

Salton Sea Demise - an Opinion

Preface. Studies of the Salton Sea by the U.S. Bureau of Reclamation began at least as long ago as 1975. In the intervening years, increasing salinity of the Sea has led to a degraded Sea and many more studies. The Salton Sea Authority was formed to sort through the mess and seek a solution, with the responsibility for restoration of the sick Sea finally passing to the California Department of Water Resources. Numerous plans were submitted to the Authority and to DWR.

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The long awaited and recently announced Salton Sea Ecosystem Restoration Preferred Alternative has put me into a generous, contributory mood. My writings seem to have a remarkable, targeted affinity for the blind eye and the deaf ear, so it probably does not matter what I write. Ignore it if you choose; go buy a newspaper.

The announced \$8.9 billion price tag for the plan submitted to the California State Legislature is a wake-up call for many. Advocates, especially the politicians, point out that this will mean spending \$8.9 billion over the next 75 years, thus making it palatable. That is corrupt thinking.

We, Roger S Sprankle and I, Richard A McKay, now Solar Power&Water, submitted our Lake Cahuilla Proposal to restore the Salton Sea to fresh, full size, profitably. <http://www.usbr.gov/lc/region/programs/bypass/comments/solarpower3.pdf>

Our proposal was based on the assumption that restoring the Sea is desirable and wise. We were biased, partly by each having played on the Sea before it became nasty, and on a belief that it was the right thing to do. Our proposal provided a means to preserve the Sea full size, any salinity down to fresh, and do it profitably, amortizing the cost and produce continuing income. My understanding of the Colorado River system and of the Sea has matured during the last half year, and I assert that it is not wise, long term, to restore the Sea. Our proposal was so radical that it was squelched or buried in silence. You do not want to know why I think that was done. Look at the URL and notice who posted our proposal (in November 2005). We were caught by surprise. But the Chief of the Colorado River & Salton Sea Office, California Resources Agency, Department of Water Resources denied in an interview on KNX 1070 in November 2006 that our proposal ever existed. If this deceit sends anyone to hell, I don't think it will be us.

Go ahead, have your expensive fun restoring the Salton Sea over the next 75 years. Motivated by optimum allocation of resources, we will catch up and dry it to its natural state eventually. I will explain why and how. Remember, Spanish explorers trod across a bone dry valley when they came looking. Water has come and gone at the whim of the once mighty Colorado River, and now the Sea is, indeed, strictly a matter of choice. We have tamed and enslaved the Colorado River to the extent that there is not enough to flow to the Gulf of California. In effect

it has no mouth and no River Delta, leaving only a dry delta. So there is no River Delta to do what river deltas do. The Colorado River will never again divert itself into the Imperial Valley; we won't let it.

So, a Sea or Lake, or not. The Sea is ugly and held in such contempt by realtors in the Valley that most won't go near it, saying because it stinks as the reason. Lake Tahoe is not ugly, Lake Lucerne is not ugly, Shasta Lake is not ugly, Canyon Lake is not ugly, the Salton Sea is ugly. I have never heard that it is even on the Ramsar List of Wetlands of International Importance. It would look nicer were it all fields of vegetables instead of water. Any sea or lake in the Imperial Valley becomes artificial, existing if and as we dictate. Our full-sized Lake Cahuilla would experience a lot of evaporation, as do any of the horribly expensive, sad Sea proposals. The present Salton Sea, with Sea level at -228 ft, has a surface area of about 239,100 acres. Evaporation is about 8 ft/yr, so 1,912,800 af/yr are lost to evaporation. The marvelous \$8.9 billion restoration plan sent to the State Legislature will reduce the size of the Sea and the evaporation proportionately, exposing Sea bottom. This has many people upset because of the dust which is expected to result, but the Torres Martinez Desert Cahuilla Indians also object to having tribal land now under water dry up, raising concerns that ancient villages there before the basin flooded could be exposed and artifacts destroyed. A member of the tribe on the Salton Sea Advisory Council in 2005 said she didn't want the lake lowered. I told her what she could do to maintain the present level, but she chose to do nothing. Now the solution is simple. Unless the tribe is lazy, it can gather all the artifacts as they become exposed and put them in a cultural center. Or sell artifacts selectively to museums. And don't pout. As for dust, carpet the exposed seabed with mats made of industrial hemp or anything available. Carpet with used carpets or rugs. These will last a long time on the desert floor. On 3/26/07, I quitclaimed the entire dry seabed to Professor Nate Lewis, solar energy expert, (partly as a tease), giving him increasing space for solar energy systems such as Photo Voltaic panels, trough and dish solar, and whatever else would be available. This gives him the responsibility and opportunity to block the dust formation which would create another Owens Lake disaster. No, I am not showing a way for the Salton Sea to be phased out as sour grapes for our Lake Cahuilla Proposal to restore the Sea to full size and any salinity including fresh having been decreed as nonexistent. The Colorado River flow is about 15 million af/yr or less, so the Sea consumes water equal to at least 12.75% of the River. Is this wise use of water? I say no. We can do better. Water shortages will demand that we do better.

Exercising our plan discussed elsewhere to provide salt-free water for IID in a water swap, and then gradually switching to Thin Film Nutrient Hydroponics or other targeted watering, leads to reduced drainage, resulting in the Salton Sea shrinking to leave behind the desert valley as it existed there in the past. Water management precludes the Colorado River from ever re-creating the Sea or Lake. As the Sea shrinks, dry land would reappear. Recall that QSA transfers will seriously curtail farming in this marvelously productive valley. Farm output can get even better with distilled water hydroponics. An ocean water body of chosen size is

possible in the Valley by pumping ocean water in at one end and returning slightly saltier water from the other, using some of Professor Lewis' solar power generated. It is all a matter of choice. But again I say, remember, Spanish explorers trod across a bone dry valley when they came looking. Water has come and gone at the whim of the once mighty Colorado River, and now the Sea is, indeed, strictly a matter of choice. We really don't need it. How about vegetables and solar power systems instead. And probably houses.

A dry Imperial Valley makes the Ciénega de Santa Clara of increasing importance. We expect to preserve the Ciénega even if the YDP operates. There may be need to make it even larger, except it leaks at the south end. Maybe farmers will be bribed to create small wetlands the way homeowners are bribed to install PV systems on their roofs. Politicians are good at bribing.

Consider this a draft. I likely will refine it later.

You were forewarned. This is later.

http://www.ocregister.com/ocregister/news/state/article_1709385.php

"There is a little bit in here for everyone," said Resources Secretary Mike Chrisman. "The plan has to be supported by those folks down there. There's going to be a lot of debate around this plan. We think that's healthy."

Advocates for restoration have said they are eager for work to begin, citing massive fish kills and other devastation at the Salton Sea, a critical stop on the Pacific Flyway for 400 species of migrating birds.

The feature I put into our Lake Cahuilla Proposal for remediation of the Sea to begin immediately is independently applicable.

Many have said they want to see the lake in the state's southeastern corner return to its past as a popular tourist destination and home to multiple species of fish. I want this, I want that, I want, I want.

The plan released Friday builds on a draft issued two months ago and calls for a smaller but more manageable Salton Sea, with the amount of water available for use by humans and wildlife reduced by about 54 percent to 167 square miles. Fifty-two miles of barriers - built most likely out of boulders, gravel and stone columns - would be erected along with earthen berms to corral the water. 167 square miles = 106,880 acres. So evaporation = 855,040 af/yr. SNWA is paying \$300/af for the Drop 2 Reservoir water, so the realistic price for your Sea is \$256,512,000 per year. SNWA is paying more for other water. This establishes cost.

The plan also envisions a complex system of drip-tubes that would irrigate plants and keep newly exposed dirt from blowing away.

State officials made three changes to the draft plan, adding about 4,000 acres of habitat, establishing a 4,000-acre area for geothermal

development and extending the lake along its southwestern border. A longer lake would allow homeowners in Salton City to keep their lakefront property."

Go ahead, have the Sea you want, but pay for what you want yourselves. Don't kid yourselves about cost. Costs are real, even if hidden. If you want to play, pay for it. Have lakefront property, pay for it. Wetlands? Absolutely, but know the price, and pay for it. Don't be selfish. There are other needs to be served elsewhere, such as the Sacramento-San Joaquin Delta. Where possible, use wastewater for wetlands. This will also help clean the waste water.

Again, I point out that the present Salton Sea, with Sea level at -228 ft, has a surface area of about 239,100 acres. Evaporation is about 8 ft/yr, so 1,912,800 af/yr are lost to evaporation. Most of this is from agricultural irrigation drainage. IID receives 3.3 maf/yr so we can infer 58% is lost. This loss can be brought to near zero with salt-free hydroponic farming, while increasing the farm production in the District. Careful planning would probably lead to the scrapping of the QSA.

Zero agricultural drainage, no Salton Sea. So again I say, if you want a sea, make an Ocean Sea. Design it to the size and shape you want, know the costs, and pay them. Want seashore housing and marinas, pay for them. But recognize there will be competing needs for the power it would take to circulate ocean water to maintain an Ocean Sea in the Imperial Valley. General community needs are one, and plug-in electric cars are another, and these need not be in the Imperial Valley. And there will be competing needs for land for housing. If you must restore the Sea at any cost, go ahead, but plan now for its eventual demise, driven by optimum allocation of resources.

QED

Richard A McKay

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Richard A McKay PhD richard@solarpowerandwater.com 805-441-1762
Solar Power&Water <http://www.solarpowerandwater.com>