



State Water Resources Control Board

Hearing Name IID Transfer - Phase 2

Exhibit: 1

For Ident: \_\_\_\_\_ In Evidence: \_\_\_\_\_

April 12, 2002

Arthur Baggett, Jr.  
State Water Resources Control Board  
1001 "I" Street, 25<sup>th</sup> Floor  
Sacramento, CA 95814

Dear Mr. Baggett,

Please replace Exhibit 1 with the attached revised Exhibit 1, dated April 12. There were several minor grammatical changes and one substantive change made (page 3) to reflect the Salton Sea Authority's concerns about environmental and economic issues associated with the transfer of water.

Sincerely,

A handwritten signature in black ink, consisting of a large, stylized loop followed by a horizontal line extending to the right.

Tom Kirk  
Executive Director

**SSA-Exhibit #1, Revised April 12, 2002**  
**Written Testimony by Tom Kirk, Executive Director, Salton Sea Authority**

**Introduction**

My name is Tom Kirk. I am the Executive Director of the Salton Sea Authority. The Salton Sea Authority is an agency that was established in 1993 under the State of California's joint powers agency statutes. The Salton Sea Authority was formed to direct and coordinate actions related to improvement of water quality and stabilization of water elevation and to enhance recreational and economic development potential of the Salton Sea and other beneficial uses. Notably, the Authority was formed by four agencies with direct and significant stakes in the region and the health of the Salton Sea: Imperial Irrigation District, Imperial County, Coachella Valley Water District and Riverside County. State legislation passed last year will allow the Torres Martinez Desert Cahuilla Tribe to be a full member of the Authority in the future.

I was hired as the Authority's first and only executive director in late 1997. Since that time, I have managed and co-managed the Salton Sea Authority's environmental compliance, engineering design, lobbying, and scientific efforts. I have an extensive background in environmental policy and planning (see Exhibit 2, Tom Kirk's Qualifications).

**Background**

The Salton Sea Authority is not opposed to the Quantification Settlement Agreement nor, necessarily, to the transfer of water from the Imperial Irrigation District (IID) to the San Diego County Water Authority and the Coachella Valley Water District and/or Metropolitan Water District of Southern California. The

Salton Sea Authority understands the need and generally supports the implementation of the California 4.4 Plan, which is designed to reduce California's use of Colorado River water. However, the Salton Sea Authority is deeply concerned about how water will be transferred and the environmental effects of the water transfers. The Salton Sea Authority resolves to:

- Oppose projects which significantly lower the level of the Sea;
- Insist that water transfers comply with environmental laws;
- Urge that water transfers are accomplished consistent with the goals and objectives of full Sea restoration.

(see Exhibit 5: Salton Sea Authority Resolution No. 02-02)

The Salton Sea is one of the most important ecological places in the United States (see Exhibit 6: Excerpts from the Guide to the Salton Sea Restoration Project Alternatives). As proposed, water transfers could make restoration of the Salton Sea infeasible.

The proposed project (Proposed Project) described in the IID Water Conservation and Transfer Project Draft Environmental Impact Statement/Environmental Impact Report and Draft Habitat Conservation Plan (Transfer EIR), contractual provisions in the agreement between IID and San Diego County Water Authority (see Appendix A of the Transfer EIR) and public pronouncements suggests that water conservation will occur through reducing or eliminating tail water and improving delivery systems in the Imperial Valley. Most of my comments and concerns relate to the implementation of such a proposed project.

If conservation methods are mitigated as suggested under the Transfer EIR's Habitat Conservation Plan 2 and/or implemented through a water generation alternative that employs fallowing, most of the concerns I am summarizing will vaporize or diminish. The reason: water generated through fallowing is mostly,

and can be completely, associated with crop evapotranspiration. Hence, most, if not all of the water generated and transferred would not have ended up in the Sea anyway, it would have been consumed in the growing process.

On the other hand, "efficiency" improvements are targeted at "waste". Unfortunately for the Sea, the term "waste" is popularly applied to the Sea's inflows. Under efficiency improvements, virtually all the water generated for the transfer is generated from reductions of inflow to the Sea, and none from crop evapotranspiration. Exhibit 7, Conservation Methods Powerpoint Presentation, illustrates the different hydrological impacts of fallowing and efficiency improvements.

While fallowing or land management may seem like a silver bullet, it is not. It may minimize or eliminate the environmental impacts of water transfers but it may significantly aggravate the difficult economic conditions in the Imperial Valley. Fallowing has economic impacts; specifically job impacts. The aforementioned Salton Sea Authority resolution (Exhibit 5) recognizes the balance between addressing environmental and economic issues when it urges that:

- water transfer solutions must properly mitigate impacts on the Salton Sea and address economic and social impacts in the Imperial and Coachella Valleys.

### **Proposed Project's Implications for Restoring the Sea**

I have asked Bill Brownlie to describe to you the implications of the proposed project upon restoring the Sea (see Exhibit 3: Written Testimony by Dr. Bill Brownlie). This is an important element for consideration during your deliberations. It is an element that is largely ignored in the Transfer EIR and associated environmental documents.

Mr. Brownlie's testimony clearly demonstrates the tremendous cost implications that a reduction of inflows will have on restoration efforts. Restoration is projected to cost about \$250 million, present value, under "current inflows", and balloon to \$1.7 billion or more under reduced inflows. Whether restoration costs start at \$250 million or \$500 million or some other amount, reduced inflows have a dramatic effect on restoration costs; a Sea that is made smaller and saltier is very difficult to "restore". That delta, or difference, between restoring the Sea under current inflows and restoring the Sea under reduced inflows is staggering. Put another way, the impact of reducing inflows on restoration costs range between \$200 and \$300 per acre-foot of water reduced per year. This, of course, is the approximate value, identified in the agreement between the IID-SDCWA, of the water in the first place. You can understand why the QSA parties do not want to link restoration and the Proposed Project; such a link would likely sink the deal.

The Proposed Project makes little allowance for accounting for this incremental impact. There is some discussion about applying the estimated costs for the Proposed Project's habitat conservation plan, assumed in the Transfer EIR to be between \$350 million and \$800 million, to the restoration project, if a restoration project is authorized. More recent estimates of the Proposed Project's environmental costs have been quoted in the low one hundred million dollars. Federal legislation has been introduced to fund the environmental costs associated with the Proposed Project; the legislation caps those costs at \$60 million (see Exhibit 8: H.R. 2764, Colorado River Quantification Settlement Facilitation Act) and provides a mechanism to apply that funding to restoration of the Sea, if restoration is authorized. Whether the Proposed Project's and/or legislative financial contributions to restoration are \$60 million or \$160 million, if the Proposed Project's impact on the Sea is well over \$1.5 billion, who will pick up the difference?

It has been suggested that the 1998 Salton Sea Reclamation Act was designed, in part, to fix the Sea under reduced inflow conditions (see Exhibit 9, Salton Sea Reclamation Act of 1998). The Act actually says that the Secretary:

“shall apply assumptions regarding water inflows into the Salton Sea Basin that encourage water conservation, account for transfers of water out of the Salton Sea Basin, and are based on a maximum likely reduction in inflows into the Salton Sea Basin which could be 800,000 acre-feet or less per year.”

The Secretary was to develop a report, with the Salton Sea Authority, that evaluated restoration options under reduced inflow conditions. Such a report is still forthcoming. In a recent letter to the Secretary of Interior, even the Sea's greatest legislative supporters acknowledge that the report should evaluate multiple inflow conditions (see Exhibit 10, Letter to Secretary Norton from Congressional Salton Sea Task Force). Evaluating those conditions is an order of magnitude less committal than paying for restoration under those conditions.

Based on my experience working the halls of government to seek support for restoration, I find it unlikely that Congress and the State of California are willing to fund a multi-billion dollar restoration project. But let's assume that federal and state government comes to the rescue under this scenario. The next question is can restoration even be viable under a significantly reduced inflow scenario? My answer is no. In large part, the answer is no because of the large parts. To marshal the necessary massive authorizations and appropriations from government will take time. To design and permit an enormous project, as Mr. Brownlie (Exhibit 3, Written Testimony of William Brownlie) and the Draft Assessment of Salinity and Elevation Control for Varied Inflow report (Exhibit 11) describe, to address a Sea that is becoming much smaller and saltier requires ever larger restoration responses, will take time. And to build a large, complicated project and probably to do so in the deepest, most expensive and

most seismically risky areas of the Sea will take time. Even if all of the political and financial support were available within a few years, it is unlikely that restoration could occur in time to preserve a fishery at the Sea and the values that the fishery supports.

**If not full restoration, let's try partial restoration or build fish ponds/hatcheries**

The next solution is one proposed by the Pacific Institute: create a small impoundment to provide a fishery for fish-eating birds. The Pacific Institute proposal assumes that the alternatives to on-farm conservation, some form of fallowing, will not occur and that major reductions of inflow are inevitable. It is a serious proposal, serious enough that the Salton Sea Science Office assembled a group of experts to evaluate the concept. Their evaluation is provided in Exhibit 12, Evaluation of a Proposal for Conversion of the Salton Sea Ecosystem. It may take a while to digest the findings in that report, one researcher summarized his feelings at the recently held Salton Sea Symposium, "we trashed the proposal". One of the major concerns was the proposal's likelihood of creating a Selenium sump, an issue that is generally addressed in the testimony of Phil Gruenberg, Regional Water Quality Control board, CRBR. Another issue was channeling nearly the same nutrient load into a body of water that is much smaller than the Sea and aggravating eutrophic conditions. Another issue is the additional shoreline exposure around the remaining, hypersaline water body that would become exposed because of evaporative losses of the partial fix and constructed wetlands. Lastly, this was no easy, cheap fix. Cost estimates ranged well over \$1 billion. The partial-Sea solution carries a full-Sea restoration price tag.

If the proposed project is implemented, and done so without fallowing to generate the water for the transfer or to provide mitigation for the Sea, it is proposed to use HCP method #1, Hatchery and Habitat Replacement to mitigate impacts. Presumably, the impacts are derived by calculating the temporal impact

of speeding up the decline of the marine system in the Sea and the resulting impacts on birds, particularly fish-eating birds. Next, it appears that the total number of birds affected and their needs are identified. Lastly, some thousands of acres of pond habitat are proposed to mitigate the impacts. How many birds would be supported by such a system? How long would they be supported? The Transfer EIR provides little in the way of details, stating instead "the specific approach for minimizing and mitigating the impacts ...on birds have not been defined". Unlike the Pacific Institute proposal, the conceptual plans associated with HCP #1 have not been "put on the table", have not been reviewed by the Salton Sea Science Office, nor, to my knowledge, been subject to any outside peer review. The Transfer EIR is a disclosure document that does not adequately disclose the details of mitigation. And this partial solution is hardly an inexpensive one either, the Transfer EIR estimates its costs at \$350 to \$800 million (estimated costs have ranged from over one hundred million dollars to the low billions).

### **The Claim that the "Proposed Project Merely Speeds the Inevitable Up"**

The Transfer EIR addresses the various resource areas that would be affected by the Proposed Project. However, much of the public discussion about the effects of the transfer revolves around "temporal" impacts. These are the impacts associated with speeding up the decline of a declining resource.

If restoration is not implemented, the Sea's fishery will collapse (see Exhibit 13, Salton Sea Fact Sheets). Under a projection of historic average inflows, of about 1.34 million-acre feet per year, the Sea's fishery will collapse around 2050 (see Exhibit 11, Draft Assessment of Salinity and Elevation Control for Varied Inflow). The Transfer EIR does not measure its impacts against the historic average, instead, a new baseline is defined. The new baseline is about 1.23 million-acre feet per year. Under the new baseline, the fishery collapses by about 2023 (see Exhibit 11, Draft Assessment of Salinity and Elevation Control for Varied Inflow).



Under the Proposed Project, the temporal impacts associated with the collapse of the fishery compared to historic average inflows is about 40 years. When the Proposed project is compared, as the Transfer EIR does, to the new baseline, the impact is 11 years. I have some serious concerns about the baseline used in the Transfer EIR. My concerns will be expressed in formal comments on the Transfer EIR. I believe the baseline used significantly understates the temporal and other inflow-related impacts.

The argument still stands that if the Sea is going to die anyway, and the transfer speeds the process up, what is the harm? This is the "you are going to die anyway in fifty years, mind if I shoot and kill you today argument." To add another wrinkle to the argument, assume that you were going to die in fifty years of cancer. By killing you today, or in eleven years, I foreclose the opportunity that may come in the future to develop the cure for cancer. In the same way, accelerating the decline of the Sea and making it that much more complicated and expensive to restore the Sea forecloses an opportunity to cure its ailments.

At the risk of extending my medical analogy a little too far, one more comparison is relevant. Not only would the transfer sentence the patient to death in 11 years, but it would also make it virtually impossible to provide any reasonable form of life support to extend the patient's life. Under historic inflows, the life of the fishery (i.e. keeping salinity under 60 PPT) could be extended into the next century with a relatively small project, with construction cost estimated at less than \$100M. Even with the baseline inflow shown in the Transfer EIS, the life span of the Sea could be extended 100 years with a construction project of less than \$200M (see Exhibit 11). With the proposed project, it's not likely that even a billion dollars would provide meaningful life support.

The temporal impacts are not the only impacts. The transfer document identifies impacts on other resource areas. I have significant concerns about the adequacy

of impact assessment and mitigation in many other resource areas. I am not addressing many of these areas in my testimony as I am drafting my comments for the Transfer EIR and the Authority's Board of Directors has not reviewed those comments. I request that those comments eventually be made a part of your record and are considered during your deliberations. The concerns that I have with the document are similar to those expressed through Resolutions of Concern Regarding the Effect of Water Transfers on the Salton Sea (see Exhibit 5, Salton Sea Authority Resolution No. 02-02 and Exhibit 14, Coachella Valley Association of Governments Resolution No. 02-002).

CVAG adopted its resolution after hearing about potential for airborne dust. The resolution was developed in consultation with the development community, the Coachella Valleys' cities, Riverside County, the water district and the tribal community.

The Authority's resolution is similar. The Salton Sea Authority Board of Directors unanimously approved it on March 28, 2002. The Board passed the resolution after hearing testimony from CVAG's representative, residents around the Sea and the environmental NGOs. Notably, residents around the Sea were able to compile a petition of more than 1100 names within two weeks to present to the Salton Sea Authority Board to urge adoption of the resolution (see Exhibit 15: Petition to the Board of Directors' of the Salton Sea Authority, Resolution of Concern Regarding the Effect of Water Transfers on the Salton Sea). Through their resolutions, both the Salton Sea Authority and Coachella Valley Association of Governments resolve to oppose projects that significantly lower the level of the Salton Sea. Both resolutions stress compliance with environmental laws and adequate mitigation of impacts.

## **Is Restoration Possible Anyway?**

Yes. There are proven methods to withdraw salt from salt water. Restoration is very feasible under inflows close to the historic average (see Exhibit 11: Draft Assessment of Salinity and Elevation Control for Varied Inflow). Solar evaporation ponds have been used for millennia to extract salt from salt water. The Salton Sea Authority, in partnership with the Bureau of Reclamation, has constructed a solar evaporation pond pilot project at the Sea and is testing salt disposal techniques at another pilot project at the Sea (see Exhibit 16, December 2001, Sea Notes, and April/May 2001, Sea Notes, and Exhibit 18, Tom Kirk and Mike Walker, Bureau of Reclamation, Power Point Presentation given to Salton Sea Symposium IV on January 9, 2002). Under continuation of historic average inflows, restoration is certainly possible.

Is it politically possible? Ten years ago, there may have been many voices that said no. Today, there is a larger chorus of voices that say yes. Five years ago, the Salton Sea Authority had assembled less than \$100,000 to support restoration. Today, over twenty million dollars has been authorized, appropriated and/or expended to support restoration (see Exhibit 16, Newsletters, for a description of projects and programs underway). Ten or fifteen years ago, how many national and statewide environmental groups would have participated in a hearing like this? Today nearly every major environmental group in the state is weighing in on the importance of the Sea, as evidenced in the parties participating in the petition process. The work of late Congressmen Sonny Bono and George Brown began much of the restoration initiatives underway.

After the untimely death of Sonny Bono, the Salton Sea Reclamation Act was passed (see Exhibit 9, Salton Sea Reclamation Act of 1998). The Act, for the first time, put the federal government on record to proactively plan for restoration. The Act and the Secretary of Interior kicked off an intensive scientific process

that has provided a wealth of information and insight about this valuable and complex ecosystem (see Exhibit 17: EPA 98 2001 Annual Progress Report).

Congresswoman Mary Bono and other members of the Congressional Salton Sea Task Force have continued their support for restoration. Support for addressing Salton Sea related issues has increased by the state of California as well, with Secretary of Resources Mary Nichols supporting a budget change proposal that ultimately provides additional resources to the Department of Fish and Game, Department of Water Resources and Regional Water Quality Control Board to address Salton Sea issues.

### **Conclusion**

The Sea is a critical environmental resource. Restoration of the Sea is made extremely costly and, very likely, impractical with major reductions of inflow. The Proposed Project has significant detrimental impacts on the Sea. Those impacts should be avoided, through pursuing conservation alternatives that do not reduce inflows to the Sea, or that are fully mitigated.