Tres Lagunas
(R.E.S.T.O.R.E.)

Regional. Environmental. Stabilization.
and Transition. to Operational.
Restoration. Efforts.
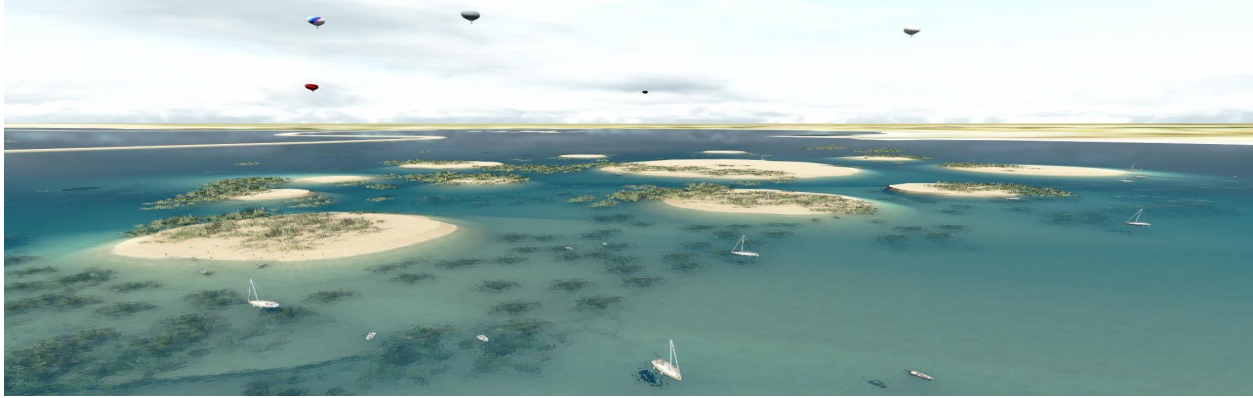
Introduction - Agess, Inc and it's partners are developing "Tres Lagunas" through a holistic plan that addresses needs of the region through development of sustained water resources, green energy, and economic development. The Southwestern region of the United States and Mexico are suffering from long term drought, water resources are strained, air pollution, and higher risk from wildfires due to stresses placed on the system from climate change and population growth. This economic, energy and environmental project is a global restoration template with seawater.

Why Here Why Now - We have researched, identified and engineered low cost solutions to improve, enhance and extend the natural occurring monsoon cycle. This project will bring the waters of the Gulf of California to within six miles of our Southern California border. It will fully restore Laguna Salada and the protected habitat of the Colorado River Delta. The process will use the naturally occurring hot dry winds to evaporate / desalinate massive amounts of water and move it into the Colorado River Basin. This project will then be extended to restore the Salton Sea and fully mitigate toxic dust from the exposed playa. Tres Lagunas will create;

1. *Mitigation of all fugitive toxic dust and exposed playa* in the Salton Sea region.

2. *New sustainable fresh water resources* for Salton Sea Agricultural Producers.

3. *Earlier, more frequent and enhanced "Arizona Monsoon"* seasons will be possible when we provide additional evaporation wetland habitat along with restored Laguna Salada and Salton Sea. (David L. Mitchell *and* Dorothea Ivanova*, Desert Research Institute, Reno, Nevada.*

4. *Enhanced liveable and recreation aquatic environment* in about 65% of the existing Salton Sea surface area. This will include the deeper portions of the sea so the ratio of aquatic environment volume will be larger along with the entirety of Laguna Salada.

5. *Moderate the local climate* through stable water levels in Salton Sea and Laguna Salada. Summer days will be cooler and winter nights will be warmer.

6. *More water for upper elevation water banks* through stable water levels in Salton Sea and Laguna Salada will increase evaporative water volumes for 40 million people.

7. *Reduction in Fire Risk for the State of California* as evapotranspiration has been shown to be a key factor in Fire Risk Assessments reducing regional temperature rise and drought while increasing air moisture content can ensure forests survive and thrive.

8. *Expanded aquatic environment* in the Colorado River Delta / Estuary while creating aquatic environment in Laguna Salada which can provide a safe haven for the Vaquita.

9. *Sufficient water quality to maintain large scale commercial fisheries* in Laguna Salada and the Delta including the highly valued Totoaba can flourish by reducing salinity.

10. *Opportunities for large scale Seawater Farming* with Integrated Seawater Agriculture.

11. *Long term regional Green Energy industry* through Multitech plastic to energy/fuel conversion facility we can construct on both sides of the border to fuel construction fleet.

12. *Opportunities for Pumped Hydroelectric Storage facilities (PHES)* created by flooding Laguna Salada and the Salton Sea with many union jobs in construction along with O&M.
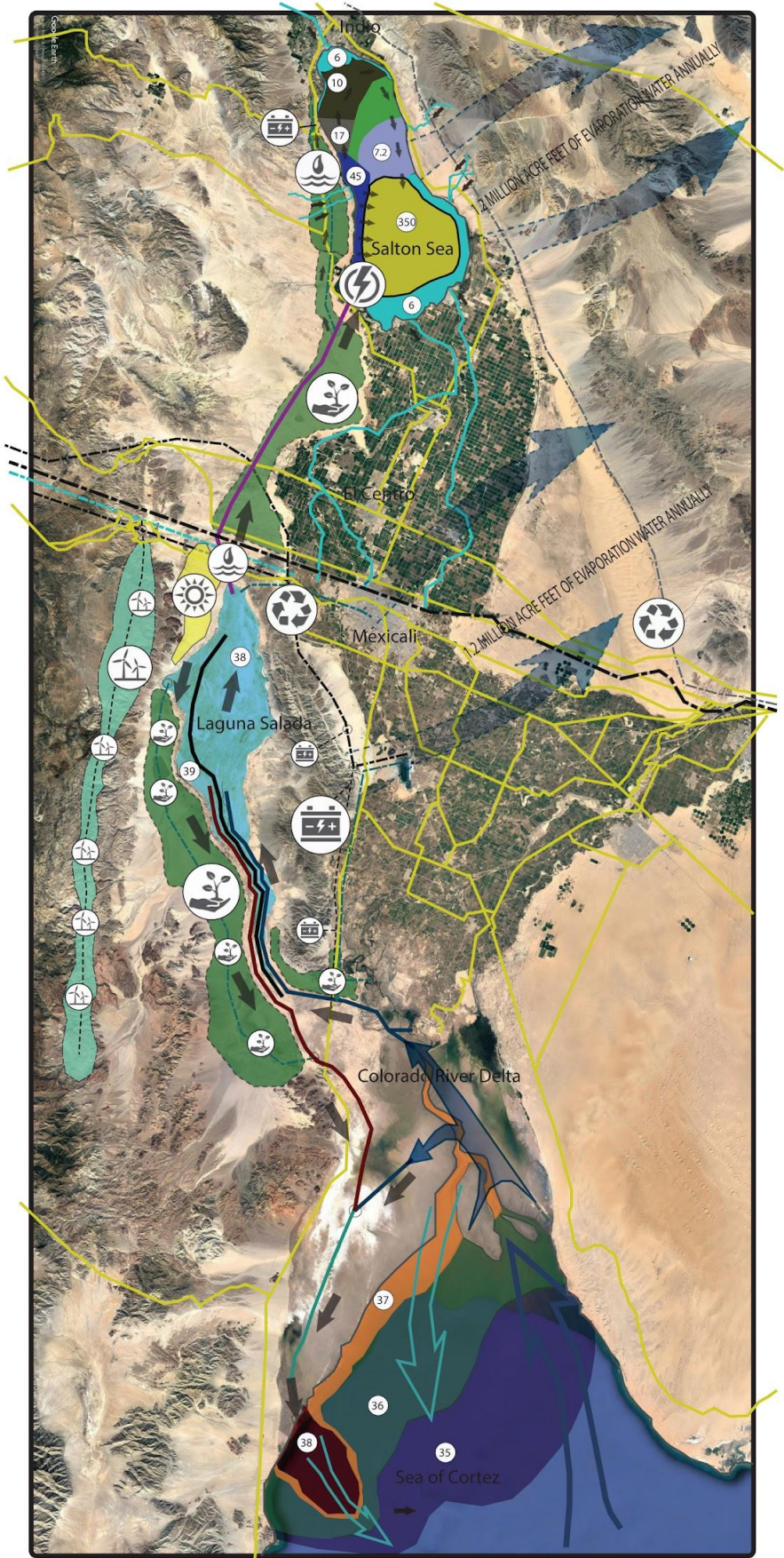
North Lake Alternative and Constructed Islands
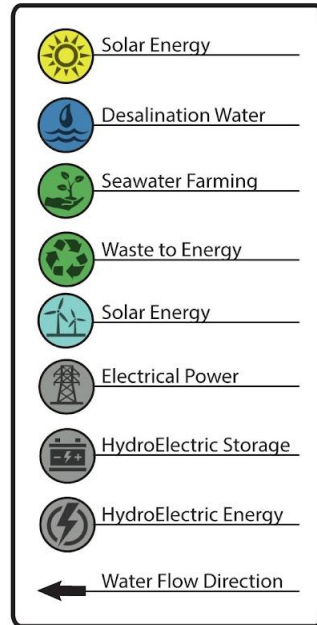
Tres Lagunas Developments Phases -

- ***Salton Sea:*** Restore the Salton Sea to neutralize toxic fugitive dust pollution and rising temperatures, rejuvenate the natural ecosystem through salinity and pollution reduction, and generate water for California's upper elevation water banks. Agess and it's partners will do this by importing circulated ocean water from Laguna Salada, develop new sustainable freshwater resources on the south western end of the Salton Sea, implement phytoremediation programs, generate a perimeter lake and circulation system, and develop multitech conversion facility creating hundreds of union jobs to build / operate.

- ***Laguna Salada:*** Restoration to help support the natural process of the sustainable inland sea and to maintain a year round water supply with connectivity. The program will provide for development of an upper elevation water portfolio. It will support a Blue Economy development with critical marine species spawning grounds through infrastructure development, water recirculation, and management.

- ***Golfo de California:*** Rejuvenate the Gulf of California to support important critical breeding grounds and estuaries by maintaining water flow and connectivity to Laguna Salada reducing salinity stress through circulating ocean water. This region is critical habitat for a plethora of species including; the 4800 intertidal invertebrate species (Brusca CR, 1980), 875 fish species (Findley LT, et al 1996), five species of sea turtles, at least 17 species of seabirds (DeWeese LR et al 1976 and Velarde E et al 1998), large populations of about 40% of the known species of cetaceans (Vidal et al 1993), and over 40 sea lion colonies (Aurioles-Gamboa D et al, 1994). Totoaba and Vaquita are extremely endangered and will benefit from these restoration efforts with expanded habitat.

Anticipated Costs - The total development cost of this pilot project is in the range of +/- 1 billion US dollars and can generate 2.0 -2.4 million acre feet of evaporation water annually in perpetuity with +/- 500 thousand acre feet of water able to flow in the Colorado River. The potential revenue could be 500 million US dollars annually. Annual cost of inaction on climate change estimated at 1.3 trillion. The cost of inaction at the Salton Sea could cost 30-70 billion US dollars. Animation - https://youtu.be/BAat5V35Z7Q

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Partners Index

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PPCU
Bring Back The Blue
Floating Islands West
CCG