



Engineering, Operations, & Technology Committee

Lake Mathews Specialized Diving Services

Item 7-5

July 7, 2025

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Lake Mathews Specialized Diving Services

Subject

Authorize an increase of \$700,000 in change order authority to an existing contract with Power Engineering Construction Co. for urgent diving services at Lake Mathews

Purpose

Specialized divers will be used at Lake Mathews for isolation of Outlet Tower 1 and inspection of the Junction Shaft gate that is currently stuck in place at 70% open

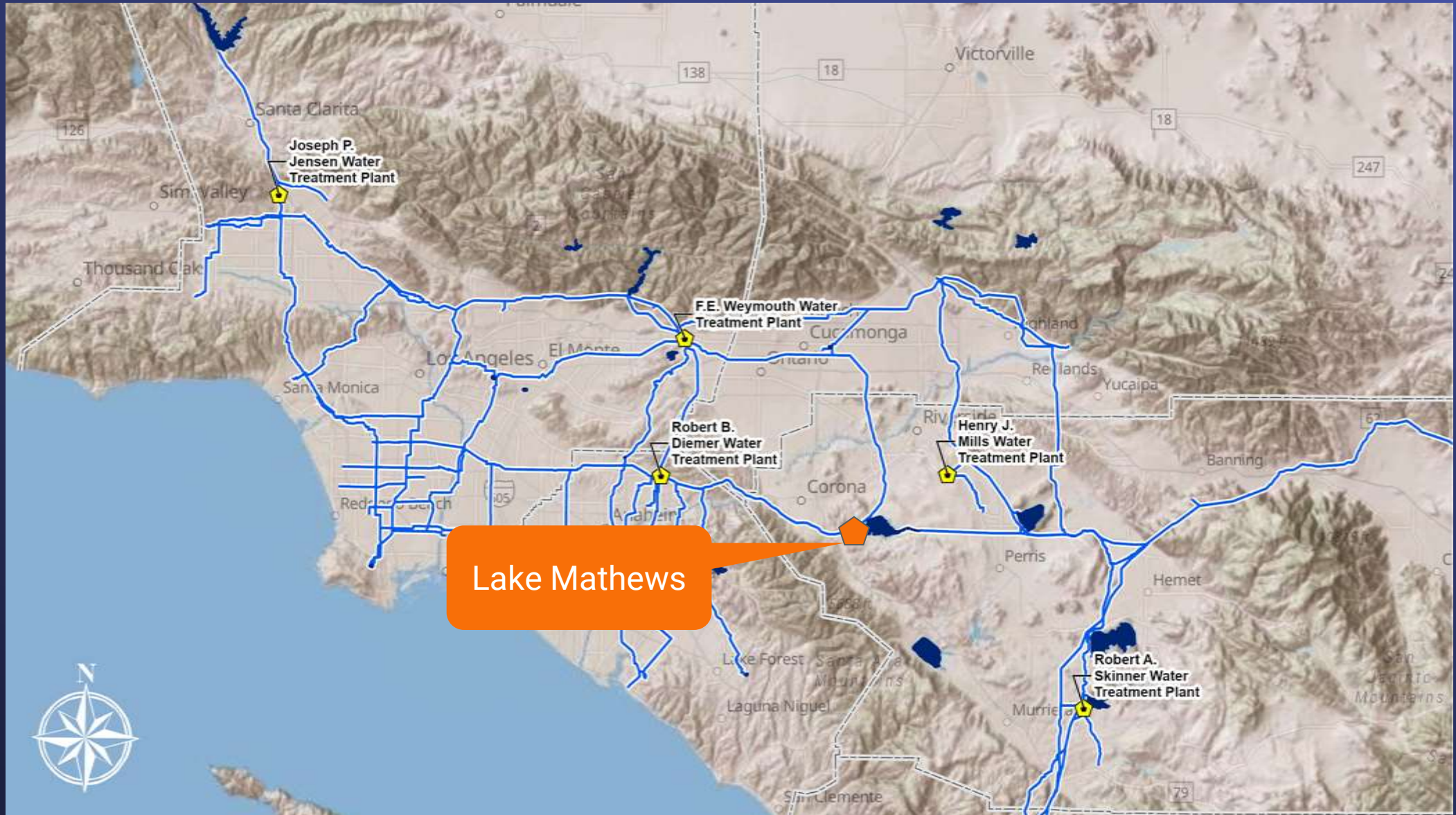
Recommendation and Fiscal Impact

Authorize increased change order authority on an existing construction contract

Fiscal Impact – \$1.1 million in O&M funds

Budgeted

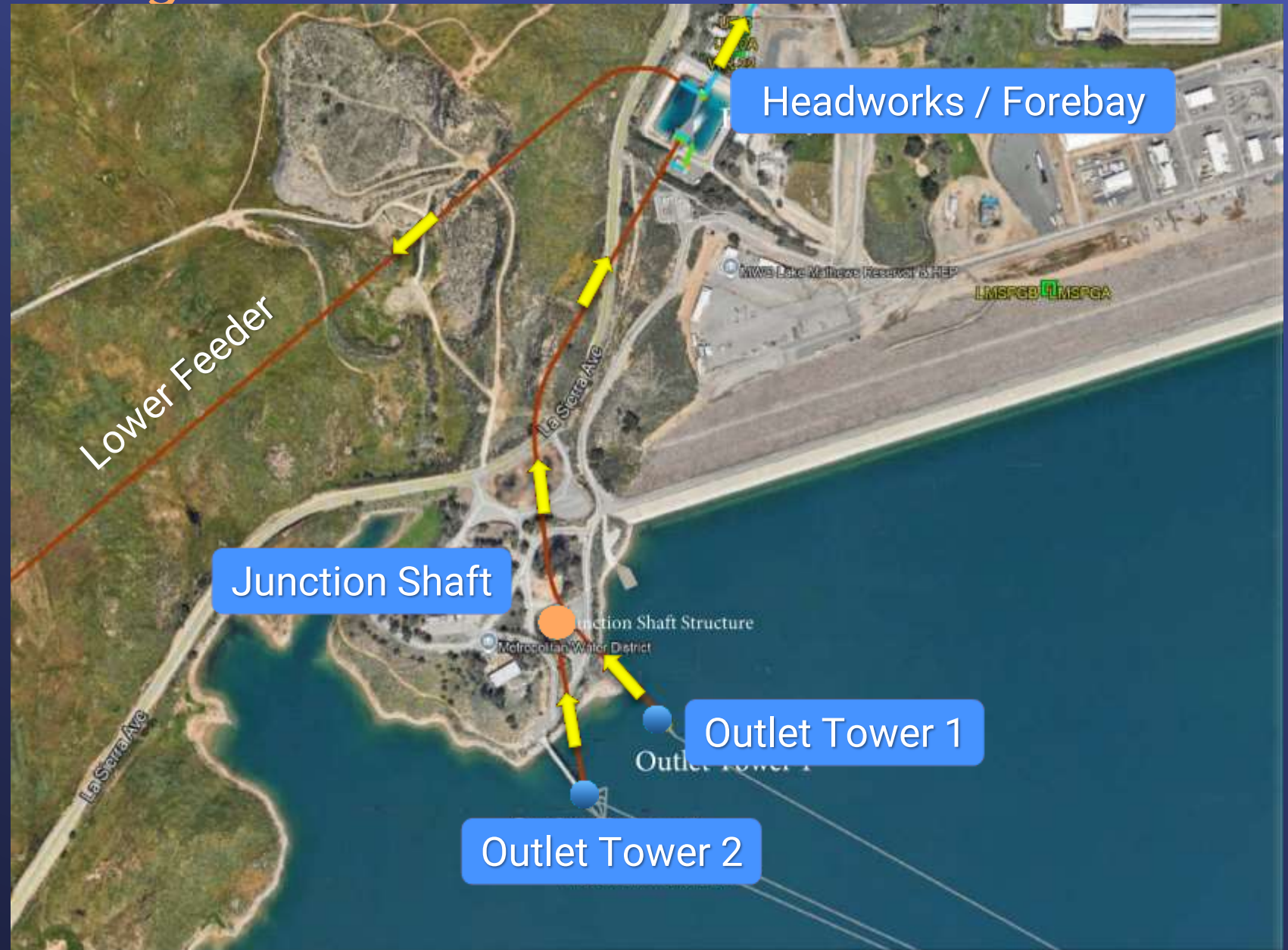
Location Map



Background

Lake Mathews Specialized Diving Services

- Outlet Tower 1 constructed in 1938
- Outlet Tower 2 constructed in 2004



Background

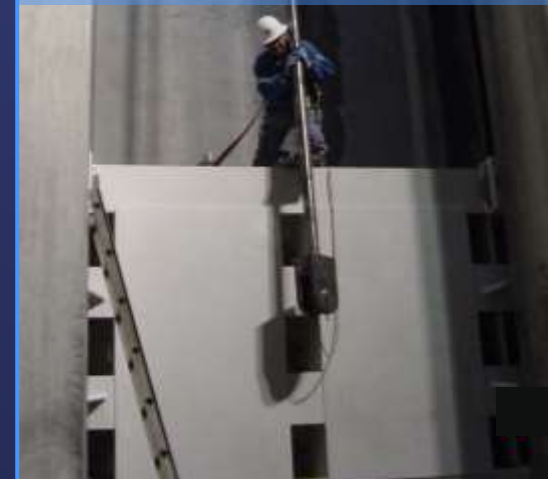
- 2004 modifications of Outlet Tower 1
 - Seismic upgrade
 - Top portion removed
 - Control valves removed from Tower 1 & replaced with blind flanges
- Roller gates provide isolation between outlet towers & junction shaft



Lake Mathews Tower #1
Modified Valve Tiers



Lake Mathews
Junction Shaft Gate
Installation (2004)



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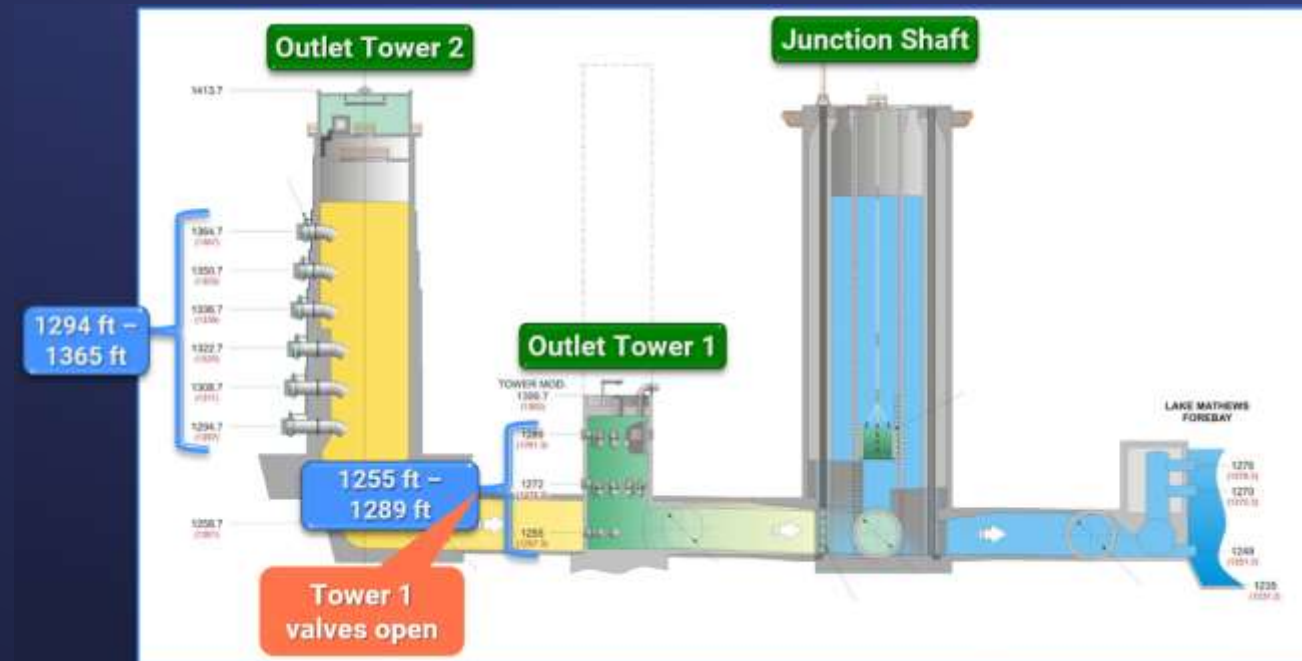
Background

- May 2025 – Junction shaft roller gate from Tower 1 stuck in place at 70% open
 - Gate normally closed
- Potential adverse water quality at low levels of Lake Mathews during Summer
 - Could lead to deteriorated water quality leaving Lake Mathews

Lake Mathews Specialized Diving Services

Background – Diving Services

- Divers needed to isolate Tower 1 & inspect roller gate in Junction Shaft
- Tower 1 & Junction Shaft roller gate located over 100-feet below water surface
- Tower 1 - confined space



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Alternatives Considered

- Considered Alternative – Issue new contract for urgent work at Tower 1
 - Schedule includes preparation of contract, advertisement, & contract award
 - Work for this alternative to be completed September 2025 at the earliest
- Selected Alternative – Increase change order authority on existing contract with Power Engineering
 - Isolation of Tower 1 to be completed in July 2025

Change Order Authority Limits

- Change order authority determined by Admin. Code (Section 8123)
 - GM authority to execute change orders is the greater of:
 - 5% of the original contract amount
 - \$250,000

Change Order Authority Increase to Existing Contract

- Contract 2004 – Power Engineering Construction Company
 - Original contract scope: rehabilitate existing wave attenuator & install new wave attenuator at Diamond Valley Lake
 - Includes specialized diving services
 - Original contract value: \$7,842,856
 - Original change order authority: \$392,143
 - Change order authority increase for specialized diving services at Lake Mathews: \$700,000
 - New change order authority: \$1,092,143
- Rapid mobilization & completion of work



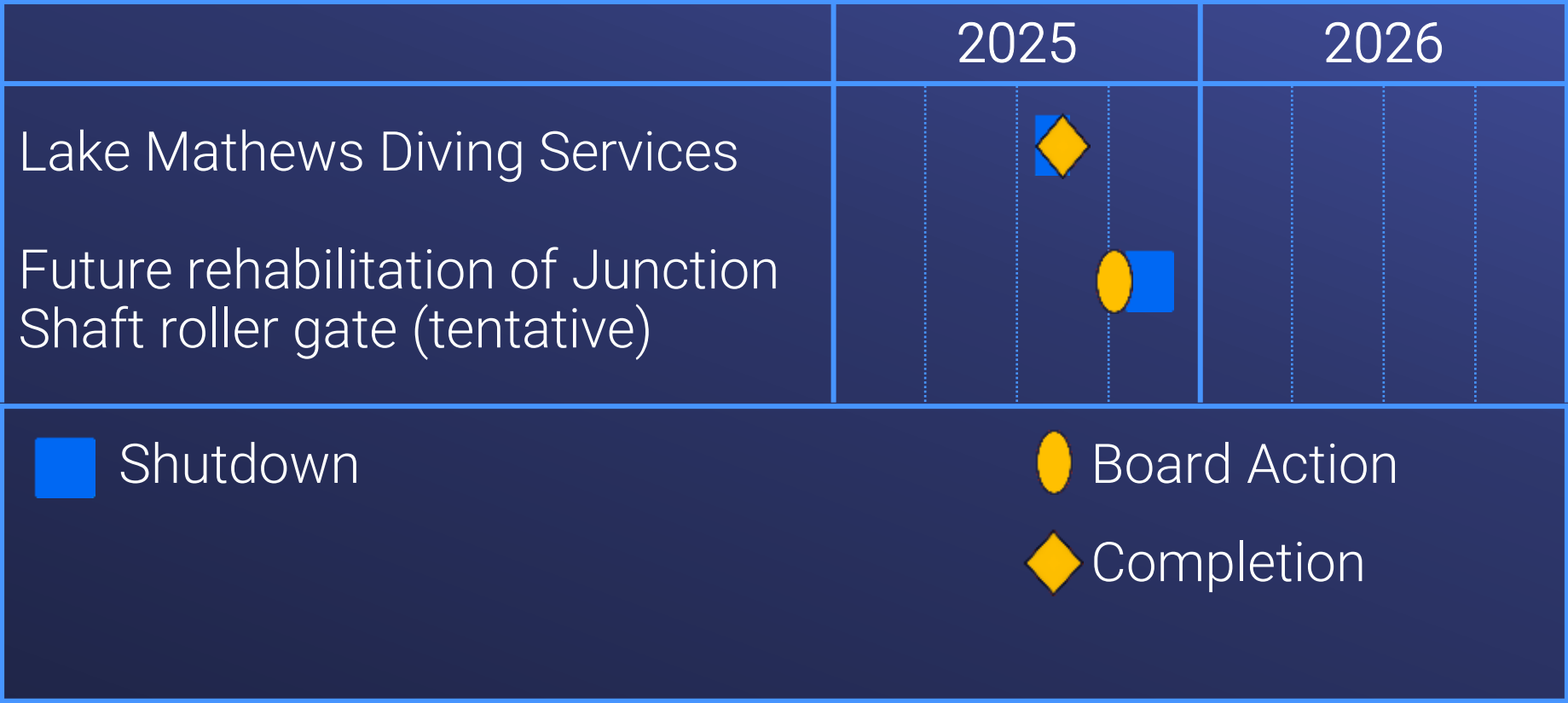
Diver at Diamond Valley Lake

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Scope of Work

- Contractor – Power Engineering
 - Provide specialized equipment & experienced divers to complete the deep-water diving work
 - Isolate Tower #1 by closing existing blind flanges
 - Inspect & document condition of stuck roller gate in Junction Shaft
- Metropolitan
 - Shutdown of Lake Mathews outlet works
 - Construction inspection, contract administration, technical support, & project management

Project Schedule



Board Options

- Option #1

Authorize an increase of \$700,000 in change order authority for a new maximum change order authority of \$1,092,143 to an existing contract with Power Engineering Construction Co. for specialized diving services at Lake Mathews Outlet Tower No. 1.

- Option #2

Do not authorize the increase in change order authority at this time.

Staff Recommendation

- Option #1

