



PHOTO: RYAN SALLM

Although its primary function is flood control, Folsom Dam stores water for irrigation, domestic use and power generation.



# DAM

A WATER BATTLE IS HEATING UP — AND  
LEAVING PUNDITS PARCHED

# COMPROMISE

*by Rich Ehsen*

Few things have played as large a role in shaping California into a global economic power as the ability to access, manage and utilize its most precious natural resource: water. But California's once state-of-the-art water storage and transfer system is fast becoming antiquated, creating significant supply and environmental problems that threaten to undermine the state's economy and quality of life. That possibility has spurred a widespread call for the most significant water policy reform and infrastructure development in half a century.

With California now in the midst of a prolonged dry spell, it is a call that is guaranteed to get louder, particularly in water-starved regions in Southern California and the Central Valley that have cut back on development projects and imposed mandatory water conservation requirements. But two straight years of rainfall that's less than average is only part of the problem. Massive federally mandated reductions in flows out of the Sacramento-San Joaquin Delta have also put the hurt on farmers, leading to thousands of acres going bare for lack of irrigation water. Local communities are also now taking more water than ever from the state's groundwater supply, leading to the additional fear of depleting critical reserves of that supply within just a few years.

All of which has inspired Gov. Arnold Schwarzenegger to propose a comprehensive reform plan that has every option on the table for increasing storage and improving conveyance. That means, among other things, more dams as well as greater conservation efforts. Based on recent court rulings, it also means giving environmental concerns equal footing with all of the above. And, it also undoubtedly includes revisiting one of the most controversial water proposals in state history, a north-south peripheral canal

that would channel water taken from the Sacramento River upstream of the Delta directly to the head of the California Aqueduct and on down to Southern California, thus bypassing the Delta altogether.

Longtime Northern Californians will likely remember the first peripheral canal proposal, which lawmakers approved in 1980. That deal seemingly had something for everyone to hate: Northern California viewed the canal — rightly as it turned out — as a blatant water grab by rapidly growing Southern California. Environmentalists also didn't like the negative impact that greater freshwater diversions out of the Delta would have on fish, while Central Valley farmers had no interest in potentially losing out on their ready supply of cheap water. Huge growers poured millions of dollars into a referendum campaign to kill the proposal, which voters eventually overturned in 1982.

But major water stakeholders of every stripe, from business and agricultural interests to local water agencies and public officials, say the 1982 canal fight is a classic case of that-was-then and this-is-now. With the state's population expected to eventually grow to more than 50 million, they say, time is of the essence in upgrading the system to handle its future needs. Even some environmental interests are now singing that same tune, acknowledging that the current system does not work for people or the environment. But, given the state's history of rancorous and bitter water battles and hyperpartisan political and budget issues, what all that talk will ultimately produce is still anyone's guess.

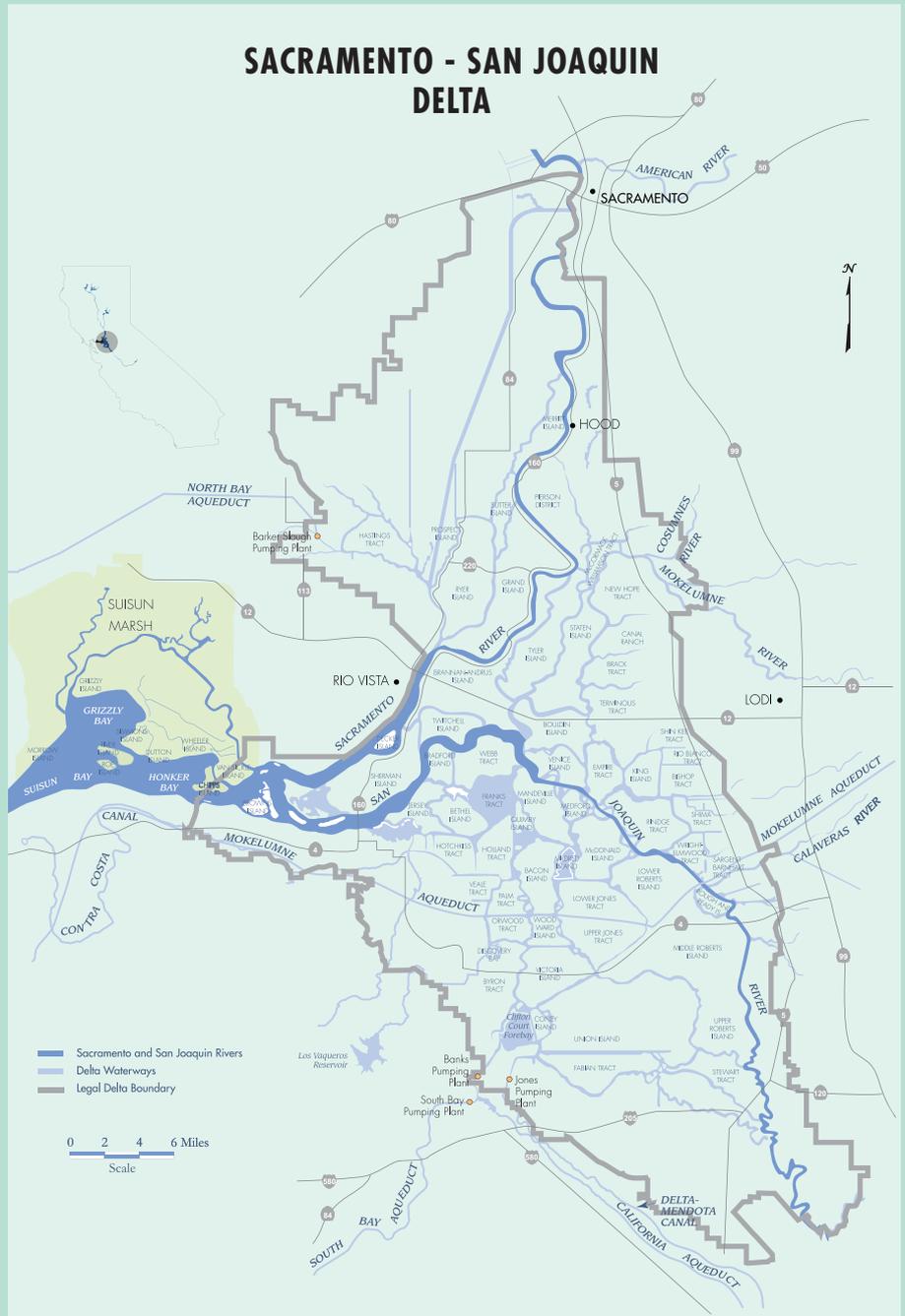
Californians battling over water is nothing new — they've been doing so since the Spanish arrived in the late 1700s. Those turf battles, from the Gold Rush in 1849 through the post-World War I and II agricultural and industrial booms, have played an integral part in shaping California and its economy. As former Sacramento mayor and state Assemblyman Phil Isenberg, who now chairs the Governor's Delta Vision Blue Ribbon Task Force, puts it, "Fighting over water usage is a fundamental part of California history."

Most of California's early water fights were centered on the same

# PERIPHERAL OPTIONS

Although no new peripheral canal proposal is currently under consideration, options do exist should lawmakers choose to consider one as part of a comprehensive Delta reform plan in the future.

Research by the Public Policy Institute of California and a group of UC Davis engineers outlines the pros and cons of these possibilities.

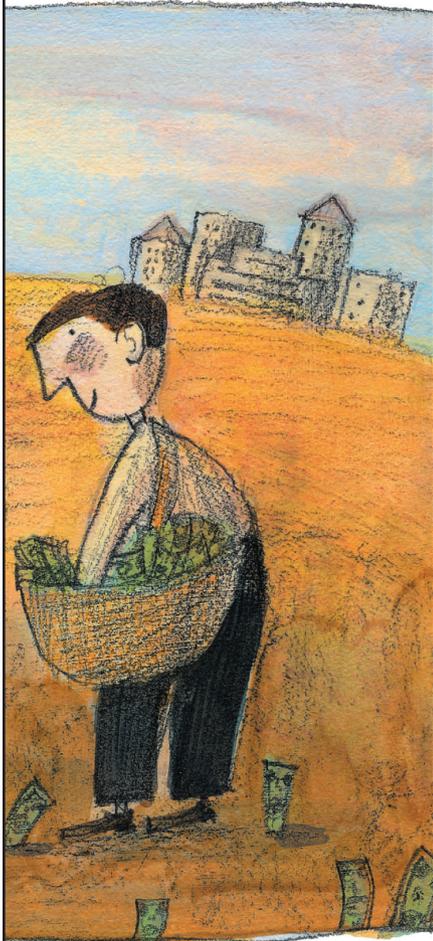


ALTERNATIVES	INVESTMENT	ANNUAL COSTS FROM WATER OR LAND REDUCTIONS	
		STATEWIDE WATER USERS	DELTA AGRICULTURE
<b>Freshwater Delta</b>			
1. Levees as usual	~ \$2 billion, plus increasing costs of failure replacement	Increasing costs as levees fail	Increasing costs from island flooding
2. Fortress Delta	> \$4 billion	No additional water scarcity costs	Some land out of production from island flooding
3. Seaward saltwater barrier	\$2 billion – \$3 billion	No additional water scarcity costs	Increasing costs from island flooding
<b>Fluctuating Delta</b>			
4. Peripheral canal plus	\$2 billion – \$3 billion	Some water scarcity costs	< \$70 million/year
5. South Delta restoration aqueduct	\$2 billion – \$3 billion	Some water scarcity costs	< \$41 million/year
6. Armored-island aqueduct	\$1 billion – \$2 billion +	Some water scarcity costs	< \$30 million/year
<b>Reduced-Exports Delta</b>			
7. Opportunistic Delta	\$0.7 billion – \$2.2 billion in Delta and near-Delta facilities	\$120 million/year	< \$50 million/year
8. Eco-Delta	Several billion dollars for eco-restoration + water user investments	< \$500 million/year	\$100 million/year
9. Abandoned Delta	~ \$500 million	~ \$1 billion/year	\$200 million/year

NOTES: Capital costs do not include possible investment needs for nonwater infrastructure (e.g. roads, rail). All alternatives except No. 9 (and possibly No. 2) would require additional investments for urban levees to provide flood protection exceeding 200-year average recurrence. All alternatives except No. 8 and No. 9 would require additional investments for ecosystem restoration. Adding finer fish screening or bank filtration to intakes to reduce fish and larvae entrainment would increase costs and potentially reduce pumping capacities for Nos. 1 to 8. Water scarcity costs occur when water deliveries are less than desired. Scarcity is often managed by price, rationing urban water use, fallowing farmland or curtailing recreation.

ALTERNATIVES	EVALUATION	RATIONALE
<b>Freshwater Delta</b>		
1. Levees as usual	Eliminate	Current and foreseeable investments at best continue a risky situation; other “soft landing” approaches are more promising; not sustainable in any sense
2. Fortress Delta	Eliminate	Great expense; unable to resolve important ecosystem issues
3. Seaward saltwater barrier	Eliminate	Great expense; profoundly undesirable ecosystem performance; water quality risks
<b>Fluctuating Delta</b>		
4. Peripheral canal plus	Consider	Environmental performance uncertain but promising; good water export reliability; large capital investment
5. South Delta restoration aqueduct	Consider	Environmental performance uncertain but more adaptable than Peripheral Canal Plus; water delivery promising for exports and in-Delta uses; large capital investment
6. Armored-island aqueduct	Consider	Environmental performance likely poor unless carefully designed; water delivery promising; large capital investment
<b>Reduced-Exports Delta</b>		
7. Opportunistic Delta	Consider	Expenses and risks shift to water-importing areas; relatively low capital investment; environmental effectiveness unclear
8. Eco-Delta	Consider	Initial financial costs likely to be very high; long-term benefits potentially high if Delta becomes park/open space/endangered species refuge
9. Abandoned Delta	Eliminate	Poor overall economic and environmental performance; southern Delta water quality problems; like alternative No. 1, without benefits

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elements: supply, usage rights, conveyance and flood control. All of that coalesced in 1960 with voters approving the historic Burns-Porter Act, formally known as the California Water Resources Development Bond Act, which led to the building of numerous dams, reservoirs and aqueducts to gather, store and transfer water all over the state. This included the 444-

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— *Phil Isenberg,  
chair,  
Delta Vision Blue Ribbon Task Force*

mile California Aqueduct, which carries water from the Delta to the Tehachapi Mountains, where pumps boost it 2,000 feet over the mountains and into Southern California, the highest such water lift anywhere in the world.

Environmental concerns, however, were noticeably absent from water policy for more than a century. That began to change in earnest in the 1970s with the passing of several state and federal laws to protect the state’s fish and wildlife population, as well as the quality of our drinking water. That transformation was highlighted last year when U.S. District Judge Oliver Wanger ordered the State Water Project and the Central Valley Project to cut back water transfers from the Delta by one-third to protect Delta smelt, a small fish protected under the federal Endangered Species Act.

It was the largest court-ordered transfer restriction in state history. Another pending court decision could further reduce flows out of state reservoirs in an effort to help revive the flagging Chinook salmon population. The species has suffered from loss of habitat, pollution and increased water

temperatures that have driven it to the brink of collapse.

In virtually every circle, the current water reform discussion is centered on the 700-square-mile Sacramento-San Joaquin Delta. This is for good reason: Approximately 23 million in the state — more than half the population — rely on water conveyed through the Delta. This includes the bulk of irrigation water for the state’s agricultural lands as well as most of Southern California’s drinking water. But environmentalists are quick to point out that the Delta is also the largest estuary on the West Coast and home to more than 750 animal and plant species. At least 80 percent of the state’s commercial fishing species either live in or migrate through the Delta, making it the state’s largest fish habitat as well.

This includes the Delta smelt, which history may show as the catalyst for what the governor’s Delta Vision Blue Ribbon Task Force and many others hope will become a new water policy paradigm — making reliable water supply of equal importance with ecological care of the Delta.

“The Delta is a reflection of an infrastructure system that was built in the last century without sufficient regard for the environmental consequences,” says Tim Quinn, the executive director of the Association of California Water Agencies, which represents the interests of almost 450 local water agencies across the state. “We have a system that wasn’t designed for fishery management, but the way the law and the policy have developed, that is a primary purpose now for how you operate your projects.”

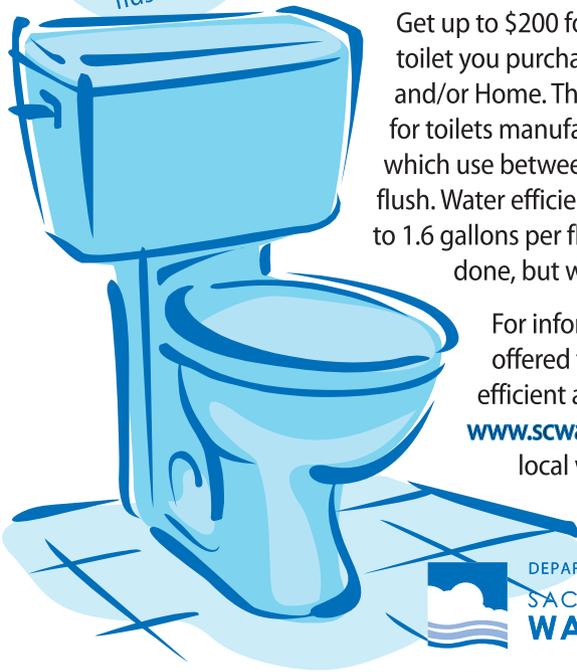
Quinn says the current system’s major drawback is that it was “developed back in the 20th century by people born in the 19th century,” a time when “natural resource policy was only about extraction. The environment only counted to the degree that you extracted resources from it and put them to use for the benefit of human beings. We’re not operating under that policy now. Water policy now requires sustainability and recovery of the environment.”

To that end, Quinn says his organization supports “substantial investment in local resources like water use efficiency, recycling, desalination, cleaning up contaminated groundwater basins” as well as improved Delta conveyance, more surface storage and better environmental management. All of which meshes with what Delta Vision has suggested is necessary, though, no specific plans or sites for any of these proposals have been released.

In addition to creating Delta Vision, Schwarzenegger has also proposed an \$11.9 billion water bond to fund a host of measures intended to radically modernize the state’s water infrastructure. That bond proposal includes, among other things, \$2.4 billion to fund Delta Vision’s eventual management plan, \$3.1 billion to increase water efficiency and another \$3.5 billion for new storage, such as dams and reservoirs. In June, Schwarzenegger emphasized his water concerns by declaring a statewide drought, the state’s first since 1991.

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DEPARTMENT OF WATER RESOURCES  
SACRAMENTO COUNTY  
**WATER AGENCY**

**“Now we are already  
seeing significant economic  
damage to this economy  
because of a lack  
of reliable water supply.”**

— *Tim Quinn,*  
*executive director,*  
*Association of California Water Agencies*

Schwarzenegger made the declaration after the state had endured its driest spring in 88 years. In fact, runoff was at just 41 percent of normal when he issued his proclamation on June 4. But the move was also surprising to many because it came just a week after the Department of Water Resources refused to deem this a drought year, and because it did not include an order for water agencies and local municipalities to cut water use. The governor’s executive order did, however, direct water

*continued on page 112*

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agencies to speed up deliveries to the driest agricultural areas. "This drought is an urgent reminder of the immediate need to upgrade California's water infrastructure," he said. "There is no more time to waste because nothing is more vital to protect our economy, our environment and our quality of life."

In addition to creating Delta Vision, Schwarzenegger has also recommended various bond proposals to address the state's long-term water needs. The latest proposal, which came in conjunction with efforts from Sen. Dianne Feinstein, calls for \$9.3 billion in bonds that would include, among other things, \$3 billion for water storage projects, such as dams and reservoirs. The proposal also calls for \$2 billion for regional supply and conservation efforts and another \$1.9 billion for Sacramento-San Joaquin River Delta sustainability projects, including levee repairs. In June, Schwarzenegger emphasized his water concerns by declaring a statewide drought, the state's first since 1991.

A new peripheral canal undoubtedly has its supporters, including at least some major environmental groups. Anthony Saracino, director of the California Water Program for the Nature Conservancy, says his organization supports a new conveyance system for one reason: "It is absolutely necessary. The existing conveyance system is not sustainable, either for the environment or for the necessary supply." A new canal, its supporters contend, would likely be smaller than the earlier proposal, with less focus on increased water supply for Southern California and more on ensuring the water reliability for the state's south. A dual purpose canal is also a possibility. A 2007 Public Policy Institute of California study detailed at least three such possibilities, with pros and cons of each.

But for Delta residents like Dante Nomellini, an attorney with the Central Delta Water Agency, none of these is an option worth considering. He believes the current talk of another canal is "just another orchestrated water grab" by Southern California developers, and that taking more freshwater flows from

the Delta would "do nothing but create an inland salty bay." He also laments the negative impact that would have on both the Delta recreation industry and the wildlife in the region. "I don't think you gain a lot for the state by destroying the biggest estuary in the West," Nomellini says.

Powerful environmental groups like the Natural Resources Defense Council share Nomellini's concerns. The group has so far been adamantly opposed to the idea of a new canal, urging the state to concentrate on more conservation and improved groundwater efforts

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— *Gov. Arnold Schwarzenegger*

rather than new conveyance. "We can't support or oppose a project until a proposal is actually on the table," says council spokesman Craig Noble. "But it is hard to imagine how taking more freshwater out of the system is going to help the Delta."

Imagination, however, could very well be the key to moving comprehensive water reform forward. Even if advocates for a new canal eventually agree on what type of canal to seek, they are still going to have to sell the idea to voters that have been conditioned to reflexively reject such an idea out of hand. As the Nature Conservancy's Saracino says, "Any new canal cannot just be a means to ship Delta water south. This has to be about balance and doing what is best for the Delta."

But even if the public buys into that proposition, new conveyance alone won't mean much without also addressing storage, conservation, the environment and the other 500-pound gorilla in the room: major flood control renovations. All of which, most experts say, will only get more complicated with the onset of problems created by global climate change.

In that regard, most water leaders in the Capital Region have expressed optimism over new leadership in the state Legislature. Incoming Senate leader Darrell Steinberg, a Sacramento native, and Assembly Speaker Karen Bass are widely viewed as thoughtful and proactive leaders capable of breaking through partisan gridlock to get things done. Given the state's ongoing budget issues, neither will handicap the chances of the governor's bond proposal getting through the Legislature this year. However, both say if the plan fails, getting a new water deal will be a top priority for them in 2009.

But Steinberg is also less committed to an all-encompassing proposal like Schwarzenegger's, saying he wants lawmakers to move ahead with some caution. "I'm in favor of letting Delta Vision issue their comprehensive recommendations before we act," he says. "Before we do policy, we should be guided by experts." To him, it is just a matter of political reality. "I am always wary of all-or-nothing proposals," he says. "Too often that leads to nothing."

But for people like ACWA's Quinn, the risk of not trying to overhaul the system is just as great, particularly when it seems that most of the major stakeholders are at least willing to talk about it with every option on the table.

"Judge Wanger said this system is not sustainable, and it is not going to give you the water supply you need in the future," Quinn says. "Now we are already seeing significant economic damage to this economy because of a lack of reliable water supply. Necessity is the mother of invention, and we have a lot more necessity now than we did a few years ago." ©