricultural export supplies while reducing ecosystem impacts.

Comment: Why is DV avoiding the term "peripheral canal"? This is the commonly accepted term for discussion of new upstream diversion. Please use the term in future drafts to promote communication of issues.

Pg 47

Revitalizing the Delta ecosystem is challenging and cannot be implemented piecemeal; all restoration components must be present and function together.

Comment: DV must consider natural upper Sac. Valley watershed anadromous spawning and rearing habitats to be components of the Delta ecosystem. Strategies that require intentional drawdown of aquifers that are currently in balance and that support base flow to streams only move impacts upstream. Butte Creek holds the last robust population of inland Chinook. Disrupting the balanced aquifer to create water bank storage would set back restoration efforts.

Pg 92

As noted above, this Strategic Plan expects that water required to support and revitalize the Delta will not be purchased but will be provided within the California's systems of water rights and the constitutional principles of reasonable use and public trust.

Comment:

Reasonable use: consider retiring drainage impaired San Joaquin land.

Public Trust: Must place co-equal value on upstream public trust assets...stream connectivity with groundwater especially in Salmon bearing streams (both rearing and spawning habitat).

Water Rights: Area of Origin water rights must be given top priority.

DV must place co-equal value on decreasing demand? Ie.: retire drainage impaired land in SJV and dedicate more to improve urban conservation.

Prepared for Southern California business leaders, the LAEDC (Los Angeles County Economic Development Corp.) report is significant on several fronts. For one, this is not the work of a think tank with an anti-dam agenda. LAEDC is a group with wide respect in economic development circles. In addition, it has taken a unique, comprehensive look at the Southland's current water options, and the likely costs of those options over 30 years.

According to the report, conservation would be the least costly alternative, at \$210 per acre-foot of treated water. Capturing storm water would cost about \$350 but wouldn't help during a drought; groundwater storage would cost \$580; and recycling about \$1,000. Ocean desalination would cost more than \$1,000 per acre-foot, depending on energy prices.

<http://www.sacbee.com/110/story/1179131.html>

I would appreciate a response to my questions and an acknowledgement of receipt of my comments.

Thank you,

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