



Engineering, Operations & Technology Committee

Prestressed Concrete Cylinder Pipe Rehabilitation Program Update

Item 6a

January 13, 2025

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Prestressed Concrete Cylinder Pipe Rehabilitation Program Update

Subject

Update on PCCP Rehabilitation Program

Purpose

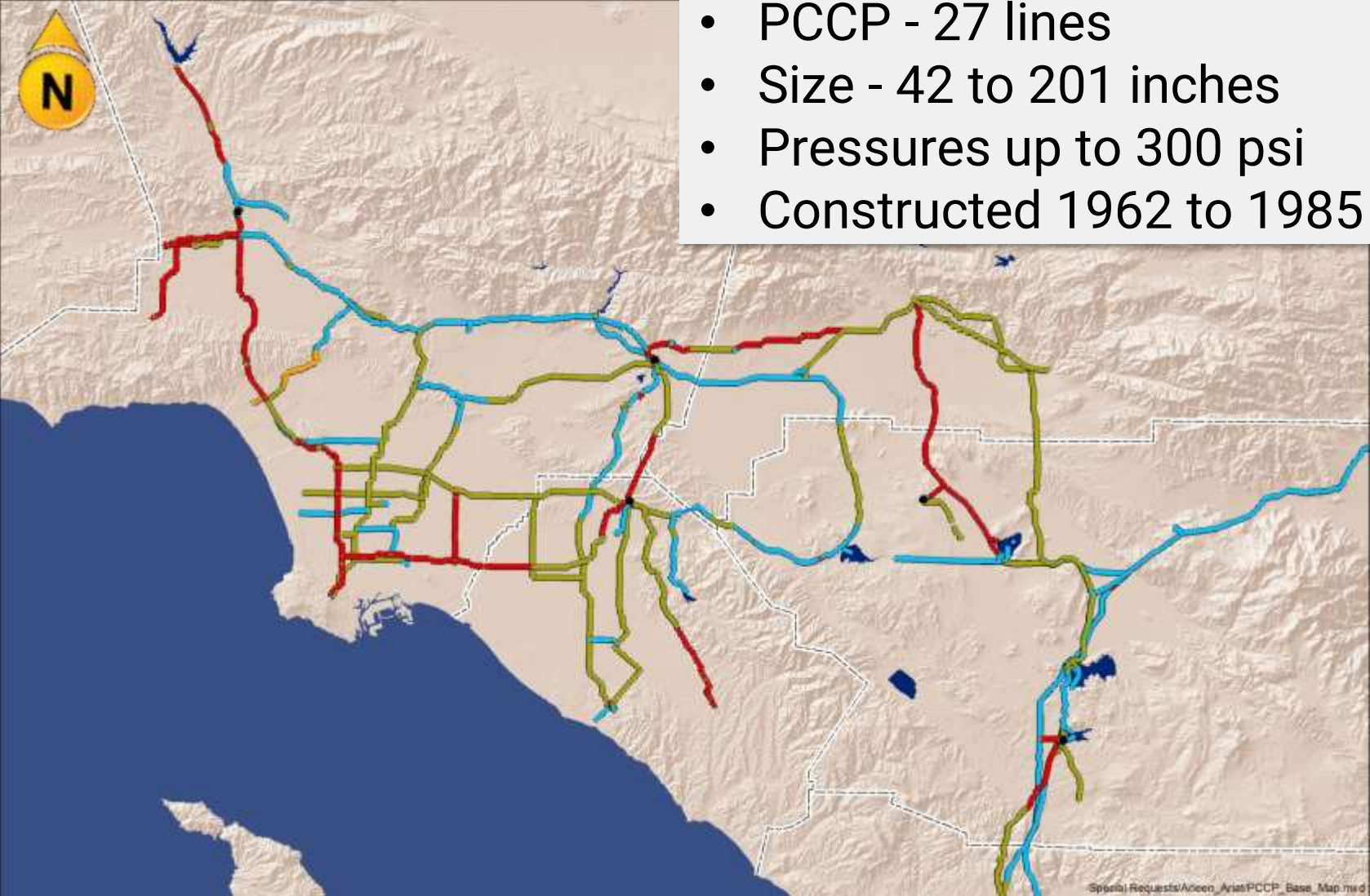
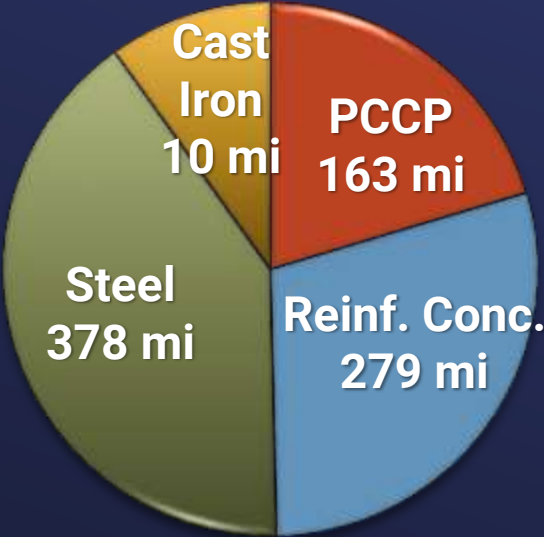
Provide briefing on status of the PCCP Rehabilitation Program

Next Steps

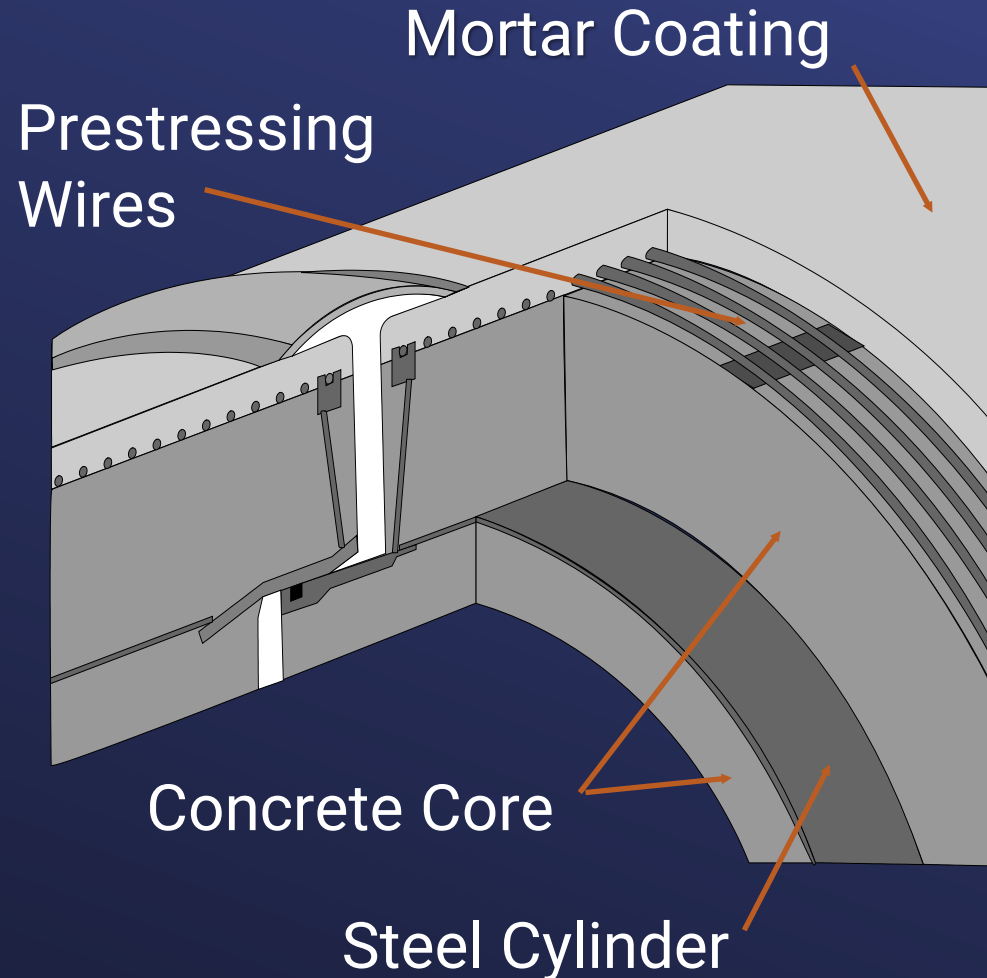
Continue implementation of the PCCP Rehabilitation Program with a schedule consistent with board priorities

Distribution System

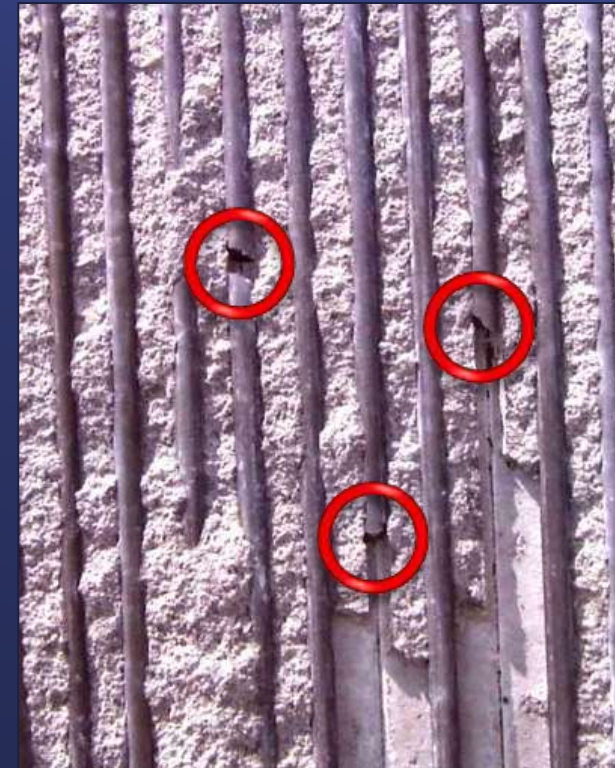
PCCP Rehab Program Update



Prestressed Concrete Cylinder Pipe (PCCP)



Broken
Prestressing Wires



PCCP Management Strategy

- Continue regular inspection & monitoring
 - Visual & electromagnetic inspections
 - Investigate new technologies
 - Monitor stray currents & install drain stations where necessary
- Perform repair of distressed segments
- Plan & execute long-term rehabilitation
 - Identify & prioritize reaches
 - Reline or replace pipelines based on priority of individual reaches
 - Adjust priorities as needed



Second Lower Feeder
Relining

2024/2025 Electromagnetic Inspections

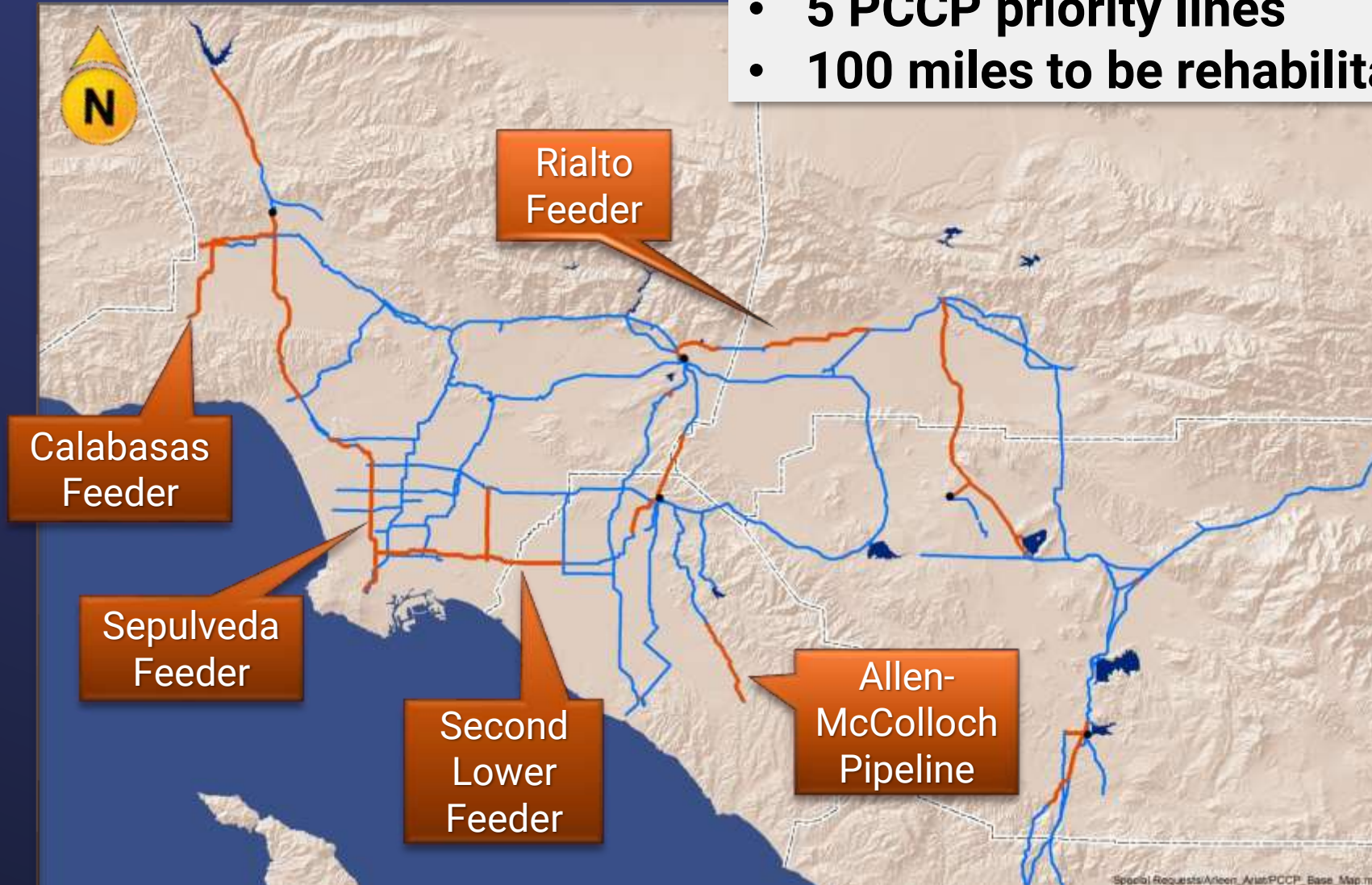
Pipeline	Miles
Lake Perris Bypass	2.2
Second Lower Feeder	5.4
East Lake Skinner Bypass	1.3
San Diego Pipeline No. 5	7.8
Auld Valley Pipeline	2.1
Rialto Pipeline	15.9
Yorba Linda Feeder	5.0
Lake Skinner Outlet Conduit	0.8
La Verne Pipeline	2.0
Total	42.5



Electromagnetic Inspection

PCCP Rehabilitation Program

- 5 PCCP priority lines
- 100 miles to be rehabilitated



PCCP Rehabilitation Program Budget

Feeder	Program Estimate	Actual Costs	Work Completed
Second Lower	\$696,000,000	\$291,052,655	• 16.5 miles relined (55%)
Sepulveda	\$1,384,000,000	\$38,584,540	• 1.6 miles relined (4%)
Rialto	\$547,000,000	\$3,480,148	• Completing prelim. design
Calabasas	\$160,000,000	\$2,496,345	• Prelim. design underway
Allen-McColloch	\$320,000,000	\$54,840,351	• 3.2 miles completed or underway (35%)
Other	\$40,000,000	\$26,233,928	
Total	\$3,147,000,000	\$416,687,967	• 21.3 miles total relined (21%)

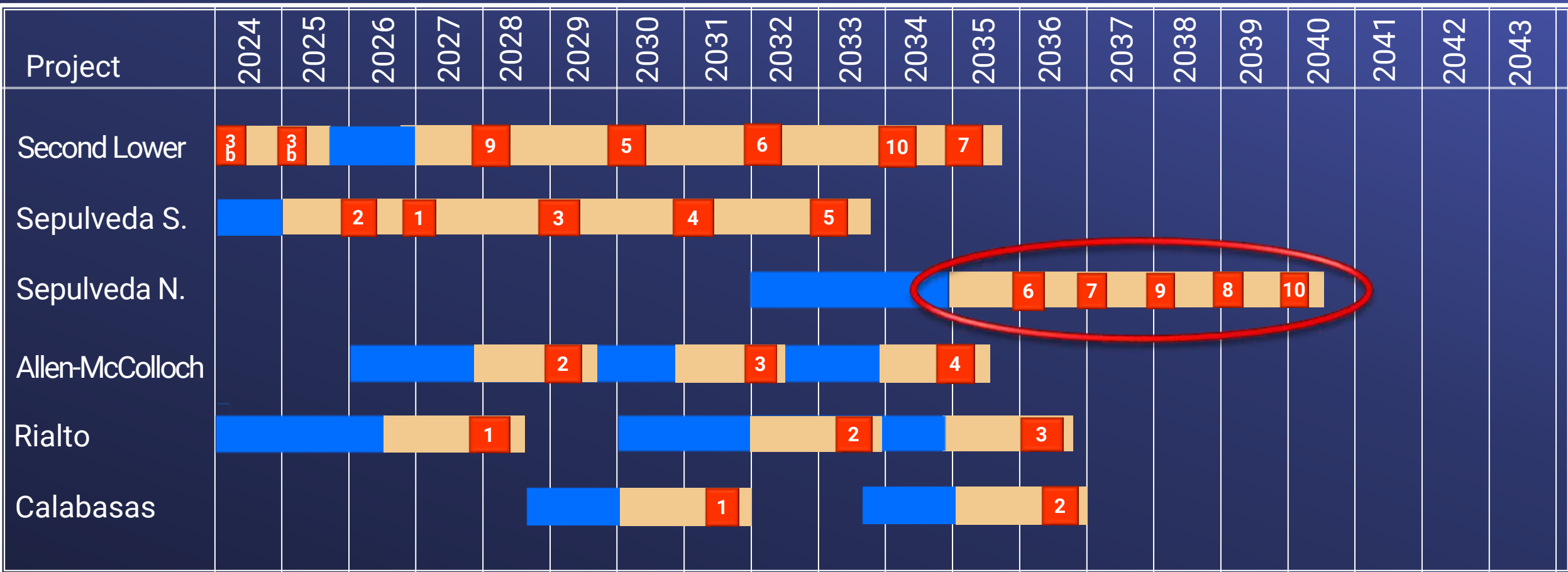
Sepulveda Pump Stations

- Drought mitigation effort – Allows pumping of CRA supplies to western SWP dependent areas
- Stage 1 – 30 CFS
 - Current Progressive Design-Build contract underway
 - Projected 2027 online date
 - No PCCP relining required
- Stage 2 – 160 CFS
 - Anticipated 2032 online date
 - Being evaluated under CAMP4Water
 - Requires relining of Sepulveda Feeder

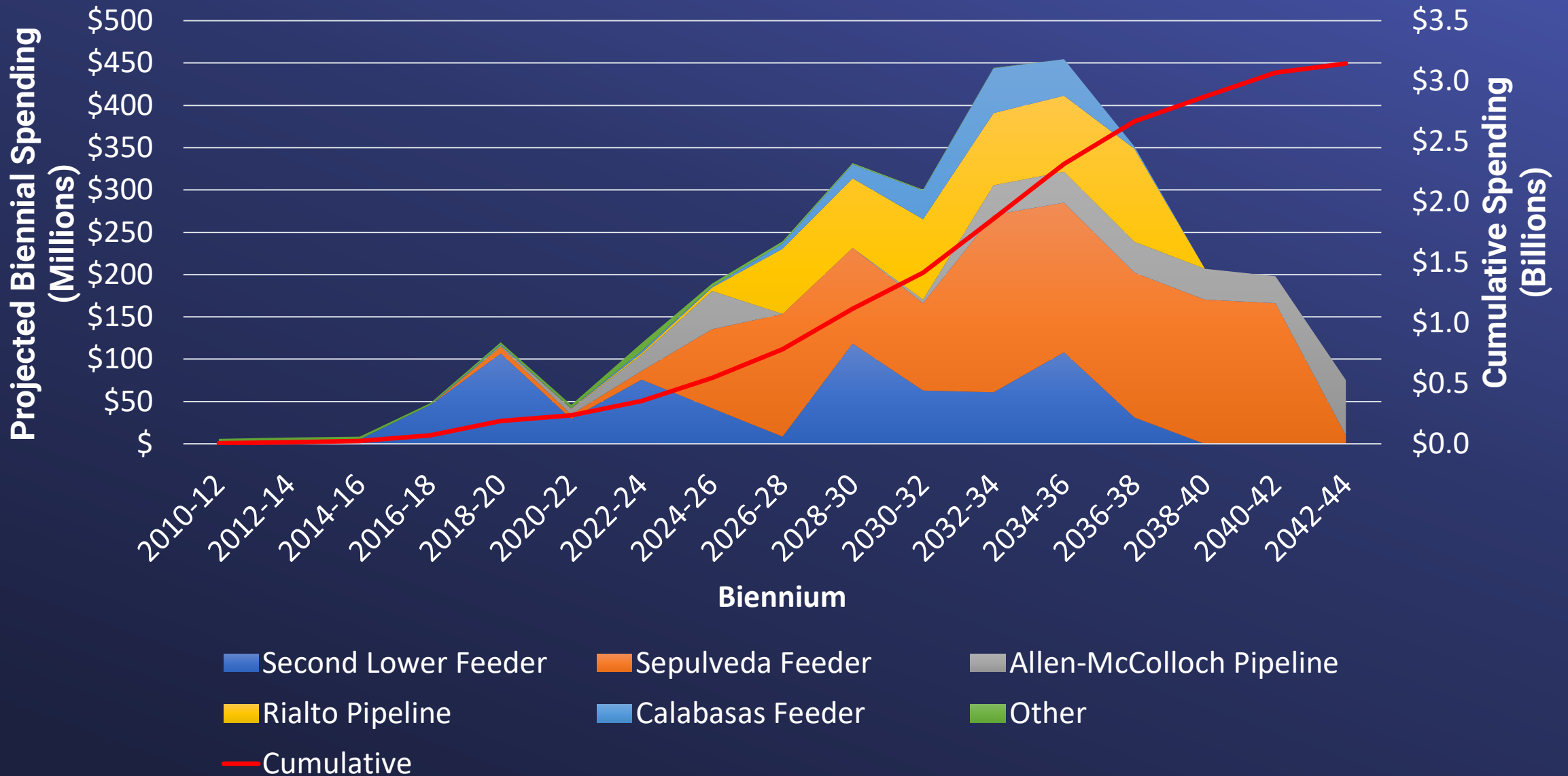


Venice Pump Station Rendering

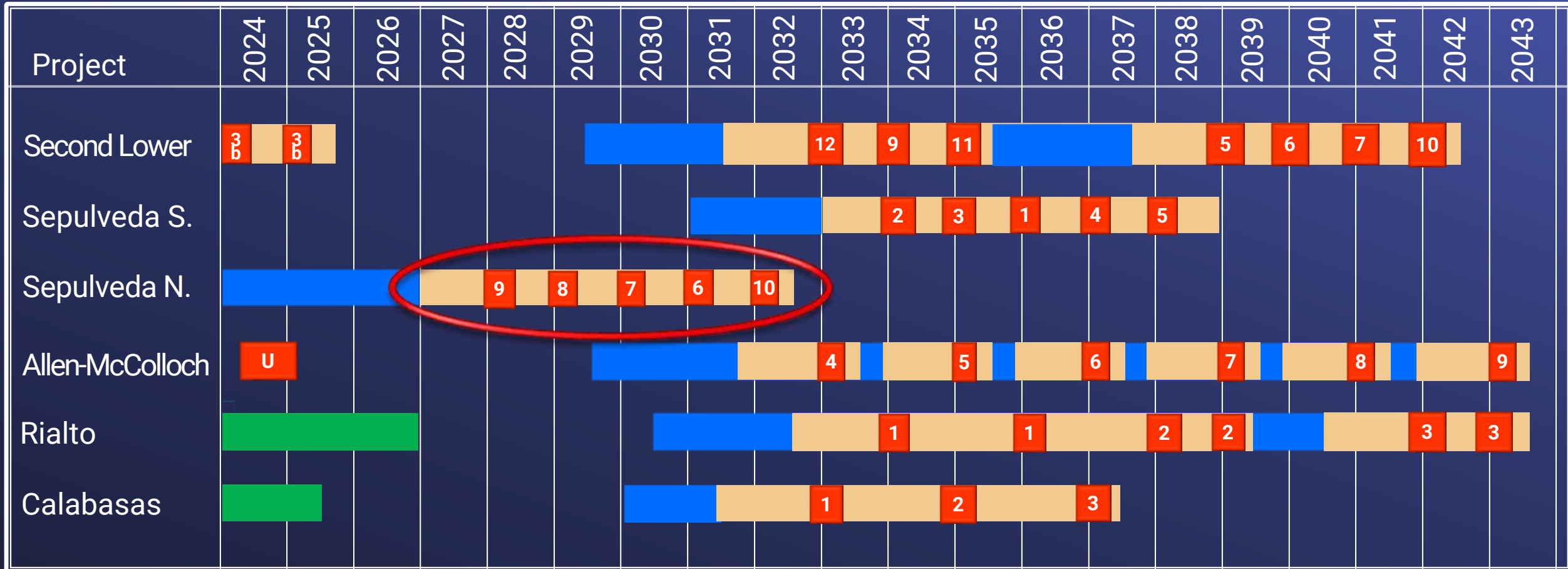
PCCP Rehabilitation Program Early Completion Schedule



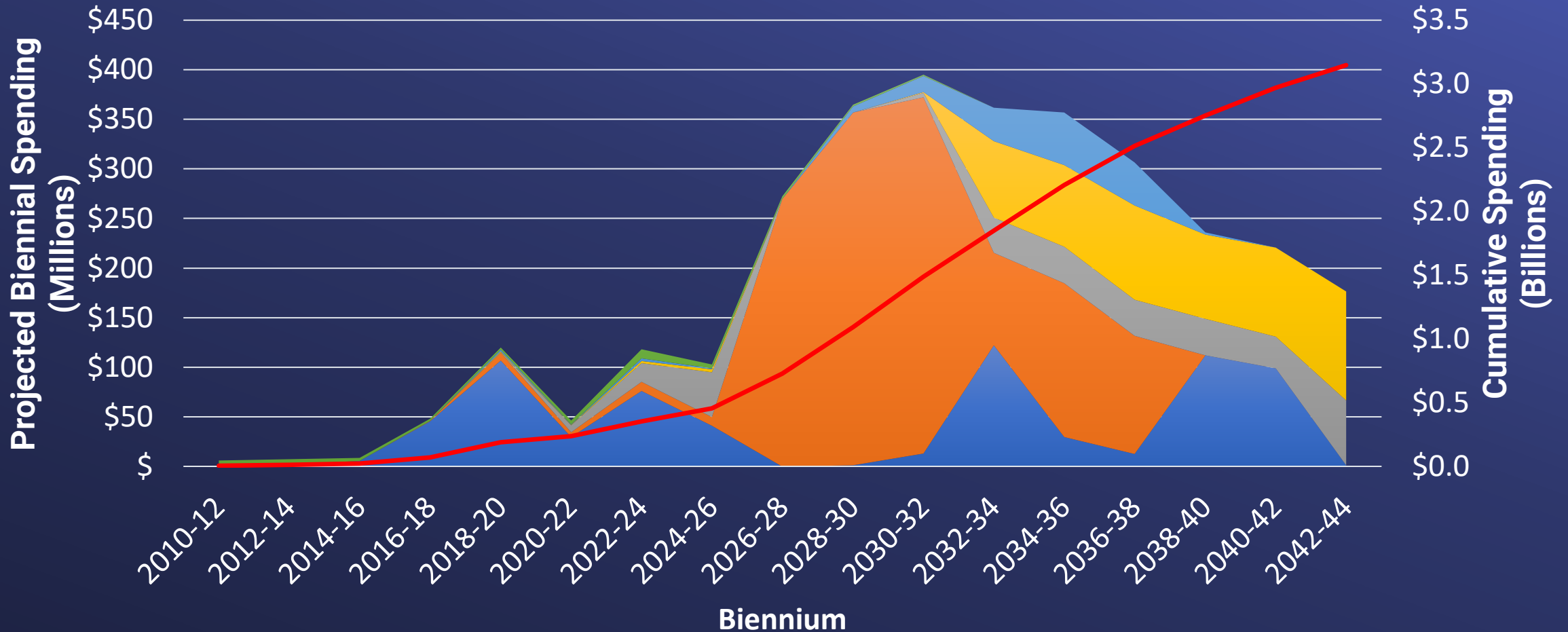
PCCP Rehab Program Biennial Early Completion Cash Flow



Accelerated PCCP Rehabilitation Program Schedule



Accelerated PCCP Rehab Program Biennial Cash Flow



Summary

- Accelerated PCCP Rehabilitation Program schedule
 - Moves forward aggressively with Sepulveda Feeder relining to support Sepulveda Feeder Pumping
 - Relines all priority feeders by 2044
- Program schedule can be adjusted to meet CIP budget limits
- Increased PCCP failure risk can be mitigated with increased inspection
 - Potential for increased urgent relining projects
 - Inspections show PCCP generally stable

Next Steps

- Continue implementation of PCCP Rehabilitation Program strategy to mitigate risk
 - Complete preliminary designs
 - Perform inspections
 - Adjust priorities based on inspection results
 - Conduct urgent repairs if needed
 - Perform comprehensive rehabilitation based on risk priority
- Evaluate schedule options
 - Consider CIP cash flow
 - Overall system reliability
- Return with program schedule options

