

A Smarter, Sustainable Water Future for California The Delta Tunnel and Sites Reservoir: High Cost, Low Certainty

The proposed Delta Conveyance Tunnel and Sites Reservoir are estimated to cost over \$30 billion combined, with construction timelines stretching 15-20 years or more. Once completed, they would divert up to 500,000 more acre feet per year from the Sacramento River system - on a good year, according to the State Water Resources Control Board.

But here's the truth: two out of every five years in California are drought years. That water won't always be there. And when it is 25-40% of it will be lost to evaporation while traveling hundreds of miles south through open canals and sitting in storage reservoirs, according to a 2015 UC Davis study. That means the real cost per usable acre-foot of water could exceed \$3,000. That doesn't even include treatment or delivery. The California canal loses over 1 million acre feet per year to evaporation.

Meanwhile, the Sacramento River would be left without the cold, clear flows it needs to sustain what is left of our once mighty salmon runs. Without a commercial salmon fishing season, the north coast communities are losing \$1.4 billion every year.

A Better Option: Desalination + Solar

Right now, the Carlsbad Desalination Plant in San Diego produces over 50 million gallons of pure water per day with no algae from storage in lakes and canals. This is enough water for 400,000 people every day. It is reliable, independent of rainfall and it costs about \$2,800 to \$3,200 per acre foot. This is with nearly zero water loss and minimal ecological impact. This includes all costs of energy and waste disposal.

For \$12 billion - less than one-third of the price of the Delta Tunnel and Sites Reservoir combo - California could deliver 500 million gallons of drought-proof water every day, use 100% renewable power, avoid long-haul pumping through fragile ecosystems, and keep the entire flow of the Sacramento River in its natural channel.

The Technology is Already Here

Desalination critics often bring up energy use and brine disposal. But these are 20th century concerns being solved by 21st century technology. Solar desalination is already being piloted in Israel, Australia and the Middle East with zero-emission water delivery.

Companies like IDE Technologies are reducing energy consumption with new membrane designs and pressure recovery systems.

Electrolysis and mineral recovery are making brine waste valuable, extracting lithium, magnesium, and even rare earth elements.

Modular construction allows these plants to go up in just a few years - not decades. Solar powered desalination is working in Israel where they are producing fresh water for about \$600 per acre foot. This is not science fiction. It is real, proven, and happening all over the world. California should lead - not lag - on water innovation.

Let's Lead with Logic

As someone who has spent most of my life in a small community watching policy decisions made far away, I can tell you this: We don't need more massive engineering monuments that take decades to build and damage the ecosystems we are trying to save.

We need water solutions that are scalable, local, resilient, environmentally restorative and fiscally sane.

Desalination + Solar isn't a silver bullet. But it is a sharp, reliable tool that, combined with conservation, water recycling and better land use, can help California move past the endless North-versus-South water wars and into a truly sustainable future.

Let's stop spending billions trying to move more water out of our rivers. Let's leave the Sacramento River to flow. Let's bring back the salmon and power our future with the sun. Let's make the fresh water in southern California where the people need it. Let's show the world what real California water leadership looks like.

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