

# **California Water Commission**

## ***New and Unforeseen Opportunities at the Salton Sea***

**March 19, 2014**

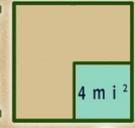


# Status of the Salton Sea

- **Eco Status Quo: decline**
  - North America's largest and most diverse migratory bird habitat outside the Everglades
  - Salinity 1.5 x ocean
  - Algae blooms in Sea occasionally kill fish
  - Water transfers in 2017: reduced inflow
  - Less inflow: shoreline will shrink
  - Exposure of nearly 100 sq miles of playa
  - Air quality decline: odors and dust

# salton sea

16 sq mi



- Geothermal
- Solar
- Solar Ponds
- Biodiesel
- Hydro Power

Riverside County  
Imperial County



... a new vision

# Desired Outcomes

## ■ Healthy environment

- Healthy marine habitat on smaller Sea
- Fish to feed migratory birds
- Cleaner water, cleaner air

## ■ Economic revival

- Renewable energy development
- Property value improvement
- Recreation – boating, fishing

# Historic MOU to Save the Salton Sea

October 24, 2013

Photo courtesy of Tetra Tech



# Local consensus on SSA Plan

## ■ Unity

- Vision, Guiding Principles and Priorities
- Legislative Platform
- Salton Sea Renewable Energy Initiative

## ■ Immediate action to save habitat

## ■ Identify & evaluate local resources

## ■ Define sustainability : Finances

## ■ Integrate Economics & Ecology

# Solution-oriented stakeholders are at the table



# 2014 Strategic Goals

## ■ Local

- Salton Sea Renewable Energy Initiative
- Opportunities/Constraints
- Infrastructure Finance District

## ■ State

- Financial Feasibility Action Plan
- Water Bond

## ■ Federal

- Approps
- Activate working MOU

# SSA Policy Principles

- Local Leadership
- Multiple benefits for extreme needs
  - ECONOMY - Creating new jobs in areas with highest unemployment
  - ENVIRONMENT – Mitigate suffering from worst environmental and human health degradation
- Integrate Funding to restore the Sea
  - Support cooperative ventures
  - Oppose extraction without remuneration

# Existing: Local resources poised for impact

- **Local agency commitments to Salton Sea Restoration Fund**
  - \$133 million for mitigation
  - Already contributed \$30 million
- **State is legally responsible for restoration, therefore it controls this Fund**

# Emerging: Economic Development = Sea Restoration

## ■ Salton Sea Renewable Energy Initiative

- Up to \$4 Billion in royalties \*
- Need customers
- Need transmission

\* Financial Feasibility work is required to accurately gauge potential. Analysis and update will cost approximately \$2 Million (state responsibility under QSA legislation)

# Local leadership: Self help

- **Infrastructure Finance District**
  - Up to \$1.1 B local funding
  - Source: Local Property tax share
  - Requires property owners 2/3 vote
- **Reso set for SSA Board approval**

# Local cooperation on DRECP

- **Riverside and Imperial Counties**
  - State -- CEC, CPUC, Ca Dept F&W
  - Fed - BLM, US F&W,
- **Deliverable: Opportunities & Constraints Map**

# State and Federal focus: Action



# State Actions

- \$3 M FAP (habitat)
- \$2 M Financial Feasibility Action Plan
- AB 71 (Perez) = stronger local role





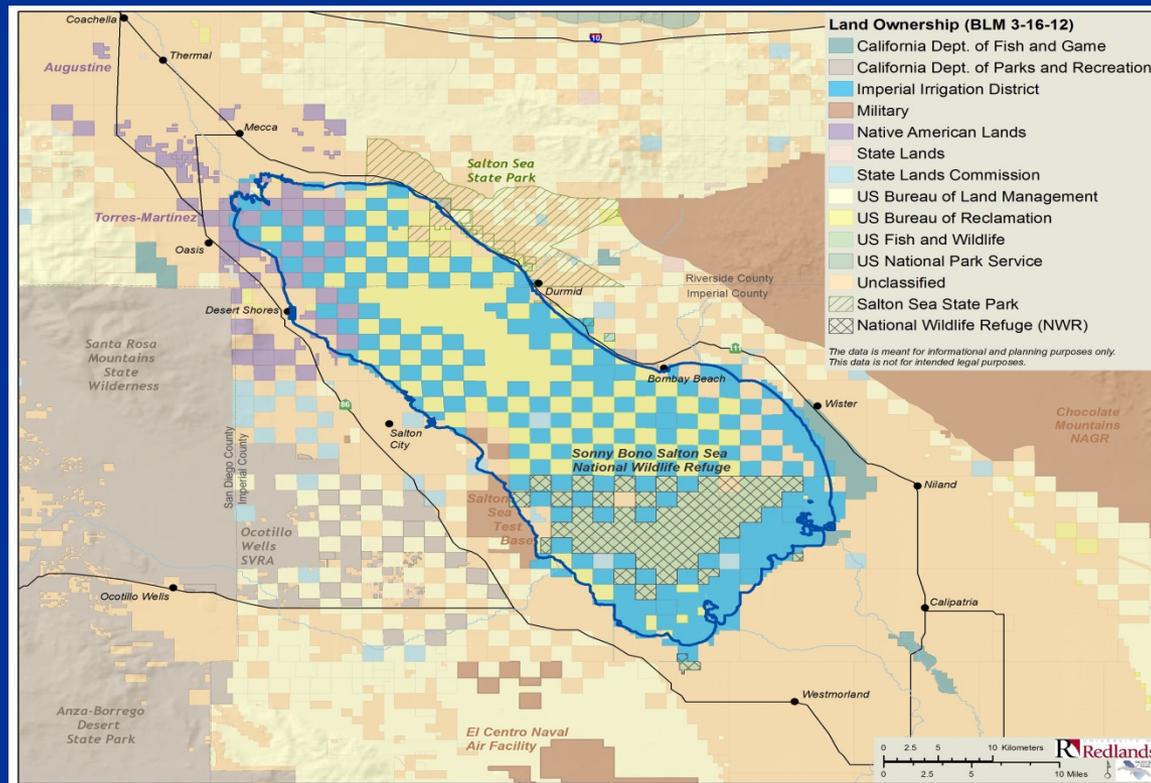
# State Water Bond

## ■ SSA GUIDING PRINCIPLES:

- STATE STATUTORY OBLIGATIONS FOR MITIGATION AND ENVIRONMENTAL RESTORATION
- DELIVER MULTIPLE BENEFITS
- PRESERVE LOCAL CONTROL: ASSERT LEADERSHIP
- PROMOTE FISCAL STABILITY

# Federal – SSA MOU

- Feds are major landowners, potentially liable for dust impacts as Sea recedes



# Federal actions

- **\$30 million Authorized**
- **ACOE now includes Sea in work plan**
- **DOI signed MOU with SSA**



# Projects Not Studies

- **Pilot projects**
  - In-Sea Levees
  - Air Quality
  - Water Quality
  - Renewable Energy

# Time for Action

- Evaluate P-3 options
- Update cost assumptions of PEIR
- Establish realistic funding parameters
- Redefine the locally preferred plan within these parameters

# **New Local Economy = New Hope for Sea**

- **Transform Sea from “waste” to “resource”**
- **Environmental Stability sustained through Econ Development**

# America's Renewable Energy Powerhouse

- **GEOHERMAL**
- **MINERAL EXTRACTION**
- **SOLAR**
- **BIOFUELS**

# GEO THERMAL

- 2000 MW capacity
- Reliable 24-7 baseload power
- 2500 permanent jobs



# MINERAL EXTRACTION

- Global demand: 300,000 tons annually by 2020.
- High-purity, battery-grade lithium: \$6K to \$7K /ton
- Salton Sea supplies estimated to be capable of meeting entire world demand -- \$2 Billion annually.

# Lithium boom at the Salton Sea

***“Startup in California plans to capture Lithium, and market share”***

-- New York Times

***“Salton Sea could be source of Lithium riches for US”***

-- Fast Company

***“Geothermal Power Plants Could Help Produce Lithium for Electric Cars”***

-- Scientific American

***“Clean mining technique pulls key metals out of water”***

-- MSNBC

***“Lithium boom spurs production from California Brine: Commodities”***

-- Bloomberg

# SOLAR

- Intense and reliable sunshine
- Lakebed potentially available
  - Adjacent to existing power grid
  - Air quality benefit
  - Extreme operating conditions to be evaluated

# Waste to Resource: BIOFUEL

Abundant Algae

+ Biosolids disposal

+ Landfill capacity (Green Waste)

+ AQ issues (Diesel emissions/Dust):

= Water Quality bio-remediation

= Biofuels & potential revenue stream

# Waste to Resource: Salt Management

Abundant Salt

+ Abundant Solar

+ Dust mitigation

+ Renewable Energy :

**= Solar Gradient Ponds**

# Economic Development plan

- **Stabilize Habitat**
- **Determine Financial Feasibility**
- **Creating certainty for market**
- **Develop local financial resources in a manner that integrates environmental restoration**



# Questions & Discussion

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