

To: All Members of the State Water Resources Control Board
From: Patrick Porgans & Associates on Behalf of Planetary Solutionaries

4 March 2014

Addendum to P/A's Comments Regarding State Water Board Drought Workshops, February 2014. Please post comments.

FYI: EXHIBIT "Déjà Vu" [Reprinted]

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Attn: Jeannie Townsend, Clerk of the Board [Please see to it that each Board member receives a copy of this article.]

Los Angeles Times

[State Criticized for Worsening Water Crisis](#)

May 05, 1991 | VIRGINIA ELLIS | TIMES STAFF WRITER

SACRAMENTO — During the first four years of the 1987-91 drought, the state delivered more water to California farms and cities than in any other four-year period in its history, state records show.

In that same span, reservoir levels dropped to some of their lowest points ever—until the State Water Project practically ran bone-dry this year.

Although state officials have consistently blamed Mother Nature for the unprecedented drought, they are increasingly facing criticism for contributing to the crisis by releasing massive amounts of water when many believed it was essential to bank it in storage.

State documents show they made the decision knowing that if there was a prolonged dry period, they could be risking drastic shortages later. Moreover, critics point out that they failed to come up with an emergency plan to provide water should that happen.

"It's inaccurate to say that this (drought) is purely a function of precipitation. The severity of the crisis is simply the result of mismanagement (and) a conscious decision made by state bureaucrats," said Thomas J. Graff, senior attorney for the Oakland-based Environmental Defense Fund.

State water authorities angrily dispute the charge, saying they were trying to squeeze as much water as possible out of a system that was increasingly unable to meet the demands of a growing urban population and expanding agricultural economy. Without a crystal ball, they said, they had no way to foresee that they were entering a severe drought.

"I guess it just strikes me that people have an amazing ability to see things into the future that we can't see," said Department of Water Resources Director David Kennedy. "If they knew we were going to have five years (of drought), I wish they'd have told us about it."

In the early 1980s, the State Water Project delivered an average of 1.7-million acre-feet of water a year to cities and farms, mostly in Southern California. An acre-foot is about 326,000 gallons, or enough to cover one acre to the depth of a foot.

In 1987, a year that was classified as critically dry, deliveries from the State Water Project rose to 2.1-million acre-feet. In 1988, a year that also became critically dry, 2.4-million acre-feet of water flowed from the project to Southern California cities and San Joaquin Valley farms. By 1989, when drought conditions eased enough for the year to be classified as just dry, the water deliveries hit their highest level ever—2.8-million acre-feet.

The next year was the fourth year of the drought and again critically dry. Even with a 50% reduction in water supplied to agriculture, deliveries reached 2.6-million acre-feet.

As the water spilled into the California Aqueduct on its way to farms and cities, storage in the state's two major reservoirs—Oroville on the Feather River and San Luis south of the Sacramento-San Joaquin River Delta—declined rapidly. At the end of the water season in 1986, about 3.6-million acre-feet was held in the reservoirs for the next year. By the Sept. 30 close of the 1990 water year, there was only 1.3-million acre-feet left.

They reasoned that if they drew reservoirs down in one or two dry years, a wet year was likely to follow that would replenish them. Using historical data as a guide, officials justified the new approach by pointing out that most California droughts—except for a dry period from 1928 to 1934—were typically short.

"Basically, we've got greater demands than we've got supplies," said Kennedy. "What we've done is set out a year-by-year scenario based on probability and the probability is that . . . if you've had four dry years, statistically you're unlikely to have a fifth."

"If you go through the numbers and try and be as rational as possible in terms of statistics, you have a gradually diminishing statistical probability of the drought continuing."

Water department bulletins and annual reports said that under the new strategy "greater delivery approvals may be possible on the average," but they also contained a warning that proved prophetic: The new system would produce greater shortages in the later years of a prolonged drought.

Despite its drawbacks, the new operating procedure had the enthusiastic support of the State Water Contractors, including its biggest urban member, the Metropolitan Water District of Southern California. "The benefits more than outweigh the increased risk," said the group's then-general manager, David Schuster, in a letter to Kennedy. "The contractors are willing to assume the risk associated with the new (procedure)."

Approved in 1986, when rain-swollen rivers were breaking through levees and forcing thousands of Californians to flee to safety, the new strategy went into effect just as the state was entering the harshest drought of this century.

"As soon they changed it (operating procedures), it got dry. You could say God punishes," said Gerald Meral, executive director of the Planning and Conservation League, an environmental group.

Nevertheless, Paul Singer, MWD chief of operations, said he still considers it a wise decision. Singer called it "imaginative" and said the major advantage it offered was an ability to take more water out of the system over the long term by avoiding reservoir spills.

If reservoirs are not drawn down in a given year and the following year is wet, he said, then they will fill quickly and a great amount of water will be lost to spillovers.

Also, he said, this system avoids more frequent cutbacks to agricultural and municipal customers.

"I feel very comfortable with the decision that was made," Singer said. "When you are operating a project which doesn't have enough capacity to meet its contract obligations, then you have to operate it to maximize the yield. If you operate it differently and only preserve for a drought supply, you are going to substantially reduce the annual amount of water you can deliver."

Had a more conservative approach been used during this drought, Jay Malinowski, MWD's assistant chief of operations, said municipal customers would have had to accept cuts in deliveries in 1990 and 1991. He said agriculture would have been cut back substantially in 1988, 1990 and 1991.

"The way the system was operated, municipal users were shorted in only one out of the past six years and that shortage amounted to 80% in 1991," he said.

Despite the advantages MWD and other agencies may see in the procedures, John Krautkraemer, an Environmental Defense Fund attorney, said it should not have been adopted without a plan for emergencies.

"If you were in their shoes, it's not surprising they did what they did, but from a statewide overall perspective it just didn't make any sense at all," he said. "They didn't have a plan for what would happen if their gamble didn't pay off. You need a contingency plan for those years when you run into problems, when you run out of water."

Initially, the policy change drew little notice and few critics, as farms and cities breezed through critically dry years without suffering any shortages in water supplied by the State Water Project.

The few voices raised in protest came from Assemblyman Phillip Isenberg (D-Sacramento) and Patrick Porgans, a private water consultant, who warned in June, 1988, that there would be "dire" consequences if the drought continued and water deliveries were not reduced.

"To them (department officials), there is no more important concern than making deliveries of water, regardless of what the implications of these deliveries can be to the environment and future water supplies," Porgans said.

Now, three years later, as Southern California cities cope with mandatory rationing, Isenberg and Porgans are not alone in their criticism.

Environmentalists and some elected officials say that the hardships for consumers and the stress to fish and wildlife could have been eased considerably if agriculture had been forced to take some gradual cutbacks in the drought's early years.

"In a limited way, this was a rational policy, but it shifted reservoir management assumptions to a gamble," Senate President Pro Tem David A. Roberti (D-Los Angeles) said in a recent speech advocating a re-examination of the policy. "It seems to me this technical change in the way the state's reservoirs are operated is causing this drought to be harder on Californians than it really needs to be."

Apportioning State Water

State Water Project deliveries over the last decade show a pattern that, in the latter years when drought conditions worsened, drew off more and more water—until a crisis developed in the 1991 water year. A water year runs from Oct. 1 to Sept. 30. (figures are in million acre-feet; reservoir levels are at year-end)