

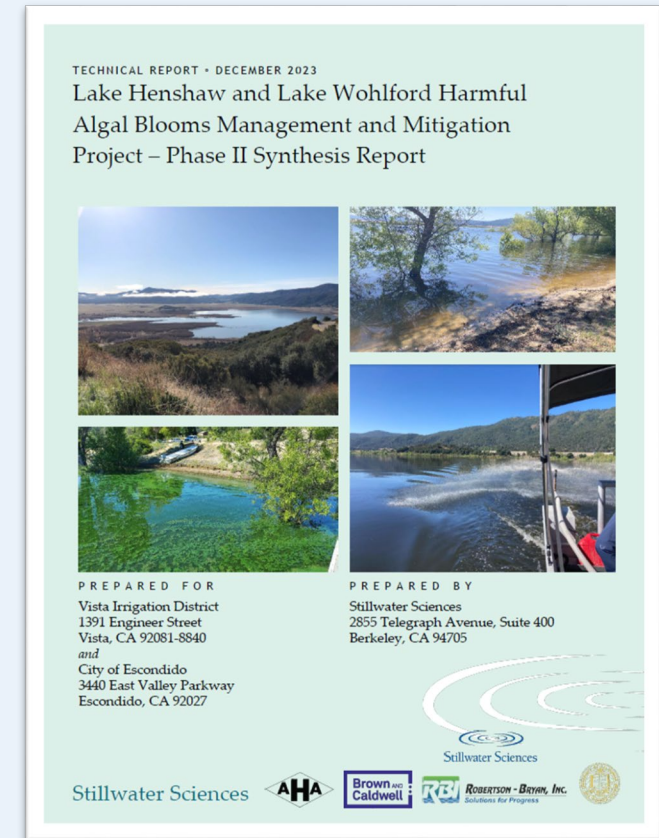
Lake Henshaw Oxygenation Pilot Study

Vista Irrigation District

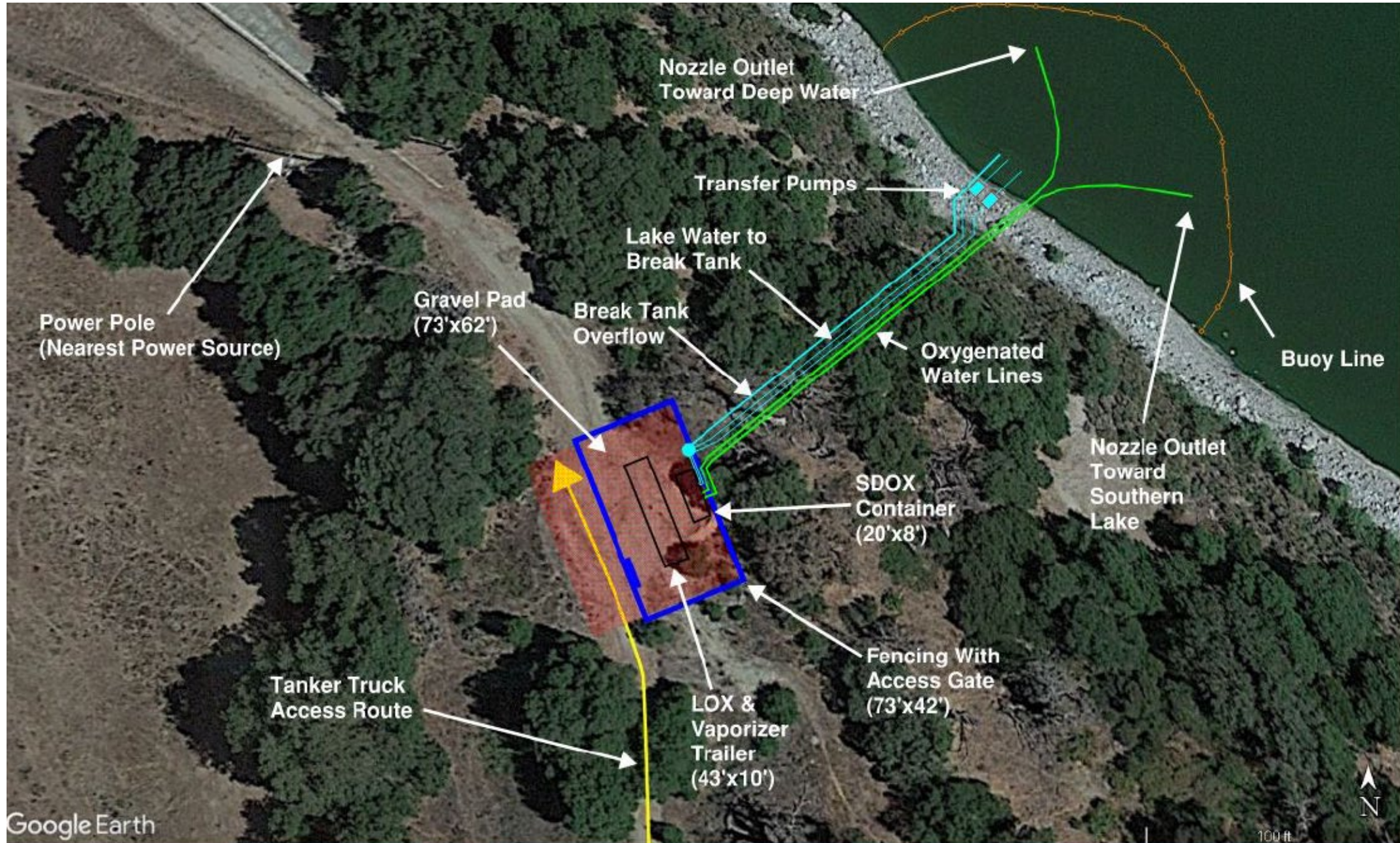
August 21, 2024

Proposed Professional Services Agreement for Lake Henshaw Oxygenation Pilot Study

- Pilot Study builds on Phase II Harmful Algal Bloom Study
 - Oxygenation promising long-term mitigation strategy
 - Recommended full-scale field trial
- Professional services by Stillwater Sciences
 - Design, construction, implementation, and analysis
 - Amount not-to-exceed \$646,959



Pilot Study Site Map



Estimated Pilot Study Costs

Description	FY 2025	FY 2026	Total
Fixed costs - permitting, engineering drawings, equipment procurement, site improvements, data analysis and reporting	\$1,500,000	\$ 244,760	\$1,744,760
Operational costs - equipment rental, liquid oxygen, power, operation and maintenance, water quality monitoring and analysis	401,120	601,120	1,002,240
Total cost	1,901,120	845,880	2,747,000
Funding award*	0	(500,000)	(500,000)
Total cost less funding award	1,901,120	345,880	2,247,000
District's portion of total costs	\$ 950,560	\$ 172,940	\$1,123,500

*District funding awarded through Metropolitan Water District's Future Supply Actions Funding Program

Proposed Schedule for Pilot Study (Exhibit C)

Project Phase and Task	2024					2025											
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Phase III Lake Henshaw Oxygenation Field Trial																	
Task 1 Lake Henshaw Oxygenation Field Trial Permitting																	
Agency Coordination																	
Nationwide Permit (NWP) Application Package to USACE				ad	d	agency review	f										
Biological Resources Evaluation (BRE)			d	f													
Application Package for CDFW Lake and Streambed Alteration Agreement (LSA)				ad	d	agency review	f										
USFWS Technical Assistance Letter				ad	d	agency review	f										
Water Quality Certification (WQC) Application Package to Regional Board				ad	d	agency review	f										
Task 2 Lake Henshaw Oxygenation Field Trial Implementation																	
SDG&E Coordination - Design Drawings	d	f															
Early Procurement by District																	
Site Survey and Site Walk																	
Bid Package Development		d	d	f													
District Bidding Process																	
Task 3 Engineering Services During Lake Henshaw Oxygenation Field Trial Construction																	
Submittal Review																	
RFI Response																	
Site Visits and Meetings																	
Task 4 Lake Henshaw Oxygenation Field Trial Operation and Analysis																	
System Commissioning and Startup																	
Physical System Monitoring																	
Water Quality Monitoring																	
Data Analysis and Evaluation																	
Monthly Meetings																	
Draft and Final Report																d	f
Task 5 Project Management																	
Communications, progress reports, monthly invoices																	

*Schedule is approximate and may be affected by outside entities such as resource agencies, SDG&E, equipment suppliers, and contractors.

ad' indicates an administrative draft document

d' indicates a draft document

f' indicates a final document