

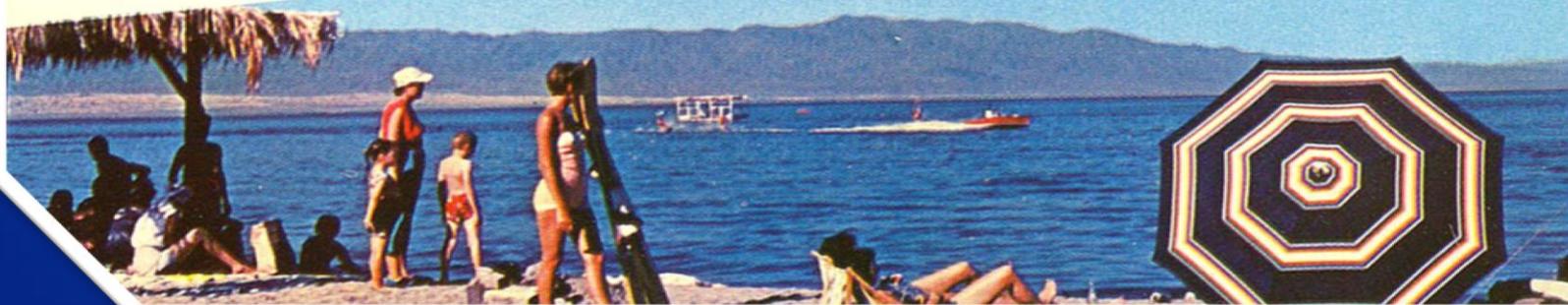
RECLAMATION

Managing Water in the West



Greetings from

Salton Sea
Desert Shores



U.S. Department of the Interior
Bureau of Reclamation

Salton Sea Importance

Native American Trust Lands

Agricultural production and permanent repository for agricultural drainage water

Regional water security

Energy opportunities

Recreation/Socio-economic Opportunities

Human Health & Air Quality

Bird diversity 2nd in North America (+400 species)

~ 20 species of Conservation Concern





GARDILLA HOUSE IN THE DESERT



Scale of Miles



Sources: Bureau of Indian Affairs
Bureau of Land Management
Ron Goode, Chairman, North Fork Mono Tribe
Jared Aldern, Ph.D., Prescott College
Alfred Kroeber, Culture Area Map (1925)

Disclaimer: This constitutes a representation of the general distribution and location of Indian Land in the State. It does not purport to address questions of boundary or area. It is to be used on an "as-is" basis as no liability for damages arising from errors or omissions is assumed. This map of Tribal Homelands is based on available ethnographic and historical data, and the tribal or cultural areas shown are comprised of multiple, independent social and political groups. This map is a work in progress that consists of the identification of boundaries, cultural areas, tribal identities, and tribal lands.



California Indian Tribal Homelands and Trust Land Map

Surrounded by nearly half a million acres of agricultural land. Water from this land runs off into the Sea.

For 2016, agriculture contributed \$4.5B to Imperial County economy and supported 24,429 jobs (Crop Report PLUS Series, Dec. 2017)

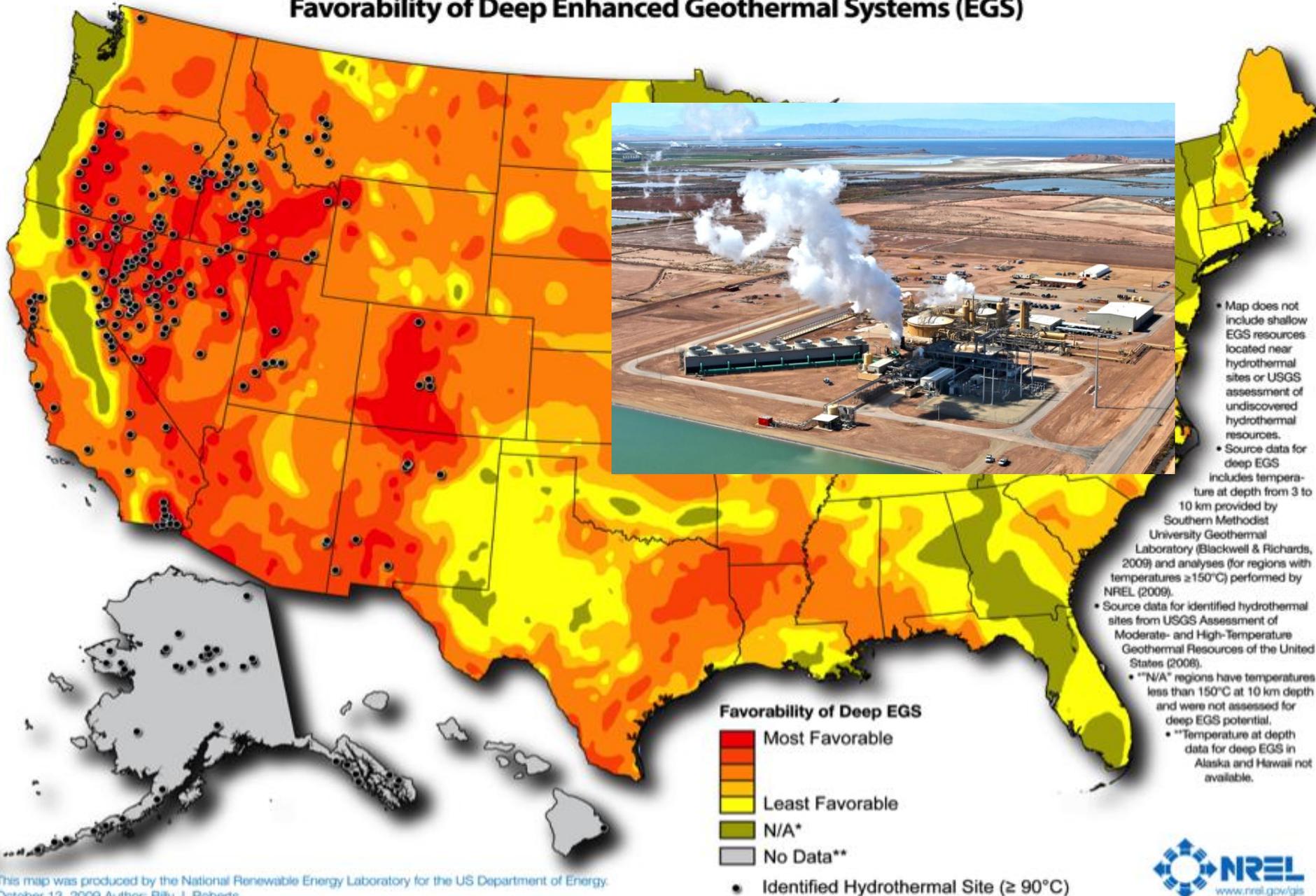


QSA-RELATED WATER TRANSFERS



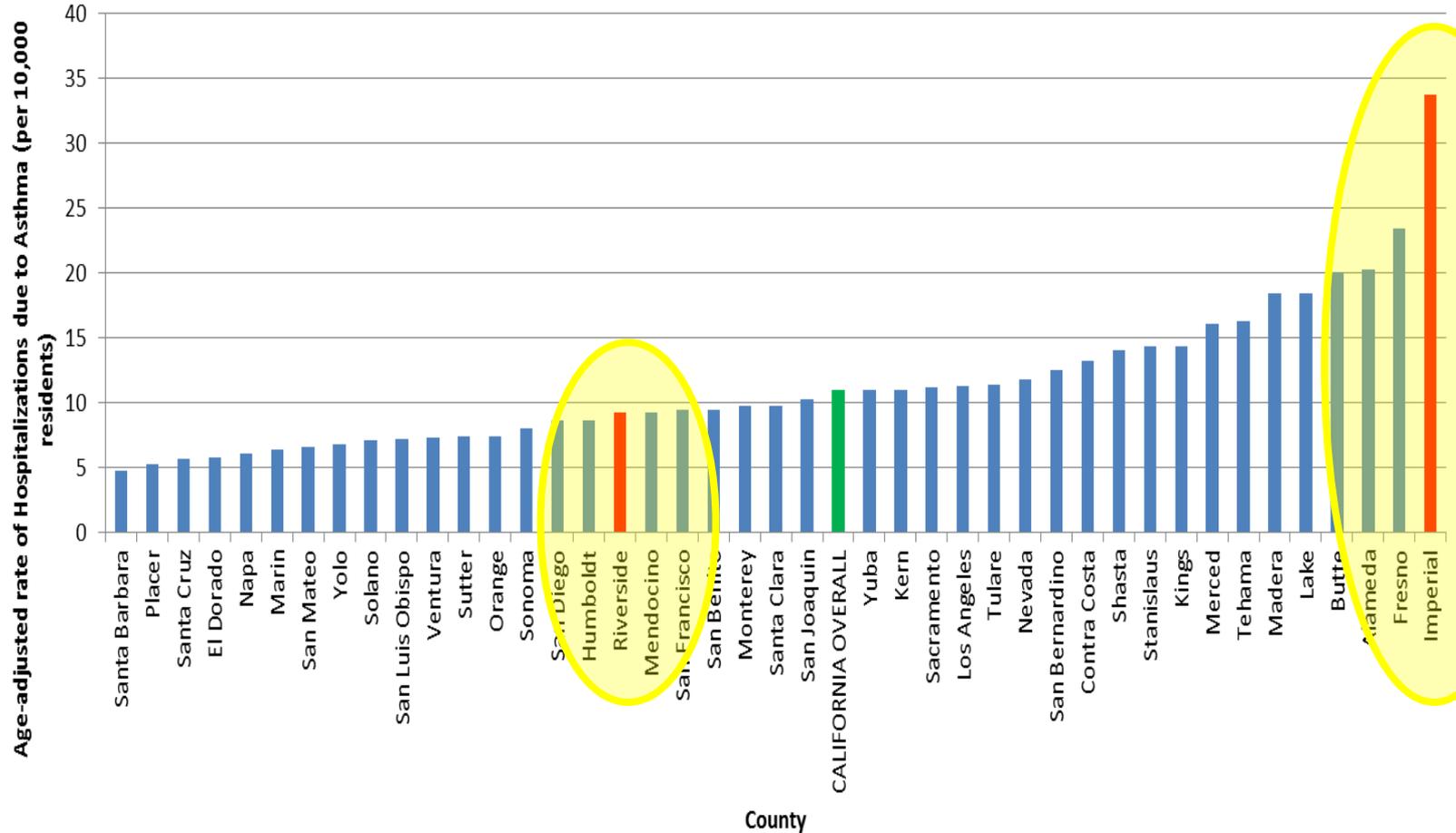
Geothermal Resource of the United States

Locations of Identified Hydrothermal Sites and Favorability of Deep Enhanced Geothermal Systems (EGS)





California Childhood Asthma Hospitalizations in 2010



California county listing for childhood asthma hospitalizations 2010
 Riverside and Imperial County marked in red
 (Salton Sea straddles both counties)

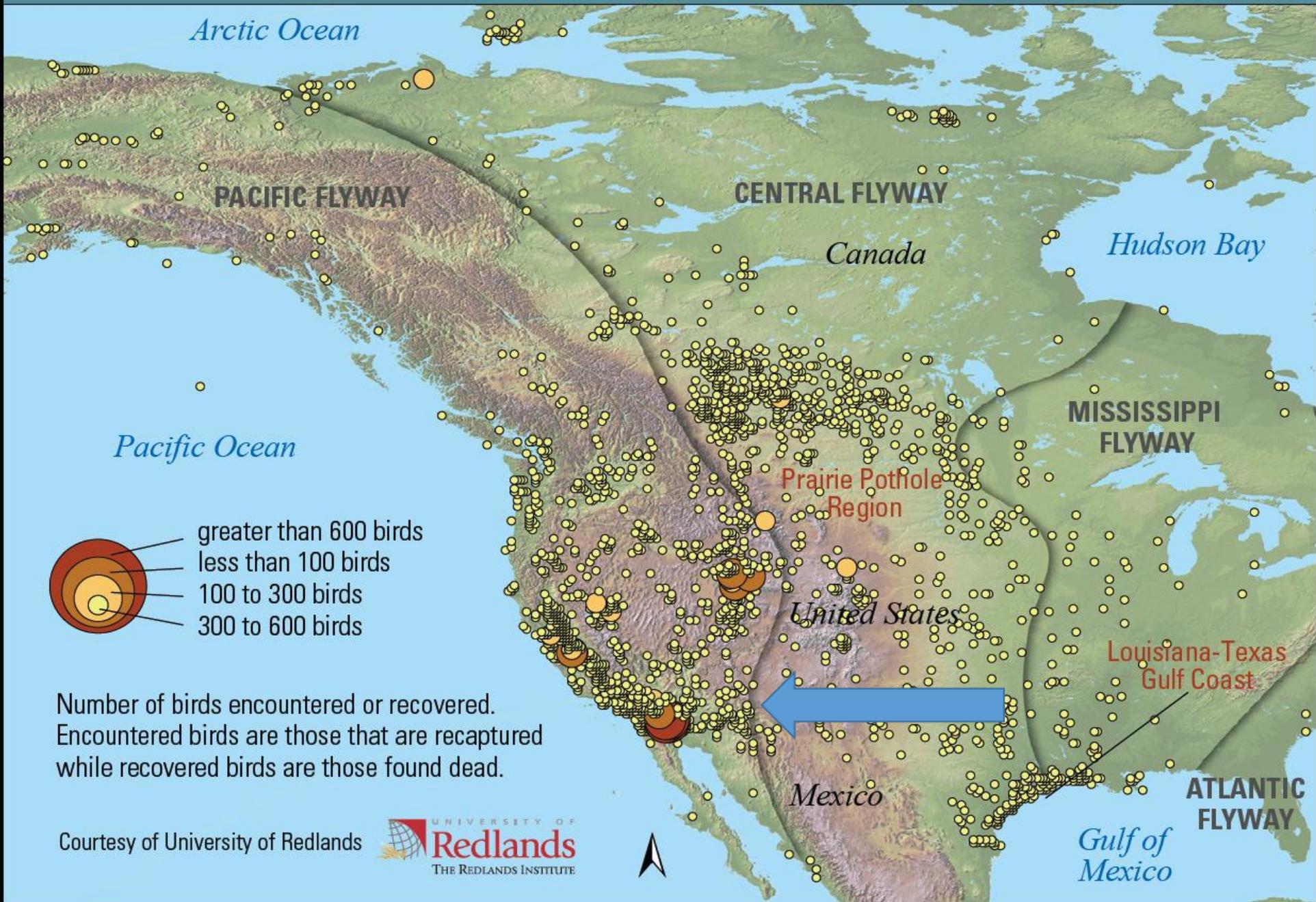


Coachella and Imperial ‘serious non-attainment areas’ for PM10 (about 261 tons/day in basin)

- **26.5 sq. miles of lakebed exposed by 2018**
- **~ 134 sq. miles of lakebed exposed by 2036**
- **Potential for additional 86 tons/day of PM10**

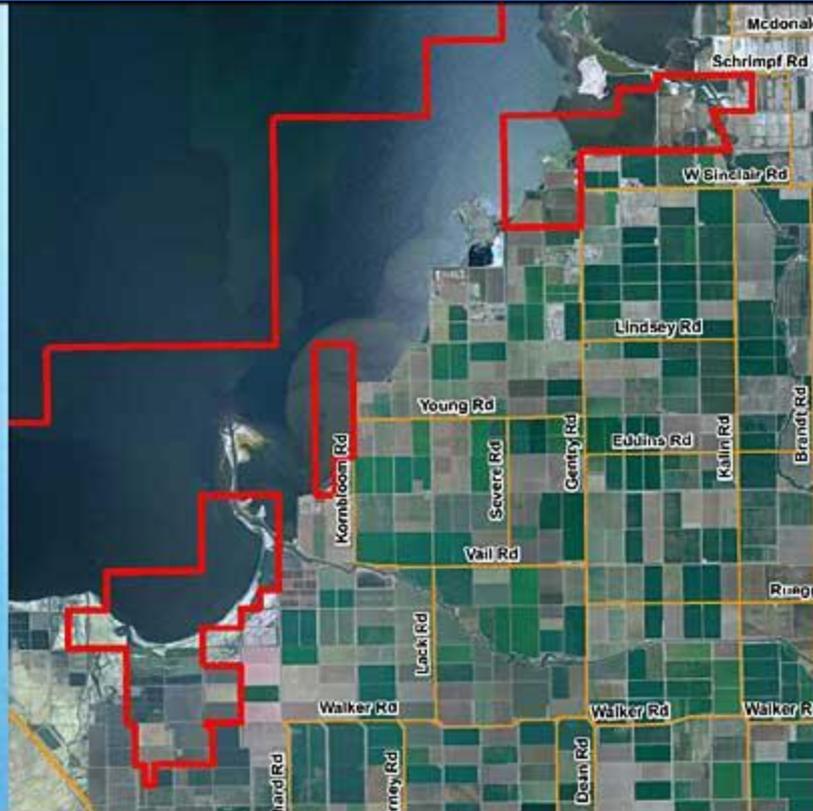
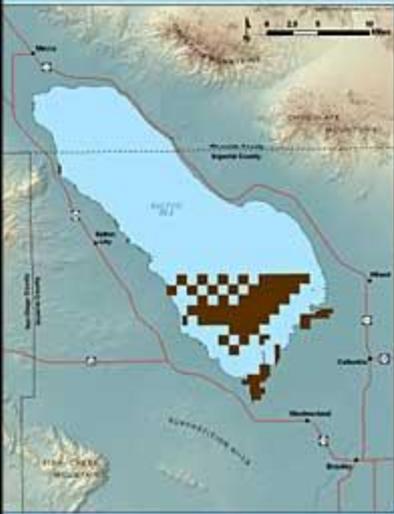
Responsibility of individual landowners to mitigate dust

Birds Banded at the Salton Sea



Species of concern

Sonny Bono Salton Sea National Wildlife Refuge



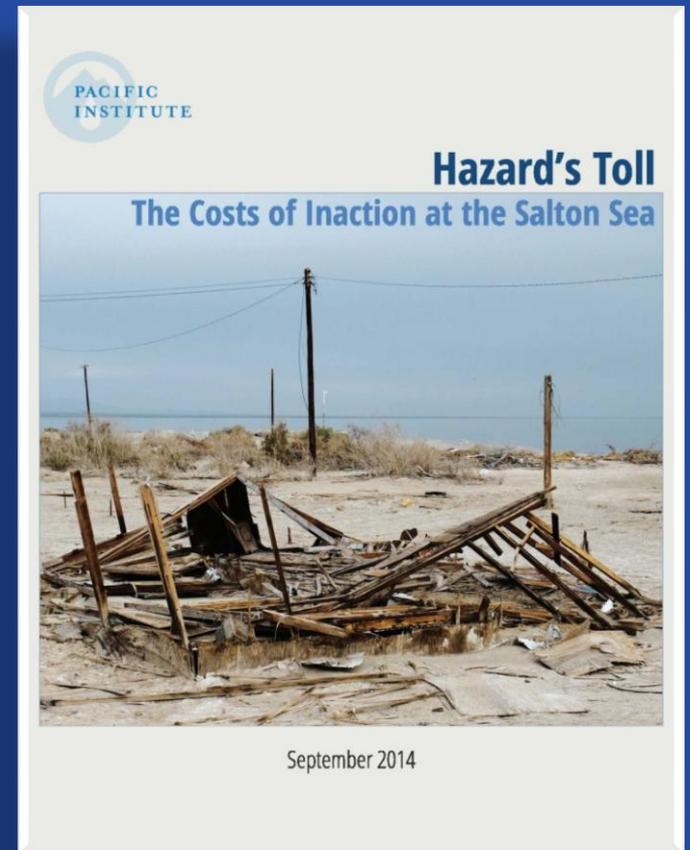
Pupfish. (USFWS)



Burrowing Owl. (USFWS)

If we do nothing, 2014 Pacific Institute report highlights

- Flows to Sea decrease by 40% in the next 15 years
 - 100 mi² of exposed playa
 - Salinity concentrations triple
- Estimated costs by 2047
 - habitat loss \$10-26B
 - Human health effects \$21-37B
 - property values decrease \$400M
 - recreation decrease \$110-150M



2016 Memorandum of Understanding

Between Department of Interior & California Department of Natural Resources

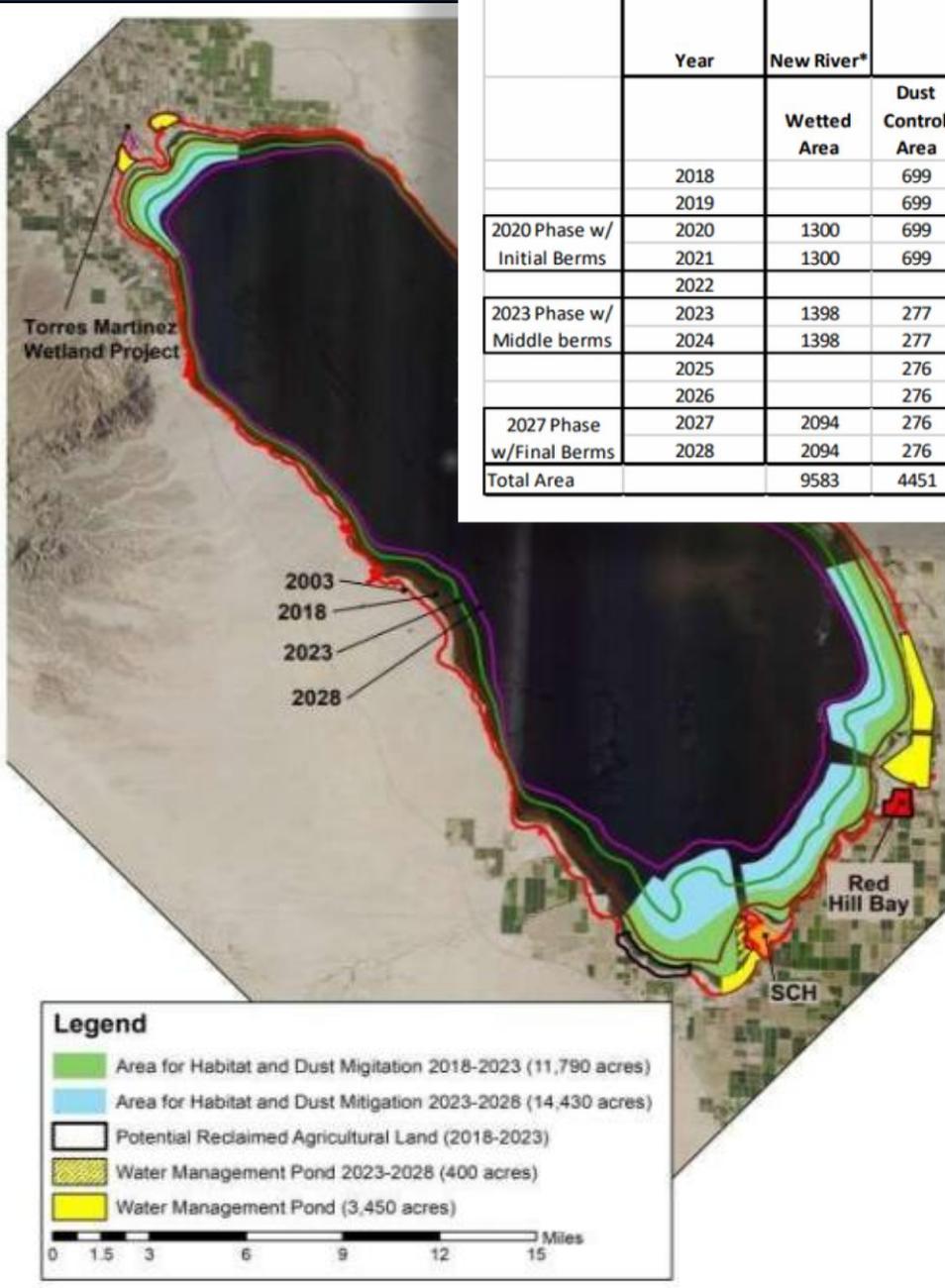
- Recognizes State's leadership role
- Supports 25,000 acre goal for wildlife habitat, air & water quality projects
- US agrees to pursue:
 - \$20M for Operation & Maintenance costs of habitat and dust suppression projects associated with Salton Sea Management Plan
 - \$10M for State managed monitoring of Salton Sea Management Plan projects

Reclamation's Role

- Related to agricultural drainage from lands irrigated by Colorado River water
- Sea is critical to regional water security
- Involved in Sea planning, research, and projects for over 40 years
- Federal Agency Trust responsibilities
- Provide technical and programmatic support, recognizing the State's leadership
- Title to approximately 90,000 acres around/under Sea
- \$300,000 annual budget + additional funding to support specific projects
- FY16-19, spent approximately \$8.5 million on program administration and projects for dust suppression, habitat restoration, water quality monitoring, & restoring boat access

Table B-2 Constructed Area in Acres

	Year	New River*		Alamo River		Whitewater River		Redhill + Torrez Martinez	Area by Year	Cumulative Area	Required Area	State Board Order
		Wetted Area	Dust Control Area	Wetted Area	Dust Control Area	Wetted Area	Dust Control Area	Wetted Area				
	2018		699						699	699	500	500
	2019		699		670				1,369	2,068	1300	1,800
2020 Phase w/ Initial Berms	2020	1300	699	1178	670	760	485	568	5,659	7,726	1700	3,500
	2021	1300	699	1178	670	760	485	568	5,659	13,385	3500	7,000
	2022								-	13,385	1750	8,750
2023 Phase w/ Middle berms	2023	1398	277	939		445			3,058	16,443	2750	11,500
	2024	1398	277	939	925	445	384		4,367	20,810	2700	14,200
	2025		276						276	21,085	3400	17,600
	2026		276		199		77		552	21,637	4000	21,600
2027 Phase w/Final Berms	2027	2094	276	1260	199	483	77		4,388	26,025	4000	25,600
	2028	2094	276	1260	199	483	77		4,388	30,413	4200	29,800
Total Area		9583	4451	6753	3531	3374	1585	1136	30,410			



Salton Sea Management Program Overview (2018-2028)

Salton Sea Project Locations



- Current State-led Salton Sea project locations
 - Projects funded by Bureau of Reclamation since 2016 and anticipated for funding in 2019. Dust suppression project locations are not yet known.
- (Original map by California Department of Water Resources.)



The Red Hill Bay Project, the first of multiple Salton Sea restoration projects to be launched, will divert enough Alamo River water to fill over 400 acres of exposed lakebed. This will create a shallow-water-habitat destination for more than 400 bird species and prevent dust emissions from the currently exposed lakebed.

© JENNY E. ROSS

Red Hill Bay



USFWS Sonny Bono National Wildlife Refuge, Chris Schoneman
Constructing Red Hill Bay Settling Basin



Red Hill Bay pupfish relocation
USFWS Sonny Bono National Wildlife Refuge





Installing snags for habitat at Red Hill Bay
Photo credit: USFWS Sonny Bono National Wildlife Refuge

Torres Martinez Wetland Project

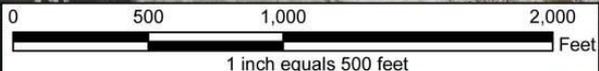
TOWNSHIP 79, RANGE 9E, SECTION 32



Water Surface Area: 56.7 Acres

- Legend**
- () Water Sampling Points
 - 1 Ft Contours
 - Wetland

Updated: 9/2/2008
Created by: Ben Scoville



Torres Martinez Wetland Project





**Groundwater pump at the
Torres Martinez Wetlands**

The North Shore Beach and Yacht Club



ALAMO NORTH DUST CONTROL AREA – BEFORE AND AFTER

Before: Non-Roughened Playa



After: Roughened Playa



For more information on IID's Salton Sea Air Quality Mitigation Program, please visit www.iid.com/airquality.

RECENT LEGISLATION AND GRANTS RELATED TO THE SALTON SEA



PROPOSITION 1 WATER BOND

\$80.5 million allocated in the Governor's budget for the Salton Sea.

[READ MORE](#)



NATURAL RESOURCES CONSERVATION SERVICE

Regional Conservation Partnership Program – \$7.5 million Salton Sea Agricultural Wetlands Habitat Program allocated to the Salton Sea Authority.

[READ MORE](#)



CALIFORNIA WILDLIFE CONSERVATION BOARD

\$14 million grant for Salton Sea wetland habitat restoration.

[READ MORE](#)



WATER RESOURCES DEVELOPMENT ACT

\$30 M authorized for Army Corps of Engineers to work at Salton Sea with SSA designated as the preferred non-federal partner.

[READ MORE](#)



SB 839 – PUBLIC RESOURCES

SB 839 authorizes the Department of Water Resources to use design-build procurement for projects at the Salton Sea. Design build authorization means that the Department of Water Reso...



SB 1416 – REVIVE THE SALTON SEA FUND

SB 1416 (Stone) – Voluntary contribution: Revive the Salton Sea Fund. SB 1416 created a Revive the Salton Sea Fund allowing voluntary designation of personal income tax refunds...

2018 Farm Bill

Eyes On the Sea hits the Salton Sea shoreline. Audubon California recently launched a new program that provides opportunities for local youth to monitor birds at the Salton Sea. Indio High School, posted by Garrison Frost



KDI and Alianza have trained a cohort of local youth to collect data on air pollution and monitor the Sea's receding shoreline.

Through journalism and storytelling, the youth are elevating community stories about the environmental, social, and economic effects of the Sea.



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