

SALTON SEA MANAGEMENT PROGRAM PROJECT AND ENVIRONMENTAL COMMITTEES

<http://resources.ca.gov/salton-sea/>

September 14, 2016



PRESENTATION GOALS

- Salton Sea Overview
- Roadmap to SSMP Implementation
- Prop 1 Near-Term Actions
- Environmental Compliance and Permitting Review

PRESENTATION GOALS

✓ **Salton Sea Overview**

- Roadmap to SSMP Implementation
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SALTON SEA MANAGEMENT PROGRAM

Long-Term Planning

FINANCIAL ASSISTANCE PROGRAM

Red Hill Bay
USFWS
2013-2018

Torres-Martinez
Wetland
2013-2019

IID/Sephton
Solar Ponds
2013-2017

SPECIES CONSERVATION HABITAT 2016-2019

Final Designs
Real Estate
2016

Construction Bid
Activities & Award
2017

Construction
Completion

Operation &
Maintenance
2019-2030

NEW RIVER WEST BACKBONE 2016-2021

Contract Management:
DOE/Consultants/IID/others

Design
2017

Environmental
Clearance Complete

Construction
2018-2021

SSMP FUTURE PHASES 2016-2030

Feasibility
Review
2016-2019

Design
2019-2021

Obtain Environmental
Clearance
2016-2018

Construction
2022-2030

PUBLIC OUTREACH

Contract
Management

Media
Management

Website
Management

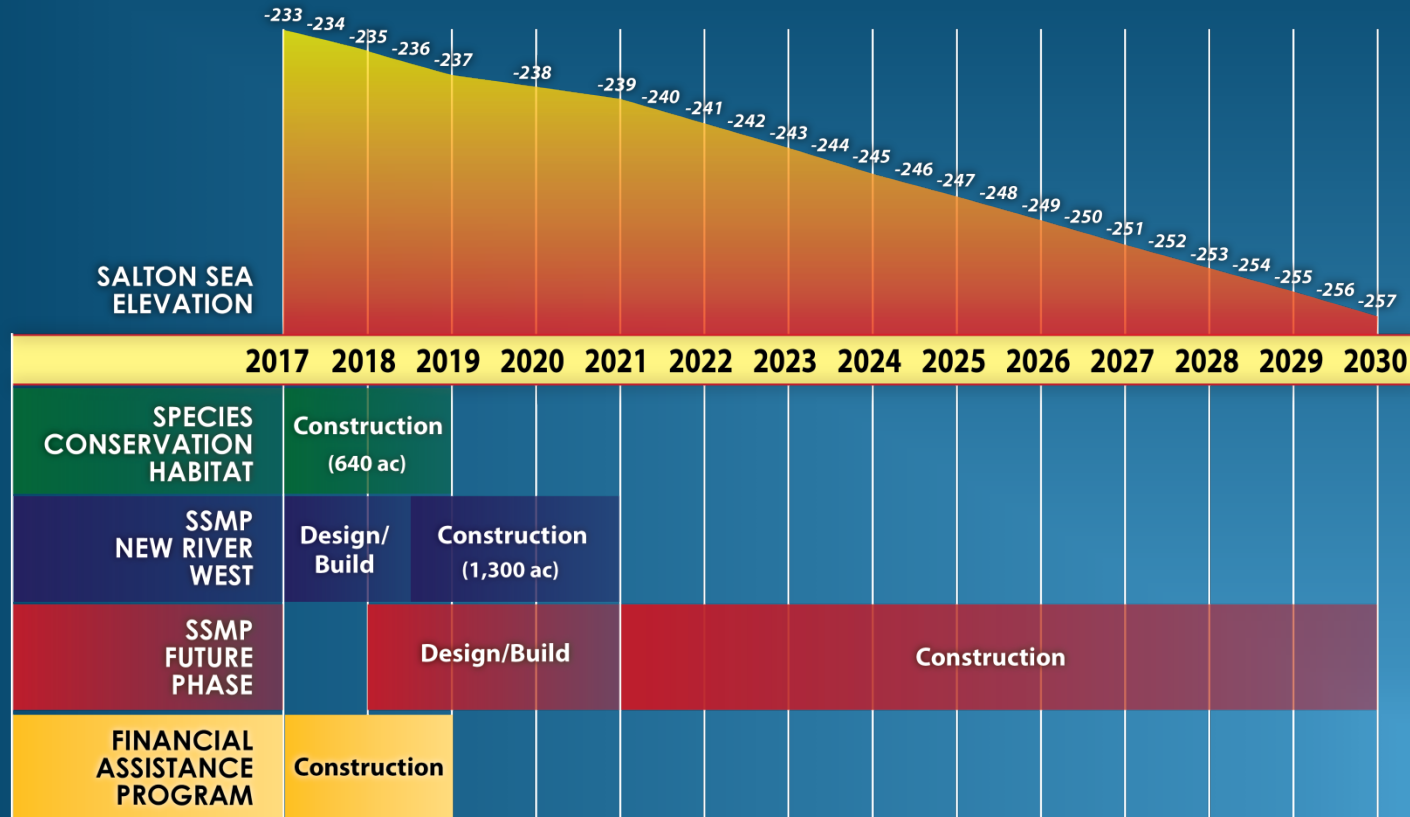
Facilitator

Stakeholder
Committees

Environmental & Construction Data Mgmt/Monitoring & Adaptive Mgmt Planning/
Mitigation Monitoring Reporting Planning/Document & File Mgmt

2018-2030

SSMP PLANNING & IMPLEMENTATION SCHEDULE



PRESENTATION GOALS

- Salton Sea Program View
- ✓ **Roadmap to SSMP Implementation**
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SSMP IMPLEMENTATION



ROADMAP TO SSMP IMPLEMENTATION

- Review: IID Draft Salton Sea Backbone Infrastructure Project Design Concept Memo
- Air Quality Mitigation Program
- Final Integration and Phasing of SSMP
- Funding Analysis
- Audubon California– Habitat Modeling
- Public Outreach

IID DRAFT SALTON SEA BACKBONE INFRASTRUCTURE PROJECT DESIGN CONCEPT MEMO

DRAFT

**Salton Sea Backbone Infrastructure Project
Design Concept Memo**

Prepared for:

Imperial Irrigation District
333 East Barioni Boulevard
Imperial, California 92251
Contact: Graeme Donaldson, IID

AUGUST 2016

AIR QUALITY MITIGATION PROGRAM

- Compatible with IID/JPA Water Transfer Air Quality Mitigation Program
- Coordinate with CARB, ICAPCD, and SCAQMD
- Coordinate with Imperial County and Salton Sea Authority request for participation in development of Best Available Control Measures

AUDUBON CALIFORNIA – HABITAT MODELING

- To sustain wildlife populations at the Sea, Audubon California to use modeling to:
 - Identify the types of habitat and functional values
 - Recommendations for habitat parameters
 - Habitat management
- Report expected this fall

AQUATIC HABITAT TYPES AND INFRASTRUCTURE

- Water storage pond and channel layout concept
- Informed by:
 - SSMP Science Advisory Committee
 - Audubon California habitat assessment work
 - Hydrology model and salt balance information
 - IID's Backbone Infrastructure Memorandum

PUBLIC OUTREACH

- Spanish interpretation and translation
- Disadvantaged community outreach
- Public workshops
- Tribal outreach
- Outreach committee
- Salton Sea Authority status update

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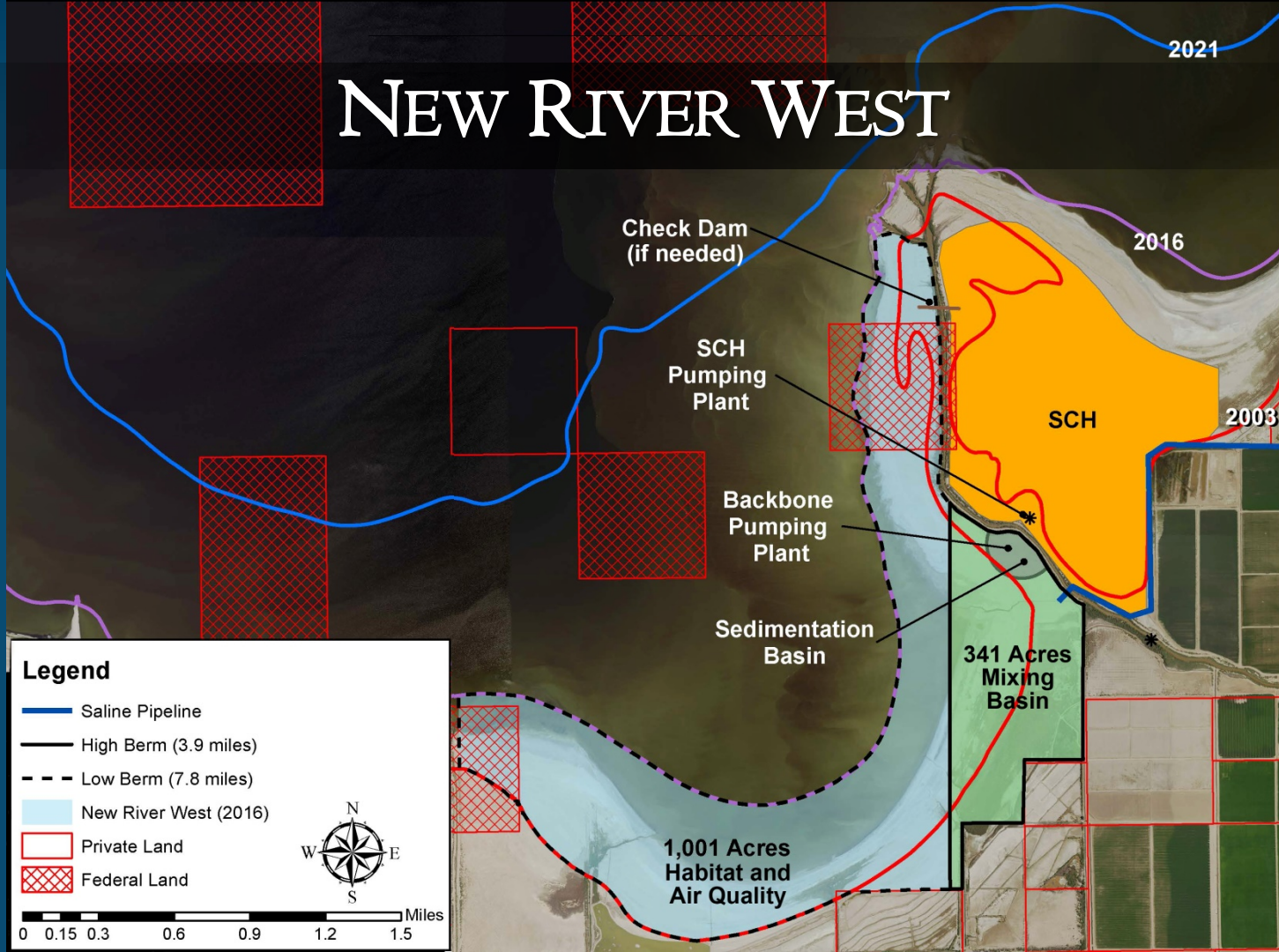
PROP I NEAR-TERM ACTIONS

- Determine best candidate site
- Identify infrastructure requirements
- Maximize benefits
- Estimate cost

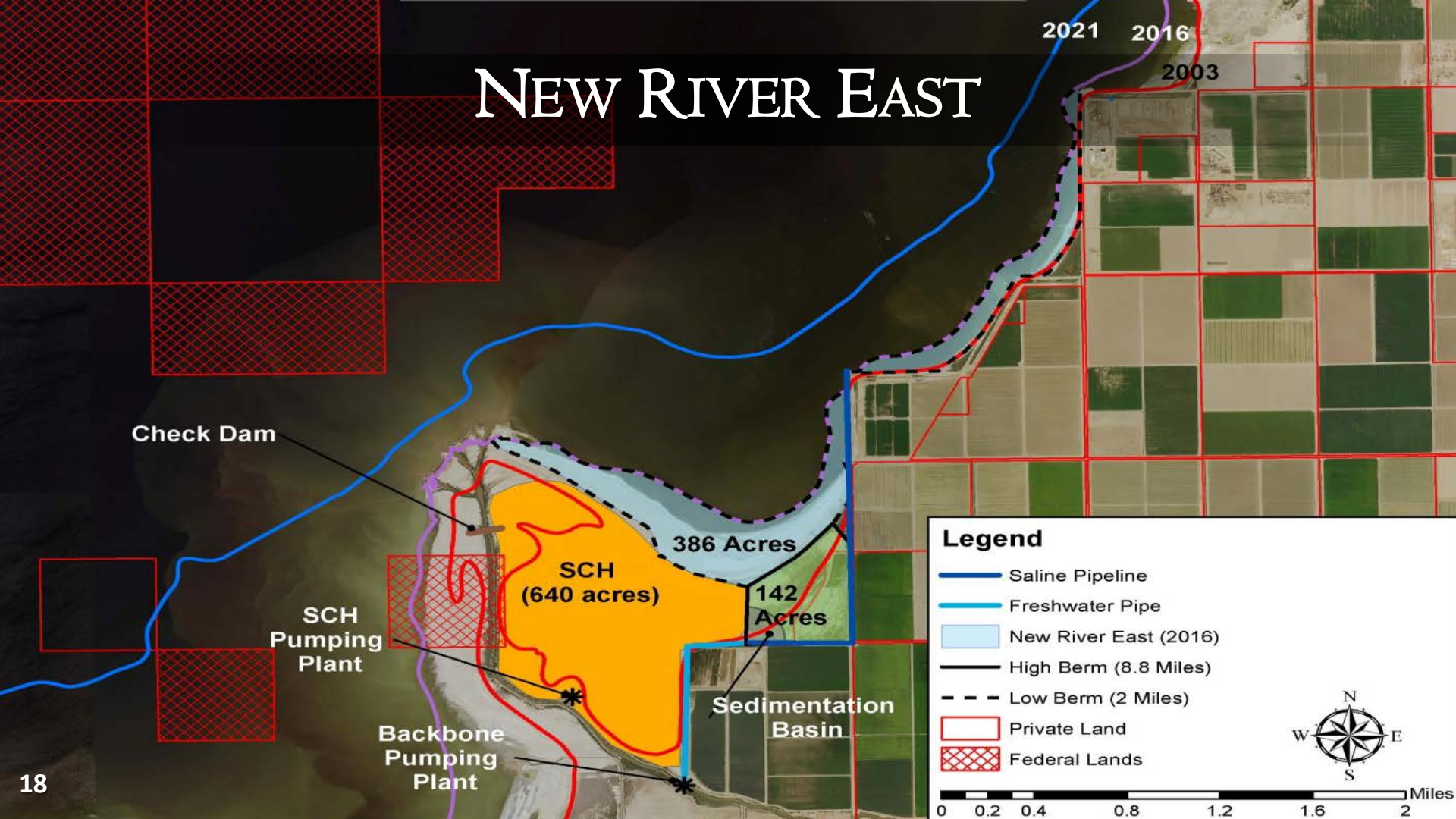
PROP I NEAR-TERM ACTIONS: POTENTIAL SITES



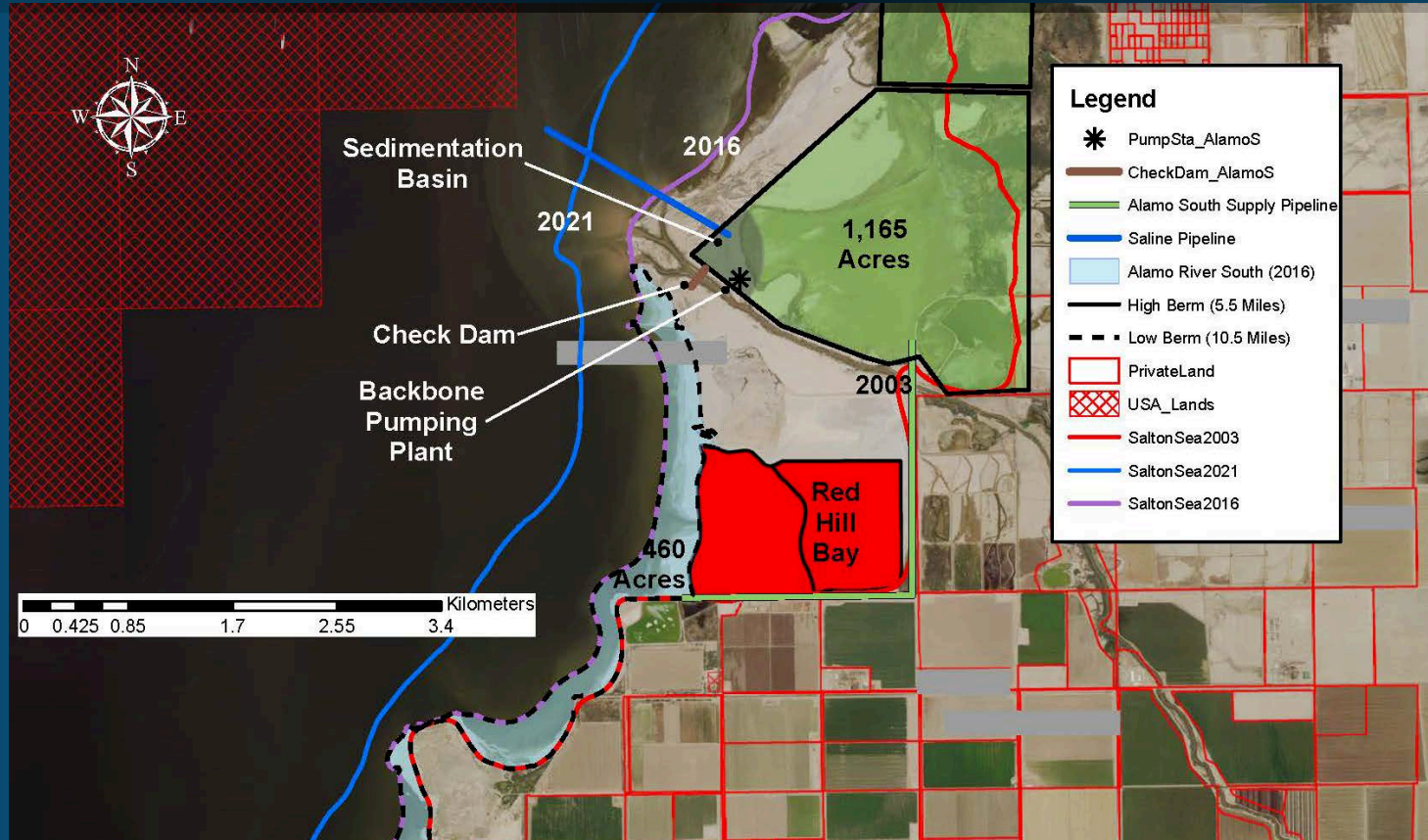
NEW RIVER WEST



NEW RIVER EAST



ALAMO RIVER SOUTH



ALAMO RIVER NORTH

678
Acres

2,630
Acres

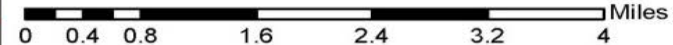
2016

2003

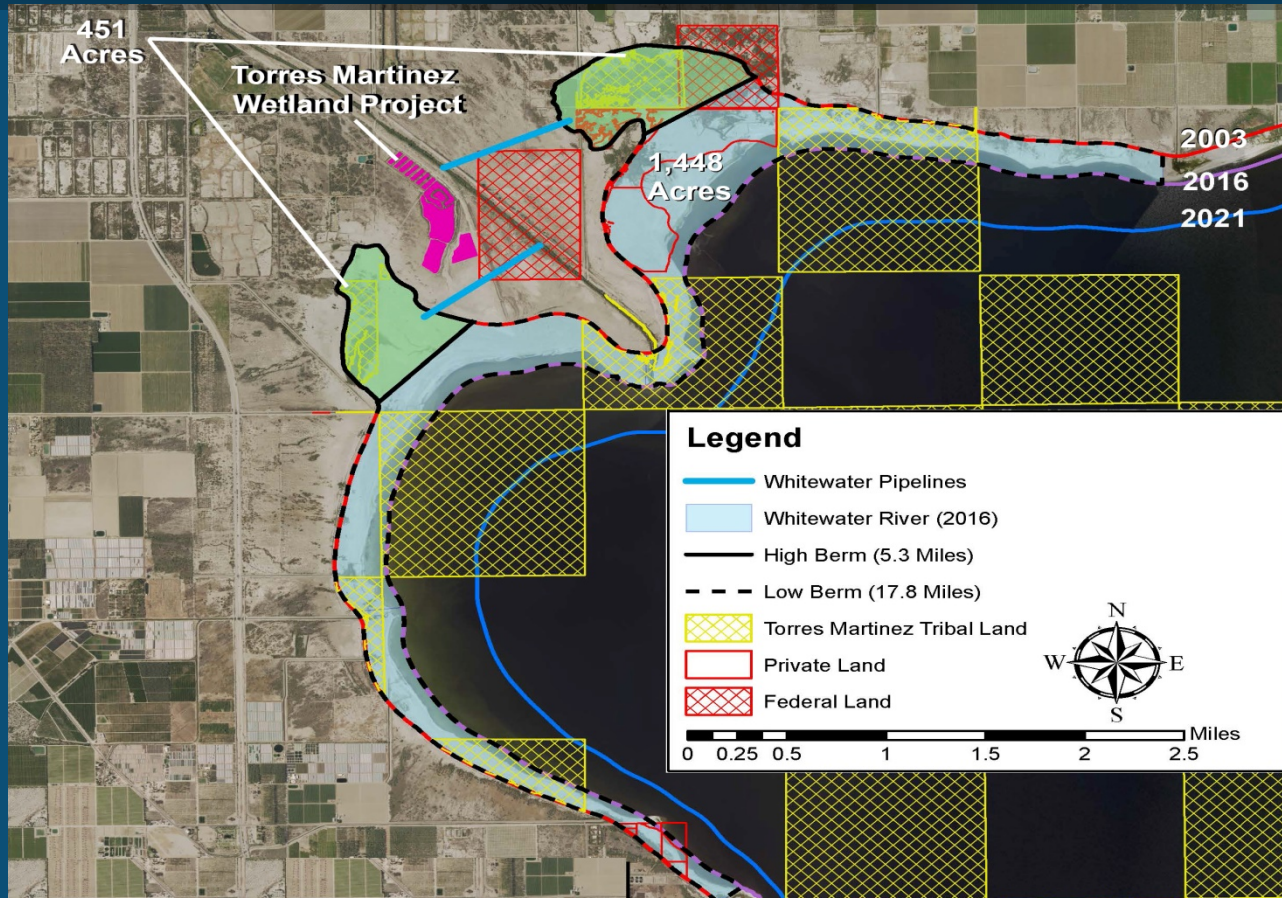
Red
Hill
Bay

Legend

- Saline Pipeline
- Alamo River North (2016)
- Geothermal_Facility
- High Berm (16.5 Miles)
- Low Berm (10.3 Miles)
- Private Land
- Federal Land



WHITEWATER RIVER



	New River West	New River East	Alamo River South	Alamo River North	Alamo Combined	Whitewater River
Phase 1 Fully implemented @ 2021 (Acres)	5,118	1,544	1,418	5,107	6,005	5,654
Improved acreage achievable with Prop 1(Up to 2016 shoreline) (Acres)	1,342	386	460	611	1,071	3,755
Miles of levee	12	9	11	18	29	22
Benefit ratio (Acres of habitat per miles of levee)	112	43	42	34	37	171
Potential Phase 1 expansion Unfunded/2016 – 2021 shoreline (Acres)	3,776	1,158	958	4,496	4,934	1,899
Concentrate on areas where playa is most emissive through 2021	TBD	TBD	TBD	TBD	TBD	TBD
Close to adequate agricultural return flow water supply	+	+	+	+	+	+
Maximize synergy with existing or planned infrastructure	++	+	-	-	-	-
Maximize air quality and habitat benefits for dollars spent (Ratio: Acres/Million \$)	++ (30)	- (10)	- (8)	- (6)	- (7)	+++ (52)
Geothermal compatibility	+	+	-	-	-	+
Utilize existing environmental compliance documentation, authorizations, and approvals	+++	+	+	+	+	+

	New River West	New River East	Alamo River South	Alamo River North	Alamo Combined	Whitewater River
Pipelines	17,360 ft	10,513 ft	18,613 ft	18,613 ft	18,613 ft	7,493 ft
Number of Pumps	2	2	2	2	2	2
High Berms (Backbone Infrastructure)	20,506 ft	10,370 ft	29,028 ft	87,004 ft	116,032 ft	28,148 ft
Cost	\$12.0M	\$6.0M	\$17.0M	\$50.5M	\$67.0M	\$16.5M
Low Berms	41,108 ft	46,656 ft	55,630 ft	54,301 ft	109,931 ft	92,400 ft
Cost	\$15.0M	\$17.0M	\$20.0M	\$19.5M	\$39.5M	\$33.3M
Spillways	\$0.2M	\$0.2M	\$0.2M	\$0.2M	\$0.2M	\$0.2M
TOTAL COST	\$35M	\$29M	\$45M	\$78M	\$115M	\$55M
Contingency (CT) 15%	\$5.0M	\$4.5M0	\$7.0M	\$12.0M	\$17.0M	\$10.0
Mobilization (Mob)	\$4.5M	\$4.0M	\$6.0M	\$10.0M	\$15.0M	\$7.0M
23 TOTAL COST + CT + Mob	\$44.5M	\$37.5M	\$58M	\$100M	\$147M	\$72M

Criteria Table Legend				
Criteria	-	+	++	+++
Close to adequate agricultural return flow water supply	No reliable sources of water was identified	Source of water was identified, it is somewhat reliable	Source of water was identified, it is reliable but the water quality was not ideal	Source of water was identified, and it is fully available in quantity with high water quality
Maximize synergy and compatibility with existing or planned infrastructure	No existing or planned infrastructure can be used at this location	Planned infrastructure can be used at this location	Existing infrastructure can be used with modification in the design	Existing infrastructure can be used without modification in the design
Maximize air quality and habitat benefits for dollars spent (Ratio=Acres/Million \$)	Ratio < 10	Ratio from 11 -- 20	Ratio from 21 -- 30	Ratio >30
Geothermal compatibility	Planned geothermal facilities	No planned geothermal facilities	N/A	N/A
Utilize existing environmental compliance documentation, authorizations, and approvals	No environmental documents or permits have been acquired for that location	Environmental documents are completed or in progress. Permits still need to be completed	Environmental documents are completed. Permits are close to completion	All environmental documents and permits completed

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ENVIRONMENTAL COMPLIANCE & PERMITTING REVIEW

- US Army Corps of Engineers
- US Fish and Wildlife Service
- CA Department of Fish and Wildlife
- Imperial County – Facilitated Permit Process
- Imperial Irrigation District
- Salton Sea Authority
- Other Agencies

QUESTIONS

SSMP IMPLEMENTATION

