



Proposed Capital Investment Plan for Fiscal Years 2018/19 and 2019/20

Finance & Insurance Committee
Budget & Rates Workshop #3
March 12, 2018

Proposed CIP for FY 2018/19 - 2019/20

- CIP Background
 - Expenditure history/projections
- Process
 - Budgeting activities
 - Project evaluation/prioritization
 - Budget development
- Major Projects
- Summary

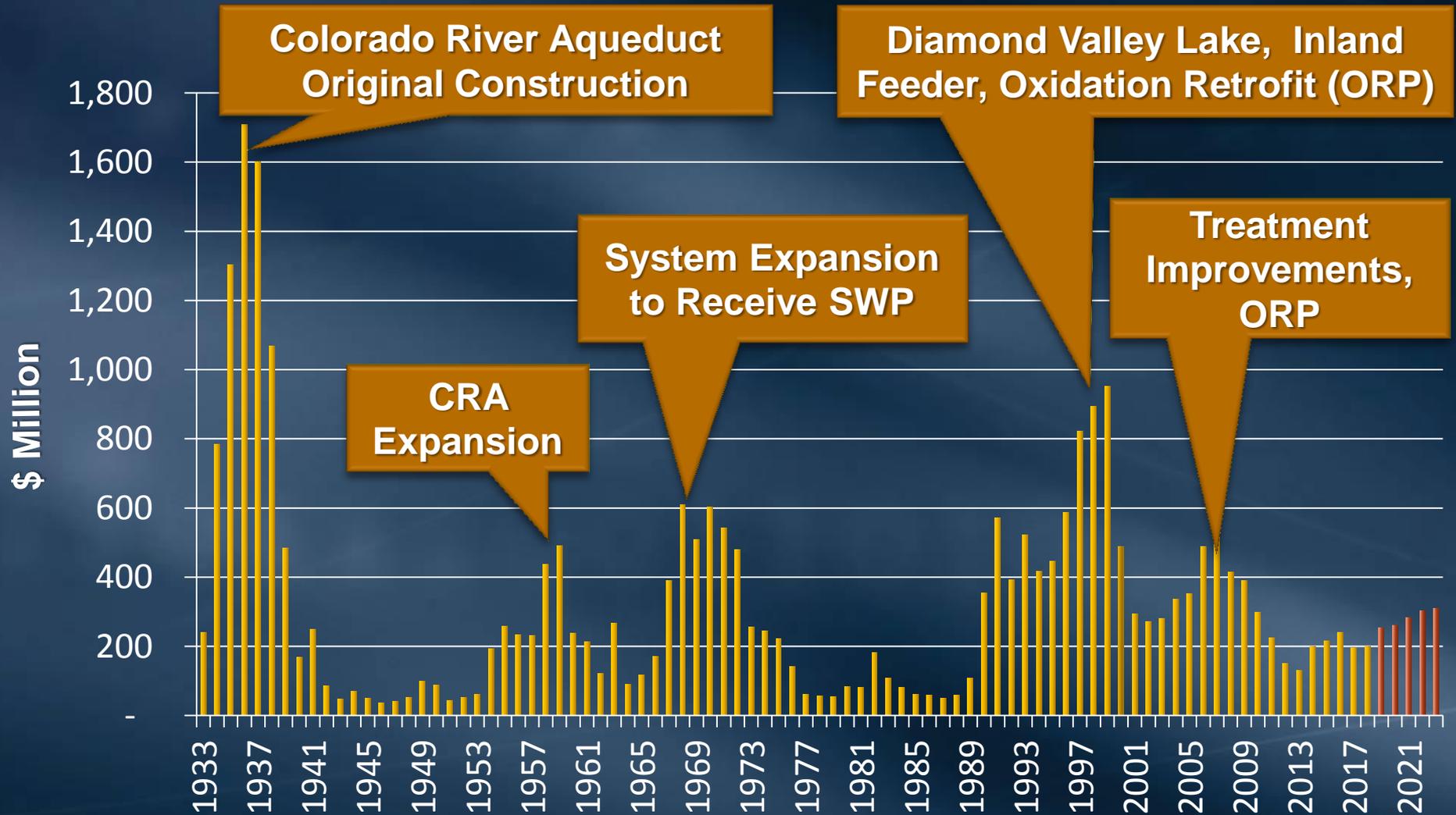
Proposed CIP for FY 2018/19 - 2019/20

Highlights

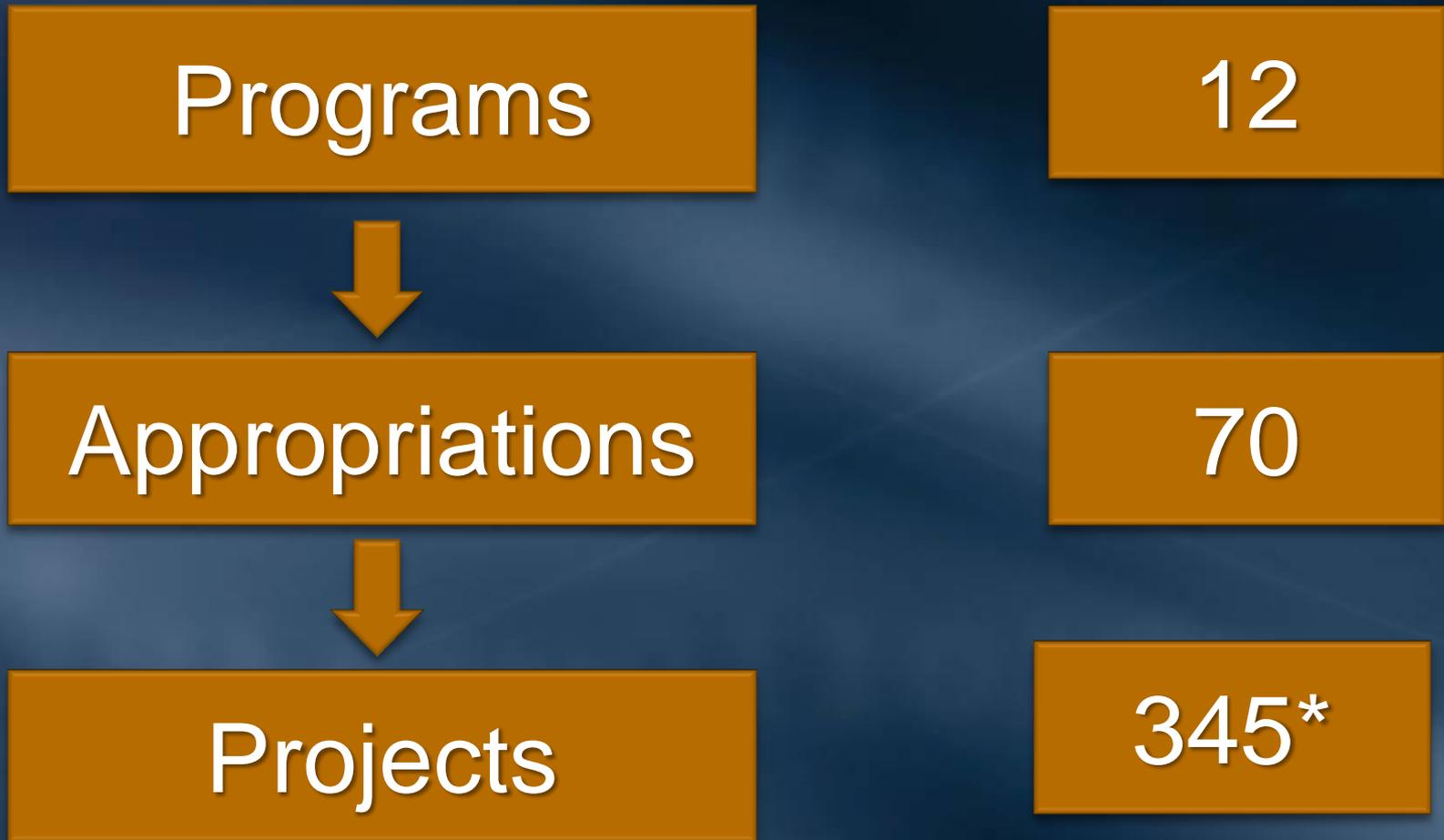
- 2-Year planned spending - \$514.5 million
- Over 90% proposed for Infrastructure Reliability work
 - Aging infrastructure - \$235 M
 - PCCP rehabilitation - \$92 M
 - Seismic upgrades - \$42 M
 - Other infrastructure improvements - \$96 M
- Prioritized to maintain reliability & comply with regulations

Annual Capital Expenditures

(Adjusted to Current \$)



Capital Program Structure

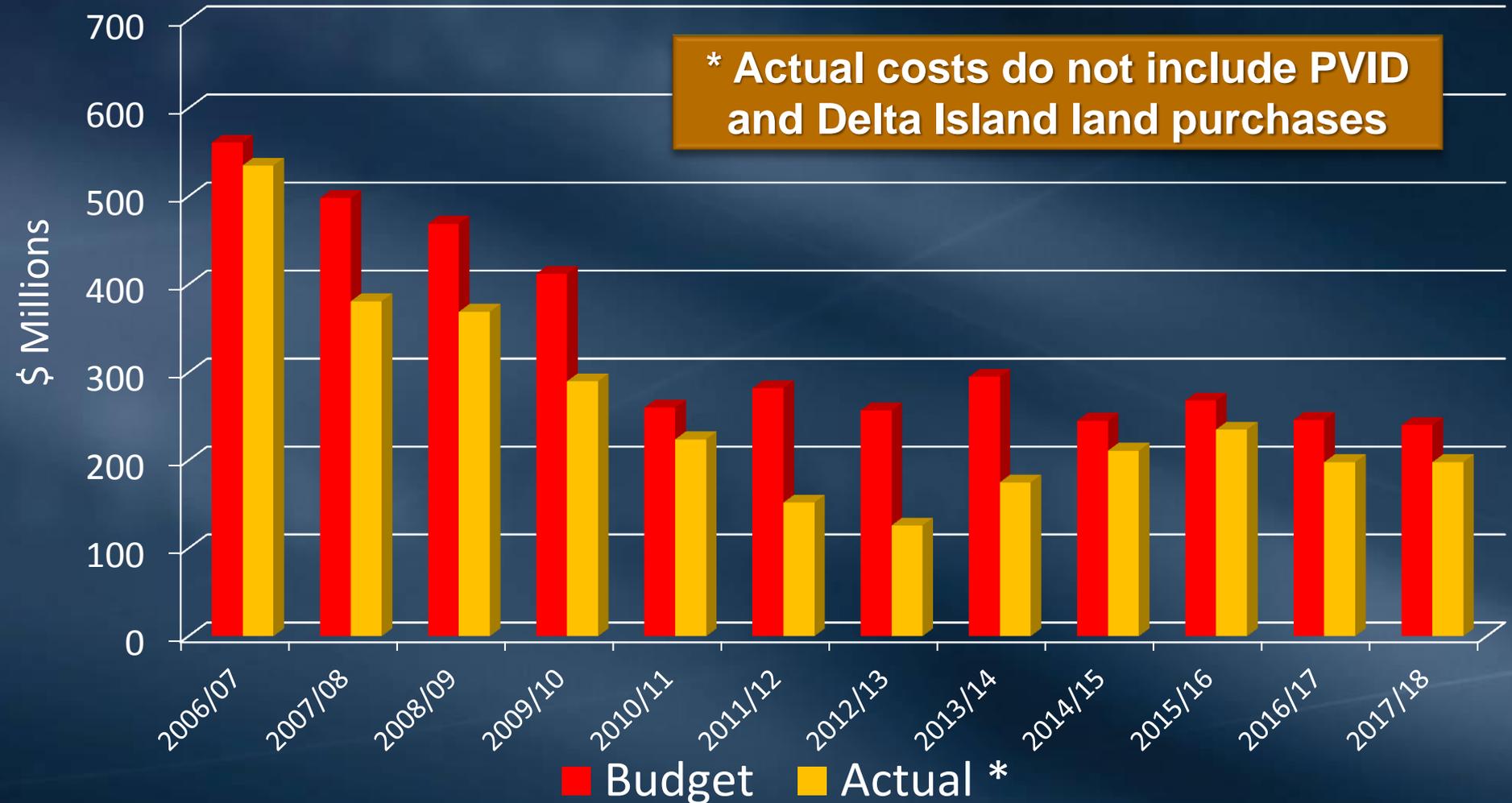


* Excluding Minor Capital Projects

CIP planned spending vs. actual expenditures FY 2006/07 to FY 2017/18

Average Variance: 25%

* Actual costs do not include PVID
and Delta Island land purchases





**Weymouth Plant
1948**





**Weymouth Plant
1965**





**Weymouth Plant
2003**





**Weymouth Plant
2016**





Sepulveda
Feeder

D-512125-61 1-31-67

Aerial view south of pipe stockpiled along open
trench through Knollwood Golf Club



Sepulveda Feeder



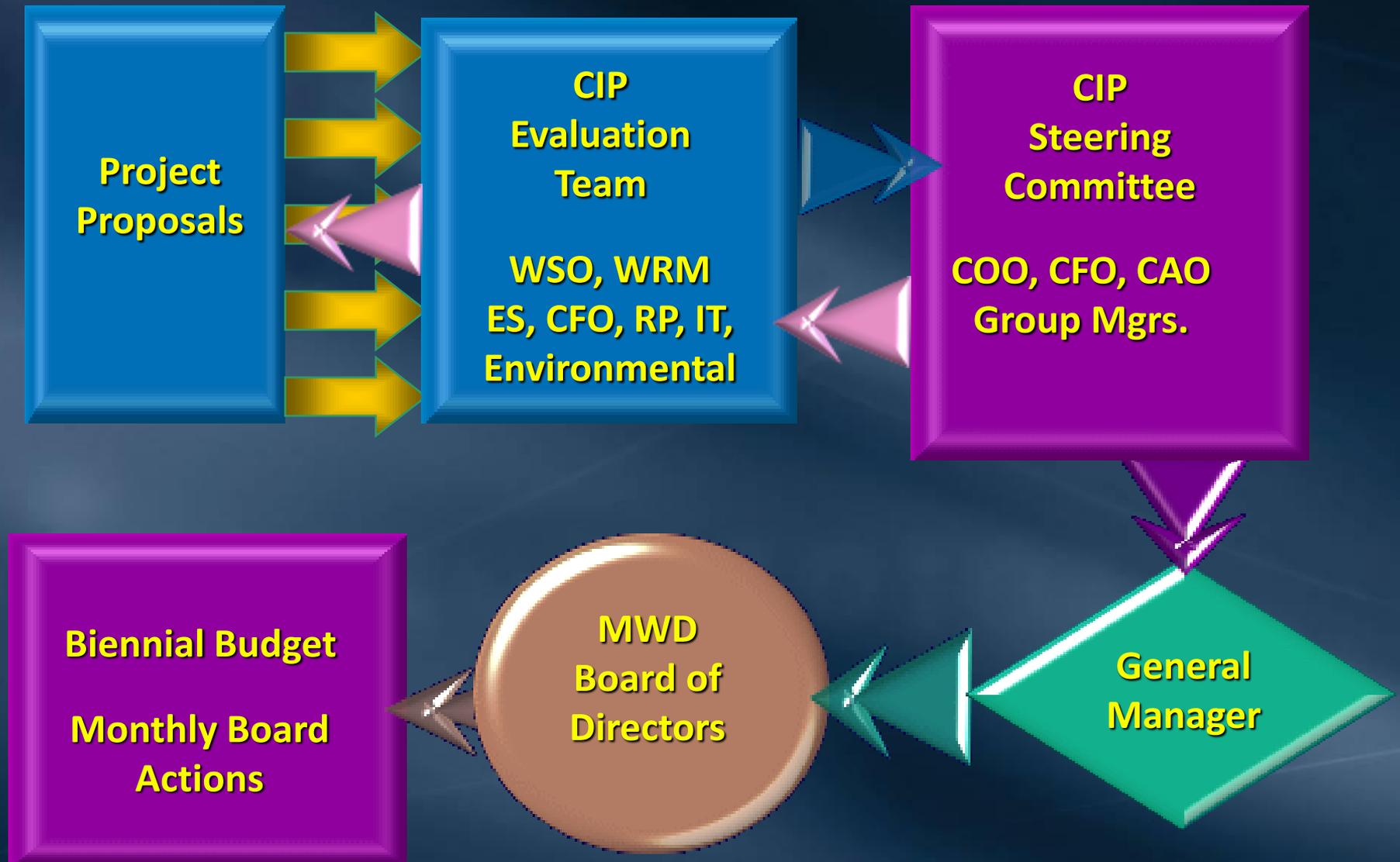
© 2014 Google

Google earth

1994

Imagery Date: 12/10/2013 34°17'33.48" N 118°29'35.45" W elev 1179 ft eye alt 2305 ft

Capital Program Development

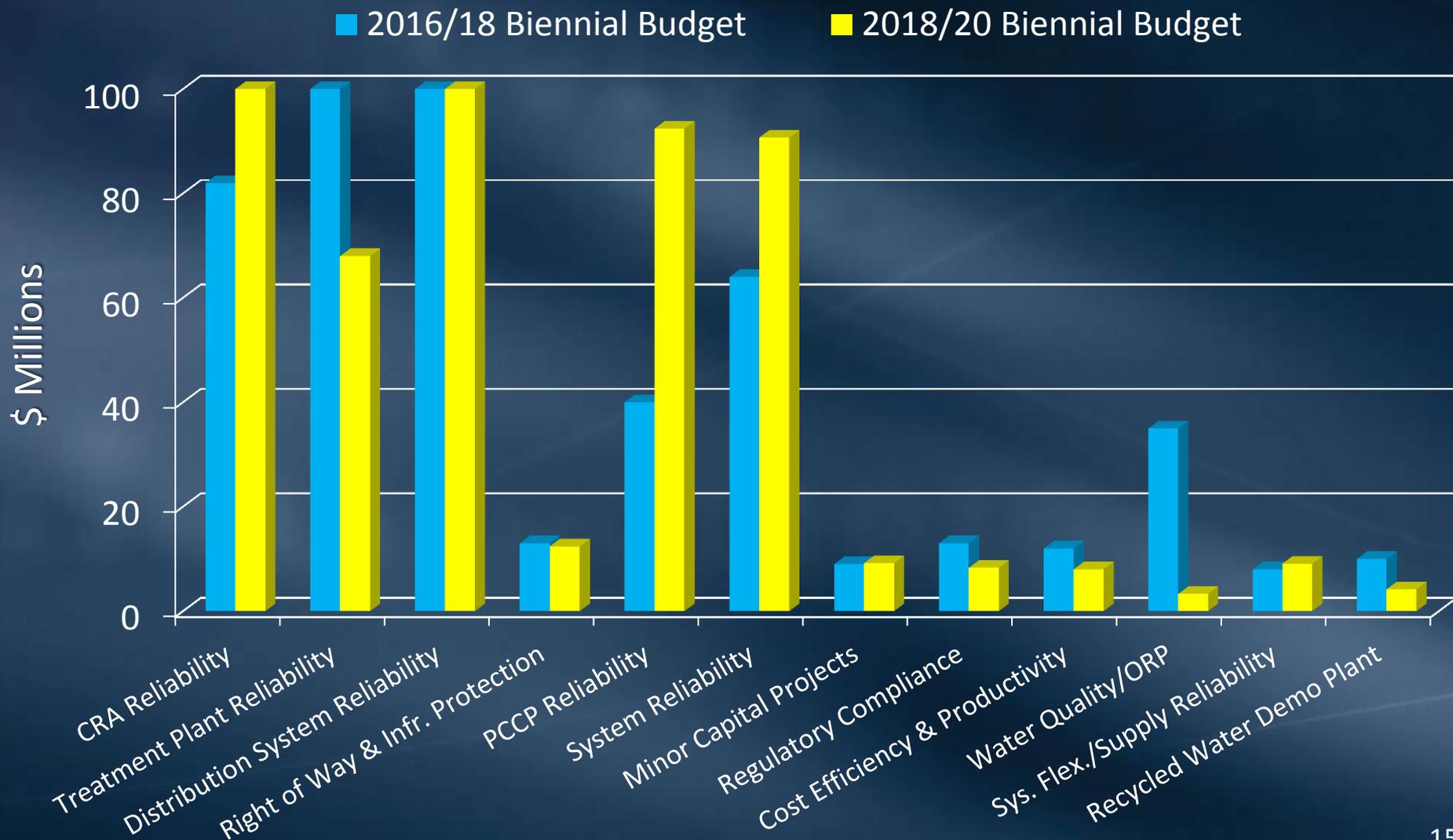


Capital Program Prioritization

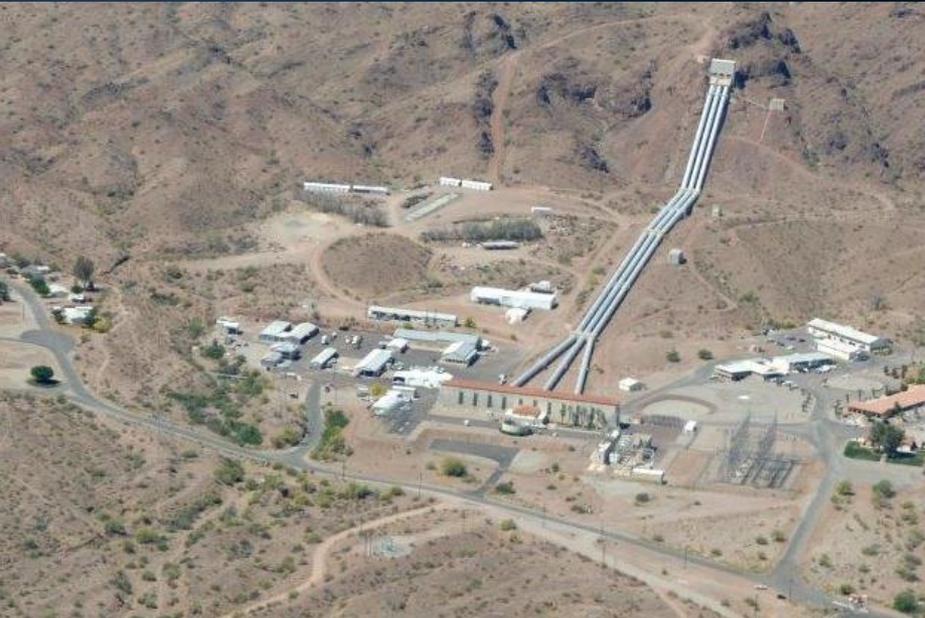
- Justification
 - Delivery Reliability
 - Regulatory Compliance
 - Supply Reliability
 - Business Operations
- Project Directives
 - Compliance Notices
 - Board Actions
- Potential Service Disruption
- Cost efficiency & productivity
- Risk Multiplier

Capital Investment Plan

Planned spending comparison - 2016/18 vs. 2018/20



CIP Program Highlights



CRA Reliability – Major Projects

Project Description	2 - Year Estimate	Total Project Estimate (non-escalated)
Main Pump Reliability - Pumps, Motors, Valves, Auxiliary Systems	\$ 17 million	\$ 185 million
Main Pump Power Cables	\$ 14 million	\$ 42 million
Pumping Plant Sump Systems	\$ 11 million	\$ 29 million
Water Distribution Systems	\$ 9 million	\$ 19 million
Other CRA projects	\$ 50.7 million	-
CRA Total	\$101.7 million	-

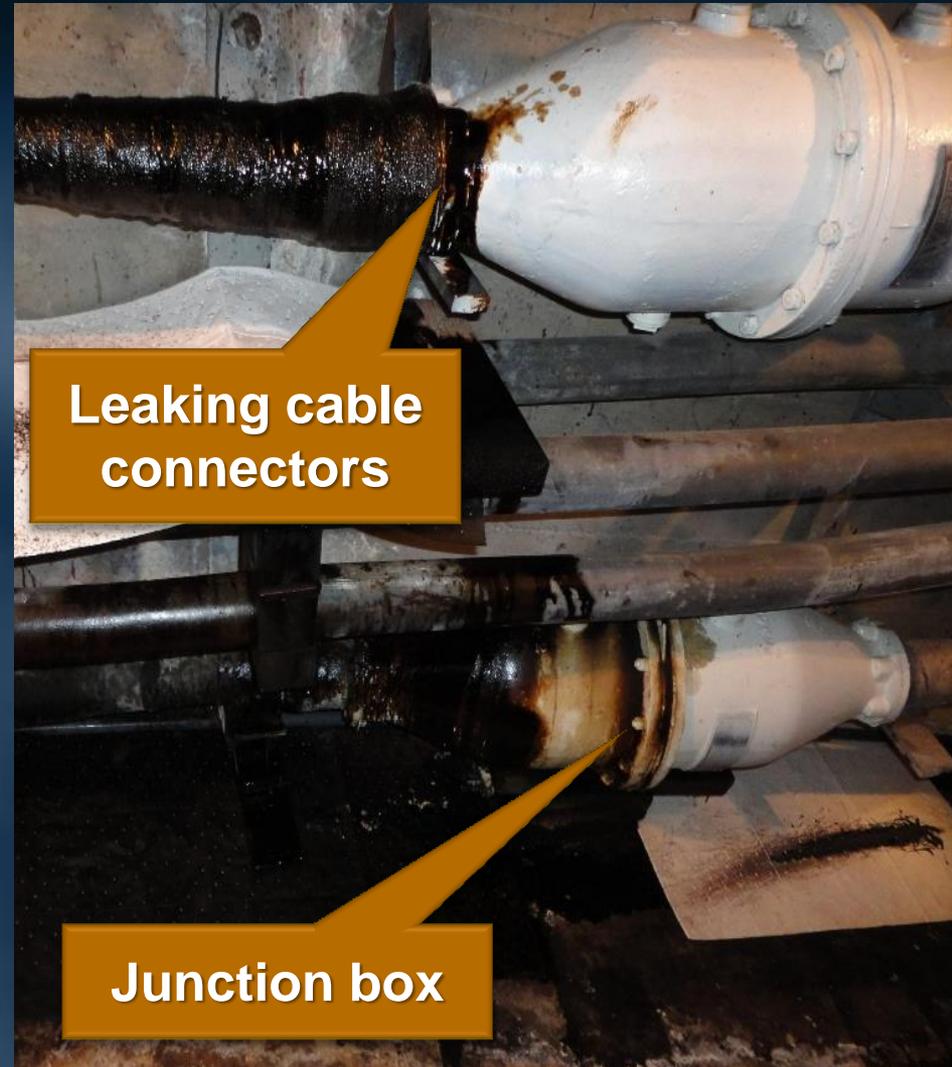
Main Pump Power Cables Replacement

Planned work

- Replace electrical cables that power main pumps at all 5 pumping plants

Estimated cost

- \$42 million



Leaking cable connectors

Junction box



Pump Plant Sump System Rehabilitation

Planned work

- Replace sump system at all 5 pumping plants

Estimated cost

- \$29 million



CRA – Main Pump Reliability Program

Planned work

- Refurbish pumps, motors, discharge valves, overhead cranes, auxiliary systems at all 5 pumping plants

Estimated cost

- \$185 million



Distribution System and PCCP Reliability

Major Projects

Project Description	2 - Year Estimate	Total Project Estimate (non-escalated)
Second Lower Feeder PCCP	\$ 78 million	\$ 495 million
Orange County Feeder Lining	\$ 19 million	\$ 33 million
Palos Verdes Reservoir Rehabilitation	\$ 15 million	\$ 47 million
Orange County Service Center	\$ 10 million	\$ 13 million
Dam Safety Initiatives	\$ 11 million	\$ 25 million
Dist. System/PCCP – Other projects	\$ 61 million	-
Dist. System/PCCP - Total	\$194 million	-

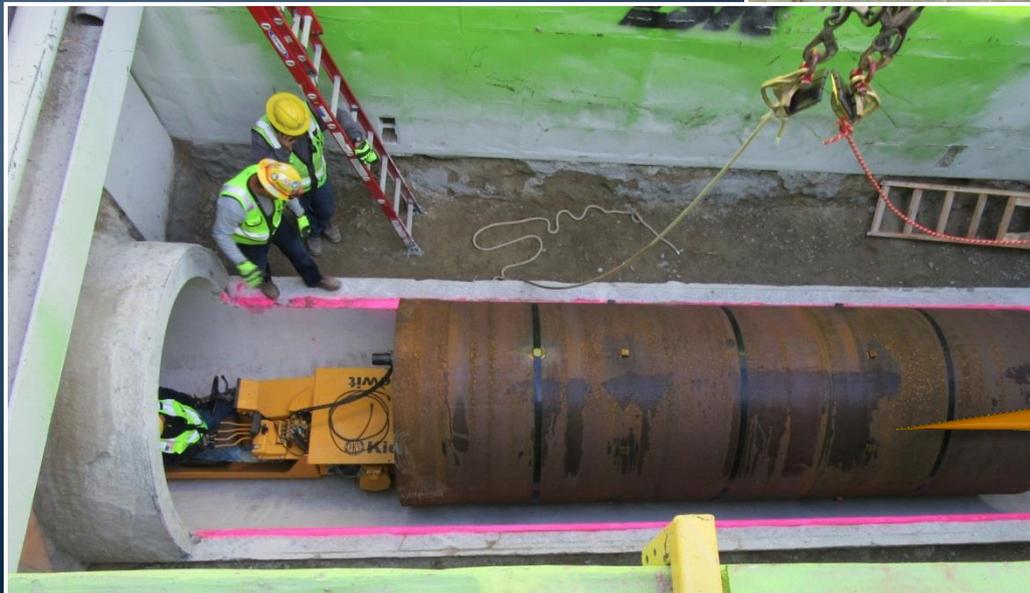
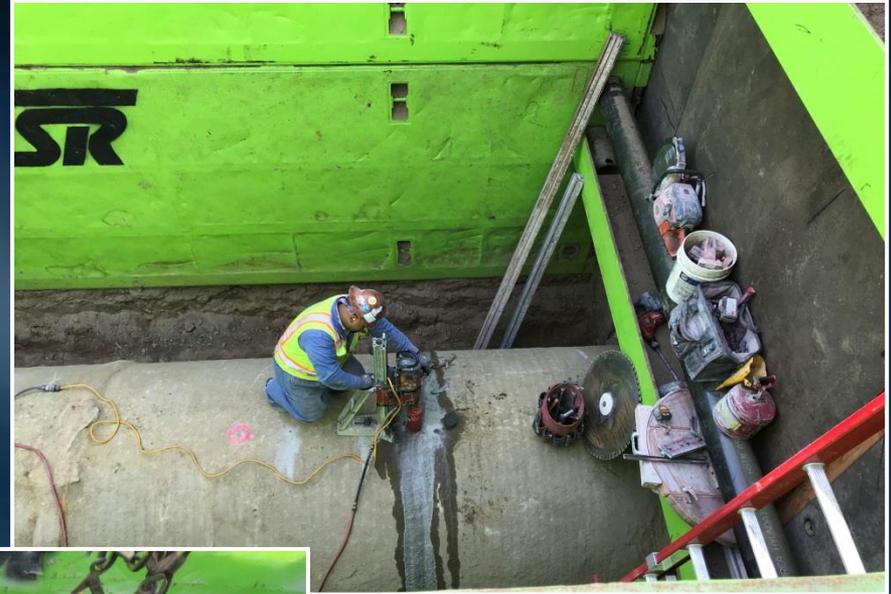
Second Lower Feeder PCCP Rehabilitation

Planned work

- Rehabilitate PCCP portions of Second Lower Feeder

Estimated cost

- \$495 million



Steel Liner

Dam Safety Initiatives

Planned work

- Improve/upgrade spillways and appurtenant structures
- Replace/install monitoring systems

Estimated cost

- \$25 million



System Reliability – Major Projects

Project Description	2 - Year Estimate	Total Project Estimate (non-escalated)
Union Station Headquarters	\$ 24 million	\$ 65 million
Control System Upgrade (SCADA)	\$ 10 million	\$ 96 million
Wadsworth Pumping Plant Control and Electrical Protection	\$ 10 million	\$ 32 million
Union Station Headquarters Security	\$ 6 million	\$ 6.8 million
System Reliability – Other projects	\$ 41 million	-
System Reliability - Total	\$ 91 million	-

Headquarters Improvements

Planned work

- Strengthen structural beams, slabs, columns
- Upgrade fire/life safety systems
- Upgrade kitchen equipment & finishes
- Upgrade IT network systems in wing

Estimated cost

- \$65 million



Fire/Life Safety System

Asphalt and Roof Replacements

Scope

- Replace asphalt paving & roofs at various facilities
- Similar to Minor Capital Projects appropriations



Planned work

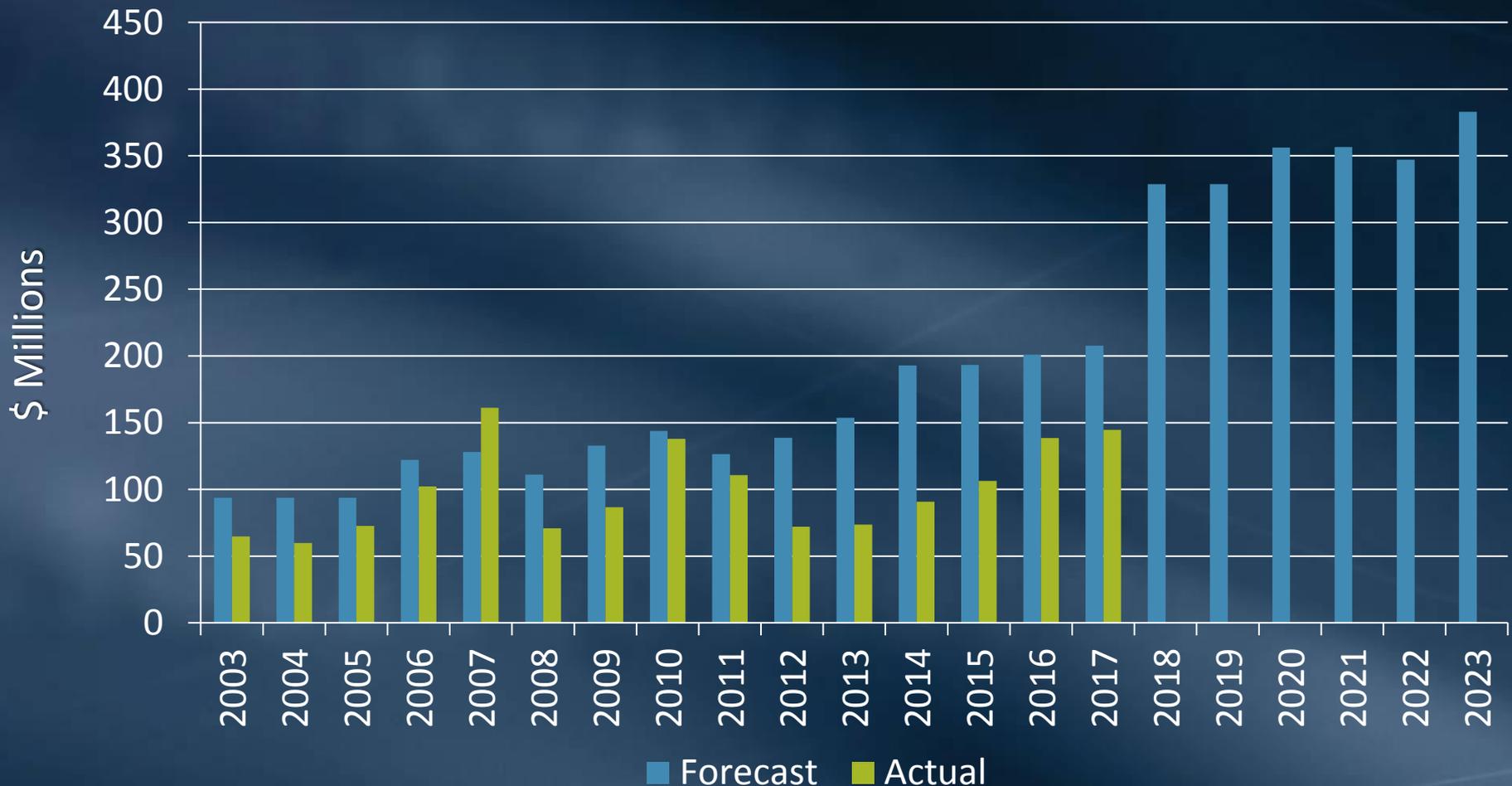
- Skinner facility
- CRA pumping plants

Estimated cost

- \$ 5 – 8 million/yr.

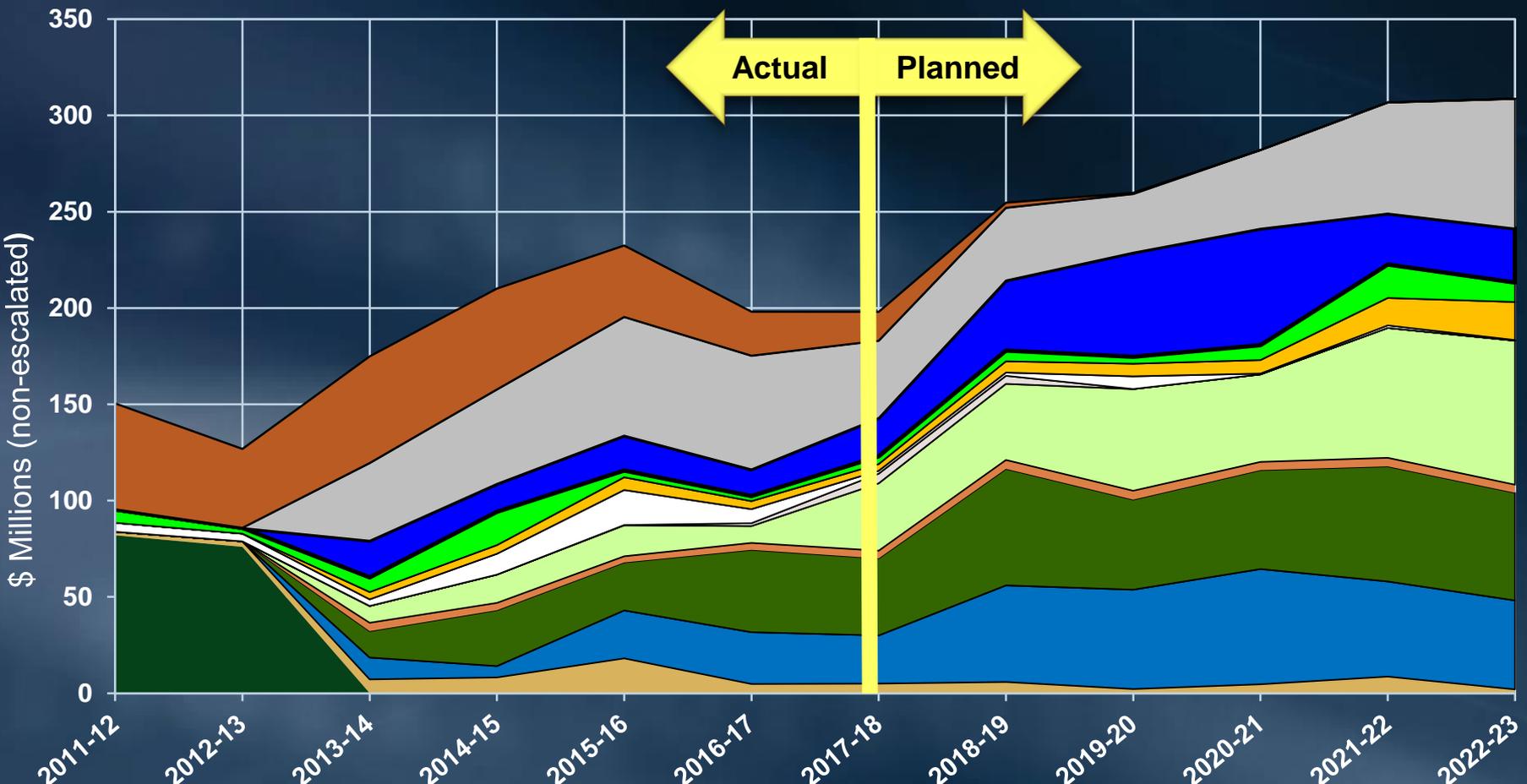


Replacement Planning and Asset Valuation Model



Forecasted R&R Expenditures based on periodic refurbishment followed by replacement at the end of the asset category service life

Capital Investment Plan FY 2011/12 - 2022/23



- Infrastructure
- CRA Reliability
- Minor Capital Projects
- Recycled Water Demo Plant
- Right of Way & Infr. Protection
- System Reliability
- Water Quality/ORP
- Cost Efficiency & Productivity
- Distribution System Reliability
- PCCP Reliability
- Regulatory Compliance
- System Flexibility/Supply Reliability
- Treatment Plant Reliability

Proposed CIP for FY 2018/19 - 2019/20

Summary

- Planned spending of \$514.5 million over the biennium
- Projects prioritized to maintain reliability & regulatory compliance
- Increased spending planned on the Distribution System, PCCP, CRA, & System reliability programs
- Planning for increased CIP spending beyond the biennium
- Recommendations for improving management of CIP & project delivery forthcoming

