Engineering, Operations, & Technology Committee

Diamond Valley Lake Wave Attenuator System Replacement

Item 7-2

February 12, 2024

Item 7-2
DVL Attenuator System Replacement

Subject

Award a $7,842,856 contract to Power Engineering Construction Co. for the installation of a new floating wave attenuator at Diamond Valley Lake

Purpose

Provide safe, long-term public access to DVL for recreational boating and fishing

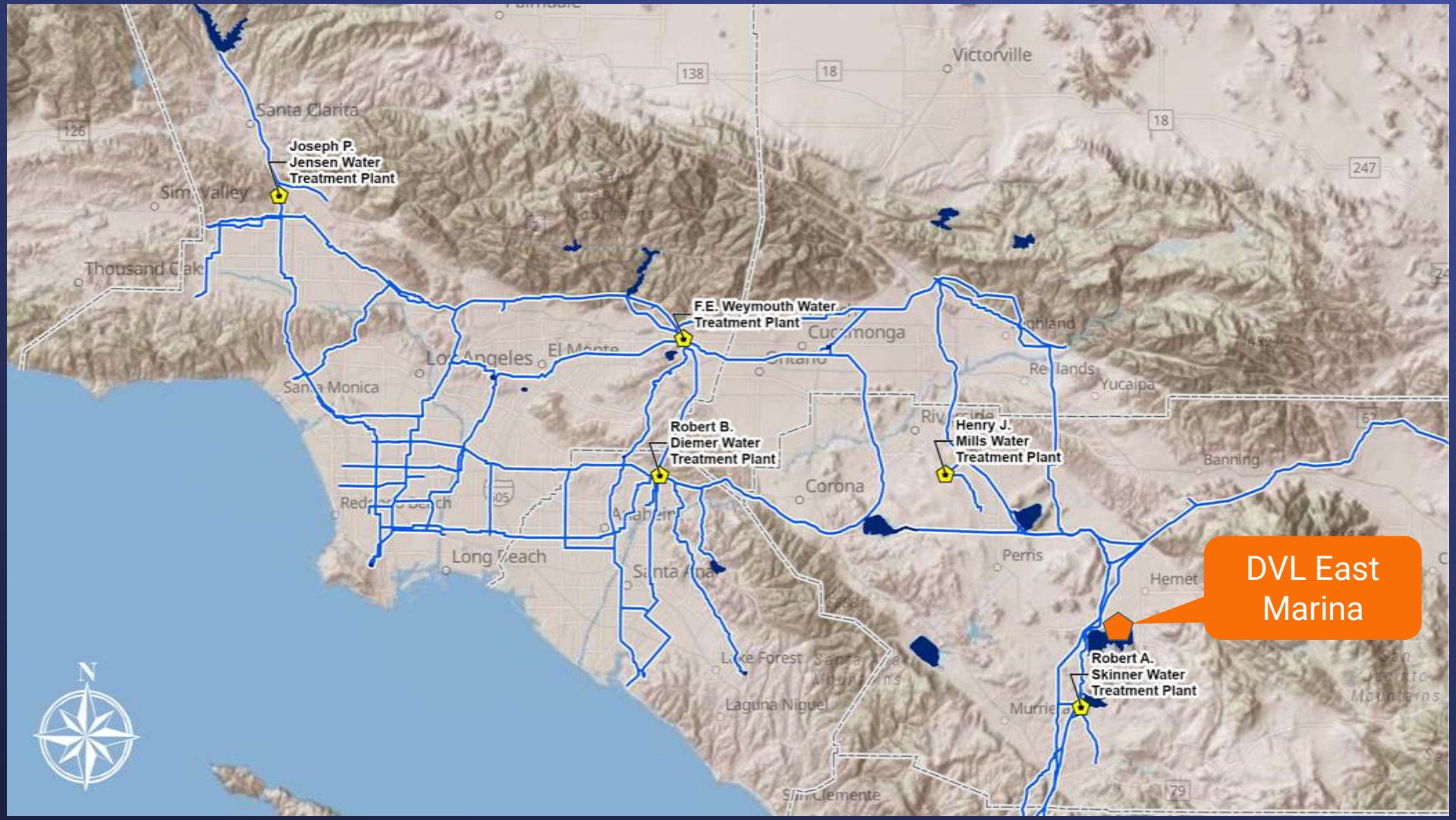
Recommendation and Fiscal Impact

Award a $7,842,856 construction contract to Power Engineering Construction Co. to install a new floating wave attenuator and to refurbish and move the existing attenuator to another location at the DVL East Marina.

Fiscal Impact of $9.875 million in capital funds

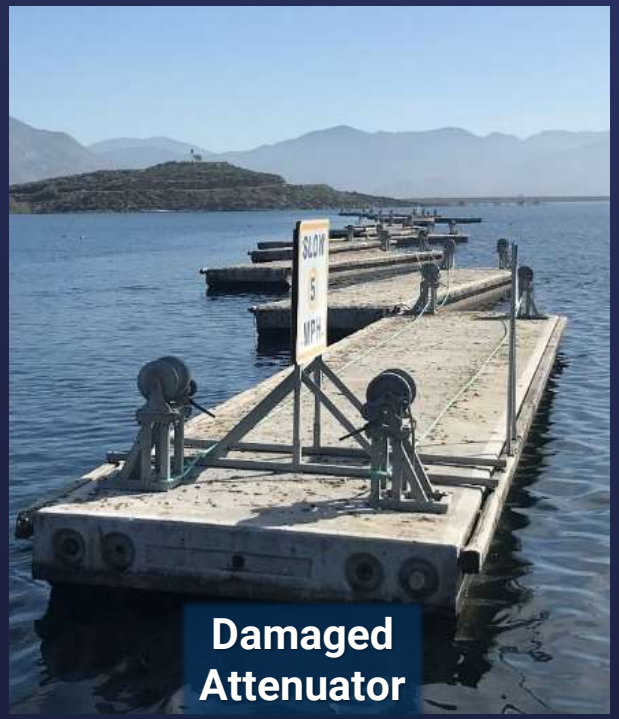
Budgeted

Location Map



Project Area

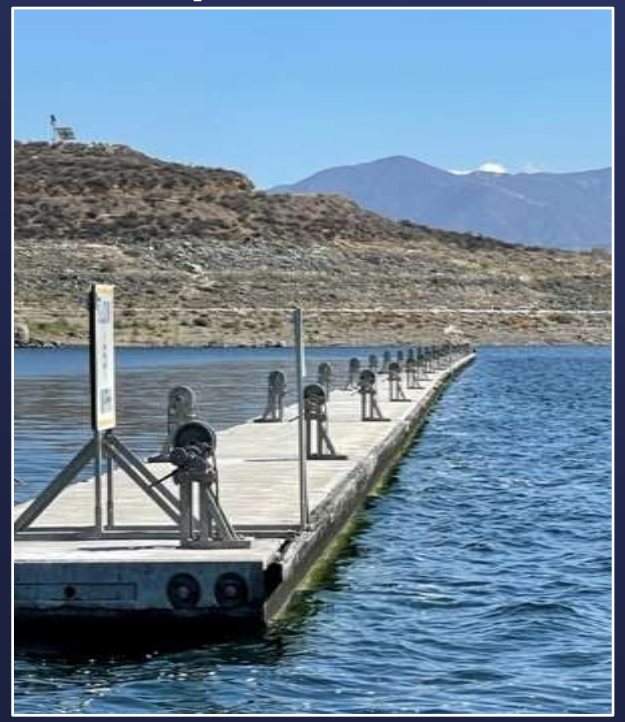
DVL Wave Attenuator System Replacement



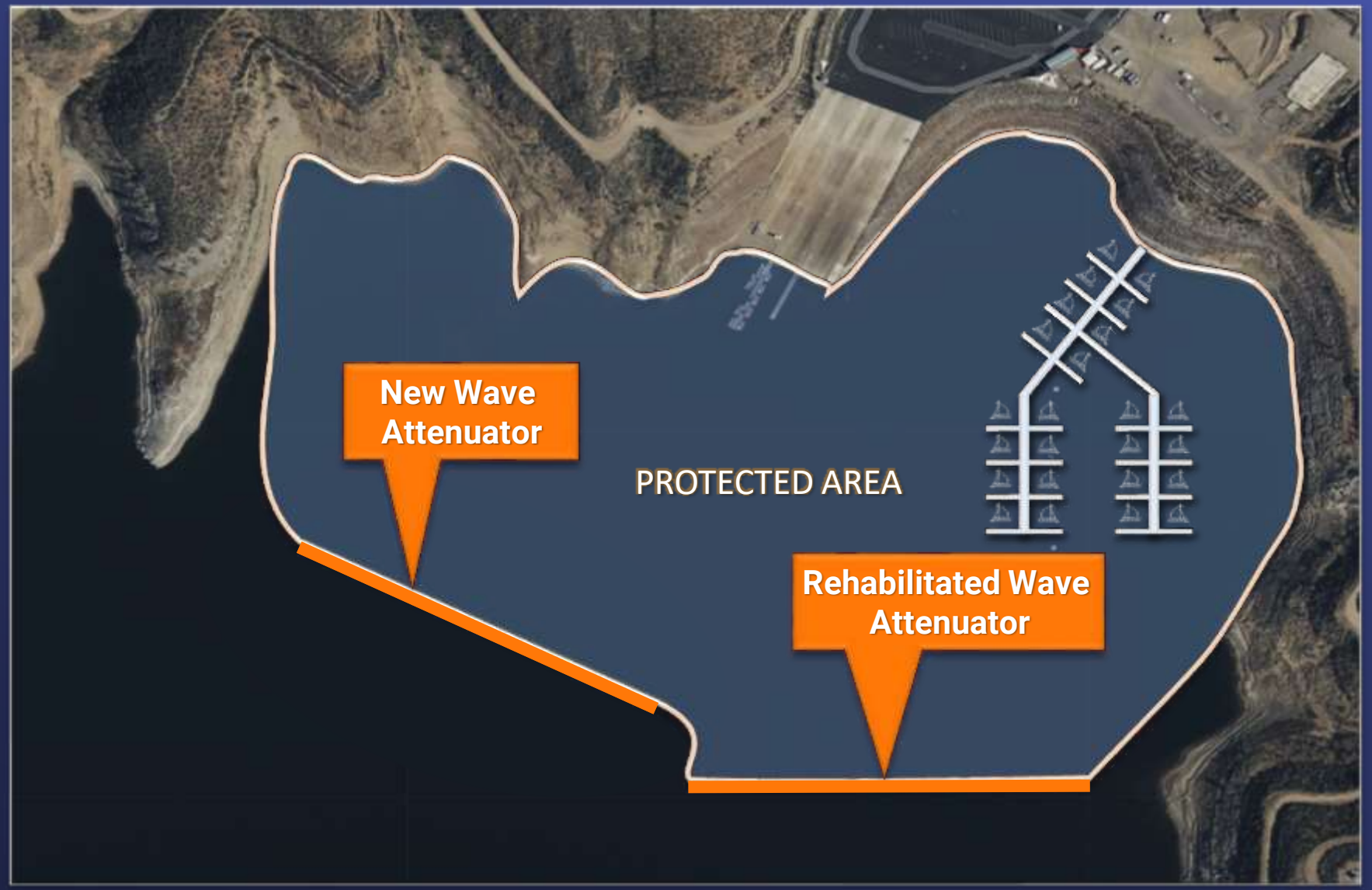
Background

- Constructed in 2003
- Diminishes wind generated waves at the marina
- Creates safe & stable boarding environment
- 16 reinforced concrete box segments
- 800 feet long & 8 feet wide
- Initial plan - two attenuators
- Sustained damage in harsh environment
- Urgent rehabilitation in 2021

DVL Wave Attenuator System Replacement



Future System Configuration



DVL Wave Attenuator System Replacement

Project Benefits & Considerations

- Allows continued public access for recreational boating
- Improves boat launching safety
- Decreases potential of further deterioration or sudden failure
- Decreases potential of closing the marina to boating
- Delays increase future scope of rehabilitation & costs
- Demonstrates dedication to recreation with stakeholders

DVL Wave Attenuator System Replacement

Alternatives Considered

- Fully refurbish existing attenuator in current location
  - High cost / low benefits
  - Replacement needed shortly after refurbishment
- Replace existing attenuator in-kind & construct a new larger supplementary attenuator
  - More expensive
  - Minimal service life benefits over selected alternative
- Postpone contract award for 12 – 18 months
  - Further deterioration & potential failure
  - May lead to closing the marina area
  - Ability to reutilize existing attenuator uncertain
  - Increased costs for future construction contract

DVL
Wave
Attenuator
System
Replacement

Selected Alternative

- Add new attenuator, refurbish existing & relocate existing attenuator
  - Improves safety
  - Cost-effective
  - Ensures public access
  - Maximizes value of existing assets
  - Decreases expenses
  - Long-term protection

DVL
Wave
Attenuator
System
Replacement

Contractor – Scope of Work

- Rehabilitate existing wave attenuator
- Relocate existing attenuator to a new location
- Fabricate & install new attenuator
- Place additional concrete anchors
- Connect anchor cables

Bid Results
Specifications No. 2004

Bids Received	November 21, 2023
No. of Bidders	4
Lowest Responsible Bidder	Power Engineering Construction Co.
Low Bid	$7,842,856
Range of Other Bids	$8,435,000 to $10,310,000
Engineer’s Estimate	$11,100,000
SBE Participation*	15%

*SBE (Small Business Enterprise) participation level set at 15%

DVL
Wave
Attenuator
System
Replacement

Metropolitan - Scope of Work

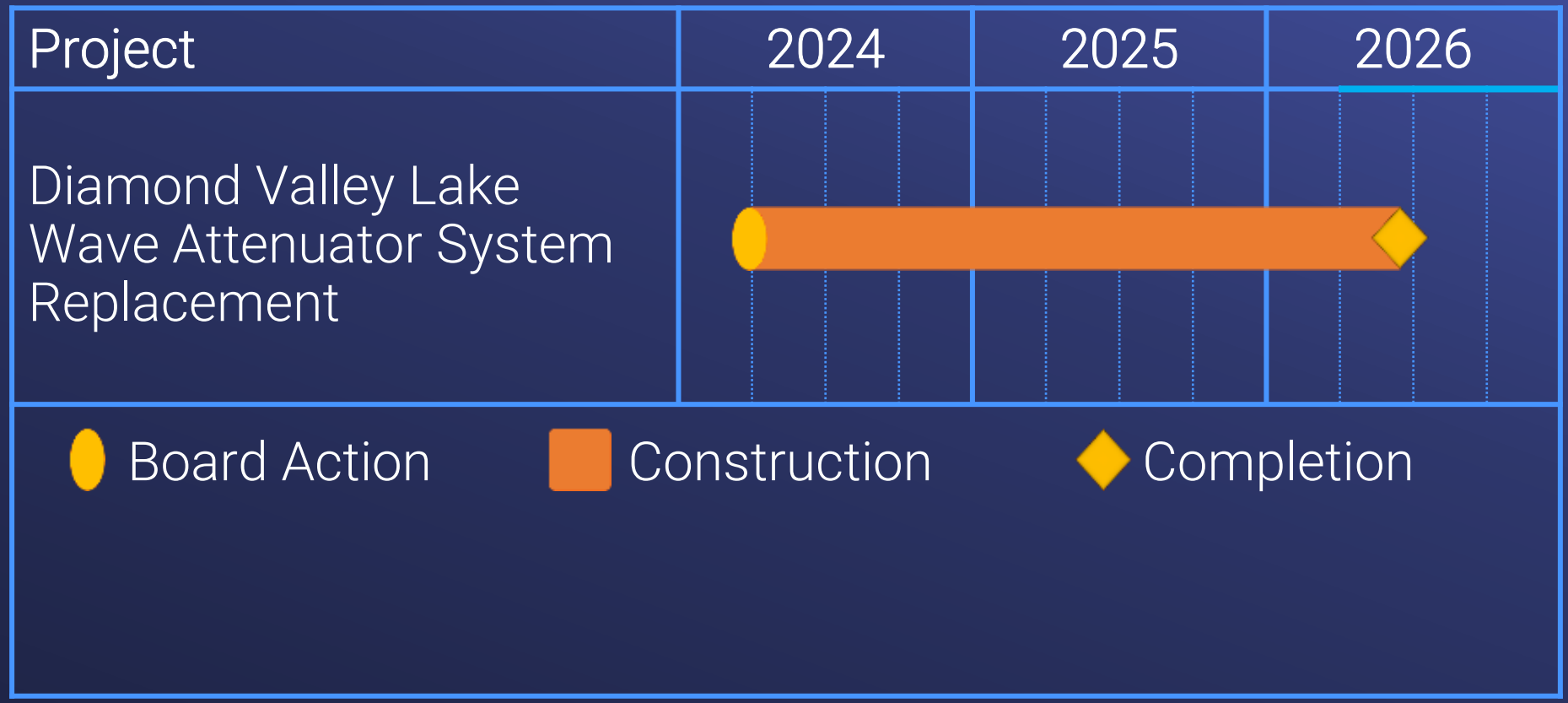
- Construction management & inspection
- Submittals review & preparation of record drawings
- Environmental monitoring
- Project management & project controls

Allocation of Funds

Diamond Valley Lake Wave Attenuator System Replacement

Metropolitan Labor	
Owner Costs (Proj. Mgmt., Contract Admin., Envir. Support)	$ 352,000
Construction Inspection & Support	783,000
Submittals Review, Tech. Support, Record Dwgs.	375,000
Professional/Technical Services	
Kennedy Jenks	60,000
Environmental Services	10,000
Contracts	
Power Engineering Construction Co.	7,842,856
Remaining Budget	452,144
Total	$ 9,875,000

Project Schedule



Board Options

- Option #1

  Award a $7,842,856 construction contract to Power Engineering Construction Co. to install a new floating wave attenuator and to refurbish and move the existing attenuator to another location at the DVL East Marina.

- Option #2

  Do not proceed with the project at this time.

Staff Recommendation

- Option #1


THE METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
1928