Ages, Inc.

Binational Restoration Infrastructure for the Pacific Flyway
at Laguna Salada & Salton Sea

Date: 5/29/2019
To: Bruce Wilcox
California Natural Resources Agency (CRNA)
Bruce.Wilcox@resources.ca.gov
Re: Request for Information for Salton Sea Water Importation Projects
Title: Binational Restoration of the Pacific Flyway at Laguna Salada & Salton Sea
http://resources.ca.gov/wp-content/uploads/2017/12/Salton-Sea-Water-Import-RFI.pdf

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Section 1 - Project Team & Industrial Partners

Agess, Inc. — *Project Management*
- Nathan White — CEO & Co-Founder
- David Forey — Former Chief Technology Officer
- Rob Simpson — Development Director
- Roger Arnold — Engineering Director
- Sovanarry Phy — Policy Expert

http://www.agessinc.com/

Cucapah Tribal Nation — *Land Owners - Southwest Mexicali*
- Lic. Juan Gonzalo Moreno Marquez — Mayor of Cucapah Tribe

George Cairo Engineering, Inc. — *Civil, Water & Agricultural Engineers*
- George Cairo — Founder & Principal Engineer

http://www.gcairoinc.com/

Ingenieria Dennis — *Civil, Water & Agricultural Engineers*
- Ing. Alan Dennis Gracia — Founder & Director

https://www.ingenieriadennis.com/

H20 Futures — *Integrated Seawater Agriculture*
- Edwin Daugherty — President & Founder

https://h2ofutures.net/

Intrinsyx Bio — *Scientific Planting Directors*
- Dr. John Freeman — Chief Science Officer

https://www.intrinsyxbio.com/

Phytoremediation Consultants — *Terrestrial & Aquatic Systems*
- Christopher Cohu — CEO & Co-Founder

http://www.phytoconsultants.com/

Nag, Inc. — *Geospatial Engineering*
- Swapan Nag — CEO & Co-Founder

https://www.naginc.net/

Floating Islands West — *Technology Supplier*
- Laddie Flock — CEO & Co-Founder

https://floatingislandswest.com/

(Summary of Response to RFI - Needed?)

1. Identification of Project Team - Members of the project team, and their roles on the project should be identified. ***(Section 1)***

2. Narrative description of project concept and how/when it will benefit the lake. A brief description of the proposed project is required that includes a general discussion of the project concept, the business plan and the implementation of the project. The project concept discussion should include a description of the project and how it will improve conditions at the lake. The business plan should include a discussion of the ownership of the proposed project and the plan for generating revenue from the project. ***(Section 2)***

3. Planning and design process of project ***(Section 3 - Section 6)***

- *Describe the planning process completed to date and detail how the planning process will be completed. The description should include the following:*
- *Project Feasibility -- Documentation of the engineering feasibility of the project. Documentation should include at a minimum: system capacity; pumping requirements; channel and pipe size; water quality; other associated infrastructure such as desalination, fish or trash screens, etc.; and expected energy use.*
- *Water Source Identification – Either provide documentation from the water rights holder that establish the willingness of the water rights holder to allow use of their water right or provide detailed description of process to establish those rights.*
- *Land Use – provide project route alignment and status of land use permission for the conveyance route both in the United States and in Mexico.*
- *Environmental Impact – provide information on any anticipated environmental impacts from the project in both Mexico and the US and how those will be generally mitigated. This should include a discussion of any anticipated impacts to existing surface water use, groundwater basins, and wildlife resulting from the introduction of ocean water to existing, or new, river channels or canals. If the project is proposed within the Alto Golfo de California Biosphere Reserve, please identify any anticipated impacts to that area and expected mitigation measures.*
- *Salton Sea Salinity – how does the project plan to deal with increased salinity at the Salton Sea from the imported ocean water? If the proposed project includes a desalination system where will the resulting brine be deposited?*
- *Water Use – Describe the projected water balance including consumptive use, system loss, evaporation etc. and ability of the proposed project to operate successfully with decreased flows.*
- *Cross Border Governmental Coordination and Permitting -- provide details of conducted or needed coordination and permitting from governmental agencies from both Mexico and the United States that deal specifically with cross border project development. Agencies include but are not limited to the International Boundary Water Commission, Mexico federal agencies, tribal governments, and necessary United States agencies.*

- *Project Development Schedule -- Schedule for project development from current stages through implementation.*
- *Operation Schedule -- Provide an estimate of the length of time necessary for the proposed project to raise the water levels at the lake to recover potentially emissive playa.*

4. Cost projection ***(Section 2 - Section 6)***

- *Provide a cost projection for the proposed project. The projection should be documented to the extent that the reviewers can review the cost projection process and determine the validity of the projections.*

5. Plan for funding of proposed project ***(Please see below)***

- *Describe how the planning, design and construction implementation of the project will be funded.* ***Public and Private partnerships with Non-Profit and government agencies.***
- *Identify the responsible parties for the operation and maintenance for the project and estimate annual cost.* ***Our collective team at Agess, Inc. and Industrial Partners will be tasked with Operation and Maintenance.***

Section 2A - Project Description: Executive Summary

Total 3 Phases	
Line Item	Cost
Preenginering	$3,150,000
Detailed Engineering	$36,000,000
Intakes and Fish Screens	$70,000,000
Pumping and generation Stations	$350,000,000
Cost of Dredging Equipment	$26,000,000
Cost of Dredging	$77,055,742
Access Roads	$42,500,000
Raise FC Road (24,843 linial yds.)	$496,860
One Bridge @ FC Road	$20,000,000
High Voltage lines/Substaition	$48,000,000
Legal & Permitting	$13,000,000
Land & Right of Way	$26,000,000
Monsoon impact Study	$100,000
ISA Pilot Project	$1,000,000
3 Bridges @ hwy 5	$80,000,000
Realign hwy 5	$12,000,000
Check Dam	$21,325,572
TOPO/LIDAR Fights and 3D terrain Model	$2,000,000
Land purchase in flooded Laguna Salada	$15,500,000
Water intakes in Salton Sea	$45,000,000
Pump and Pipe Through Pass	$128,049,784
Canal Street and utility crossings	$60,000,000
Subtotal	$1,077,177,958
Contingency(6%)	$64,630,678
Mgt/Sperv Fee (8%)	$86,174,237
Total Cost for 3 Phases	$1,227,982,873

The proposed project and associated budget would flood Laguna Salada, create a circulation system that would sustain a living/breathing Laguna Salada and fully mitigate the environmental issues of the Salton Sea. The proposal is broken into 3 phases to allow migratory birds a quick habitat backup plan in Laguna Salada while more costly permitting and construction is in process. These goals would be accomplished at roughly **⅓ the cost of the closest competing concept** while providing far greater environmental and socioeconomic benefits on both sides of the border.

This budget covers the line items required to build the infrastructure required to complete the project and achieve the goals listed above. This allows for an “apples to apples” comparison of the costs of this project to others with similar goals.

While reducing construction costs involved in mitigating the Salton Sea environmental issues is an important achievement, the true value of this project can not be fully understood without an analysis of the of far larger environmental and economic issues. Within and beyond the opportunity to simply mitigate the environmental issues of the Salton Sea lies the true nature and extent of the current opportunity. Current pipeline and perimeter dam concepts provide few, if any environmental or economic benefits outside the Salton Sea region. Flooding laguna Salada creates a large number of environmental and economic benefits throughout the entire Colorado River basin. A bullet point list of project benefits is provided below. The top portion of the list are those benefits shared by both the pipeline type projects and the flood Laguna Salada type project. The second portion of the list are those benefits exclusive the the Flood Laguna Salada type project.

Shared Project Benefits:

- Mitigated Exposed Plia and dust issues issues in the Salton Sea
- Provide a livable aquatic environment in at least **30% of the existing Salton Sea**.

Exclusive Benefits

- Provide a livable and playable aquatic environment in about **70% of the existing Salton Sea.**
- Vastly expand the aquatic environment in the Colorado River Delta/Estuary and create a new aquatic environment in Laguna Salada.
- Provide sufficient water quality in Laguna Salada and the Delta to create and maintain a large scale commercial fishery to include the highly valued Totoaba.
- Multiple opportunities for large scale Seawater Farming (Integrated Seawater Agriculture, ISA).
- The Laguna Salada region provides a great environment for Wind and Solar energy production. Flooding Laguna Salada provides multiple opportunities for Pumped Hydroelectric Storage facilities (PHES).
- Desalinization: Vertical Tube Evaporator Multi-Effect Distillation (VTE-MED) design provided by Sephton Water Technology can produce 5,000 AF per yr. with an investment of 24 million per facility. If comparing seawater desalination systems that can process 35 g/liter TDS to Salton Sea waters of 61 g/liter TDS the system would process double what traditional units can process what would equate to 10,000 AF per yr. The current project estimate provides an "excess capacity" of at least 200,000 AF per year of Seawater with salinity levels of about 37-38 PPT (same as g/liter). Utilization of a portion of these waters will increase productivity and all of this desalinated water can be used to enhance local municipal water availability.
- The existence of a flooded Laguna Salada will tend to moderate the local climate. Summer days will be cooler and winter nights will be warmer. This is why the majority of the earth's human population chooses to live in close proximity to large bodies of water.
- The existence of a flooded Laguna will trigger an earlier, more frequent and enhanced "Arizona Monsoon" season.

Phase 1	
Line Item	Cost
Preenginering	$150,000
Detailed Engineering	$250,000
Intakes and Fish Screens	$0
Pumping and generation Stations	$0
Cost of Dredging Equipment	$5,000,000
Cost of Dredging	$8,214,476
Access Roads	$500,000
High Voltage lines	$0
Legal & Permitting	$1,000,000
Land & Right of Way	$1,000,000
Monsoon impact Study	$100,000
ISA Pilot Project	$1,000,000
Subtotal	$17,214,476
Contingency(6%)	$1,032,869
Mgt/Sperv Fee (8%)	$1,377,158
Total Cost fpr Phase 1	$19,624,503

Phase 2	
Line Item	Cost
Preenginering	$1,500,000
Detailed Engineering	$15,000,000
Intakes and Fish Screens	$40,000,000
Pumping and generation Stations	$200,000,000
Cost of Dredging Equipment	$6,000,000
Cost of Dredging	$21,696,689
Access Roads	$20,000,000
Raise FC Road (24,843 linial yds.)	$496,860
One Bridge	$20,000,000
High Voltage lines/Substaition	$36,000,000
Legal & Permitting	$4,000,000
Land & Right of Way	$5,000,000
Monsoon impact Study	$0
ISA Pilot Project	$0
3 Bridges @ hwy 5	$80,000,000
Realign hwy 5	$12,000,000
Check Dam	$21,325,572
TOPO/LIDAR Fights and 3D terrain Model	$2,000,000
Land purchase in flooded Laguna Salada	$15,500,000
Subtotal	$500,519,121
Contingency(6%)	$30,031,147
Mgt/Sperv Fee (8%)	$40,041,530
Total Cost for Phase 2	$570,591,798

Phase 3	
Line Item	Cost
Preenginering	$1,500,000
Detailed Engineering	$20,750,000
Intakes and Fish Screens	$30,000,000
Pumping and generation Stations	$150,000,000
Cost of Dredging Equipment	$15,000,000
Cost of Dredging	$47,144,577
Access Roads	$22,000,000
Raise FC Road (24,843 linial yds.)	$0
One Bridge	$0
High Voltage lines/Substaition	$12,000,000
Legal & Permitting	$8,000,000
Land & Right of Way	$20,000,000
Monsoon impact Study	$0
ISA Pilot Project	$0
3 Bridges @ hwy 5	$0
Realign hwy 5	$0
Check Dam	$0
TOPO/LIDAR Fights and 3D terrain Model	$0
Land purchase in flooded Laguna Salada	$0
Water intakes in Salton Sea	$45,000,000
Pump and Pipe Through Pass	$128,049,784
Canal Street and utility crossings	$60,000,000
Subtotal	$559,444,361
Contingency(6%)	$33,566,662
Mgt/Sperv Fee (8%)	$44,755,549
Total Cost for Phase 3	$637,766,572

The project is currently divided into three phases. It is important to understand that these phases break the project into three geographic/functional regions. These phases do not exclude portions of phase 3 being conducted during the same time frame as portions of phase 1. This provides some flexibility in the construction schedule and the time to completion will be largely dependent on funding.

To provide a clear understanding of the work required, existing conditions and benefits of this project, we have provided the three videos below as a supplement to this document. We hope this provides a clear image of the big picture. Note that these videos illustrate a slightly earlier version of the more “evolved” product quantified in this document. All three videos are “unlisted” and were never meant for public disclosure. Leaving these videos in the same form that they were sent out to or team may provide some insight as to the issues discussed. This format of disclosure also a quick and easy way for the reader/viewer to attain the greatest amount of understanding in the shortest period of time.

Phase 1 Video (This video covers part of phase 2 as well)

Phase 2 Video (This video covers part of phase 3 as well)

Phase 3 Video (This video provides an explanation of a “Salt” solution for the Salton Sea. The video shows a single “Salt Sink” an alternate solution using three “Salt Sinks” is illustrated on page 18 below.)

Section 2B - Business Plan:

As a professional project management team our interests are in assisting local residents, businesses, municipalities, and governments to analyze the viability of a water import and restoration project(s). A high level study will allow the State of California, Baja California, United States Federal Government and Mexico's Federal Government to make a more informed decision about the viability of a low cost multiphase project that can create new habitat as well as restoring degraded habitat with a simple gravity fed system. The business plan and means of recouping currently degraded property values and improving future values requires a multi agency and multi governmental partnership agreement which can be initiated with a Memorandum of Understanding (MOU) between the State and local municipalities.

Our business plan is to assist with the framework and the feasibility platform of Seawater Import. We do not seek reimbursement, but, rather, look to benefit from a schematic design and master planning of Laguna Salada and Salton Sea Restoration project. With this case study, we hope to influence a decision to initiate a collaborative partnership with industrial suppliers, local municipal agencies, the Unites States of America and Mexico - an otherwise seemingly unprecedented and unattainable goal. Revenue will be generated by hydro power, solar power, wind power, recreation, carbon capture / storage, seawater farming of food and biofuel. Furthermore, and as a side benefit, the process of flooding Laguna Salada is thought to create a stronger and longer North American Monsoon season. In essence, the existence of a flooded Laguna Salada and the circulation system needed to create a living sea will also create the most efficient desalination system ever conceived of by mankind. Sea levels in The Salton Sea will be conserved and mitigate wind borne dust, reducing exposure of local residents to emissive toxic dust, restoring ecology and creating new habitat more easily with the surplus of ocean water. The true opportunity of this proposal and others is to not only solve the Salton Sea's ailments but look at water in a whole new light. Untreated seawater is the future of the world's water supplies for agricultural production, aquaculture production, fuel production and habitat which turns arid deserts into productive ecologies. This will be a first of its kind global pilot project.

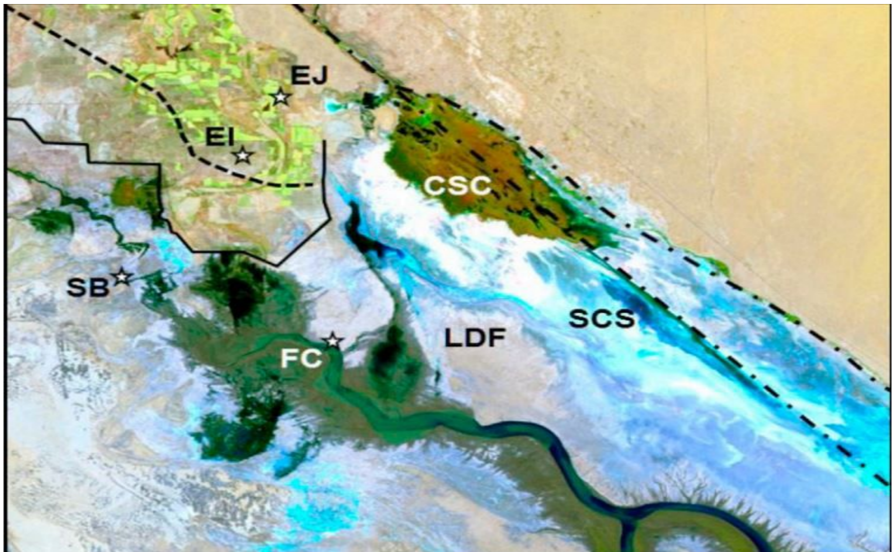
The sea(s) will benefit from a stable and controllable water elevation to mitigate emissive dust and increase property values that have bottomed out. While conserve and transfer policies are needed to supply population centers with fresh water, we can not ignore the probability that such diversions reduce flows in the Colorado River and change the climate at an equivalent rate to CO2 emission. In the phase 3 budget analysis later in this document we provide a detailed explanation as to how and for what price we can provide a 1,000 year plus resolution to the Salton Sea salt issue at about ⅓ the price of other options. The project will create new habitat along and within the new canal(s) / river(s). The recreation opportunities on both sides of the border will attract development. Alternative energy generation can supply the California grid with new sustainable and constant renewable resources. The endangered fish and bird species will be able to restabilize and flourish under restored conditions. Additional supplies of local potable water can be derived from the development of Vertical Tube Evaporator Multi-Effect Distillation (VTE-MED).

Cost Benefit Analysis and Comparison with Alternatives:

The concept of importing sea water from the Gulf of California to restore, or at least mitigate environmental issues relating to the Salton Sea and the plurality of Southwestern states is gaining political backing. The image on the cover page was created by Dr. **Richard Brusca** and his team. This was disclosed in the peer reviewed academic paper titled "**Colorado River flow and biological productivity in the Northern Gulf of California, Mexico".** The image was created using LANDSAT data and reflects the extremely flat nature of the Colorado River delta and what happens in the rare occasion of a Colorado River flood that exceeds the vast storage capacity that we have created along the river. This flood occurred in 1984. Populations that depend on the Colorado River flow have increased exponentially over the last 35 years and storage levels in lakes Mead and Powell have dropped accordingly. With flows in the Colorado River diminishing on a year over year basis, it is important for us to understand the physics, engineering, environmental, economic and geopolitical aspects of each plan we consider.

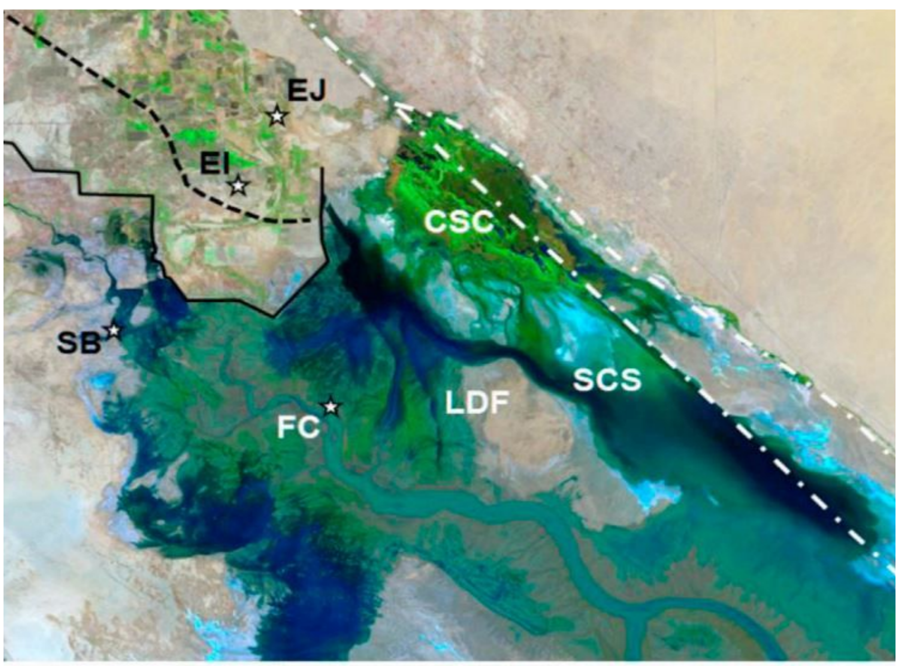
The Northern Gulf of California has the second largest tidal range in the world, up to 27 feet. The area flooded by these large tides is vast. It should be noted that the area flooded will increase substantially due to sea level rise, ongoing erosion in the delta itself and the general Subsidence of the Salton Basin. These impacts will be multiplied by the flat nature of the region. Using this vast tidal energy to flood Laguna Salada reflects a management strategy that preserves the existing tidal wetlands, sustains or enhances Colorado River flows, enhances the North American Carbon sink, mitigates regional impacts of CO_2 induced warming, directly creates "green" electrical power and creates the basic water availability for other green energy opportunities like solar, wind and the Pumped Hydroelectric storage facilities (PHES) required to even this green energy over the power grid.

Below are two images from another peer reviewed paper entitled "**Delta dynamics: Effects of a major earthquake, tides, and river flows on Ciénega de Santa Clara and the Colorado River Delta, Mexico".**



6a. Landsat 5 June 17, 2010 (5.28 m tide June 13)

The LANDSAT image above shows the wetted area from a high tide that peaks at 5.28 meters above mean sea level. The image below shows the wetted area from a 5.59 meter tide.



6c. Landsat 5 October 26, 2011 (5.59 m tide Oct. 26)

These images help us to understand the extremely flat nature of the tidal estuary and the surrounding region extending through Laguna Salada. This region is so flat and the tidal influence so strong that it will likely flood Laguna Salada with Sea Water within the next 10-40. Mother nature has already completed 90%+ of the work required to flood laguna Salada. The current budget indicates that the cost of completing Phase 1 and flooding or preparing the area shown in the image below to be flooded in Phase 2 to a surface elevation of about 6 feet above mean sea level is less than $20 million. Completion of Phase 3 will preserve and enhance the estuary and recreate the commercial fishery that existed in Laguna Salada from 1974 to 1985. While the generation of electricity from tidal energy is difficult, creating a "tide" pool above mean sea level is far easier. The tide itself will act as the largest "pump" in the circulation system required to keep the waters of Laguna Salada at reasonable salinity level.

A study of the Laguna Salada fishery, **"FEDERAL FISHERY DELEGATION IN BAJA CALIFORNIA PRELIMINARY STUDY OF THE FISHERY IN LAGUNA SALADA, BAJA CALIFORNIA"** is available for your review.

The most preferred of the pipeline plans would cost about $2.5 Billion. Using pipeline as the primary means of conveyance is extremely expensive. Our internal numbers indicate that the cost per lineal yard for this means of conveyance is about $7,950 per yard. When you consider socioeconomics, operating costs and the fact that moving water from the Northern end of Laguna Salada into the Salton Sea will generate green electrical power rather than burn it, this cost becomes difficult to justify.

<u>Section 3 - Planning and design process of project</u>

<u>Section - 3A General Notes</u>

In conducting a thorough examination of the available options for Sea Water Import to the Salton Sea, our team was surprised to find that the “Flooding Laguna Salada” option is considerably **<u>less expensive than any other option available</u>**. In fact, many of the larger costs are incurred in Phases 2 and 3 and are associated with building the circulation systems that will move sufficient water in and out of Laguna Salada and the Salton Sea to prevent these waters from becoming too saline. The circulation process will create a living, breathing Seas with a substantial fisheries and wildlife. All of the costs associated with Phase 3 are associated with mitigation of Salton Sea water and Salinity issues.

In all three phases of construction, our primary means of construction will be the use hydraulic dredging. Hydraulic dredging is an inexpensive construction methodology capable of moving large amounts of material in a short amount of time at an extremely low cost. The dredges we have chosen for this task are highly mobile and can be delivered to the site and moved from place to place on the back of a truck.

Considering that the soils throughout the vast majority of the project site consist of loosely consolidated slits and sands deposited by the Colorado River and we have ample ability to bring the sea waters from the Northern Gulf “with us” as we build, the use of hydraulic dredging should be the “primary tool” under consideration for any and all structures built throughout the project. This process is simply that cost and environmentally effective.

The “theoretic cost” of dredging a cubic yard of the soils present on the jobsite can be derived from the manufacturers website. Click on the images below and follow the path to visit the referenced portion of the manufacturer’s website.

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Model 8012 HP Versi-Dredge

Detailed Specifications

Transportability: One truck transportable (fully assembled)
Propulsion: Self-Propelled w/ IMS patented Starwheel Drive
Nominal Pump Capacity[1]: 1362 m^3/hr. (1,781 yd^3/hr.)
Total Solids Capacity[2]: 340 m^3/hr. (445 yd^3/hr.)
Dredging Depth: 9.1m (30 ft.)
Total Installed Power: 410 kW (550 HP)
Dry Weight: 21,772 kg (48,000 lbs.)
Discharge Diameter: 305mm (12 in.)
Spherical Solids Passage: 127mm (5 in.)

Hourly Estimated Operating Costs

Fuel @ $4.00/gallon	$88.00
Insurance	2.00
Labor (2 men @ $16.00/Hr.)	32.00
Maintenance (Filters, etc)	1.20
Accrued Mechanical Overhaul	4.00
Pump & Cutterhead Wear	5.00
Hull Maintenance	3.60
Estimated Hourly Operating Cost in U.S. Dollars	**$135.80**

*Prices subject to local economics

Dividing the estimated amount of the **"total solids capacity" of 445 yds^3/hr** by the **"Hourly Estimated Operating Costs" of $135.80** yields a **"theoretical cost"** of moving a cubic yard of dirt of **$0.31 per cubic yard.**

Throughout the budget for this project, the cost of moving a cubic yard of dirt is estimated at **$0.50 per cubic yard** with an **additional 20% added for contractor profit.** This places the estimated cost of dredging a cubic yard of silts and sands at **$0.60 per cubic yard**. I believe this provides a sufficient margin for error in the estimation process. Even if we double the $0.60 per cubic yard a second time, this project will still be far more cost effective than other options. Again, the process is **extremely cost effective** in this type of environment.

At this point in time, the total costs associated with a pipeline plus perimeter dam methodology of providing a long term solution to the well documented environmental issues associated with the Salton Sea range from about $3.2 to nearly $5 billion dollars. A full understanding of the local geology, topography and the tides in the Northern Gulf of California in combination with an understanding of modern hydraulic dredging technology provides a budget that accomplishes the same goals and more for a full budget of less than 1.3 billion dollars.

Section 3B - Jobsite location evaluation (The Next 100 years)

The environment and topography in the Northern Gulf of California, the old Colorado River Basin/Estuary and even the dry inland sea bottom of Laguna Salada are presently and will continue to be some of the fastest evolving systems in the world. Here are a few considerations that contribute to the rapid rate of change in the area and our decision making process:

1. Termination of all or the vast majority of freshwater entering the Colorado River Delta and Estuary.
2. Termination of all or the vast majority of sedimentation from the Colorado River Delta and Estuary.
3. Sea Level Rise.
4. The Second largest tidal regime in the world.
5. The "in Delta" liquefaction and subsidence event that occurred in the 2010 El Mayor Earthquake.
6. The entirety of the "salton Basin" has been subsiding for the last 10 million years or more. This is the definition of a rift zone and the Salton Basin. This process will obviously continue.
7. In the past, the rate of subsidence was masked by the deposition of silts and sands eroded from the Colorado River Basin and deposited within the delta.
8. This process of deposition has stopped and erosion has commenced.

9. The entirety or vast majority of the jobsite consists of loosely consolidated silts and sands deposited in and from the Colorado River Delta.
10. Increased rates of in Delta erosion are associated with increased tidal penetration.
11. Mother Nature and those who excavated the original Coyote Canal have been busy over the last 100 years or more working to reflood Laguna Salada.
12. Progress on this ongoing project has accelerated over the last decade.
13. Current higher tides in the Northern Gulf induce Sea Water flows under the bridge at the intersection of HWY 5 and the Coyote Canal.
14. We can choose to work with this process to the benefit of the larger environment or actively work against this known process and spend far more money for a less beneficial outcome.
15. Flooding Laguna Salada with Seawater will likely increase the evaporation of Seawater to a larger extent than reductions in local evapotranspiration (ET) due to local “conserve and transfer”.
16. The known scientific process of initiating the “wet part” of the North american Monsoon season is directly related to the point in time in the early monsoon season when extreme Northern Gulf Sea Surface Temperatures reach the 30C level. FLooding Laguna Salada and building the circulation system will mitigate salinity issues in the mouth of the Colorado river and act as a “solar pool heater”. This is a complex issue and you may need to watch the second (Phase 2) of the included videos to “get the big picture”.
17. Conserve and transfer policies coupled with pipeline concept will likely tend to decrease water availability in the Colorado River Basin. Replacing reduced freshwater ET from local farmlands with ET of saltwater from laguna Salada and providing a means of gently/mildly increasing local SST’s should enhance annual flows in the Colorado River. This will increase the water availability for future development in the Southwest.
18. In the end, the cost benefit curve is strongly skewed towards working with nature rather than working against her.

Section 3C - Crossing Mexico / United States Border & Connecting Salton Sea

1. Salton Sea River - 765,000 AF per yr. to replace mitigation water and supplement evaporation / seepage of the Salton Sea.
2. *Entitle and permit the cross border water conveyance network*
3. *Entitle and permit the construction of water conveyance system from the north east shore of Laguna Salada to the Mexico / United States Border*
4. *Secure private and public properties associated with the Mexico / United States border to the Salton Sea*
5. *Entitle and Permit construction of the conveyance system from Mexico / United States border to the Salton Sea*

Section 3D: Water Source Identification –

1. Seawater import from the Sea of Cortez (Gulf of California) through Laguna Salada is supported by the Mexican Government as this benefits for their residents in the form of new recreation, ecotourism, habitat, seawater farming and manufacturing of farmed products.
2. Documentation from the water rights holder, The Federal Government of Mexico, would need to be initiated by the State of California and the Federal Government of the United States of America. Our collaborative team would not be able to secure the water rights without a letter of intent from the State of California that this project is ready to be initiated. Typically this process would be a condition of the discretionary review project process and environmental studies. We would defer this item to a later date. If no adverse impacts will be realized then their federal government would be in support of a water use agreement of water from the Sea of Cortez.
3. The Cocopah people are Native American Indians indigenous to Southern California, northern Baja California, Mexico, and southwest Arizona and have participated in several expeditions exploring the path of the projects canals / rivers. They would be a water rights holder and fully support the effort. Similarly to achieve water rights coordination initiated by the State of California and the Federal Government of the United States of America in conjunction with The Federal Government of Mexico would create a Memorandum of Understanding (MOU) with the Tribe to create a mutually equitable agreement.

Section 3E: Land Use – Please see ***Exhibit A:*** *Laguna Salada & Salton Sea Restoration Project: Diagram* which shows a connection point to the top of the tidal flow from the Sea of Cortez which is the Coyote Canal. The Coyote Canal would be required to be deepened and widened to accommodate the additional water flow required. This is a pre existing easement so the land rights will not be difficult to amend. Laguna Salada was a previous lake and similarly the reintroduction of water would not be insurmountable for the underlying land owners. The Salton Sea Canal / River from the northernmost edge of Laguna Salada would be able to traverse the Cocopah Indian Tribe and they are in favor of the concept. On the United States side of the Border the path would be predominantly Bureau of Land Management (BLM) ownership and our current administration is in favor of private / public development. In conversations with the BLM requirements to mitigate disturbed land would be through conservation programs and other standard mitigation measures. Individual private land ownership could be partnered with or compensated through an acquisition agreement. As a last resort imminent domain could be exercised on either side of the border.

Section 3F: Environmental Impact – Salton Sea Salinity Desalination system would be proposed in future phases with the (VTE) process and would utilize Solar Gradient Pond (SGP) systems for high brine content that also create energy. Mr. Tom Sephton of Sephton Water Technology would be the subject matter expert and we would consult with his team to work out logistics of brine repurposing within the Salt Sinks. This can be a viable dust mitigation management systems as well. Additionally we would create high quality salt products for resale in the open market for a return on investment (ROI). Lastly we will implement the repurposing of excess salt for building materials.

Section 3G: Water Use – *The system would have the capacity to refill the Salton Sea utilizing existing mitigation water of 800,000 AF per yr. along with the import of* 765,000 AF per year. This project has the option of increasing imports to the Salton up to 1 million acre feet per year. Several water uses for addition import may be defined during the entitlement process. The primary suggested additional water use would be the (Vertical Tube Evaporator Multi-Effect Distillation) geothermal desalination process. The final use for such desalinated water would be municipal water use.

Section 3H: Cross Border Governmental Coordination and Permitting - Preliminary meetings to coordinate the cross border permitting process have been initiated with Bill Graham of AECOM who was the project manager for the Otay Mesa Water Districts cross border water transfer connection to a proposed desalination plant in Rosarito, Mexico. They would be the primary subject matter expert that would, should or could provide this service to the State of California since they are the subject matter experts with recent experience on this topic in a similar jurisdiction.

Section 3I: Project Development Schedule - *The negotiations on all sides of the issue will take as* few as 5 years and as many as 10 years *depending on the state's sense of urgency for the issue surrounding the shrinking of the Sea. This could be expedited if funding becomes available and a fully restored sea become the primary focus of state and local municipalities as part of their ten year plan.*

Section 3J: Operation Schedule - The permitting process will take as few as 5 years and as many as 10 years for a fully connected network. The construction process will take as few as 5 years and as many as 10 years for a fully connected network. This is why we propose a phased approach in which the Coyote Canal effort could take a year or two to permit and a year or two to build and will create 142,000 acres of ocean level salinity habitat.

Section 4 - Cost projection & detailed budgets

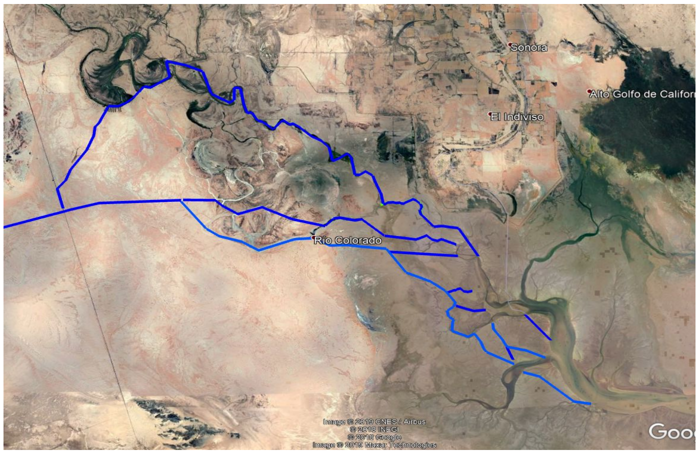
Section 4A - Phase 1 - Refilling Laguna Salada: Project Feasibility –

Phase 1	
Line Item	**Cost**
Preenginering	**$150,000**
Detailed Engineering	**$250,000**
Intakes and Fish Screens	**$0**
Pumping and generation Stations	**$0**
Cost of Dredging Equipment	**$5,000,000**
Cost of Dredging	**$8,214,476**
Access Roads	**$500,000**
High Voltage lines	**$0**
Legal & Permitting	**$1,000,000**
Land & Right of Way	**$1,000,000**
Monsoon impact Study	**$100,000**
ISA Pilot Project	**$1,000,000**
Subtotal	**$17,214,476**
Contingency(6%)	**$1,032,869**
Mgt/Sperv Fee (8%)	**$1,377,158**
Total Cost fpr Phase 1	**$19,624,503**

In phase 1, we should plan on using at least five of the model 8012 Dredges. We may need to move as much as 16.5 million cubic yards of dirt. If we run 5 of the model 8012 dredges, 5 days per week with two 8 hour shifts per day, it would take about 23 months to move this volume of material. Flows through Coyote canal will increase far earlier than this. Much of this dredging is meant to accommodate the flows required in Phase 2.

Please note that “Phasing” in this budget is largely a matter of geographic separation. A large number of line items defined in Phases 2 and 3 could be built in overlapping time frames with Phase 1.

It is likely that we will want to start Phase 1 by extending and deepening the existing Coyote Canal. This process should provide sufficient flows through the Coyote Canal to flood Laguna Salada to a large enough extent to commence Phase 2 dredging operations in Laguna Salada.



From this point, we will dredge a series of connecting canals that will allow more tidal waters and energy to penetrate farther into the Delta in a Northwesterly direction. These channels will provide a place for the tide to go “other than up”.

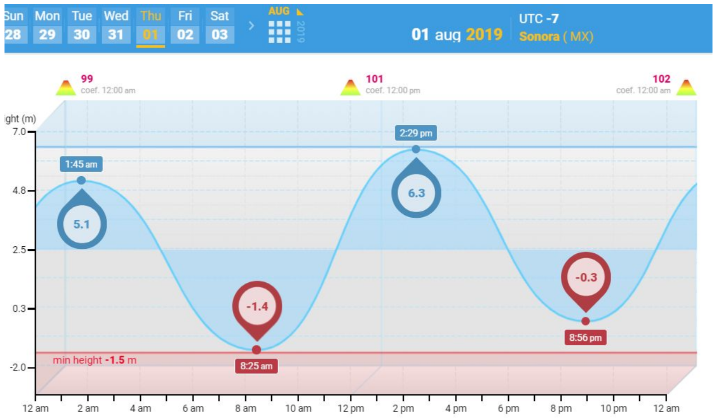
In this image the tidal floodplain is to the right and the headwaters of an erosion channel to the bottom left. This image would have been taken some time after the high tide and illustrates how the returning tide waters “back-cut” the tidal floodplain. Dredging in these areas will mostly occur in existing channels with limited dredging though lower lying portions of the floodplain. In general, greater channelization will increase flows through the wider and deeper channels and decrease the amount of water lifted onto the floodplain. Water is heavy and does not like to be lifted. Wider and deeper channels will give this water a place to go “other than up”.

Many erosion channels currently exist in the Delta. Much of the Delta floodplain in this area in known to have subsided in the 2010 earthquake by as much as 1.5 meters.

Dredging operations here will be limited to deepening, widening and extending existing channels that tend to allow tide waters to move farther to the Northwest.

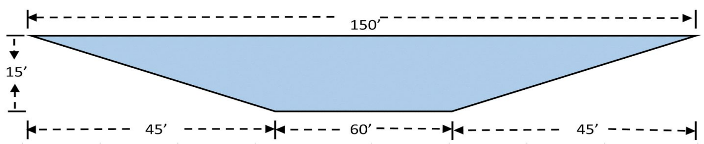
In the image to the left the total length of the blue lines, as measured by Google Earth defines the total linear yards of channel dredging used to estimate dredging costs in Phase 1. Estimating the cross-sectional area of these channels is more difficult without having accurate TOPO information and a 3D terrain model.

Looking at the present day imagery available on Google Earth provides a clue as to how much dredging will be required. The reason the Coyote Canal channel is clearly visible in this image is because it is wet. Water from the higher tides is currently flowing into Laguna Salada.



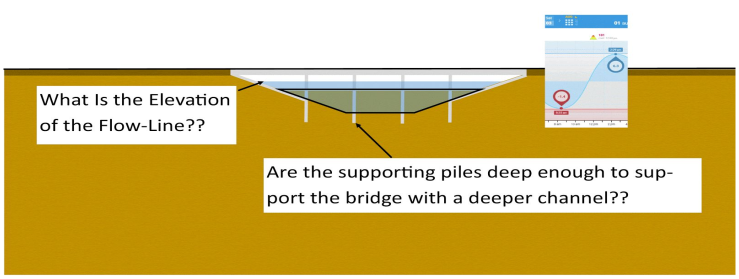
Another important concept to understand when estimating the cross-section and how much dredging we should do to increase flows is that tides at the mouth of the Colorado River are higher than the elevation of the existing HWY 5 and surrounding floodplain.
The reasons why this road does not flood have to do with issues like time, distance, friction and lack of channelization.

Channel Dimensions in feet



Section in Feet					Channel Slope		
Bottom	Top	Depth	sqft of Section		Run	Rise	Slope
60	150	15	1575		45	15	0.33
			3.5	Flow Rate			
			3600	Seconds/hour			
			24	Hours per Day			
			365	Days Per Year			
			43560	Cubic Feet per Acer foot			
			3,990,868	Acre Feet Per Year			

The image to the left shows the cross-section of a channel that would accommodate flows of nearly 4 million acre feet per year. This volume would only occur if flows through this section averaged 3.5 feet per second in the correct direction. Until we complete Phase 2 and start running the circulation system, they will be smaller.



The cross-section shown was chosen because it looks like it will comfortably fit under the existing bridge. Utilising the existing bridge for Phase 1 flows will provide time and space for Phase 2 to start. The phase 2 budget contains money to create a replacement bridge for the existing bridge and create 2 more bridges of similar size. Three bridges of this size will accommodate the flows required to create the circulation system. The budget includes dredging costs for ⅔ the cross-sectional area of the entire channel profile. This is likely to produce a dredging quantities substantially larger than required. Better safe than sorry. A price tag of less than $20 million for flooding an inland sea exists only at this location. No other location on Earth provides such an opportunity at such a low cost.

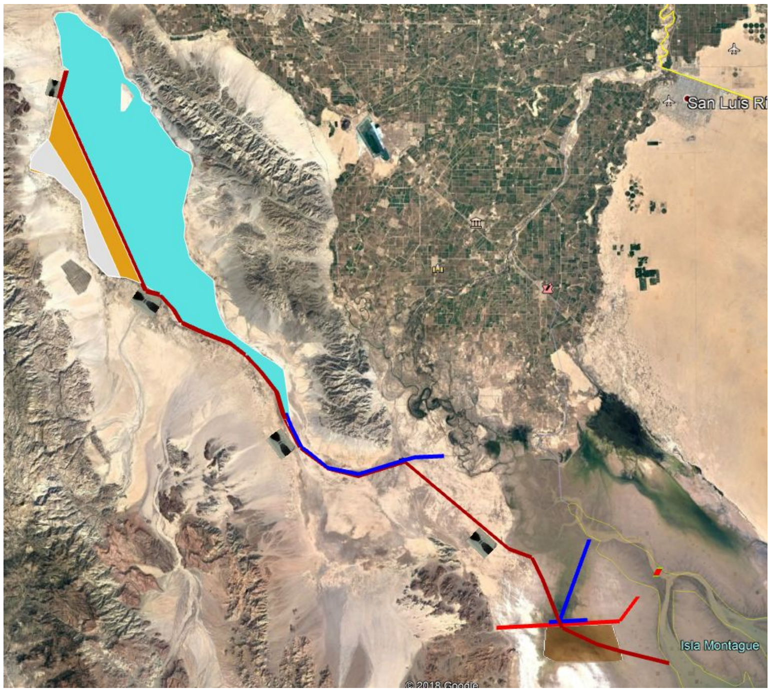
Section 4B - Phase 2 Budget - Recirculation System Laguna Salada

Phase 2	
Line Item	**Cost**
Preenginering	$1,500,000
Detailed Engineering	$15,000,000
Intakes and Fish Screens	$40,000,000
Pumping and generation Stations	$200,000,000
Cost of Dredging Equipment	$6,000,000
Cost of Dredging	$21,696,689
Access Roads	$20,000,000
Raise FC Road (24,843 linial yds.)	$496,860
One Bridge	$20,000,000
High Voltage lines/Substaition	$36,000,000
Legal & Permitting	$4,000,000
Land & Right of Way	$5,000,000
Monsoon impact Study	$0
ISA Pilot Project	$0
3 Bridges @ hwy 5	$80,000,000
Realign hwy 5	$12,000,000
Check Dam	$21,325,572
TOPO/LIDAR Fights and 3D terrain Model	$2,000,000
Land purchase in flooded Laguna Salada	$15,500,000
Subtotal	$500,519,121
Contingency(6%)	$30,031,147
Mgt/Sperv Fee (8%)	$40,041,530
Total Cost for Phase 2	**$570,591,798**

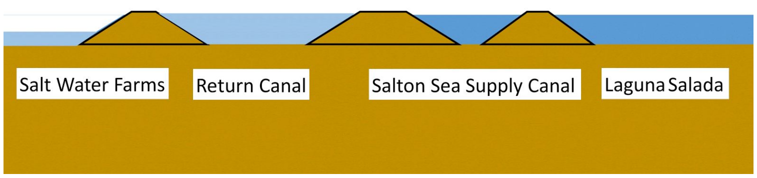
The Phase 2 budget contains a $2 million dollar line item for TOPO/LIDAR flights and the creation of a 3D model of present day topography. This is likely way to high for this service. This information will be invaluable in defining everything from flow rates to flooded areas of Laguna Salada to the flow line of the canal leading to the Salton Sea. This cost can be associated with Phase 1. We have included it as a Phase 2 cost to reflect the fact that we can get started with a great deal of the Phase 1 dredging prior to having this information.

As you can see, the Phase 2 budget is far larger than Phase 1. Yes, this does reflect some “picking and choosing as to when we “realise” certain costs of construction. More exact numbers for exact line items will become available as the engineering becomes available.

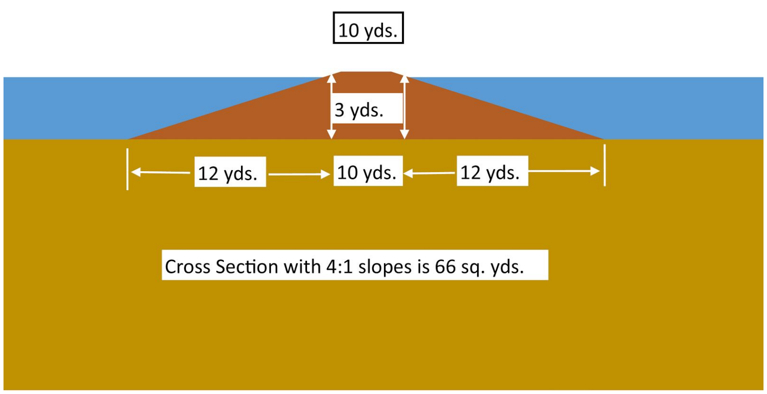
The largest line items in Phase 2 will be Bridges, Pumps, High voltage Lines and Fish Screens. Fish screens may be a bit expensive, but this is a small price to pay for a living inland sea.



Alone the Western ¼ to ⅓ of Laguna Salads we plan on devoting a large area to Salt Water Farming (shown in brown). The area shown in grey will be salt sinks/evaporation ponds.



Here is a profile showing how we will create a two canal system this flat shallow sea bottom.



This image provides dimensions for the largest of the three berms. The reason the central berm is wider than the others is to allow for an access road.

Section 4C - Phase 3 Budget - The Salt Solution

The primary issue in "saving the Salton Sea" is by definition the Salt issue. Critics of Salt water import projects correctly point out that the import of Sea water, again by definition means the import of Large amounts of Salt. So, how do we solve every increasing salinity levels in the Salton Sea by importing more Salt?

Phase 3

Line Item	Cost
Preenginering	$1,500,000
Detailed Engineering	$20,750,000
Intakes and Fish Screens	$30,000,000
Pumping and generation Stations	$150,000,000
Cost of Dredging Equipment	$15,000,000
Cost of Dredging	$47,144,577
Access Roads	$22,000,000
Raise FC Road (24,843 linial yds.)	$0
One Bridge	$0
High Voltage lines/Substaition	$12,000,000
Legal & Permitting	$8,000,000
Land & Right of Way	$20,000,000
Monsoon impact Study	$0
ISA Pilot Project	$0
3 Bridges @ hwy 5	$0
Realign hwy 5	$0
Check Dam	$0
TOPO/LIDAR Fights and 3D terrain Model	$0
Land purchase in flooded Laguna Salada	$0
Water intakes in Salton Sea	$45,000,000
Pump and Pipe Through Pass	$128,049,784
Canal Street and utility crossings	$60,000,000
Subtotal	$559,444,361
Contingency(6%)	$33,566,662
Mgt/Sperv Fee (8%)	$44,755,549
Total Cost for Phase 3	$637,766,572

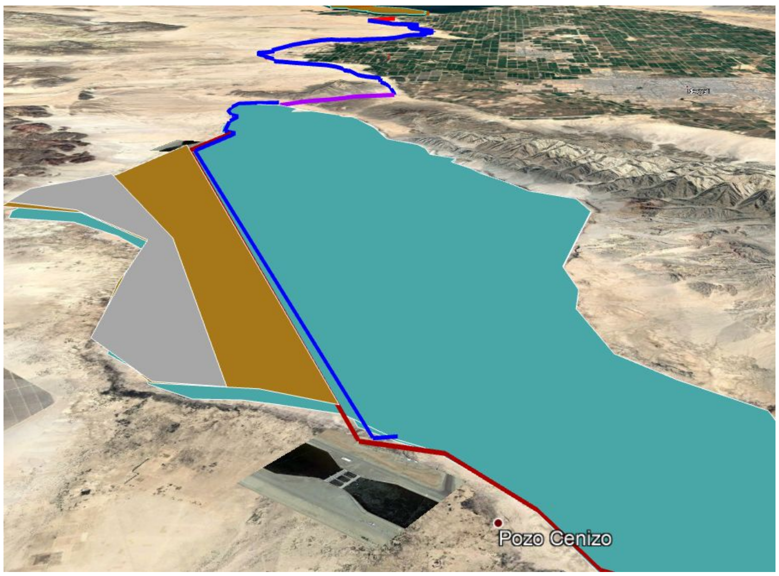
Occam's Razor suggests that the simplest solution is usually the best. As a team, we believe that communication, cooperation and collaboration are key to resolving this issue for the long term. We have found that the communication portion of relating the
simplest solution to be of some difficulty.

Phase 3 contains the largest amount of dredging in the project. In this phase, we will dredge sufficient material in Laguna Salada to create a third "in sea berm", build a pump station and pipeline to get us through the pass, dredge a canal from the end of pipeline to above the Salton Sea, build a generation station to create power as we release water into the Salton Sea and build a number of Salt Sinks within the Salton Sea that will efficiently sequester salt from the main body of the Sea to smaller Salt sinks.

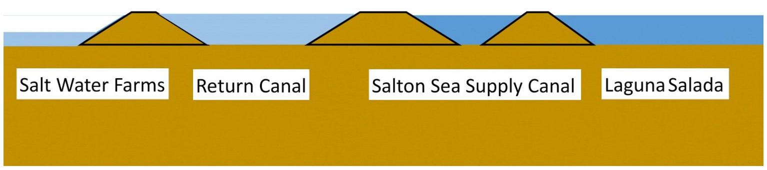
This system is similar to the perimeter dam/lake concept with just a few key differences. First, this concept will preserve about 70% of the existing Sea at or about 52 PPT for as long as we choose to sustain 800,000 acer feet per year of 4 PPT drainage and 500,000

acer feet per year of imported sea water. All of these inputs **must enter the main Sea body first** and then "selectively" moved into the salt sinks for this to occur.
In order to accomplish we will again use modern dredging technology to move large amounts of silts and sand at a low cost.

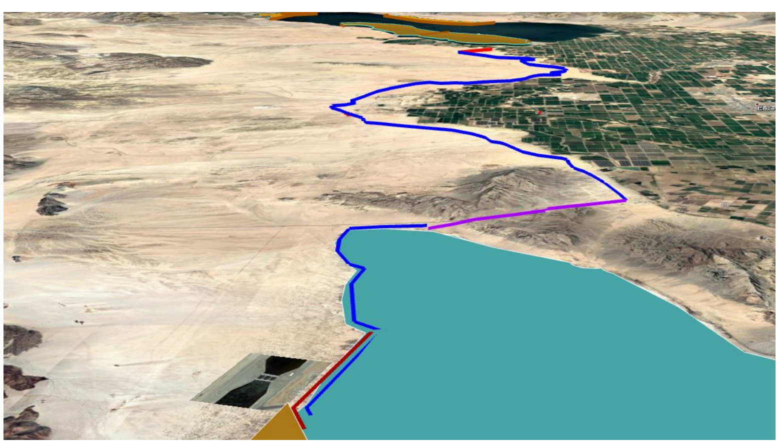
Means of conveyance (Getting Sea water to the Salton Sea)



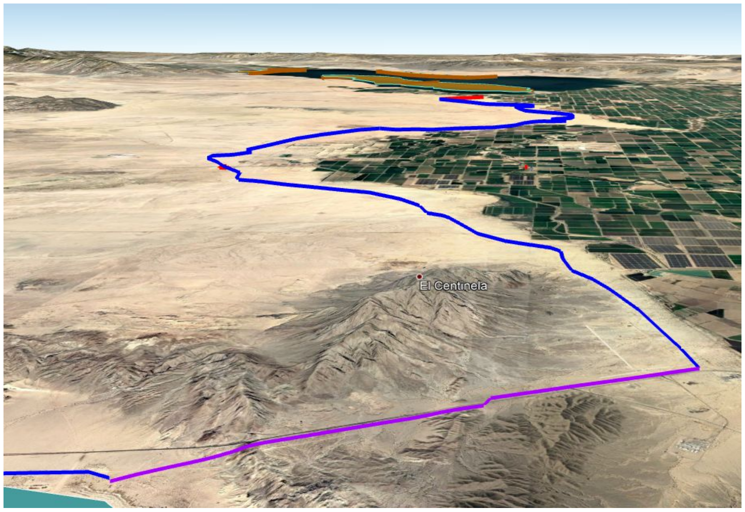
The canal canal used to convey water to the Salton Sea will start in the Southern third of Laguna Salada. Water in the main body of Laguna Salada will move far too slowly to the North to preserve the low salinity waters 37-38 PPT that will exist in the Southern portion of Laguna Salada. The flow rate of this conveyance system will be about 3.5 feet per second



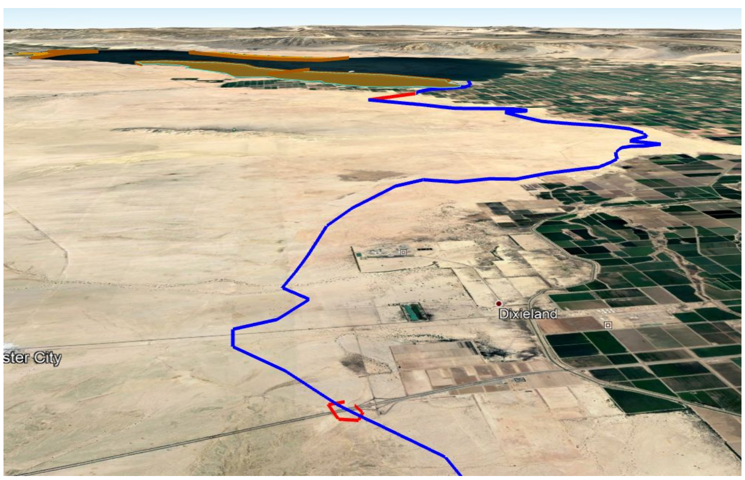
This is a cross section of the interior canal system.



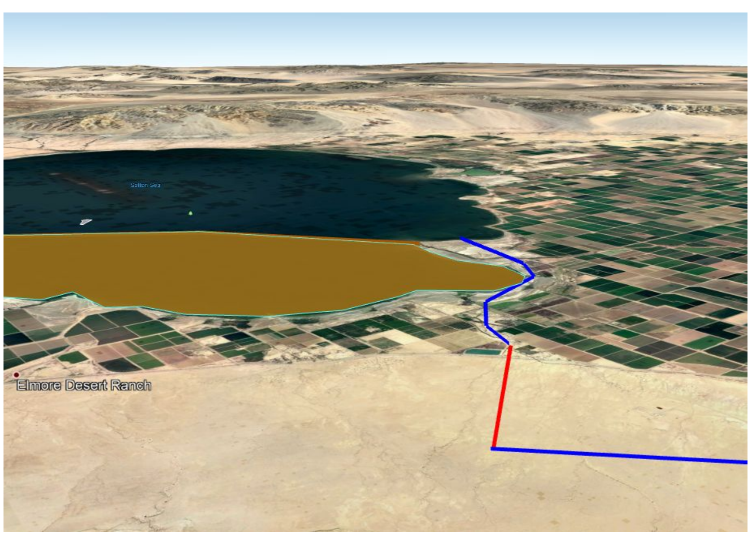
This image shows the general course of the Pipeline(in purple) and the Salton Sea Canal (in bark blue).



This is a tighter image showing the alignment of the pipeline and canal.

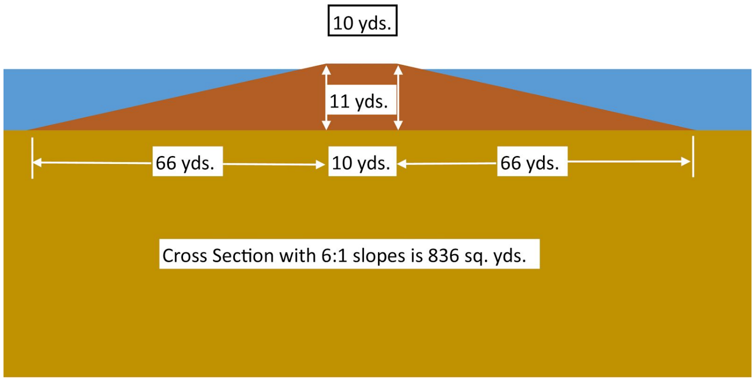


One reason for the selection of this alignment is the reduced number of existing infrastructure crossings. We will have several such crossings, but this alignment gives of lots of room to work and provides options in how we achieve/construct these crossings.

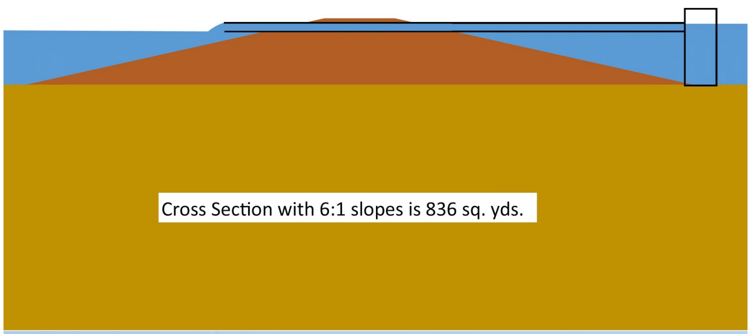


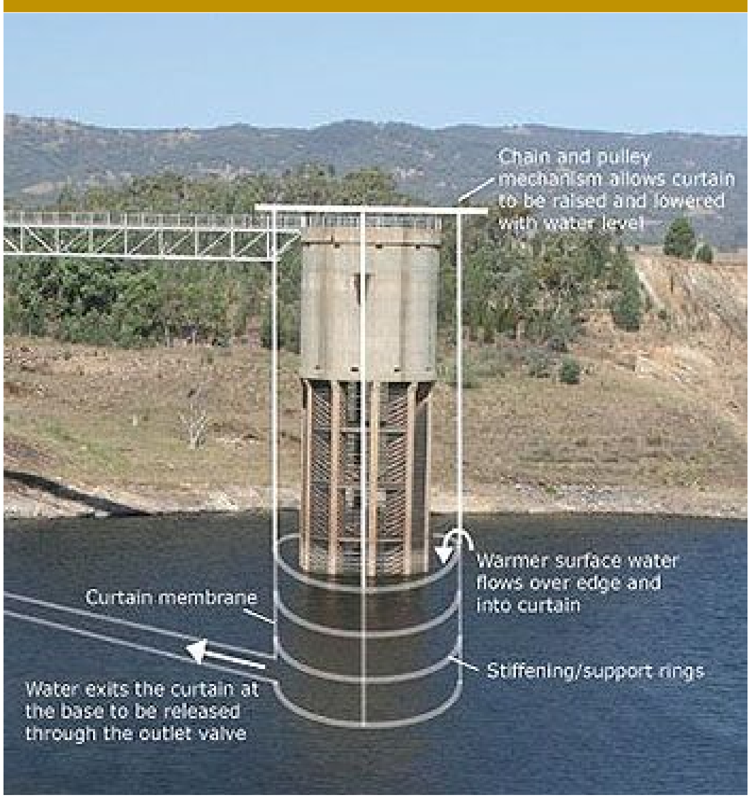
In close proximity to the Salton Sea, this alignment provides the opportunity for the installation of more pipeline leading through an elevation drop of about 200 feet. Placing a generation station at the bottom of this drop should provide sufficient electrical power to run the entire project. We should even have some to spare.

The Salinity Solution (In Sea Dam System)



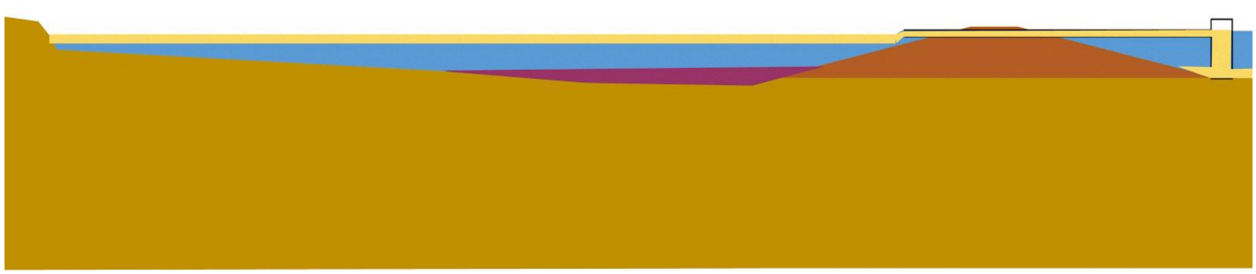
The image to the left depicts a massive structure. Here we will dredge the surrounding sea floor to produce an “in Sea” berm or dam about 33 feet tall. The slopes of this dam will be 6:1 to ensure stability. It turns out that the cost of building this type of structure is far less than building the long existing concepts of a perimeter dam.



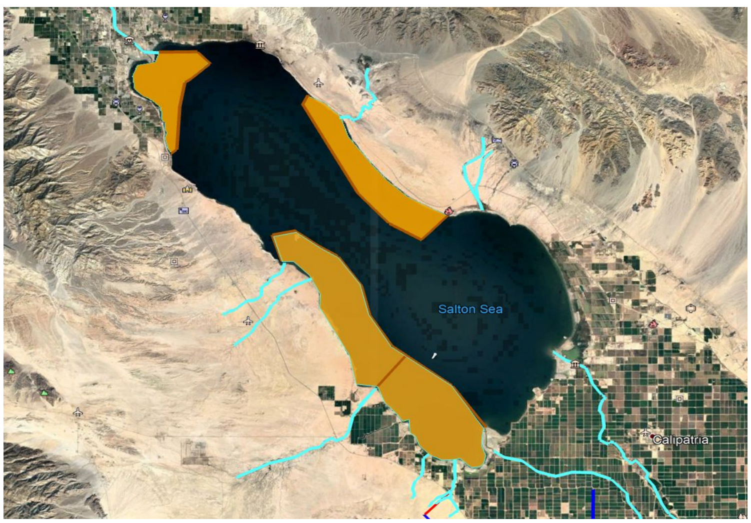


Furthermore, the addition of fairly typical “dam intake structures” to move Salton Sea bottom waters to the top of the “salt sink areas” establishes a circulation system in the vertical plane. Relative to these water intake towers, water intakes can be located at or near the deepest locations of the Salton Sea. The process of adding all 1.3 million acre feet of inputs into the main body of the remaining Sea would result in a net average of inputs of about 16 PPT. The process of slowly exporting bottom waters from this main body into the salt sink areas will likely increase the “stratification” of salinity within the salton Sea. For example, the top 10 feet of the sea may settle out to a salinity level near that of typical seawater near 37 PPT. Below this, the salt gradient should increase to 50-55 PPT over the additional depth. The greater the salt content of water, the greater its density.

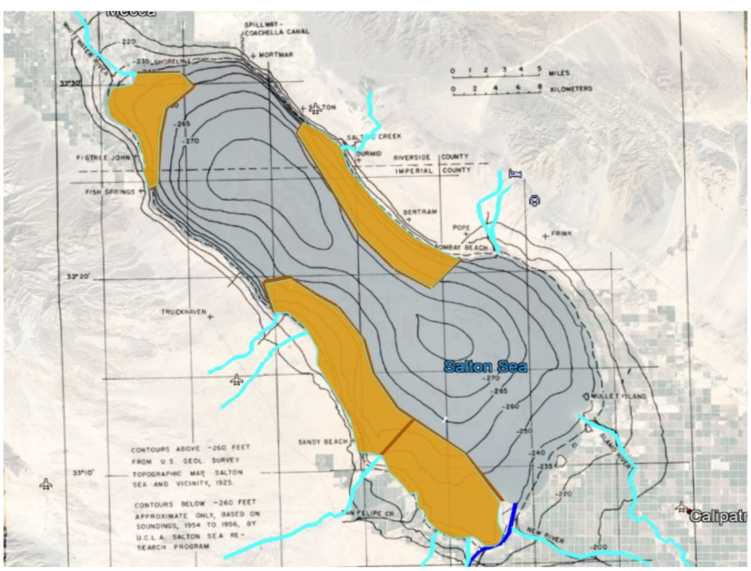
Most of you know that it is relatively easy to create a salt water density tower. In the image to the left the blue dyed area of the test tube has the highest salt content and the red has the least. This type of stratification is easiest to create and maintain in the absence of forces other than gravity that tend to mix the stratified levels. In the case of the Salton Sea, the primary mixing force is and would be wind blowing across a massive surface area. Reducing the surface area of the main sea body (to about 70% of current surface area) will increase the depth to surface area ratio. This in combination with a slow and steady introduction of less saline waters (1.3 million acer feet per year of 16 PPT water) and the removal of 30% of total Salton Sea evaporation (about 390,000 acre feet per year at about 50-55 PPT from the deeper sections of the main body to the surface of the salt sinks) will tend to increase the stratification within the the Salt Sinks and main body of the sea. In reality, the greater the stratification becomes, the more efficient the process will be. In the image below, the salt water density tower for one of the saly sinks is shown. The yellow represents the 50 to 55 PPT water removed from the bottom portions of the Salton Sea. The purple area at the bottom will be the first body of water to reach "hypersalinity" of about 350 PPT. As the salt sinks now become the "terminal" lakes and will evaporate about 390,000 acre feet of water per year, the main body of the lake will receive 1.3 Million acre feet of water per year with an average Salinity of about 16 PPT and will evaporate about 910,000 acre feet per year. 390.000 acer feet with salinity levels in the low to mid 50 PPT's will move from the bottom of the main body to the top of the Salt Sinks as shown in the image below.



In the past, inputs into the Salton Sea roughly balanced with evaporation from the Salton Sea with both being about 1.3 million acre feet per year. These flows were sufficient to sustain the “Sea level”. However, over several decades these consistent flows deposited large amounts of salt and nutrients into the Sea. By itself and without reductions of inputs, the aquatic environment has been doomed to “failure” for some time. In the near future, these inputs are likely to be reduced to 800,000 acre feet per year. The concept of replacing 500,000 acre feet of 4 to 4.5 Parts Per Thousand (PPT) with 500,000 acre feet of ocean water at about 37 PPT has been gaining in popularity and solves the issue of exposed plia. By itself, nothing about the concept would lead to a smaller but sustainable Salton Sea. This circumstance had led to the concept of the perimeter lake and large central salt sink.



An embodiment of the proposed salinity solution is shown in the image to the left.



He is the same image with a rough depth chart for the Salton Sea inserted. Better TOPO information on land and depth information in the Sea will help us refine grading/dredging quantities.

Section 5 - Plan for funding of proposed project

Funding should come from the State of California due to the Quantification Settlement Agreement (QSA). Private investors and philanthropy organizations could also participate in the project due to Return on Investment (ROI) but primary funding need to be provided by local, state and federal municipalities due to the scale of the project and the magnitude of the the hazardous consequences of inaction. The projects success will depend on the State of California Issuing several rounds of Requests for Proposals (RFP's) and Requests for Qualifications (RFQ's) since the current Request for Information (RFI) is short sighted in its assumption that a single organization, company, team, partnership or municipality can solve an issue of this magnitude with a singular solution.

The Complexity of the multifaceted issues will need a multifaceted dynamic and evolving platform of collaboration of all stakeholders to address the issue. We suggest the funding comes in phases to attain the small scale high yielding phase 1 effort of Laguna Salada Restoration with the widening and deepening of the Coyote Canal /River as a viable phase 1 approach to initiate the larger restoration efforts and provide a viable alternative while the longer term lengthy cross border water transfer Salton Sea connections are in permitting process.

Section 6 - Diagrams & Exhibits:

Exhibit A: *Laguna Salada & Salton Sea Restoration Project*

Exhibit B: *Science, Education and Cultural Pilot Project*

Exhibit C: *Integrated Seawater Agriculture Demonstration Project (100 acres)*

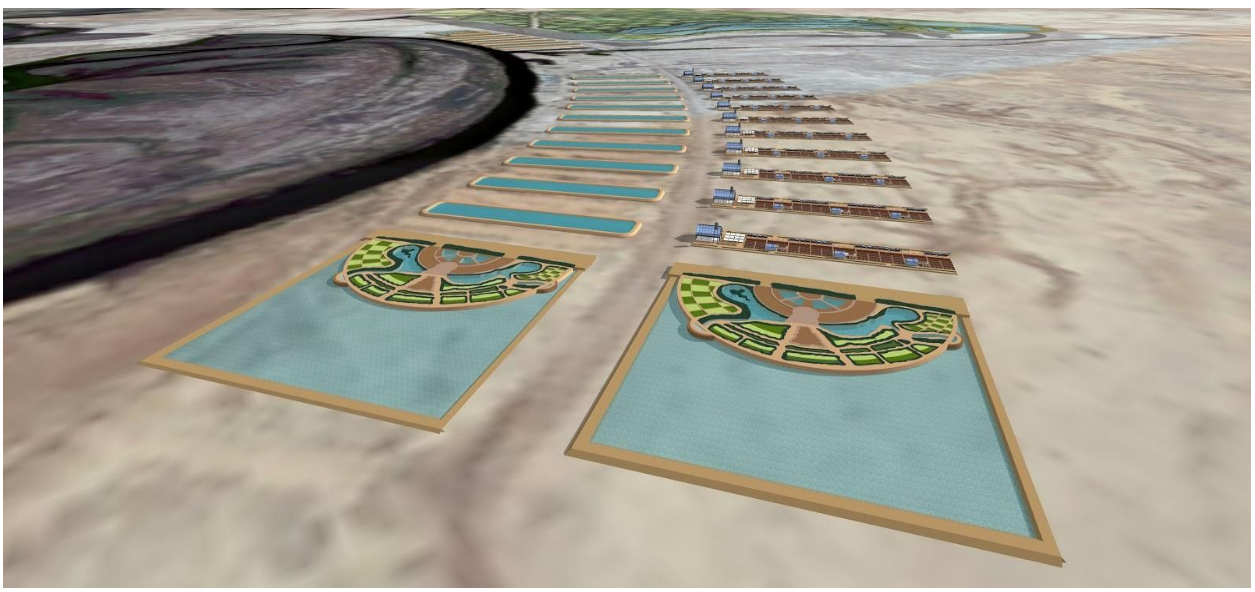


Exhibit D: *Lagunas Cucapah - Seawater Farming Expansion (100,000 acres)*

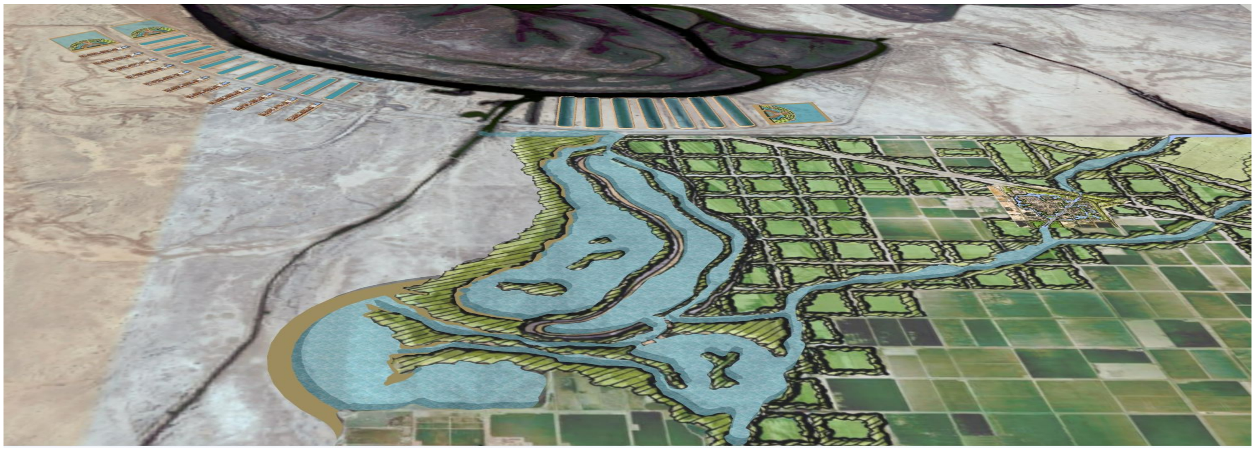


Exhibit F: *Refilling Laguna Salada*

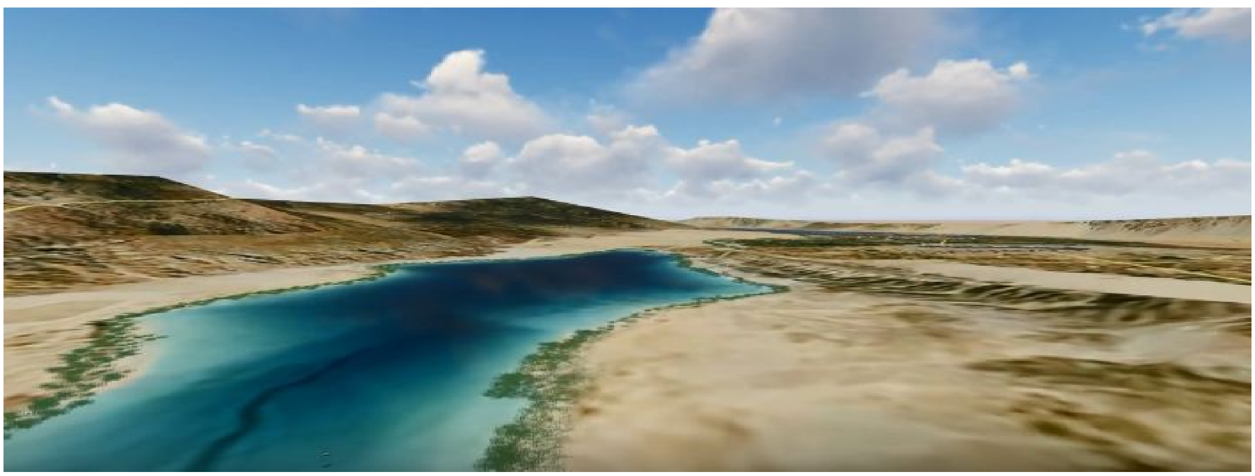


Exhibit G: *Salton Sea River & Seawater Farms*

Section 7 - Options and Cost variables

Section 7A - Lining the Salton Sea Canal

The largest cost variable/option not included in the budget developed above is the question of lining all or a portion of the canal from the mexicali region to the Salton Sea. For the moment let's call this the Salton Sea canal. Primary questions around this issue focus on losses due to percolation and the impact of such percolation on local groundwater. Considering the location of the canal and existing groundwater conditions, it is highly likely that no, or extremely limited lining will be physically required.

Without the benefit of engineered drawings to quantify materials it is difficult to estimate such a project on a time and materials basis. Fortunately, we have the recent completion of the lining project for the All American Canal to use as a reference.

In the image to the left, the lined portion of the All American Canal is shown in Red and the unlined portion in Dark Blue. The Red portion extends for a bit more than 26 miles. Measuring the lined portion on Google Earth provides a length of 41,528 lineal yards. It is important to note that the flowline elevation at the start of the lined portion is about **165 feet** and the end elevation about **105 feet**. In the image, you can also see a clear delineation as to where the Sand dunes start. In short, this the lined portion of the All American Canal in at a higher elevation and runs through more permeable soils than the unlined portion. This canal also has a far larger cross section and wetted area than the intended Salton Sea Canal. The flowline elevation for the Salton Sea Canal (Dark Blue line in the far left of the image) will start at about 40 feet above sea level and fall to about -40 feet (40 below sea level). Soils in this area are likely to have far more fine grained inclusions and be less permeable.

The known cost of lining this portion was $200 million and it saved about 67,000 acre feet of water per year previously lost to percolation. This makes the average cost per lineal yard to line this large canal about **$4,816 per lineal yard.** The cross section of the far smaller Salton Sea Canal will require less than half the concrete and steel on a "per lineal yard" basis. This leads to a conceptual cost of lining any portion of the Salton Sea canal of about **$2,400 per lineal yard**. The Salton Sea Canal will have a full length of about 76,989 yards. A rough cost for lining the entire length of this canal would be about $184,772,800. It is likely that we will need to line less than half of the canal's length Therefore, I would suggest that when considering the cost of lining this canal we do not need to look at lining the full length and the cost of this option should be closer to the $90 to $100 million range.

Section 7B -Other Options

The estimates outlined above and throughout this document are limited to the basic infrastructure to flood Laguna Salada and provide 765,000 acre feet per year of Salton Sea imports. The system is designed to utilize 800,000 acre feet of existing Salton Sea inputs with salinity levels of 4-4.5 PPT and 500,000 acre feet per year seawater imports with salinity levels of about 37-38 PPT. This of course provides sufficient water to maintain the historic sea level and evaporation of 1.3 million acre feet per year. With these inputs, the system describe will sequester Salt and other dissolved solids from the Salton Sea into the Salt Sinks at a sufficient rate to maintain salinity levels in the main body of the Sea at or about 52-53 PPT with total dissolved solids only slightly higher than that. At these rates, the Salt Sinks will have sufficient storage to allow the system to operate for several thousand years without interruption.

This leaves a 265,000 acre foot per year "over capacity". This over capacity is designed to provide the flexibility to quickly refill the Sea and provide sufficient water for other beneficial uses. These other uses may include the following:

- Vertical Tube Evaporator Multi-Effect Distillation (VTE-MED)
- Possible increases to conserve and transfer operations (this is not recommended)
- Pumped Hydroelectric Storage (PHES) projects.
- Additional areas dedicated to salt water farming.
- Additional saltwater wetlands
- A saltwater "water park".

I am sure there are other possible uses and we could consider a 1 million acre foot per year option. This however leads into the arguments made by those who are opposed to the import of saltwater to begin with. We do need to consider that the import of saltwater means the import of large amounts of salt into a region that has a salt issue to begin with.

Section 8 - References and Supporting Data

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Section 9 - Letter(s) of Support

COMUNIDAD INDIGENA CUCUAPAH

EL MAYOR

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MR. Nathan White
CEO AGEES
P R E S E N T E

Dear
As it is of your knowledge, our tribe is excited and at the same time, dismayed, excited to be the central artifices in the support to stop an environmental catastrophe, which sooner or later will affect us in great measure, on both sides of the border, we are with the intention of supporting and favoring projects immediately, to analyze and build themes that favor the solutions of the Salton Sea restoration.

Therefore, we extend an invitation to work on the development of projects and opportunities to speed up the attention to the problem. I send you a warm greeting.
Asunto

____
Lic. Juan Gonzalo Moreno Márquez.
Presidente del Comisariado
Comunidad Indígena Cucapa El Mayor.

Comunidad Indígena Cucapah El Mayor a los 29 días del mes de Enero de 2018.