

The Little Hoover Commission
Attention: Krystal Beckham

I offer my observations in the hope that some meaningful resolution to the problem of the Salton Sea might be resolved through public knowledge.

I believe it should be evident to even the casual observer that the phrase "Restoration of the Salton Sea" is relevant only in an effort to keep the public misinformed and mollified. I believe it should be evident because nothing of consequence has been done by any obligated agency to initiate a meaningful effort to that end.

In the early 1990's a public agency was formed whose stated purpose is to "Restore the Salton Sea". The purpose stated in the process of formation mentioned "elevation" and "salinity". To date, the Salton Sea Authority has failed to push for any plan to maintain elevation or reduce salinity of the Salton Sea. Just the opposite seems to me to have been the only results of their efforts.

It seems obvious to me that to maintain elevation it would be necessary to replace the water lost to evaporation and diversion. Of course we all know that there is no water to be had, except from the ocean. It's obvious to me and yet the Salton Sea Authority produced a paper for public consumption titled "What Won't Work". It shows a pipeline, a big pipeline to the Gulf of California and speaks to lots of pumps, lots of electric power and lots of other problems. It won't work. I agree that this concept will not work the way the author of this paper described it.

So when the State Department of Water Resources requested "proposals" for a plan to save the Salton Sea, a small engineering firm collaborated and we offered a plan. This plan met the physical requirements of the State request to keep the elevation and salinity within limits. We felt it would meet the criteria for cost and implementation after we prepared preliminary budget estimates. It appeared to us that the cost of maintenance and repair were well within reason, so this plan was offered for consideration.

I attach a copy of that plan. It was never considered to my knowledge, or at least the Advisory Committee who were to evaluate the submitted

information and advise the Director never contacted us in any way. Never called to ask if we had a cost estimate or any preliminary engineering to back up a novel idea we had incorporated. Nada, nothing, silence!

Time passed, the Advisory Committee advised the Director to do a "Do Nothing" plan. That's about where it has been for 35 years and counting, "Do Nothing".

Early this year while fooling around on the computer I think I found out why we have a "do nothing" plan. It makes sense to me at any rate. So I will attach that document as well.

I will now make a statement based on my knowledge of the requirement to maintain elevation and control salinity in the Salton Sea. It is based on a graph prepared for me by Bob Emmett prior to the preparation of our plan. I will also attach that graph.

In order to maintain elevation and control salinity to the degree required by the State request, it was apparent to me that a certain amount of low salt water had to be available to combine with the salt water we intended to bring in from the Gulf to implement our plan. When I asked the State for a lowest expected flow of drain water they expected, I was told 750kafy or thereabouts. What I didn't know was they could not make that commitment for water they knew they didn't have!

A "de-facto" water right is not worth the paper it's written on, and that is a fact!

Sincerely,

Clifford Dove

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IN CONSULTATION:
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Revised: March 10, 2005

**THIS PROPOSAL ADDRESSES THE RELEVANT ISSUES IDENTIFIED BY THE
DEPARTMENT OF WATER RESOURCES FOR THE RESTORATION OF THE
SALTON SEA ECOSYSTEM**

FORWARD

In recent years, those charged with restoration of the Salton Sea have prepared seemingly endless reports and findings concerning many aspects of the problems of the Salton Sea. The results of their efforts have been documented and presented to the public in an effort to quell the public outcry. One seemingly innocuous paper titled "What won't work", was prepared by the Salton Sea Authority. This paper concerns a proposed pipeline system to move water between the Gulf or the Pacific Ocean and the Salton Sea. This is a solution proposed in many forms over the years by the public because they must perceive this solution as the best means to address all of the problems defined by the State Department of Water Resources.

The Bureau of Reclamation informed the Salton Sea Authority it would cost \$1.5 billion to construct pipelines. The price tag for these pipelines as quoted by Joseph Grindstaff at the last DWR meeting in La Quinta is now \$20 billion.

CRM, Inc. reviewed the routes and techniques proposed by the Bureau of Reclamation. CRM, Inc. determined that the routes and other criteria used in this study should be condemned as suspect.

WHY REPLENISHMENT WATER IS NECESSARY

At its current size, the Salton Sea loses about 1.3 million acre feet per year to evaporation. Currently, the lake elevation is stable because the inflow about matches the evaporation rate. The downside of this inflow is a constant increase in salinity, the burden of nutrient overload and the concentration of selenium.

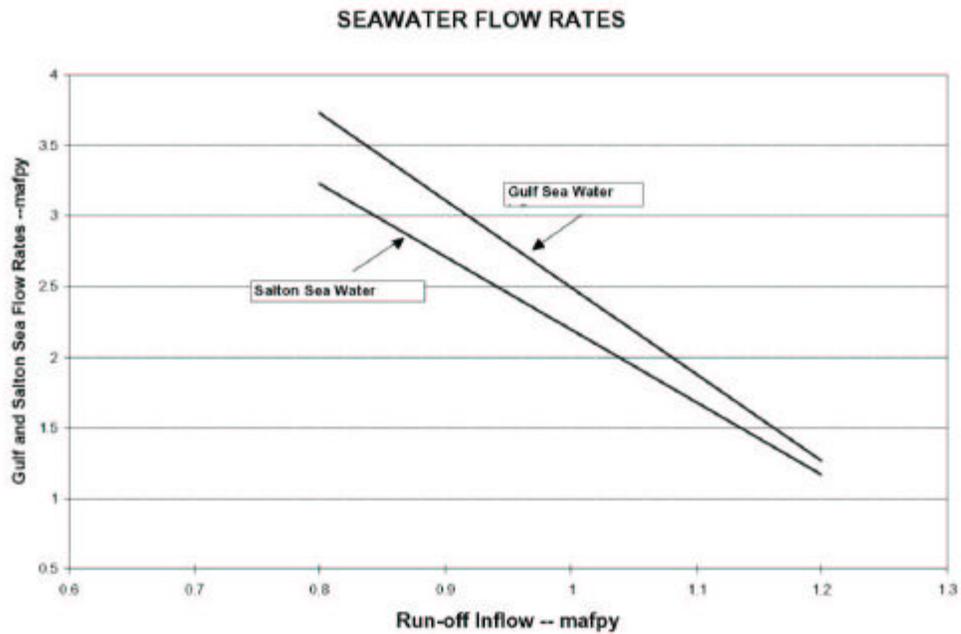
AND NOW:

1. The proposed cutback in the water delivered by IID to agriculture in the Imperial Valley will eventually cause a reduction in the area of the Salton Sea. (Quote P. J. Grindstaff at 3-9-05 meeting, La Quinta)
2. Any attempt to substantially lower salinity through evaporation (subject of Salton Sea Authority papers) will also result in reduction in the area of the Salton Sea.
3. The US Government position regarding drainage inflow is stated clearly on their web site: "In almost any case, the inflow to the lake may drop to as low as 800,000 acre feet per year in the near term".

THE PROPOSAL

WHAT WILL WORK SHOULD BE EVIDENT. IT IS NECESSARY TO FLUSH THE SALTON SEA WITH LARGE QUANTITIES OF WATER

CRM, Inc. defines a usable route between the source (the Gulf of California) and the Salton Sea Basin that can utilize gravity flow. While offering greatly reduced costs compared to pipelines, this proposal also offers solutions never available with the pipelines proposed by the Salton Sea Authority because of their size. The following chart illustrates the water flow necessary to reduce the salt content. At these flows, the nutrient and selenium will also be reduced.



SOLUTION NUMBER ONE

Since ocean water contains less salt than the waters of the Salton Sea, a substantial lowering of the salt content of the Salton Sea can be achieved by swapping ocean water for Salton Sea water. The use of channels that can provide over three million acre feet per year of free flowing water from the Gulf makes this possible.

SOLUTION NUMBER TWO

Water from the Gulf of California would represent an almost limitless supply of water from which the Salton Sea could be diluted to reduce the buildup of selenium.

SOLUTION NUMBER THREE

Flushing can also remove excess nutrients from the water, eliminating large scale fish kills which result from algae growth..

SOLUTION NUMBER FOUR

The limitless supply of water will allow the level of the Salton Sea to be maintained at the most desirable elevation thereby stabilizing the shoreline for economic development.

SOLUTION NUMBER FIVE

The long term cost will be less than any of the current proposals.

A CHANNEL FROM THE GULF

1. The excavation of a channel from the Gulf of California to the sea level elevation in Laguna Salada will allow the entry of sea water. This channel will allow the water to flow into the Laguna Salada without pumping.

2. The excavation of a channel at the lowest elevation in the Sierra Cucapa Mountains to connect the Laguna Salada basin with the Salton Sea Basin will allow the water to flow from the Gulf of California into the Laguna Salada and thence into the Salton Sea basin without any pumping.

CONNECTING INFRASTRUCTURE

1. It will be necessary to construct channels to carry the water in and the water out. The construction of these channels near the sea level elevation between the Laguna Salada and the Superstition Mountain area will allow them to cross unoccupied land.

2. Pipelines between the channels and the Salton Sea, along with the turbine driven pumps that will process the water, will be located at the south end of the Salton Sea.

GENERATION AND DESALINATION FACILITIES

1. The addition of gates and low head turbines at the pass between Laguna Salada and the Salton Sea Basin and at the crossing of Mexican Highway #5 near the mouth of the Laguna Salada could provide for power generation using tidal flow. This production would greatly exceed the necessary power for all the needs of the projects.

2. Constructing a desalination facility near the Sierra Cucapa generation facility for production of potable water would allow the replacement of Colorado River water now in use in the Imperial Valley on both sides of the border. This location for a desalination facility is ideal from both aspects affecting salt water/freshwater plants. The saltwater source is right there and the rejected brine can flow to the Gulf without pumping. Power for the operation will be less than that generated by the tidal generation systems. Construction of this facility will eventually become a necessity to provide potable water in the area to accommodate future population growth.

INTERNATIONAL ASPECTS

Obviously, this proposal requires negotiation and cooperation with the concerned Mexican government agencies.

The question then becomes : What does this proposal offer in the way of benefits for Mexico?

#1 Jobs Almost all of the construction in Mexico will utilize Mexican companies and labor.

#2 Terrain The project will convert nearly worthless land into additional seacoast, with all the attendant benefits associated with seafront property

#3 Future Potable Water Source A desirable desalination location.

Involvement with the Mexican people is an ongoing process in those areas of common interest. Mexico could easily be affected by the wind-blown dust from a dry lake bed resulting from the existing plans to “shrink the lake”.

THE ECOLOGY

According to most of the authorities who have studied the Salton Sea, the ecology of the Salton Sea will suffer if a quality restoration effort is not implemented.

1. The Avian community is mostly transitory, and they currently move between the Gulf area and the Salton Sea. Loss of habitat will greatly affect the bird population that depends on the current conditions at the Salton Sea.
2. The sea life now in the Salton Sea are almost without exception imports from the ocean and the fact is, the Salton Sea will certainly lose its current populations unless salinity is reduced, selenium is controlled and the nutrient/algae levels are reduced.
3. If the lake is allowed to evaporate away, there is the very real possibility of a condition now known as the Owens Lake Effect. Controlling this condition may not be possible. (Ref 1) Exposing any lake bottom has been opposed by the Board of Directors of the Salton Sea Authority in the past (Ref.2) Current scientific consensus states that all of the plans that depend on reduction in the size of the Salton Sea chance ecological catastrophe.
4. The Gulf no longer receives water directly from the Colorado River, only from the drainage waters produced by agriculture in Mexico; however, large amounts of silt are currently washed from deposits laid down eons ago by the robust action of the tidal bore. There are valid claims they help reduce the impact to the upper Gulf of a blocked Colorado River. (Ref. 4) The constant flow of water from the Laguna Salada into the Gulf of California may re-invigorate conditions existent in the past.

SUMMARY

In Summary, the realistic solutions offered in this proposal have been overlooked before now. The concept of pumping seawater and Salton Sea water has been summarily rejected, even to this day. The Department of Reclamation merely concluded that it would be too expensive (which it would have been on the basis presented in those earlier studies). Not one authority has claimed swapping water from the Gulf was a “Bad Idea”. Therefore, we are requesting your careful consideration of these ideas and the opportunity to discuss them with you directly.

The actual construction and OME&R costs are very dependent on the final configuration of the system. Since many factors are at play in the water market, and in effect this concept could be taken very far beyond just “Restoration” of the Salton Sea Ecosystem, the costs need to be determined with all the possibilities fully considered.

Thank you for your attention.

CRM, INC.

Robert Emmett, President

Enclosures: Ref. (3) Photo of Estuary area, Colorado River Delta

REFERENCES:

Ref: 1. Los Angeles Water and Power have completed studies of the Dust Problems at Owens Dry Lake. According to web publication, they have spent over 158 million dollars on the problem, and have yet to get it under firm control. Ref: LAWP Web site. Statement by Mr. Grindstaff on March 9th in La Quinta assumes that the dollar amount may well exceed 800 million.

Ref: (2) Salton Sea Restoration Newsletters. Statement of the Salton Sea Board of Directors, “We are against any plan which might expose additional lake bed because of water loss” Quoted in The Desert Sun,

Ref. (3) NASA photo, Gulf of California



IMPERIAL IRRIGATION DISTRICT

Resolution No. 19-2004

IID Policy on Appropriation of Drain Water

WHEREAS, IID holds state and federal water rights to water from the Colorado River, and diverts and delivers such water to agricultural, municipal, and industrial users in the Imperial Valley; and

WHEREAS, IID owns and maintains approximately 1400 miles of drains for the purpose of collecting surface and subsurface drainage resulting from the use of Colorado River water in the Imperial Valley; and

WHEREAS, IID is under no obligation to divert any specific volume of water from the Colorado River in any given year, and diversions in fact vary significantly from year to year based on changes in demand by Imperial Valley water users as a result of many different factors, such as crop markets, wind and moisture weather variability, and salinity of diverted water, and therefore the volume of drain flow also changes significantly from year to year; and

WHEREAS, the IID drains flow into the New and Alamo Rivers which flow into the Salton Sea, or the drains flow directly into the Salton Sea; and

WHEREAS, the principal source of inflow into the Salton Sea is from IID drains; and

WHEREAS, preservation of certain environmental benefits associated with the Salton Sea is a matter of local, regional, statewide and national concern, and that the California Department of Water Resources ("DWR") and the U.S. Bureau of Reclamation ("BOR") are to identify a preferred project for restoration of the Salton Sea by 2006; and

WHEREAS, the volume of IID drain flow will be significantly reduced in connection with the implementation of the IID/SDCWA and IID/CVWD Conserved Water transfers approved pursuant to State Water Resources Control Board ("SWRCB") Revised Order WRO 2002-0013; and

WHEREAS, IID has a statutory right pursuant to Water Code § 22078 to prevent, reduce, recapture and reuse drain water, as well as the same right under long recognized case law by the California Supreme Court, Stevens v. Oakdale Irrigation District, 13 Cal. 2d 343 (1939); and

WHEREAS, The Metropolitan Water District of Southern California ("MWD") has filed two applications with the SWRCB to appropriate water from the New River and drains, Application A031431 (433,400 acre-feet per year), and from the Alamo River and drains, Application 30661 (475,000 acre-feet per year); and

WHEREAS, in its appropriation applications, MWD describes the need for large capital outlays necessary to filter and pump IID drain water in order to make it useable, outlays that could not likely be made without certainty as to the annual volume, quality and reliability of IID drain flows; and

WHEREAS, the MWD applications have been on hold the past several years, but may become "active" at the SWRCB, and may soon be noticed for hearings; and

WHEREAS, the Salton Sea Authority has also recently expressed an interest in acquiring through appropriation the drain flow reaching the New and Alamo Rivers for the purpose of assuring inflow into the Salton Sea and possibly selling reclaimed water to finance Salton Sea restoration.

THEREFORE, BE IT HEREBY RESOLVED that IID's staff is directed to:

- 1) Take all actions appropriate to protect and preserve IID's rights to prevent, reduce, recapture, or reuse IID drain flows;
- 2) Take all actions appropriate to protect and preserve IID's flexibility on an annual basis to divert, or not divert, from the Colorado River the volume of water responsive to the water use demands of its water users up to the maximum volume allowed under its senior water rights;
- 3) File a protest with the SWRCB for the purpose of ensuring that any and all appropriative permits issued by the SWRCB for the New or Alamo Rivers, as well as any other waterways and drains in IID's service area, are subject to and subordinate to IID's senior rights to drain water; and
- 4) Open a dialogue with other interested parties about whether or not there is a voluntary arrangement for the development and use of IID drain flows that is beneficial to the IID, its water users, and others interested in use of the drain flows.

PASSED AND ADOPTED this 7th day of December, 2004.



IMPERIAL IRRIGATION DISTRICT



Vice President



Secretary

From: Clifford Dove
Sent: Monday, June 22, 2015 4:55 PM
To: LittleHoover
Subject: Salton Sea

Attention: Vice Chairman Kaye,

Thanks you for the work you do in the effort to perfect the public experience of us all.

I have submitted material to the hearing, but would also ask you to represent the Salton Sea in this hearing. To this end I am offering my observations, honed over the last 15 years as regards the Salton Sea.

First and foremost, those agencies that seem to have been committed to a full restoration of the Salton Sea have mislead the public by their collective actions. Most of the public comment I read still envisions the Salton Sea in terms of what existed in the 70's when it was at it's zenith as a "recreational lake". And that is understandable when we consider these agencies have constantly referenced their efforts as "restoration". I have always felt it was a bad choice of words until it became clear to me that this was never the intention, only the promise.

Second, but very important is the subject of how we should accomplish the task of "Restoration". More schemes for restoration have been thought of than I can list. What is important is what we want to end up with. Do we want the lake as it was in the 70's? If so, that's about where the current waterline is located. But of course the salt has increased over the years dramatically since the 70's, making the lake useless for recreation. But the means to change that aspect is not a complicated or even very expensive proposition. I know this because I collaborated with CRM, Inc. in presentation of a very realistic plan.

I could never understand the "why" regarding the State decision to accept a Do Nothing Alternative until this year when I ran across a document relating to the drain water that supports the lake. This was a Minutes of the Board of IID and they were claiming rights to this water in a very formal manner for all to see. Dated 2004! This is an easy call for me, the State had "no water" to do anything. So do nothing had to be!

I am proposing we need a new "public entity" that will pry the water rights away from IID in whatever manner works, then adopt a plan to "restore" the Salton Sea, and I mean restoration of the entire Salton Sea, not just use the word for some ponds at one end! That's why I'm writing this letter to you. It will take a very strong voice to make it happen, but it's necessary. The consequences of not acting are catastrophic. Listen to what Mike Cohen says at the meeting. He's 100% right.

Sincerely,

Cliff Dove