Engineering, Operations, & Technology Committee

CRA Pumping Plants Sump System Rehabilitation

Item 8-1

September 15, 2026

Presented by: Cathy Lou

Item 8-1
CRA Pumping Plants Sump System Rehabilitation

Subject

Award a $42,710,530.01 construction contract to Mountain Cascade Inc. to rehabilitate the circulating water and sump discharge piping systems at the Colorado River Aqueduct pumping plants

Purpose

Enhances reliability of the Colorado River Aqueduct pumping plants and reduces the risk of unplanned outages

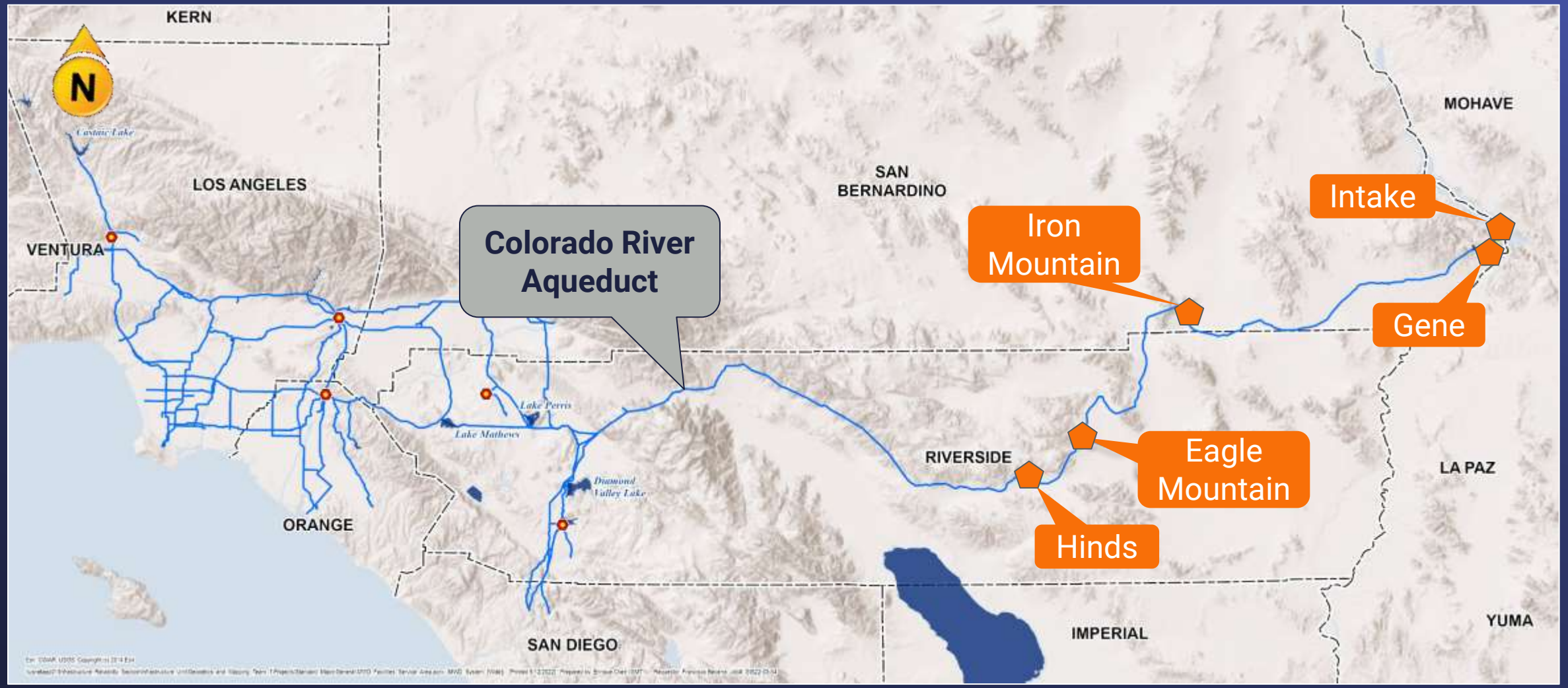
Recommendation and Fiscal Impact

Award a construction contract to rehabilitate the sump systems at all five Colorado River Aqueduct pumping plants

Fiscal Impact – $55.7 M

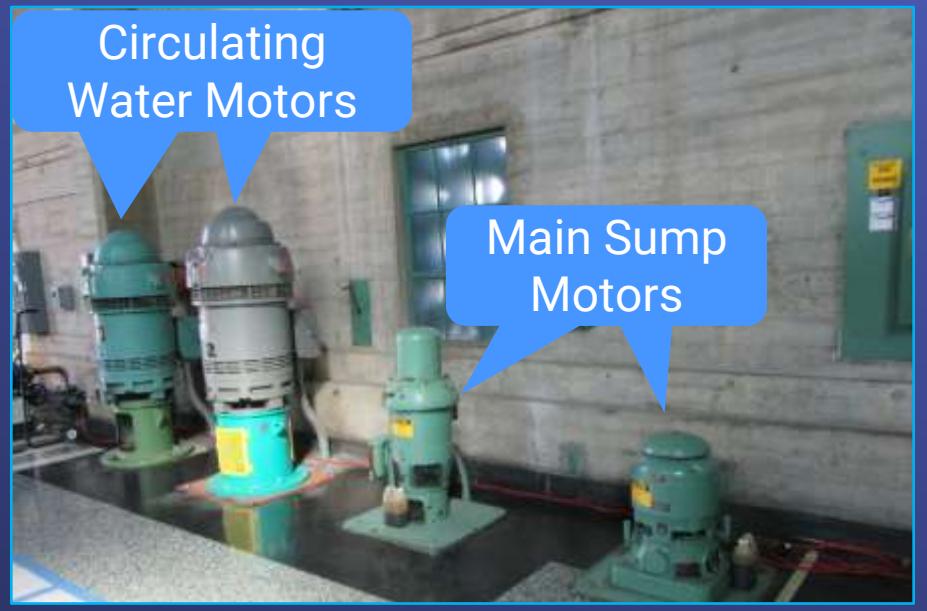
Budgeted

Location Map

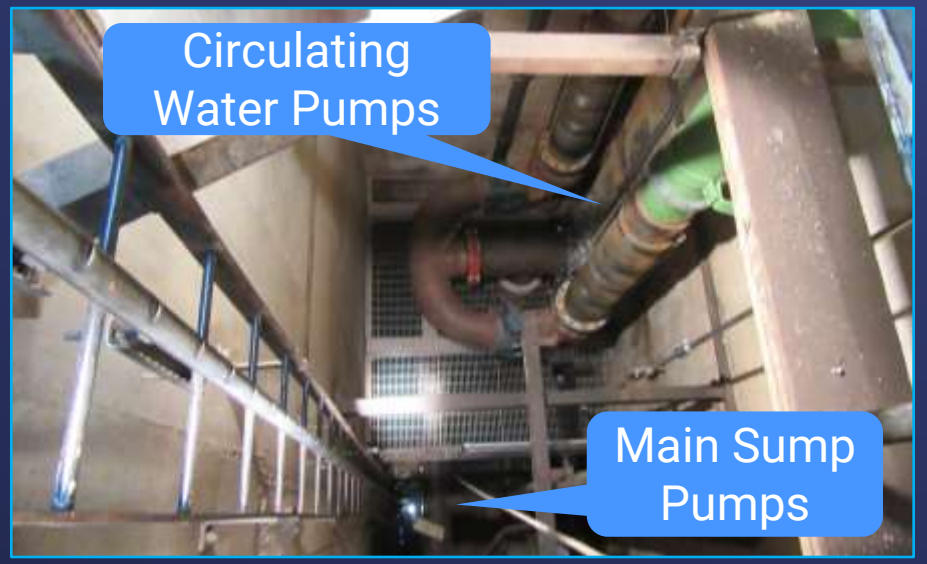


Background

- Part of original CRA construction (1930s)
- Sump discharge systems
  - 2 main sumps & 5 auxiliary sumps at each plant
  - Collects process water and leakage
  - Pumps extend to lowest level of the building
- Circulating water systems
  - Located in a main sump basin alongside sump discharge system
  - Draws water from CRA inlet pipe
  - Provides fire protection, main pump cooling water & potable water

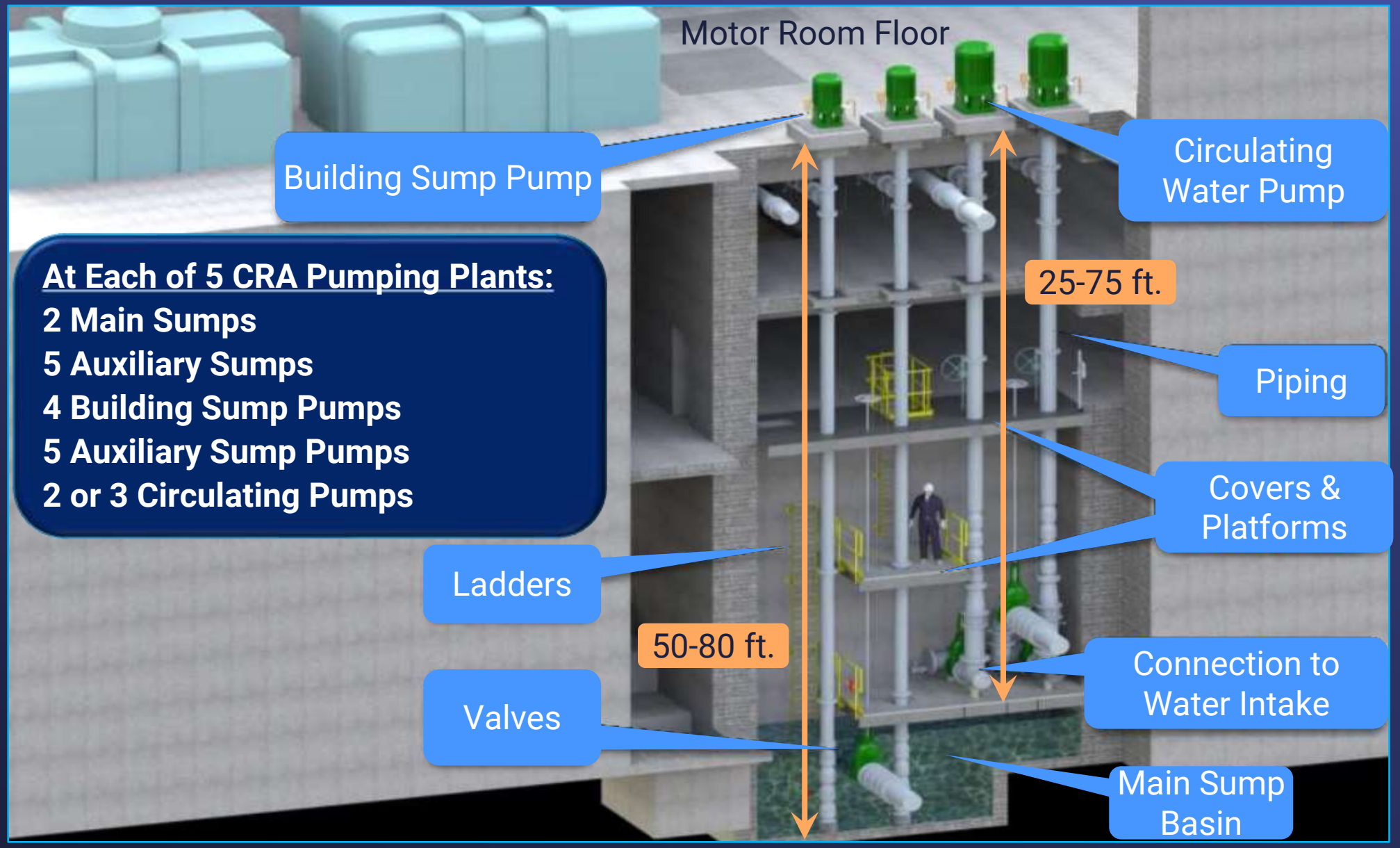


Gene Motor Room Floor



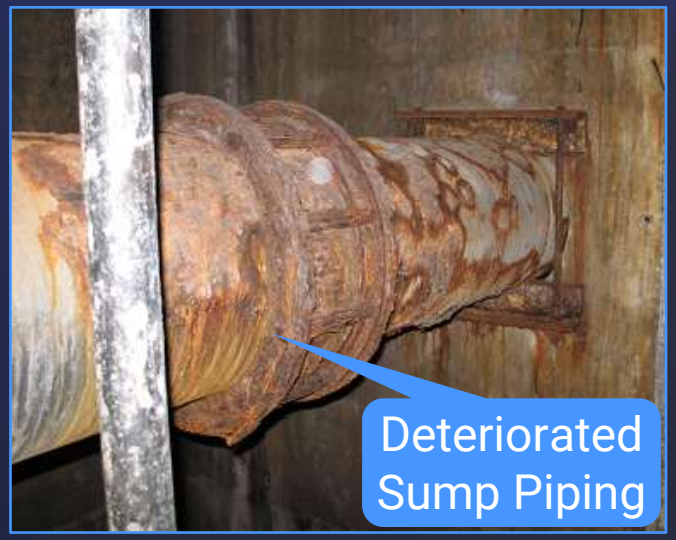
Iron Mtn Main Sump Basin

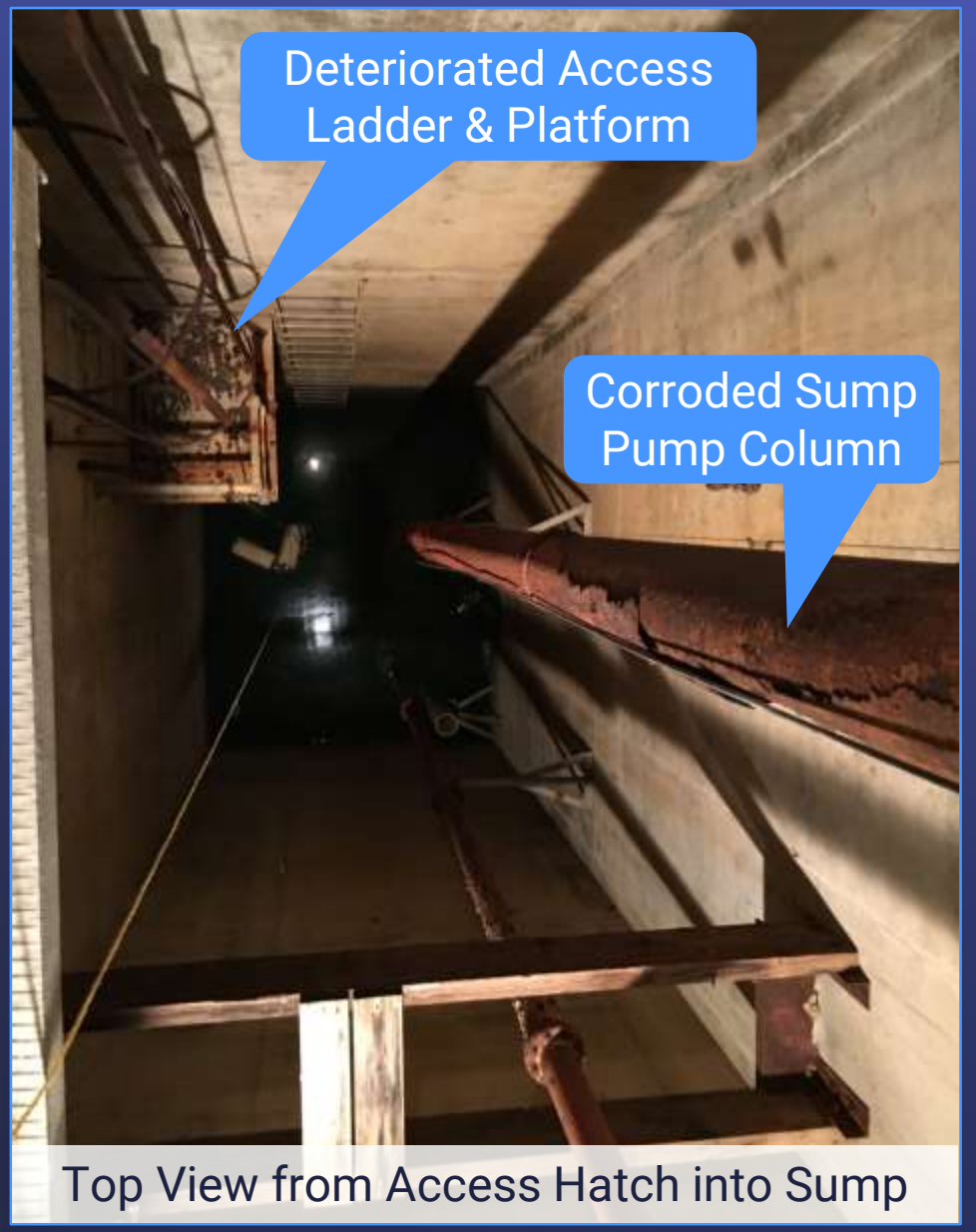
Main Sump & Circulating Water System



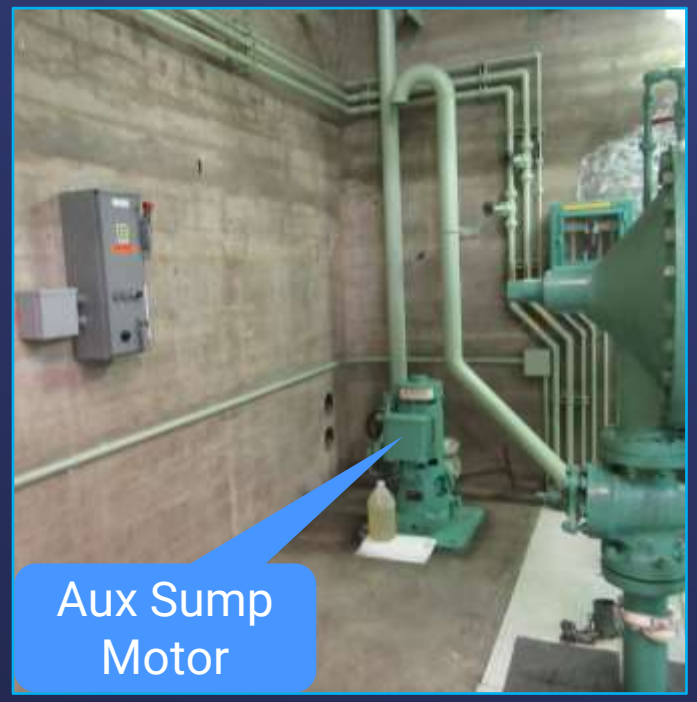
Existing Condition

- Sump systems are constantly in a wet environment
- Pumps, valves and piping severely corroded with frequent leaks
- Limited access due to confined space, narrow platforms & small entry hatches





Top View from Access Hatch into Sump



Construction Contract

- Contract awarded in late 2018
  - Long lead-time equipment ordered
- Contractor mobilization halted in 2020 to meet pandemic distance requirements
  - Protect plant staff from exposure
  - Work located in close quarters
- Contract revised to complete equipment procurement only
- Final equipment delivered in 2023

CRA Sump System Rehabilitation

Alternatives Considered

- Considered Alternative – Phase construction over multiple contracts
  - Complete work one plant at a time
  - Delays replacement and increases maintenance cost
- Selected Alternative – Replacement at all plants under one contract
  - Expeditious replacement to ensure continued reliable plant operations
  - Install Metropolitan Furnished Equipment within warranty period

Scope of Work - Contractor

- Procure remaining equipment & materials
  - Piping, flanges, couplings, ladders, handrails & safety devices
- Remove & replace pumps, motors, piping, valves & actuators
- Replace existing structural components
  - Platforms, grating, ladders, handrails & sump covers
- Provide temporary pump systems during construction & tie-in
- Installation of Metropolitan-Furnished Equipment (MFE)
- Upgrade electrical and instrumentation & control systems
- Abate hazardous materials
- Total replacement
  - 57 pumps, 132 valves & over 1,000 ft. of steel pipe

Scope of Work – Metropolitan Forces

- Dewater & shut down the sump & circulating water systems
- Provide contractor access for equipment removal & installation
- Isolate 480V power system
- Refurbish existing 2.3kV circulating water motor starters
- Install wiring from PLCs to control rooms
- Integrate controls system into SCADA
- Support start up, commissioning & return to service
- Inspection, project management & project controls

Existing 2.3kV Circulating Water Motor Starter

Bid Results
Specifications No. 2008

Bids Received	August 4, 2026
No. of Bidders	4
Lowest Responsible Bidder	Mountain Cascade Inc.
Low Bid	$42,710,530.01
Range of Other Bids	$50.9 M to $60.6 M
Engineer's Estimate	$36.3 M
SBE Participation Goal	20%

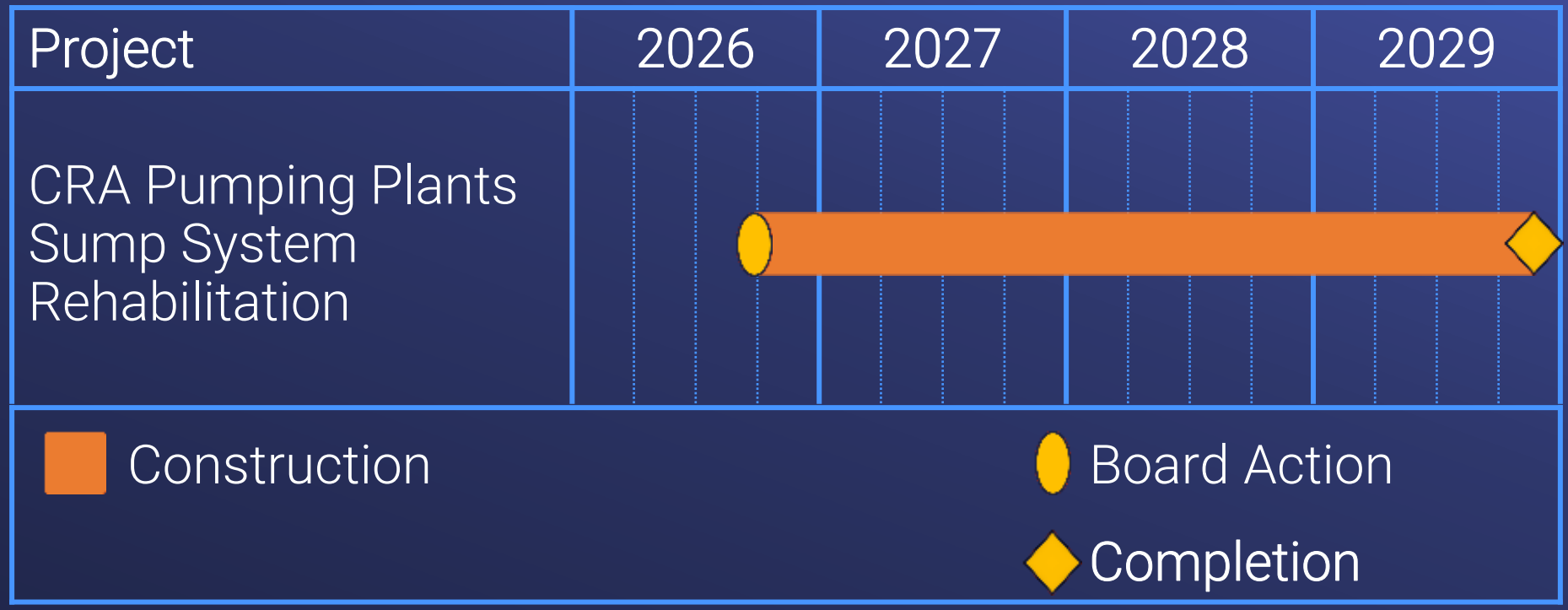
Note: This contract will be conducted under the terms of Metropolitan's project labor agreement

Allocation of Funds

CRA Pumping Plants Sump System Rehabilitation

Metropolitan Labor		
Owner Costs (Proj. Mgmt., Contract Admin., Envir. Support)	$	488,000
Construction Inspection & Support		5,383,000
Force Construction		2,557,000
Submittals Review, Tech. Support, Record Drwgs.		1,950,000
Materials, Supplies & Incidental Expenses		228,000
Professional/Technical Services		
Environmental Monitoring Consultant		97,000
PLA Admin. Consultant		325,000
Contracts		
Mountain Cascade Inc.		42,710,530.01
Remaining Budget		1,961,469.99
Total	$	55,700,000

Project Schedule



Board Options

- Option #1

  Award a $42,710,530.01 construction contract to Mountain Cascade Inc. to rehabilitate the circulating water and sump discharge piping systems at the Colorado River Aqueduct pumping plants.

- Option #2

  Do not proceed with this project at this time.

Staff Recommendation

- Option #1

THE METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
1928