Felicia Marcus, Chair

California State Water Resources Control Board

1001 I Street, 24th Floor

Sacramento, California

Dear Ms. Marcus,

You have been alive long enough now to have noticed that the human program of transforming the world into a poisoned desert sometimes suffers setbacks and delays.

Water transfers are only o.k. when changes can be made without unreasonably affecting, fish, wildlife or other instream uses and do not unreasonably affect the overall economy of the area from which the water is transferred. Hazard's Toll by Michael Cohen shows this is not the case at the Salton Sea.

Our State Water Resources Control Board stated in WRO 2002-0013 that salinity and sea levels would be maintained for 15 years when the QSA was signed. Yet salinity is way up and lake elevation is way down.

The QSA is causing serious air pollution problems at the sea, and they are getting worse. Dust storms are getting bad. The smell is worse, and episodes of odor are becoming more frequent as the lake gets shallower.

The lowering of the lake has caused breeding areas to become exposed to predation, and the destruction of a National Wildlife Refuge is indisputable (and inexcusable).

The background of escalating local environmental impacts will exponentially increase when IID stops adding water to the sea in 2017.

In 2018 the amount of water flowing into the lake will decrease by about 40%. Its surface will drop by twenty feet and its volume will decrease by more than 60%. Salinity will triple. The shrinking lake will expose 100 square miles of dust-generating winds, worsening the already poor air quality of the region.

The State has recently unleashed a blizzard of words, got itself a hired hand, and broken ground on a postage stamp demonstration project, no doubt due to its recognition of the de facto breach of the QSA agreements. But, these steps are just little trees in the forest. The bald fact is, the State has the obligation to restore the Salton Sea in a real way such that the public trust values are protected (I have included a small attachment stating why the public trust applies at the Salton Sea).

The State of California is violating Revised Water Order WRO 2002-0013 which promised to maintain sea and salinity levels until 2017.

I urge you to act to require the State to: 1) limit water transfers until the State catches up with restoration; 2) target a sea level that is sustainable and constant; and, 3) base future water shipments on sustainable public trust values using the precedent you followed at Mono Lake some 20 years ago. There a "physical solution" was required by the Court. The Board determined which flows were needed to avoid California Environmental Quality Act adverse environmental impacts, and it ordered the beneficiaries of the water to limit withdrawals until such time as damage to the lake was mitigated.

Thank you for this chance to respond.

Sincerely,

Christopher Cockcroft

Public Trust Issues at the Salton Sea

Conventional wisdom about the "accidental" formation of the Salton Sea in 1905-1907 is historically myopic. A look at any satellite photo of the Colorado River delta from the Sea of Cortez north to San Gorgonio Pass shows that the whole area of the Salton basin is the northern arm of the Colorado River delta.

The Salton Sea has been a fresh water lake and/or a salt water estuary of the Colorado River for more than five million years. The present body of water "…is only the latest of many lakes that have filled this basin over millions of years sometimes for centuries at a time." [1]

In"… the most recent account of the geologic history of the Salton Sink, Hubbs and Miller (1947) concluded that the main stage…occurred in the Pleistocene, and that it lasted for centuries. Indian artifacts and legends provide evidence for another, more recent, high stage. Hubbs and Miller cited estimates, made by Mendenhall (1909) and by Rogers (1939),that a lake filling the basin to the ancient beachline existed between 1,000 and perhaps as recently as 300 years ago. [2]

And, from the State Water Resources Control Board's Revised Order 2002-0013: "In prehistoric times, the Salton Trough was the northern extension of the Gulf of California…intermittent fresh and saline lakes have repeatedly formed in the basin either as a result of flood flows or as a result of the Colorado River changing course back and forth across its delta. At times, the entire flow of the Colorado River would flow into the Salton Trough and at other times it would flow into the Gulf of California…"[3]

In 2006 Professor Neil Driscoll of the University of California, San Diego Division of Physical Sciences presented "Earthquake History of the Salton Sea,"[4] which was videotaped and placed on YouTube. In that video he explains how he correlated trenches dug at Salt Creek with underwater radar samples from off Bombay Beach using Carbon 14. In the process he very accurately dated five lakes in the recent past. All existed prior to the 1905-1907 flood event. Lake one existed from 1660-1720; lake two, 1520-1540; lake three 1400-1460; lake four 1240-1300 and lake five 840—1040.

Buttressing this is more recent evidence taken from the 67 year period from 1840 until 1905, before the

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[1] Salton Sea State Recreation Area Information Brochure. California State Parks, 2013. (http://www.parks.ca.gov/pages/639/files/SaltonSeaSRAWebLayout2013.pdf).

2 Ibid.

[3] STATE OF CALIFORNIA STATE WATER RESOURCES CONTROL BOARD REVISED ORDER WRO 2002 – 0013.

[4] Driscoll, Neal. "Eqrthquake History of the Salton Sea" Jeffrey B. Graham Perspectives on Ocean Science Lecture Series, 8/9/2006 (available online via YouTube at www.ucsd.tv/search-details.aspx?showID=11790 at minute 10:18 et.seq. and especially minute 19:07)

great dams of the 20th century, when Europeans began regularly passing through the area and record keeping began.

From what I could find in the historic record for the period between 1840 and 1907—a brief geologic interval, indeed—anecdotal reports indicate that the mighty Colorado flowed north into the Salton Sea in 1840, 1842, 1848, 1852, 1859, 1867, 1891,1905.[5]

That's eight times in 65 years.

So, the long term record acknowledges Colorado River water entering the basin for five million years. In the last millennium, there were five lakes; six if you count the current incarnation. In the 65 year period before 1906, there were eight floods. The pattern couldn't be clearer.

The California State Lands Commission says that a river ecosystem extends laterally over its entire flood plain and longitudinally from headwaters to the sea, lake or sink. The dynamism of rivers includes seasonal high and low flows, changes in channel and flood plain forms, and drought and flood events. Floods considered catastrophic to humans are not "disturbances" to river ecosystems. [6]

Another of the requirements for public trust consideration is navigability at Statehood. The Colorado River was serviced by steamboats from 1848 to 1908.

In fact, during the first days of farming in the Imperial Valley by the California Development Company (in 1901), when George Chaffey built the first wooden gate on the Colorado at Pilot Knob for the original "Sharp's Heading" canal, he ran into difficulties with the Federal Government due to the fact that the Colorado was already officially considered a Federal navigable river.[7]

Based on the evidence, the Salton Sea is and always has been an integral part of the Colorado River, which enjoys public trust protection.

According to the California Supreme Court, areas subject to the public trust require responsible parties to balance competing land uses in the easement area between the low water and high water marks for navigation, fisheries, commerce, environmental preservation and recreation; as ecological sites for

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[5] Taken from text of the State Water Resources Control Board Revised Order 2002-0013 and, Walker, Boyd, ed. "The Ecology of the Salton Sea, California, in Relation to the Sportfishery", THE RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF FISH AND GAMEFISH BULLETIN No. 113 1961, p.10.

[6] California's Rivers, A Public Trust Report—Executive Summary- Prepared for the California State Lands Commission, 1993.

[7] "Officials of the Development Company found themselves in conflict with the Governments of both the United States and Mexico. The Colorado had been classified as a navigable stream, and Mexico claimed that restricting the stream or diverting water was a treaty violation. Government officials in Washington contended that it was not. Rockwood spent much time in Washington trying, without success, to convince officials the Colorado should be reclassified, contending navigation was of no importance whatever and irrigation, on the other hand, of very great importance. Sperry, Robert. "When the Imperial Valley Fought for its Life," The Journal of San Diego History. San Diego Historical Society, Vol. 21, 1; Winter 1975.

scientific study, as open space; as environments which provide food and habitats for birds and marine life, and as environments which favorably affect the scenery and climate of the area.[8]

It is obvious this balancing has not, thus far, been a factor at the Salton Sea.

[8] Nation Audubon Society v. Superior Court (Mono Lake), 33 Cal.3d 419, [189 Cal.Rptr, 346]