



Recent and Projected Inflows for the Salton Sea Management Plan



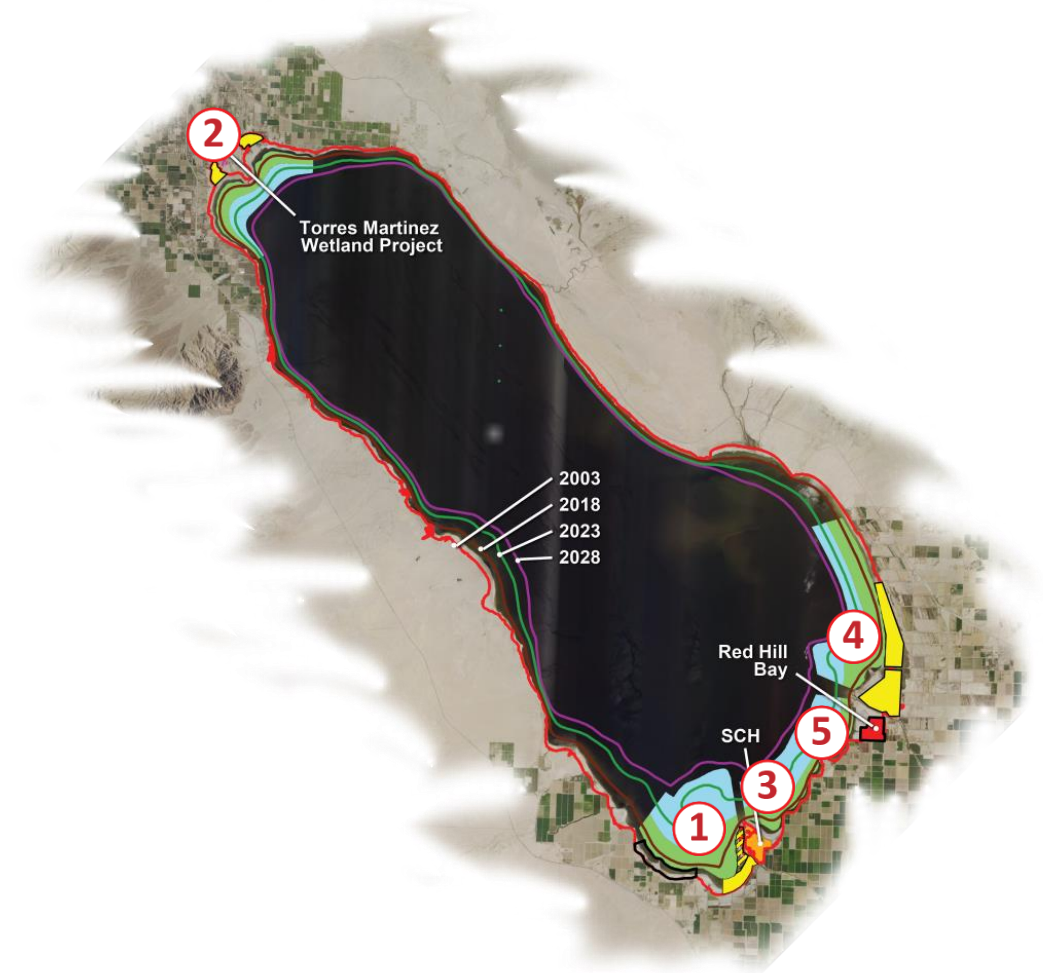
Presented by Sujoy B. Roy, Tetra Tech Inc.

Salton Sea Summit, October 17, 2019

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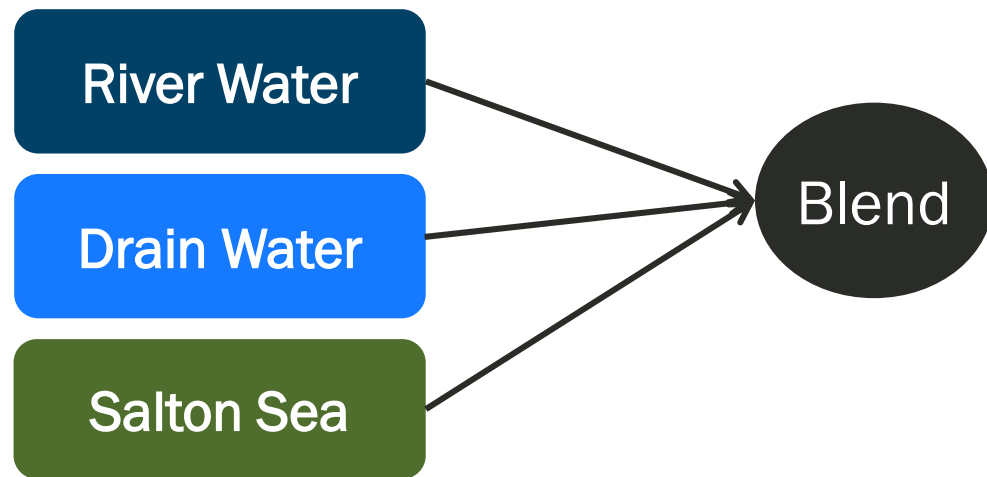
Salton Sea Management Program Hydrology Goals

- Determine water availability to support 10-Yr Plan
 - Estimate habitat water demands; compare to river supply
- Near Term: Confirm sea elevation, salinity and playa exposure over time
 - Observed data
 - IID-developed SALSA2 Model
- Long Term
 - Use DWR's California Water Plan WEAP model as a platform for future hydrology

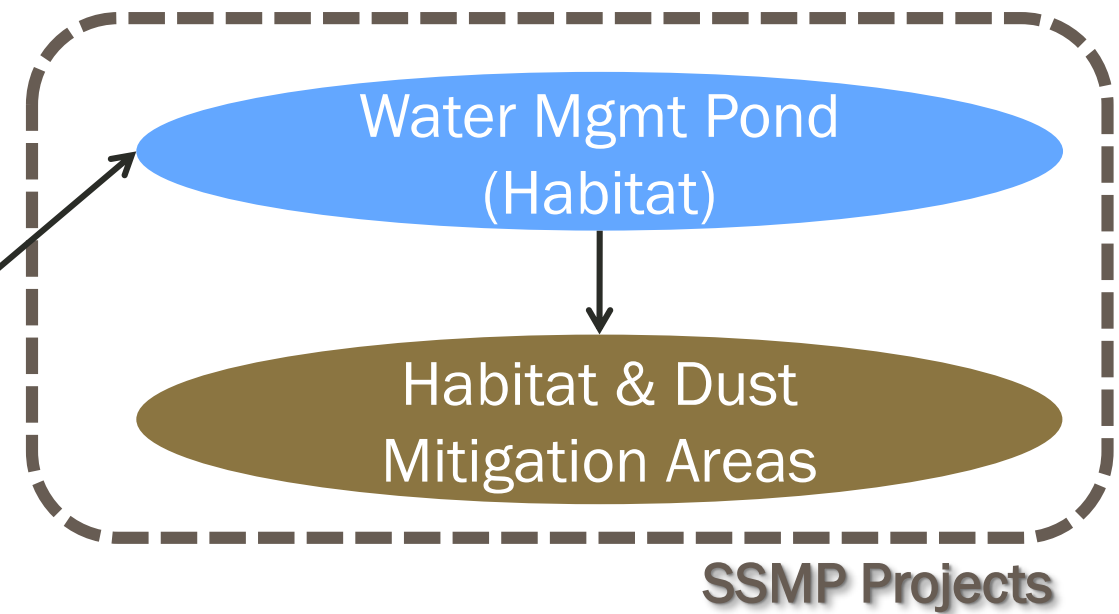


Approach

Water Supply

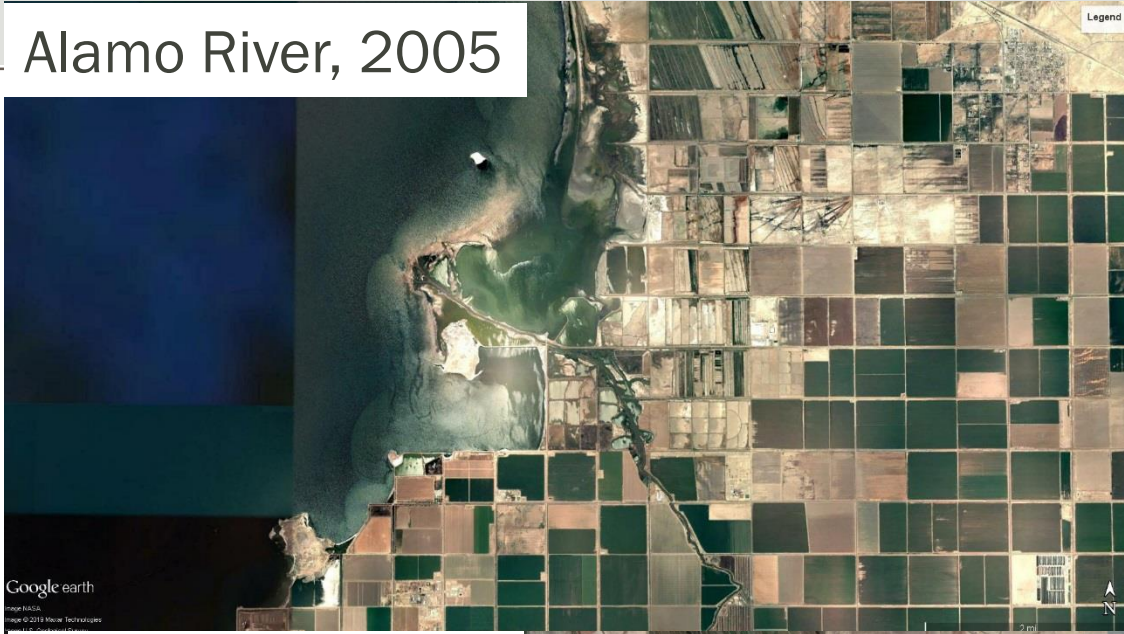


Water Demand



Need Accurate Representation of Exposed Playa for Planning New Habitat

Alamo River, 2005



Alamo River, 2017



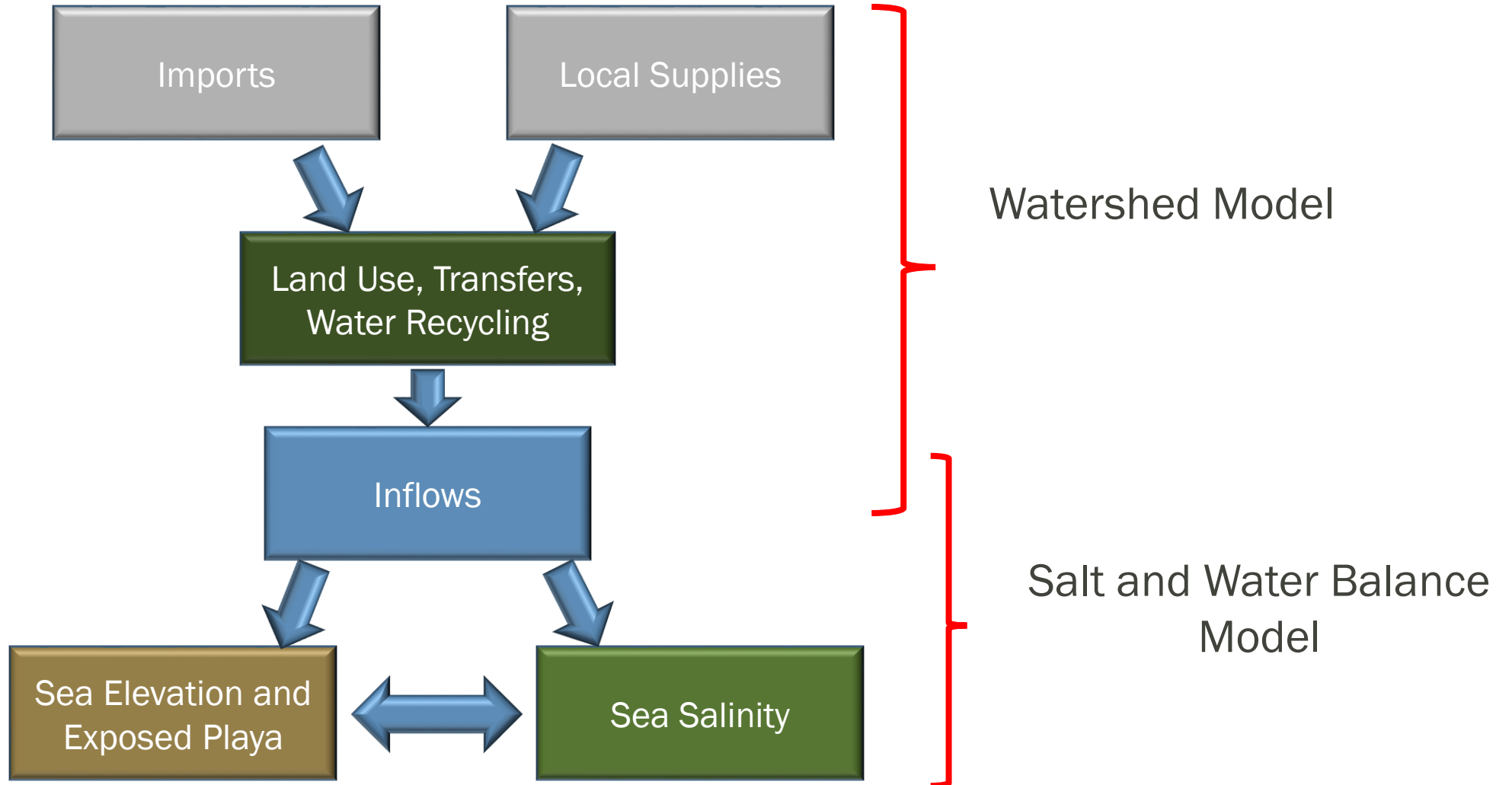
New River, 2005



New River, 2017



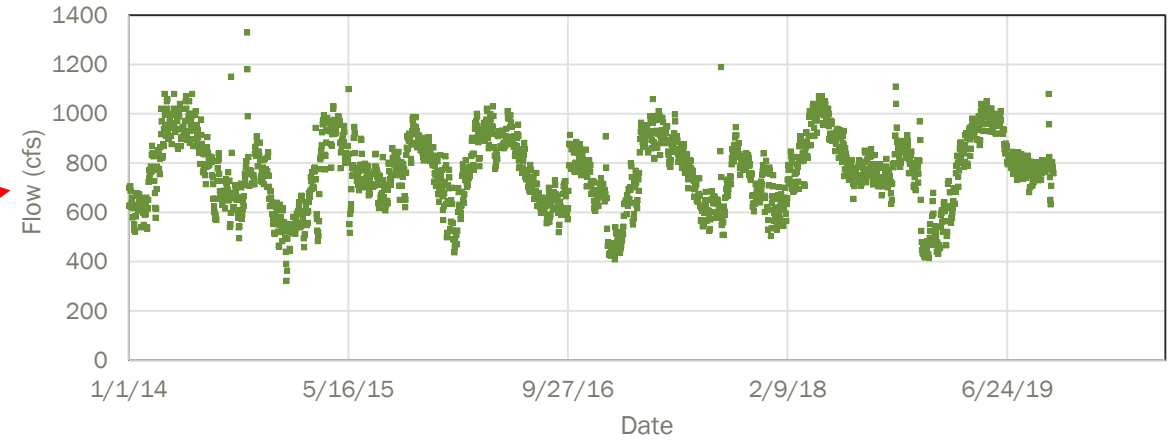
Current and Future Conditions in the Sea



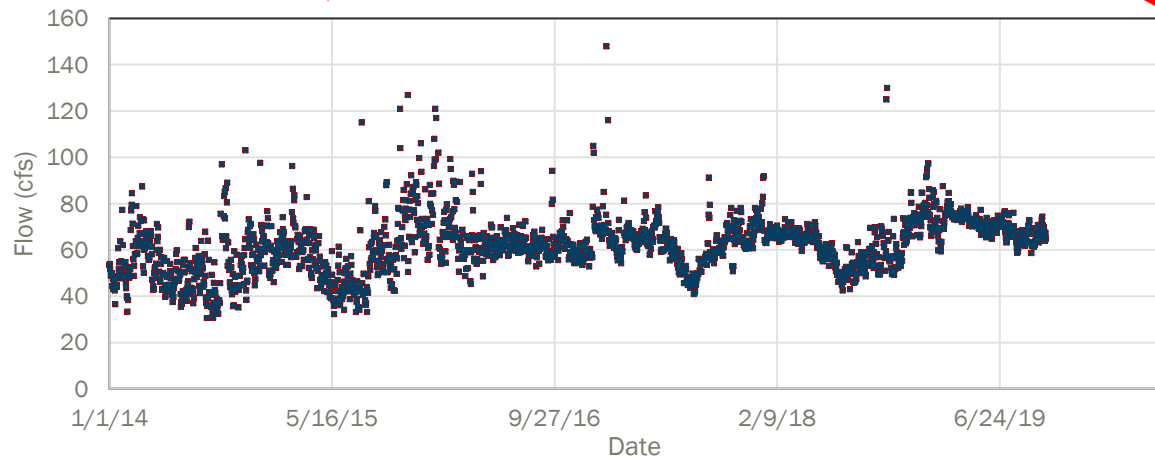
Recent River Flows (January 2014 to October 2019)



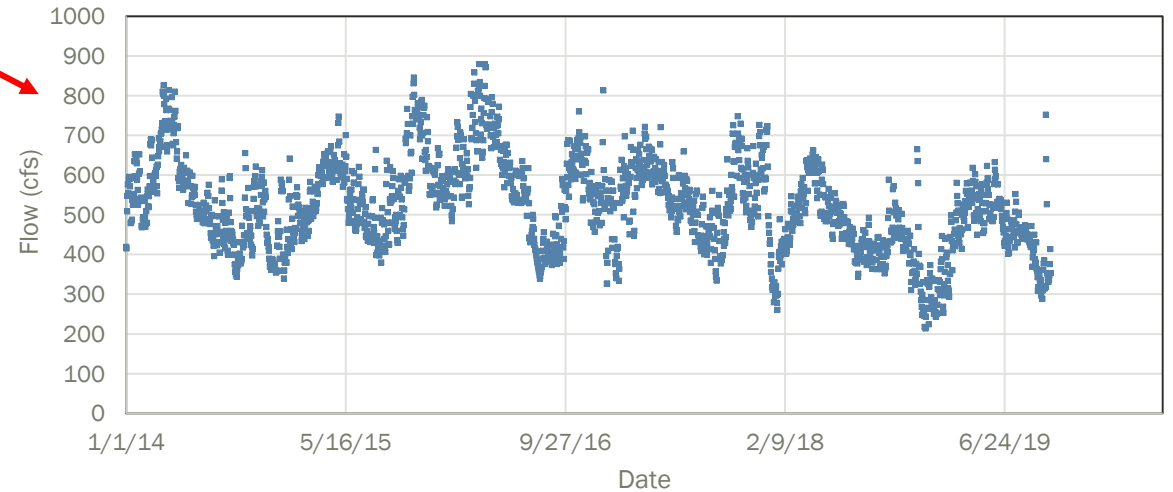
Alamo River Flows



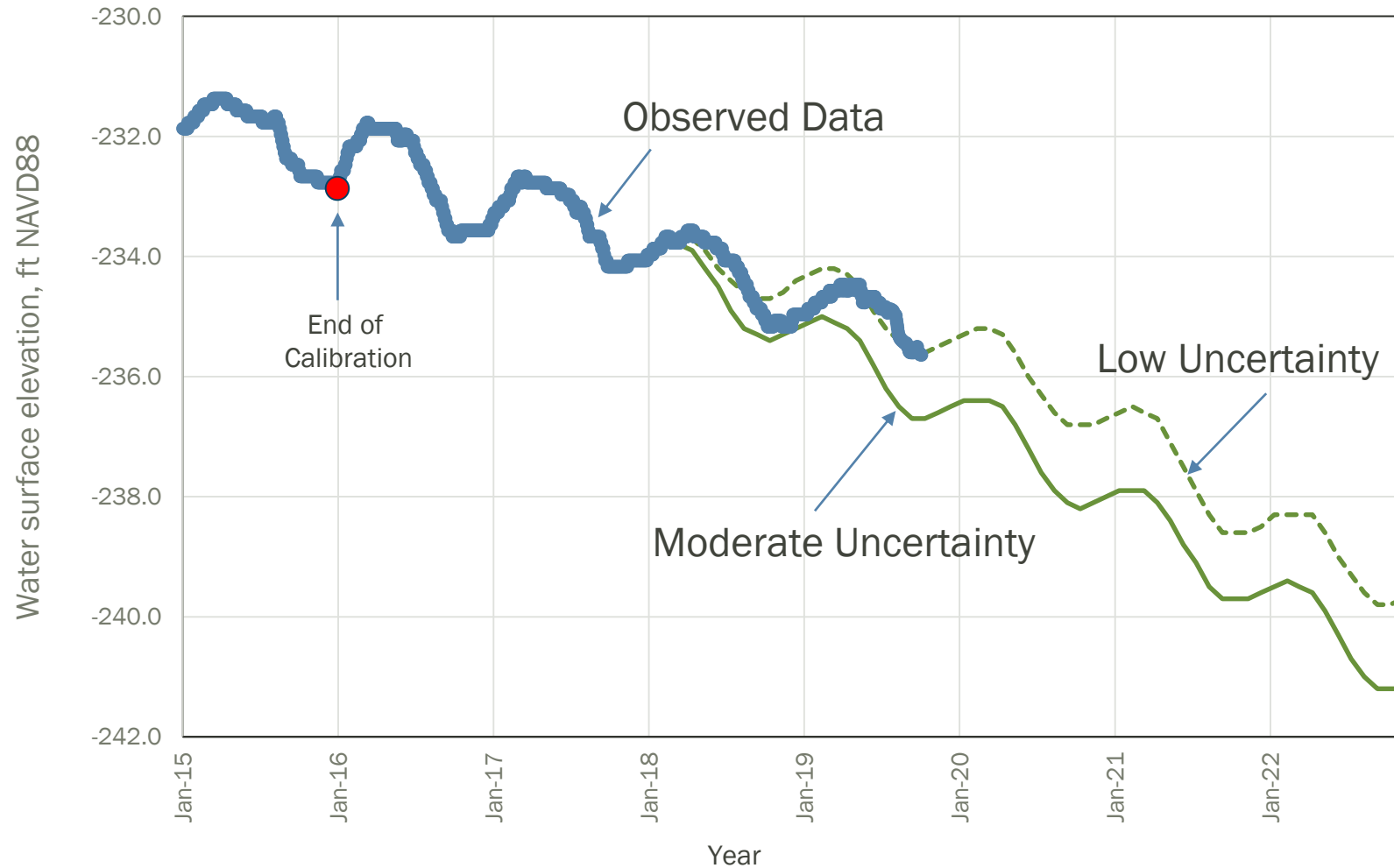
Whitewater River Flows



New River Flows



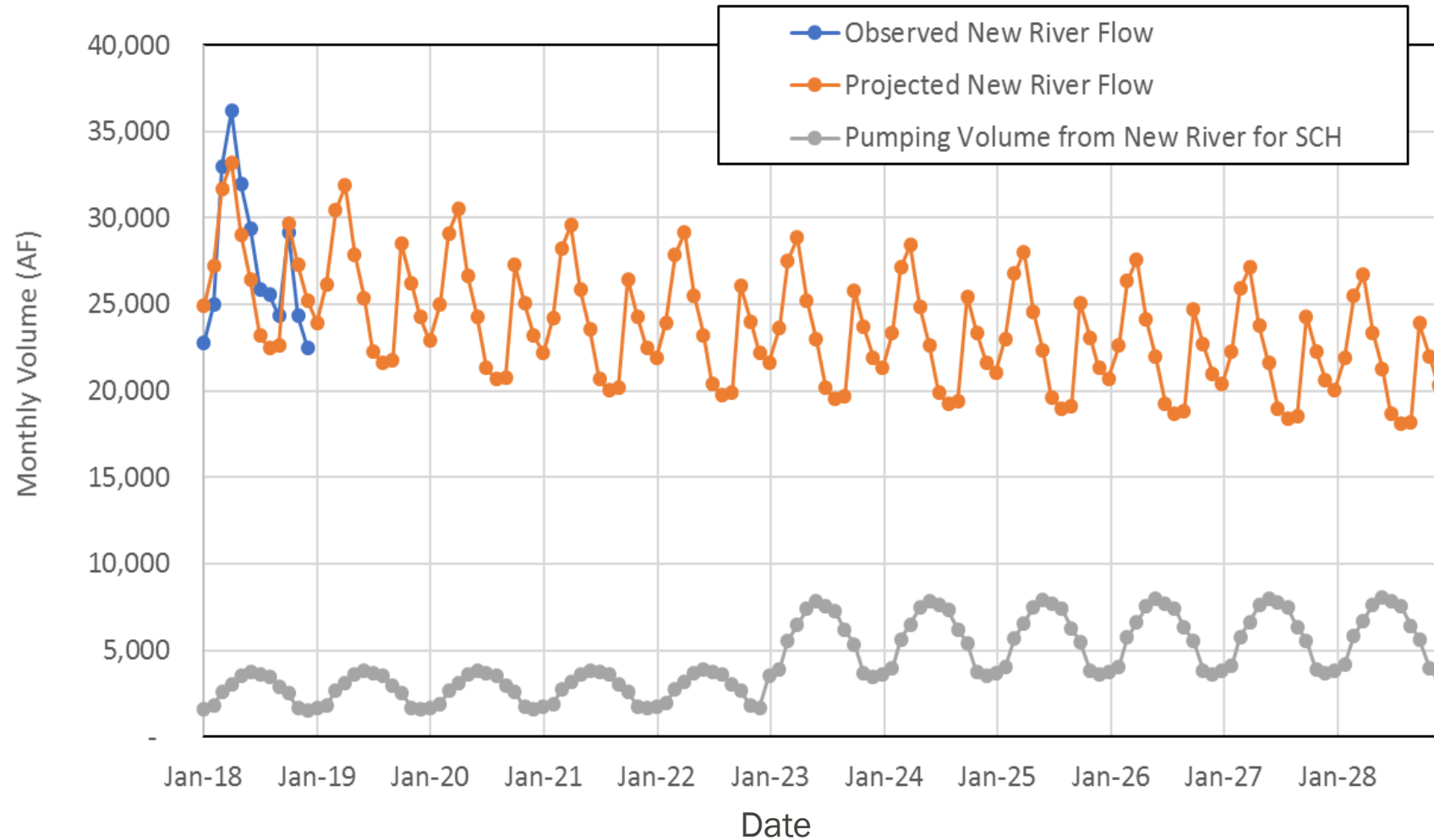
SALSA Model Projections and Actual Water Surface Elevation (NAVD88 Datum)



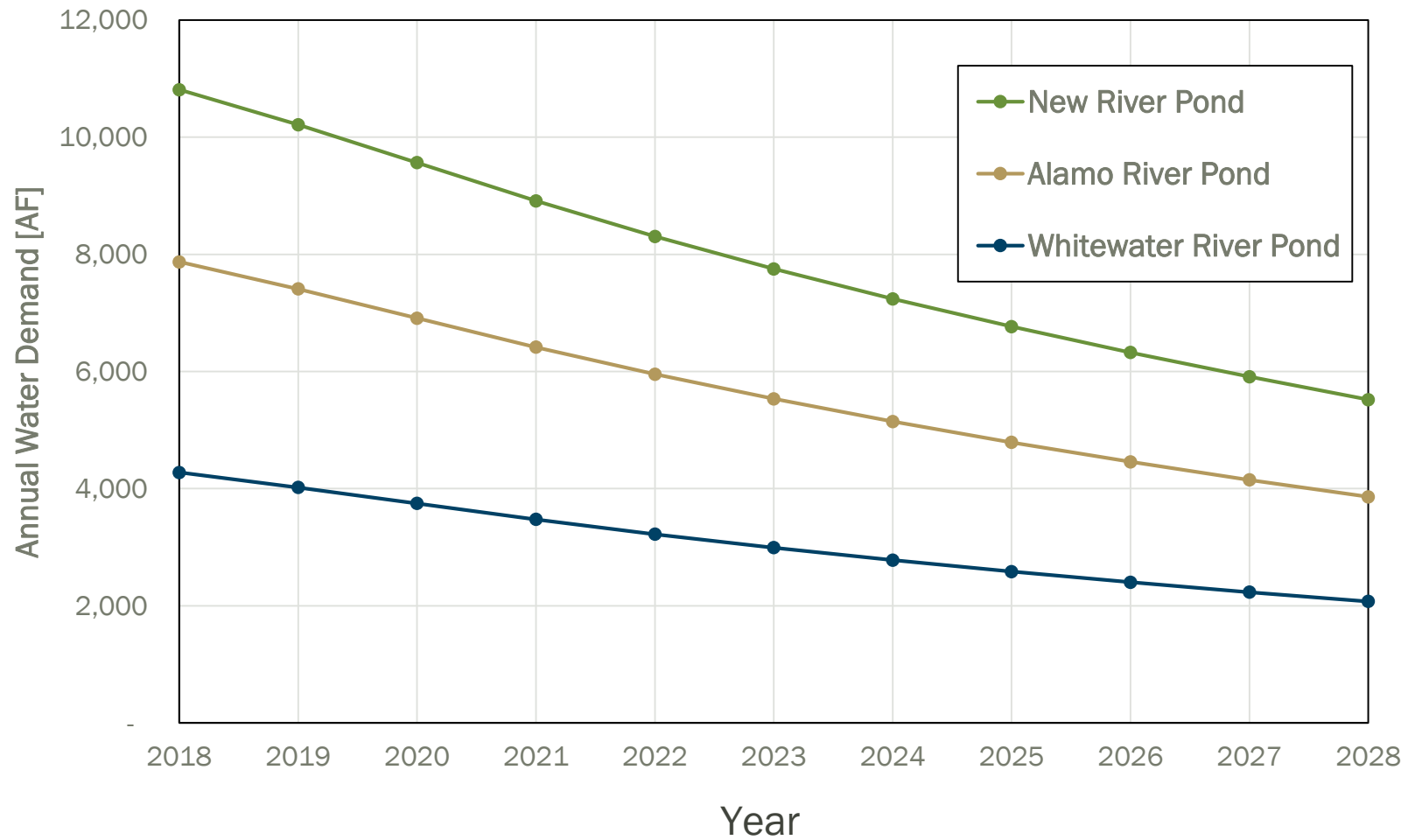
Near Term Flow Projections in Acre-Feet Per year

Year	Whitewater River	Alamo River	New River	Sum of River Inflow	Inflow including drains, small creeks, and GW	SALSA Model	
						Low Uncertainty	Moderate Uncertainty
2014	38,687	547,829	384,063	970,578	1,074,230		
2015	42,985	554,448	406,568	1,004,002	1,110,879		
2016	46,521	548,122	420,961	1,015,605	1,123,602		
2017	45,735	534,466	398,393	978,595	1,083,021		
2018	44,977	571,641	330,250	946,869	1,048,233	933,984	907,107
2019						917,456	871,266
2020						905,805	833,536
2021						904,680	807,816
2022						926,918	797,256
2023						916,570	788,199
2024						821,365	777,003
2025						771,964	766,483
2026						968,573	753,939
2027						939,557	741,744
2028						906,206	729,894

Future Seasonal Water Demand From New River for SCH Project

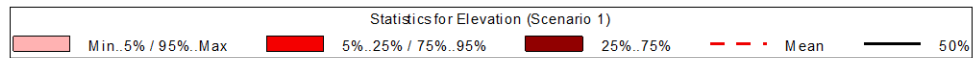
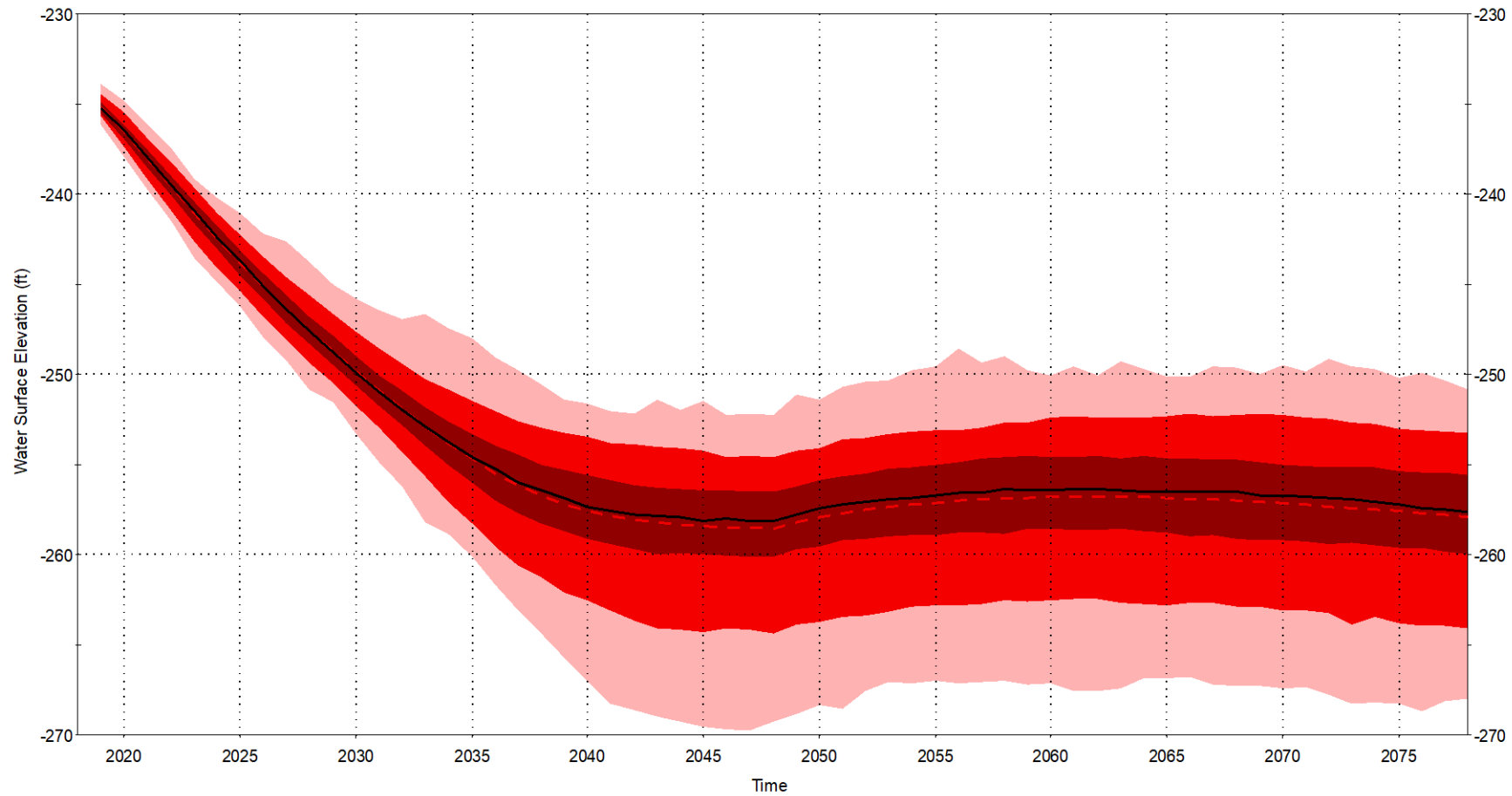


Projected Water Demand From Salton Sea



Long-Term Elevation Projection (SALSA2 Model)

Salton Sea Water Surface Elevation



Summary and Next Steps

- Continue to monitor near-term flow and elevation changes in the Sea
- Refine playa area estimates for planning layout of near term habitat projects
- Estimate individual flows, including from drains, for specific project areas over SSMP 10-year period
- Consider watershed changes and longer-term flow patterns for projecting changes beyond 2028 (using WEAP model)