

## Robert Pyke, Consulting Engineer

### Tall Tales from Southern California

Marked up copies of two propaganda pieces from Southern California regarding the Bay Delta Conservation Plan (BDCP) are attached. Both greatly overstate the threat to the Delta levee system and export water supplies posed by earthquakes. The most up-to-date description and assessment of the Delta levee system can be found in the Economic Sustainability Plan of the Delta Protection Commission<sup>1</sup>. That study found that the current risk of damage to the Delta levee system caused by earthquakes is quite small and that the risk of damage from even more extreme earthquakes and floods could be made negligibly small by investing another \$1-2 billion in the system. Such an investment would be very cost-effective because it provides multiple benefits. Not only would the “fat levees” proposed in the Economic Sustainability Plan help to further secure conveyance of water destined for export through the Delta, they would also protect life and property in the Delta, the agricultural base of the Delta economy and the very significant investment in infrastructure of various kinds that passes through the Delta. Additionally, they would allow the planting of appropriate vegetation on the water side of the levees in order to provide shaded riparian habitat throughout the Delta.

The first of the two flyers, **IT’S ABOUT RELIABILITY**, produced by the Metropolitan Water District of Southern California, is actually not so bad. While “Reduce Seismic Risks” is included as one of the six “Metropolitan Benchmarks”, when the reality is that the current seismic risk is very small<sup>2</sup>, the overall impression given by the benchmarks is that five or the six claimed benefits are pretty nebulous. The one that is not is a claimed 20 percent improvement in the water quality of Metropolitan’s water supply from Northern California. **BINGO!** There it is, out in the open. An admission that the BDCP is not about reliability, it is about improved export water quality, obtained at the expense of degraded Delta water quality. There is no claimed increase in supply. The first benchmark claims only that the BDCP “stabilizes water supplies at roughly the last 20-year average for as long as 50 years”. While agricultural users will also derive some benefit from improved water quality, the BDCP does nothing to solve their most pressing

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<sup>1</sup> <http://forecast.pacific.edu/desp.html>

<sup>2</sup> As is confirmed by the fact that in the public draft of the BDCP EIR/EIS seismic issues are not even mentioned in the listing of impacts on water supply and water quality.

problem which is that the present conveyance and storage systems do not allow them to survive several dry years in a row without pumping groundwater lower and lower and eventually into oblivion. The agricultural users are in fact being played by Metropolitan. This flyer should be titled **IT'S ABOUT WATER QUALITY (and the agricultural users be damned)**.

The second of the two flyers **SAFEGUARDING OUR WATER SUPPLIES**, produced by the Southern California Water Committee, which is effectively the public relations arm of Metropolitan, is an over-the-top propaganda piece which responsible professionals at Metropolitan and their member agencies should disavow. For starters, the text should acknowledge that only some water for two out of three Californians comes from the Sierra Nevada. The little graphic that shows Southern California's water supply portfolio shows this very clearly and is a much more useful contribution to public education. The flyer then repeats the same errors regarding levees and earthquakes that are made repeatedly by propagandists for the BDCP. The cartoon showing Delta levees is of course ridiculous but hopefully most people will realize that it is only a cartoon. More importantly, while the Delta levee system is over 100 years old, most of the levees have been reconstructed over the last 30 years in accordance with modern engineering practices and standards. And, while the U.S. Geological Survey is quoted correctly on earthquake probabilities in the Bay Area, the closest fault that they considered is 30 miles from the western extremity of the Delta. A graphic that showed this would be a more meaningful contribution to public education than the scary one in the flyer. Again, see the Economic Sustainability Plan of the Delta Protection Commission for the truth about Delta levees, and go back and read Footnote 2 again. The numbers on the second page are all questionable when the design of the BDCP project is only at the 10 percent level and there is no financing plan in place. **The BDCP is more about water quality and safeguarding the power of the Metropolitan Water District and its board's pensions than it is about safeguarding water supplies.**

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*Dr Pyke is a geotechnical, earthquake and water resources engineer with over 40 years of experience in both Australia and California. He has served in the past as a consultant to both the Corps of Engineers and the Bureau of Reclamation. He was one of the contributors to the Economic Sustainability Plan of the Delta Protection Commission.*



THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA

IT'S ABOUT  
RELIABILITY:  
BAY DELTA  
CONSERVATION PLAN

Meeting Southland Water Objectives

Maintaining a reliable water system doesn't just happen. It requires investments in the right projects and an eye toward the ever-changing future. Facing reliability challenges with its State Water Project supply that moves from Northern California across the Sacramento-San Joaquin Delta, the Metropolitan Water District of Southern California in 2007 established six benchmarks on what a long-term solution must achieve. A solution has been emerging via the state-federal Bay Delta Conservation Plan (BDCP) process. In December 2013, BDCP released a public review draft proposal for water system and ecosystem improvements. To protect public water supplies, BDCP is proposing construction of three new intakes in the northern Delta, with supplies transported via two tunnels with a combined 9,000 cubic feet per second capacity to the California Aqueduct and Delta Mendota Canal in the southern Delta. Compared against the Metropolitan benchmarks, the BDCP\* proposal shows the most promise for maintaining a reliable

water system for the next generation by protecting the supply from natural disasters, addressing environmental conflicts, and allowing Metropolitan to capture and store adequate imported supplies in wet years in order to withstand dry cycles.

\*Alternative #4 in the draft BDCP EIR-EIS

METROPOLITAN BENCHMARKS	BDCP PROPOSAL
<b>PROVIDE WATER SUPPLY RELIABILITY</b> Restore and protect State Water Project deliveries	Stabilizes water supplies at roughly the last 20-year average for as long as 50 years; Is consistent with imported supply goals of Metropolitan's long-range water plan.
<b>IMPROVE EXPORT WATER QUALITY</b> Reduce concentrations of salinity, bromide and dissolved organic carbon	Improves overall quality of Northern California supplies by 20 percent.
<b>FLEXIBLE PUMPING OPERATIONS IN A DYNAMIC FISHERY ENVIRONMENT</b> Reduce conflicts between fish and water operations	Fish conflicts minimized by constructing three new intakes in the northern Delta, along with operating the existing pumps in the southern Delta.
<b>ENHANCE DELTA ECOSYSTEM FISHERY HABITAT THROUGHOUT DELTA</b> Future water operations should promote restored habitat, natural food web and fluctuating salinity levels.	Provides wide-scale restoration of tidal marshes, adjacent floodplain, and upland habitat and protects 57 different species.
<b>REDUCE SEISMIC RISKS</b> Mitigate threat of levee collapse, loss of supply	New tunnels to convey water from northern Delta will protect future critical supply needs from natural disasters.
<b>REDUCE CLIMATE CHANGE RISKS</b> Protect supply from the effects of sea level rise	Intakes in northern Delta are upstream of predicted long-term salinity intrusion due to climate change.



Why This Proposal?

Proposals of smaller capacity provide less benefit for water supply reliability, water quality, fish recovery and protection from seismic events and climate change. We need a cost-effective modernized water system large enough to restore reliability and ensure adequate supplies for California's cities and farms. BDCP is seeking to find a balanced solution that works for the California economy and Delta environment in a cost-effective manner.

For more information.....[www.baydeltaconservationplan.com](http://www.baydeltaconservationplan.com)

Mission Statement

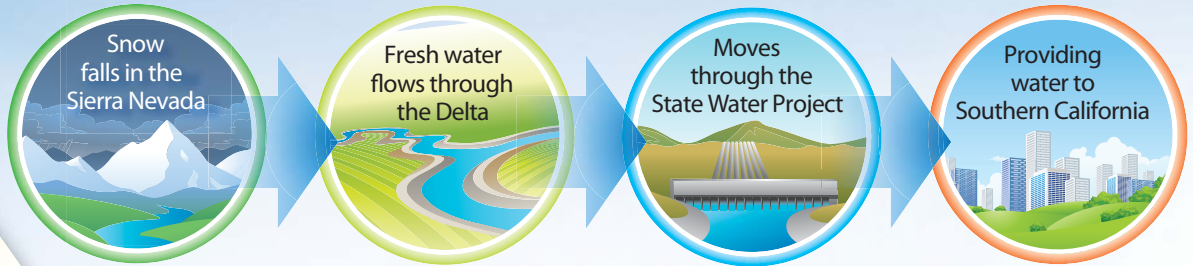
The mission of the Metropolitan Water District of Southern California is to provide its service area with adequate and reliable supplies of high quality water to meet present and future needs in an environmentally and economically responsible way.



# BDCP SAFEGUARDING OUR WATER SUPPLIES

Some

WATER FOR TWO OUT OF THREE CALIFORNIANS COMES FROM THE SIERRA NEVADA



This water is an important element of California's overall water supply, helping sustain the Bay Area, Central Valley and Southern California.

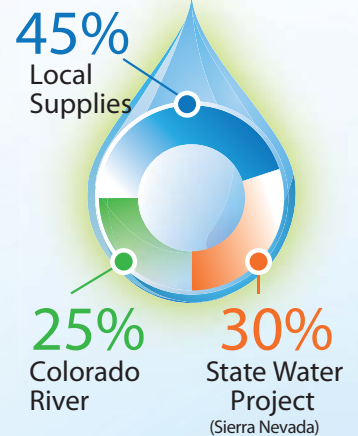
WATER SUPPLY AT RISK

This water supply is ushered through the Delta, the hub of the state's water delivery system, by 100-year-old, fragile dirt levees, vulnerable to earthquakes and natural disasters.

Vulnerable 100 year-old Delta levees



SOUTHERN CALIFORNIA WATER SUPPLY PORTFOLIO



## HOW AN EARTHQUAKE COULD WIPE OUT THIS WATER SUPPLY

A 6.5 MAGNITUDE EARTHQUAKE COULD CAUSE LEVEES TO FAIL, ALLOWING SALT WATER TO CONTAMINATE FRESH WATER.

The water supply for 25 million people and millions of acres of farmland could be contaminated. Such an event could disrupt water supplies for up to one year.



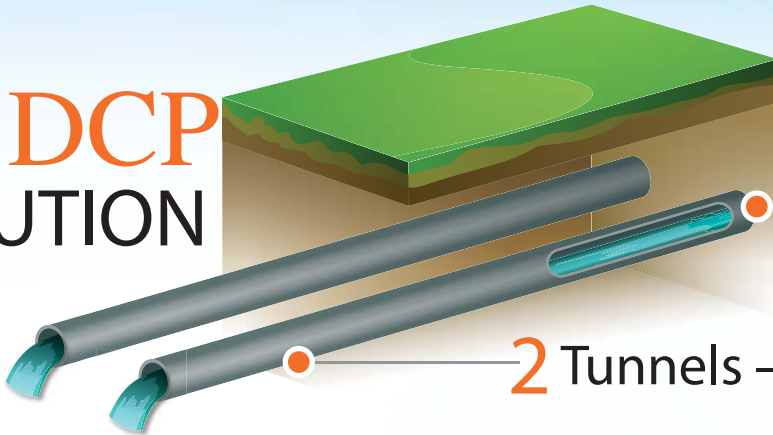
NOT IF, BUT WHEN:

The U.S. Geological Survey estimates the Bay Area has a 67% probability of a 6.7 magnitude earthquake or larger in the next 30 years.

# MODERNIZING THE STATEWIDE WATER DELIVERY SYSTEM

The Bay Delta Conservation Plan (BDCP) is a plan to update the state's water system and improve the health of the Sacramento-San Joaquin Delta ecosystem. The plan includes building twin tunnels using today's technology that can withstand earthquakes. Moving fresh water underneath, instead of through, the fragile Delta will ensure that the existing water supply is protected and reliable for future generations.

## THE BDCP SOLUTION



Improving Water Supply Reliability ?

2 Tunnels - 30 Miles in Length

### BDCP IS A PRUDENT INVESTMENT



Average monthly increase for Southern California ratepayers over 10 years

Investing now helps ensure a reliable supply and prevents an expensive emergency solution after a disaster has already occurred.

### BDCP MUST BE COUPLED WITH LOCAL SUPPLY PROJECTS

Stormwater Capture



Groundwater Cleanup



Water Recycling



Conservation Programs



### EVEN MORE PROJECT BENEFITS

56 SPECIES PROTECTED ?

1 Million+ JOBS\* PROTECTED ?

150,000 ACRES OF HABITAT RESTORED AND PROTECTED ?

177,000 NEW JOBS\* CREATED ?

\$4.7-5.4 Billion IN NET ECONOMIC BENEFITS ?

\*A job is defined as a position equivalent to one full-time worker for a year.

# DELTA DISRUPTED



For more information, go to [www.SoCalWater.org](http://www.SoCalWater.org)