



# 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

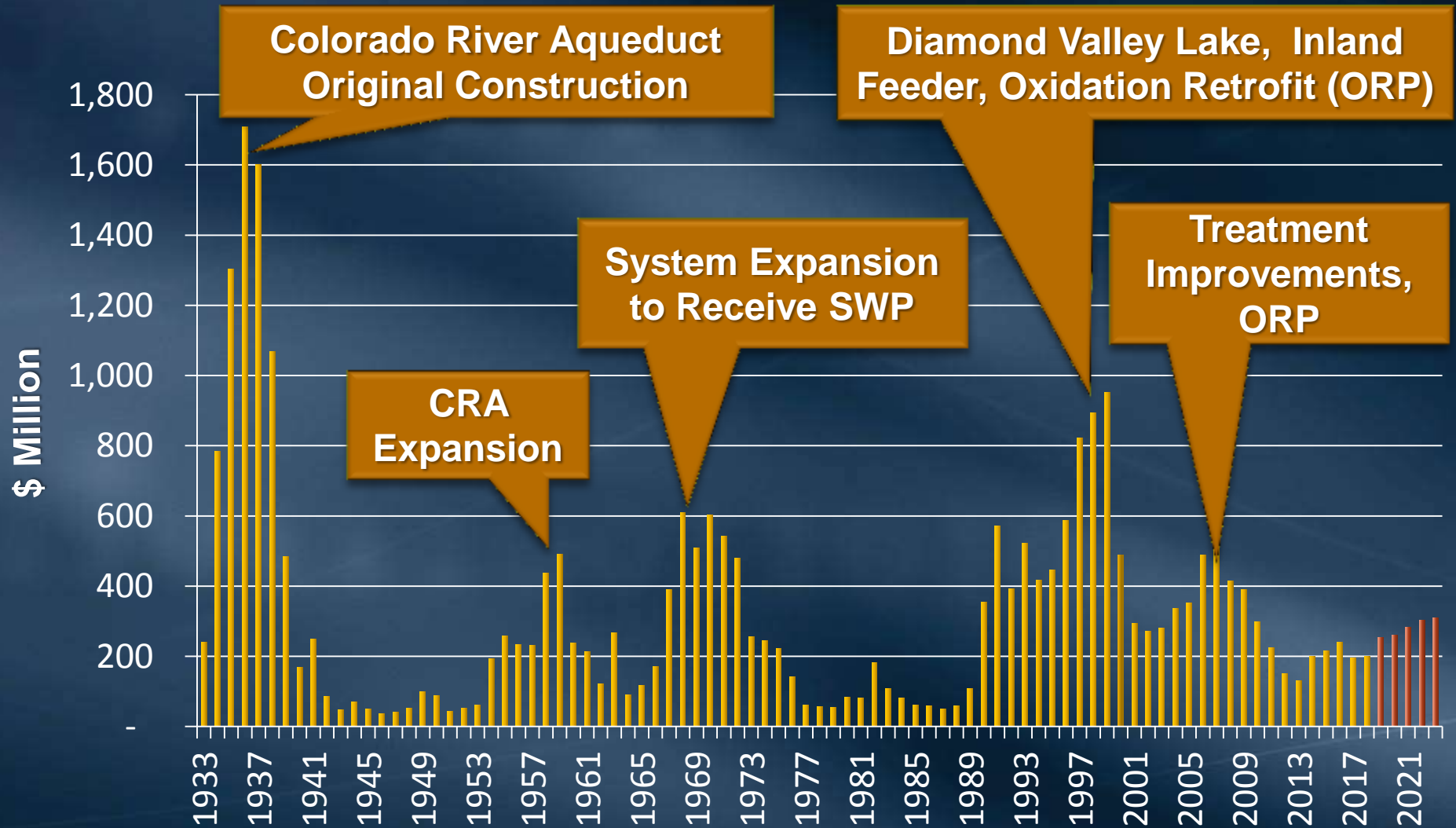
# Proposed CIP for FY 2018/19 - 2019/20

## Highlights

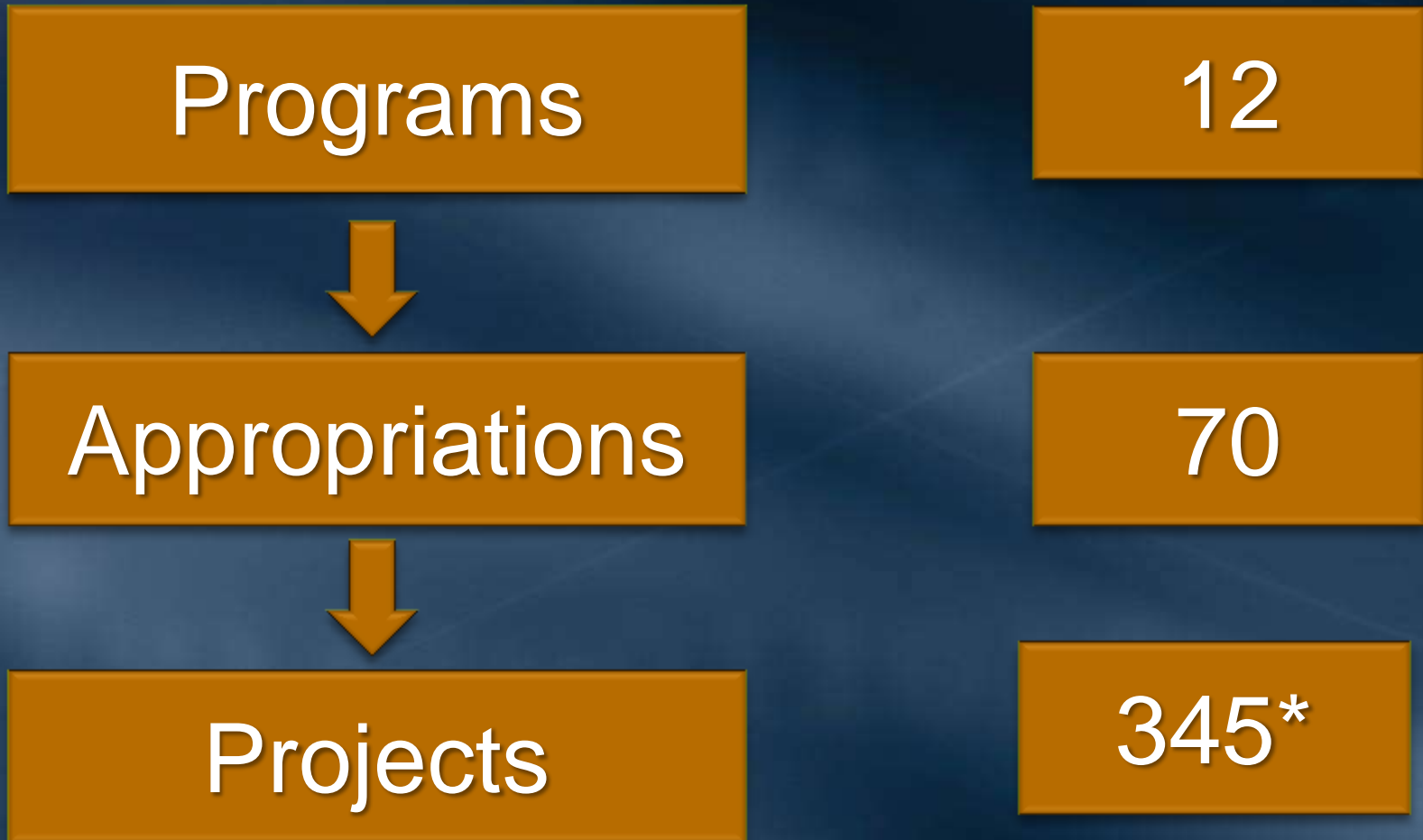
- 2-Year planned spending - \$514.5 million
- Over 90% proposed for Infrastructure Reliability work
  - Aging infrastructure - \$235 M
  - PCCP rehabilitation - \$92 M
  - Seismic upgrades - \$42 M
  - Other infrastructure improvements - \$96 M
- Prioritized to maintain reliability & comply with regulations

# Annual Capital Expenditures

(Adjusted to Current \$)



# Capital Program Structure

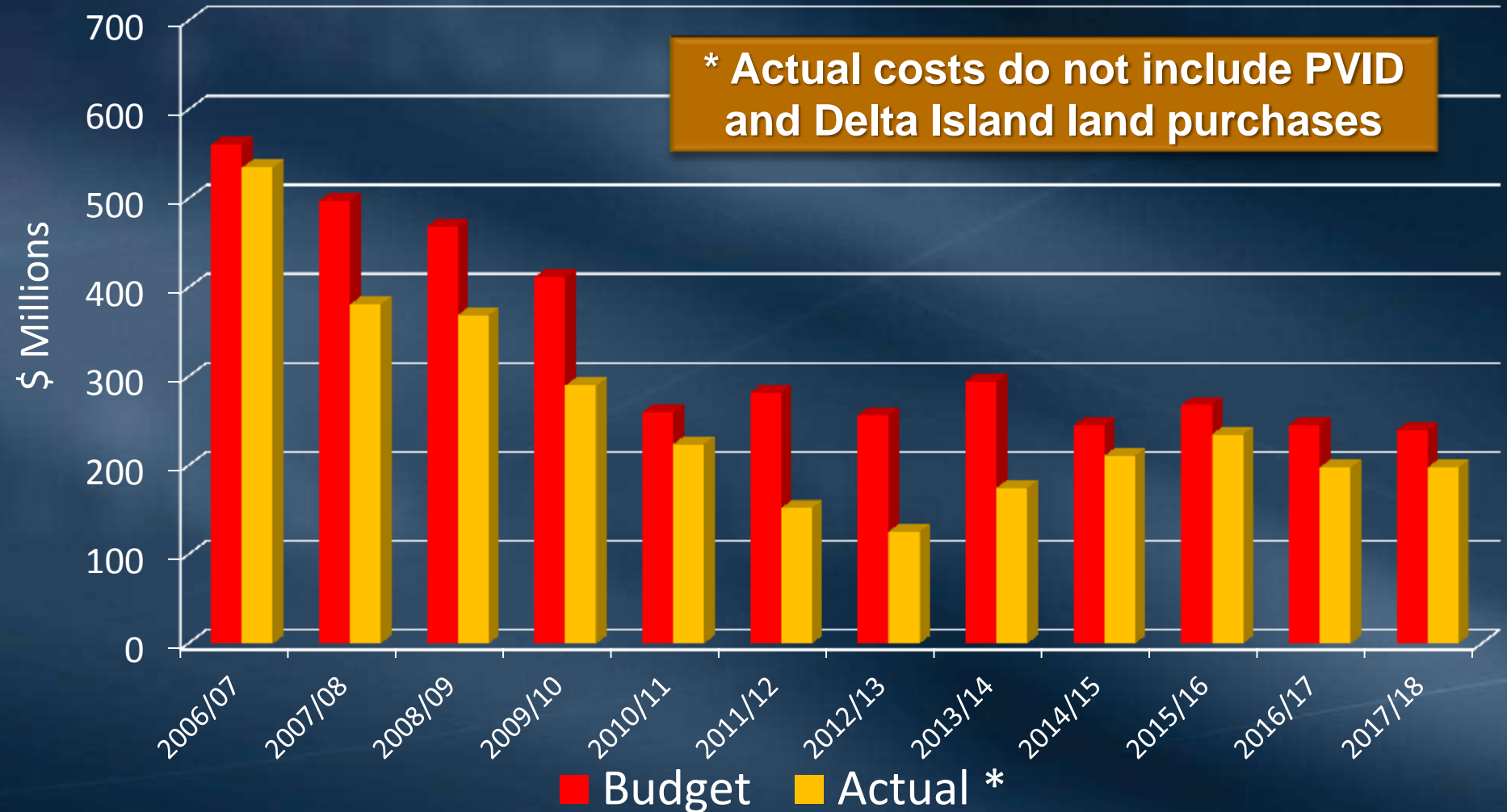


\* Excluding Minor Capital Projects

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

Average Variance: 25%

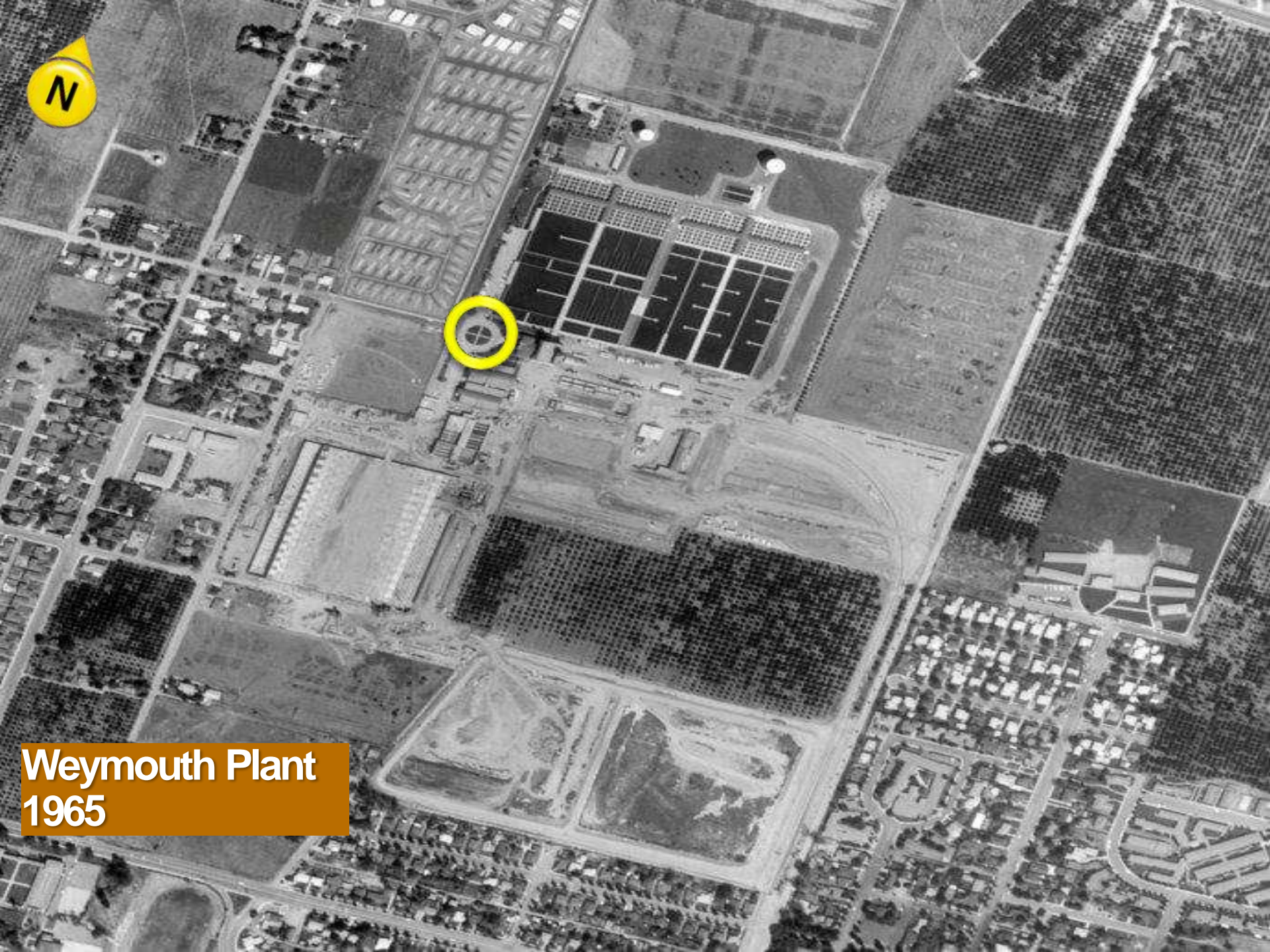
\* Actual costs do not include PVID  
and Delta Island land purchases





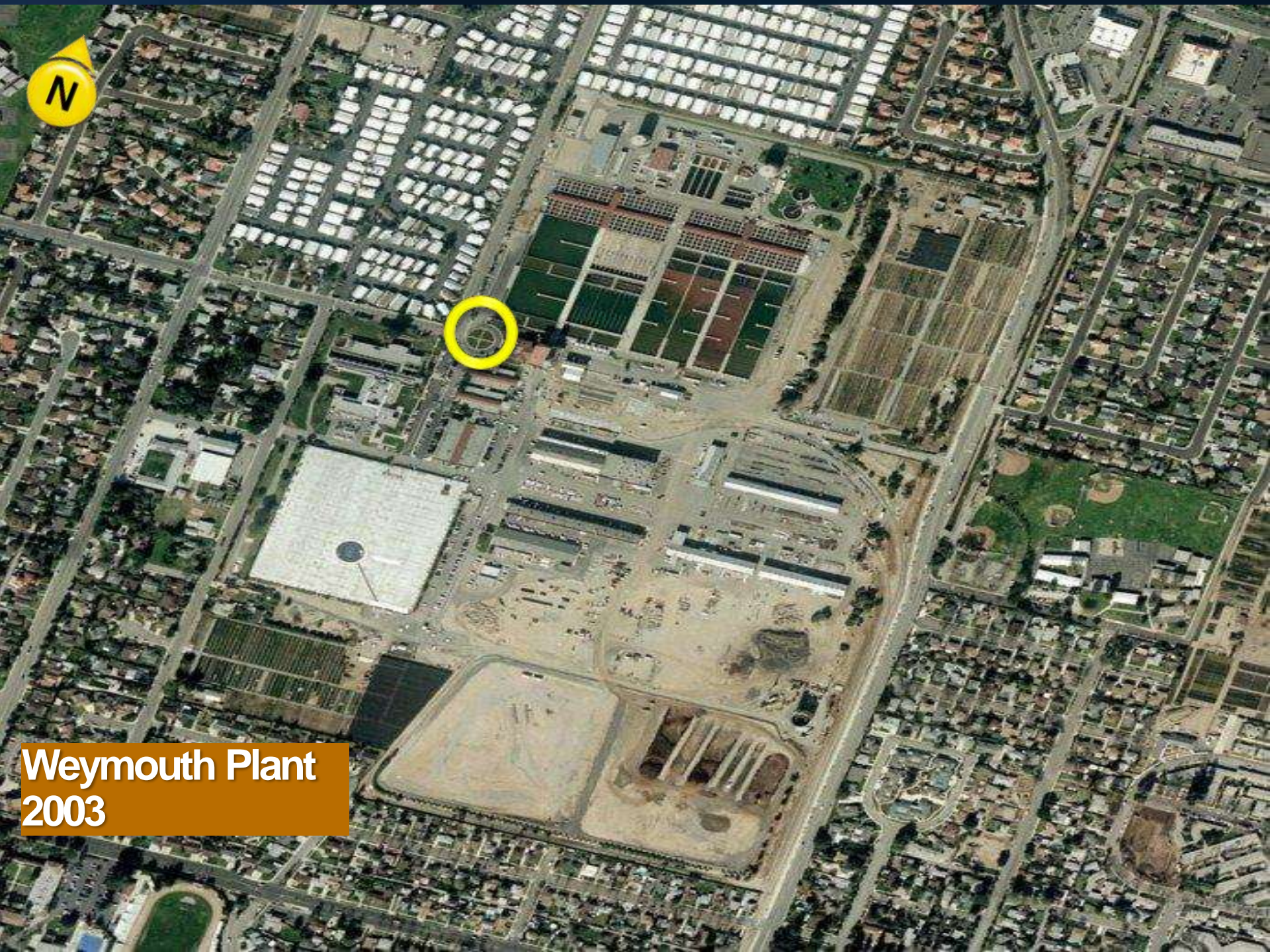
**Weymouth Plant  
1948**





**Weymouth Plant  
1965**





**Weymouth Plant  
2003**



**Weymouth Plant  
2016**



Sepulveda  
Feeder

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



Sepulveda Feeder

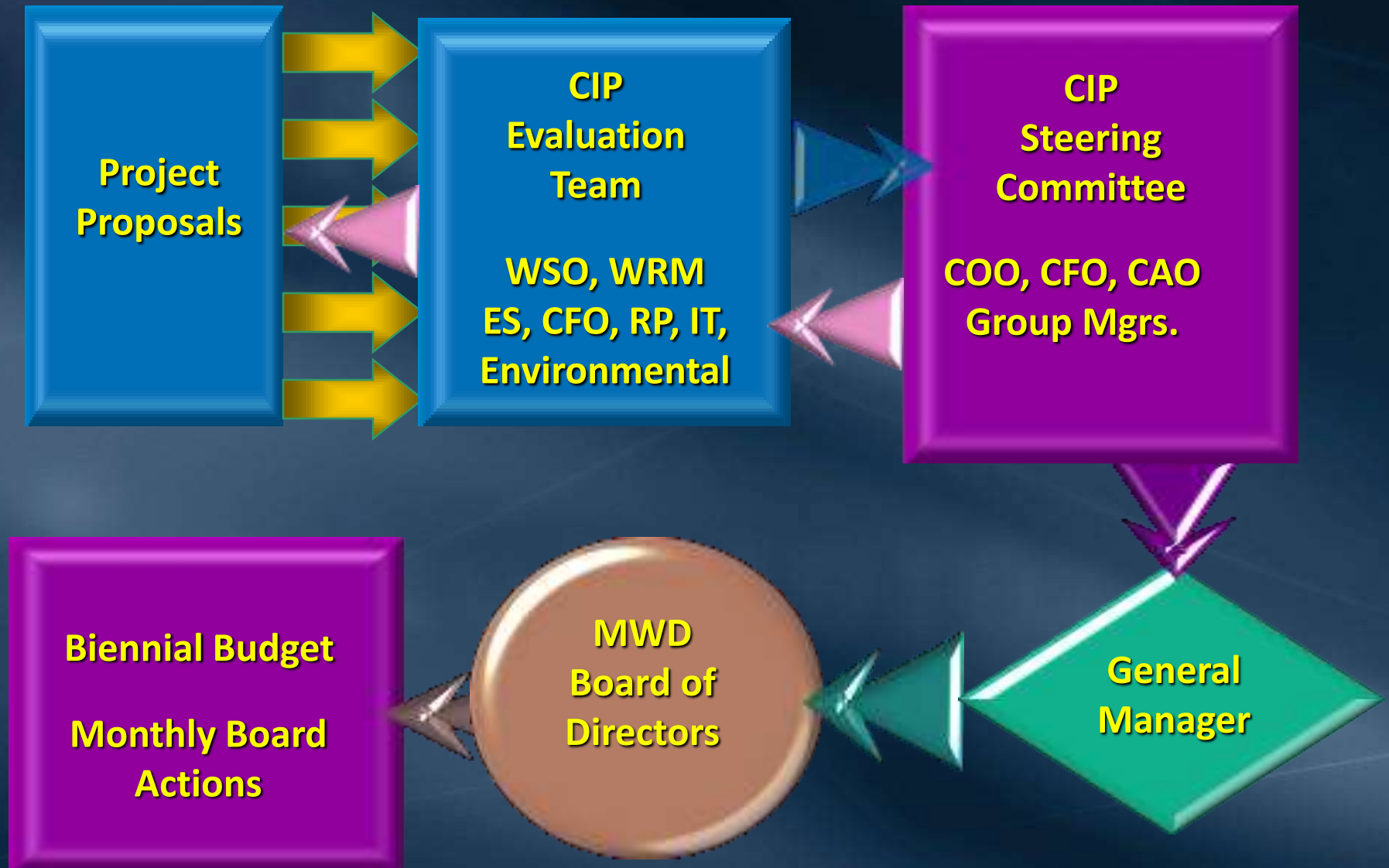


© 2014 Google

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

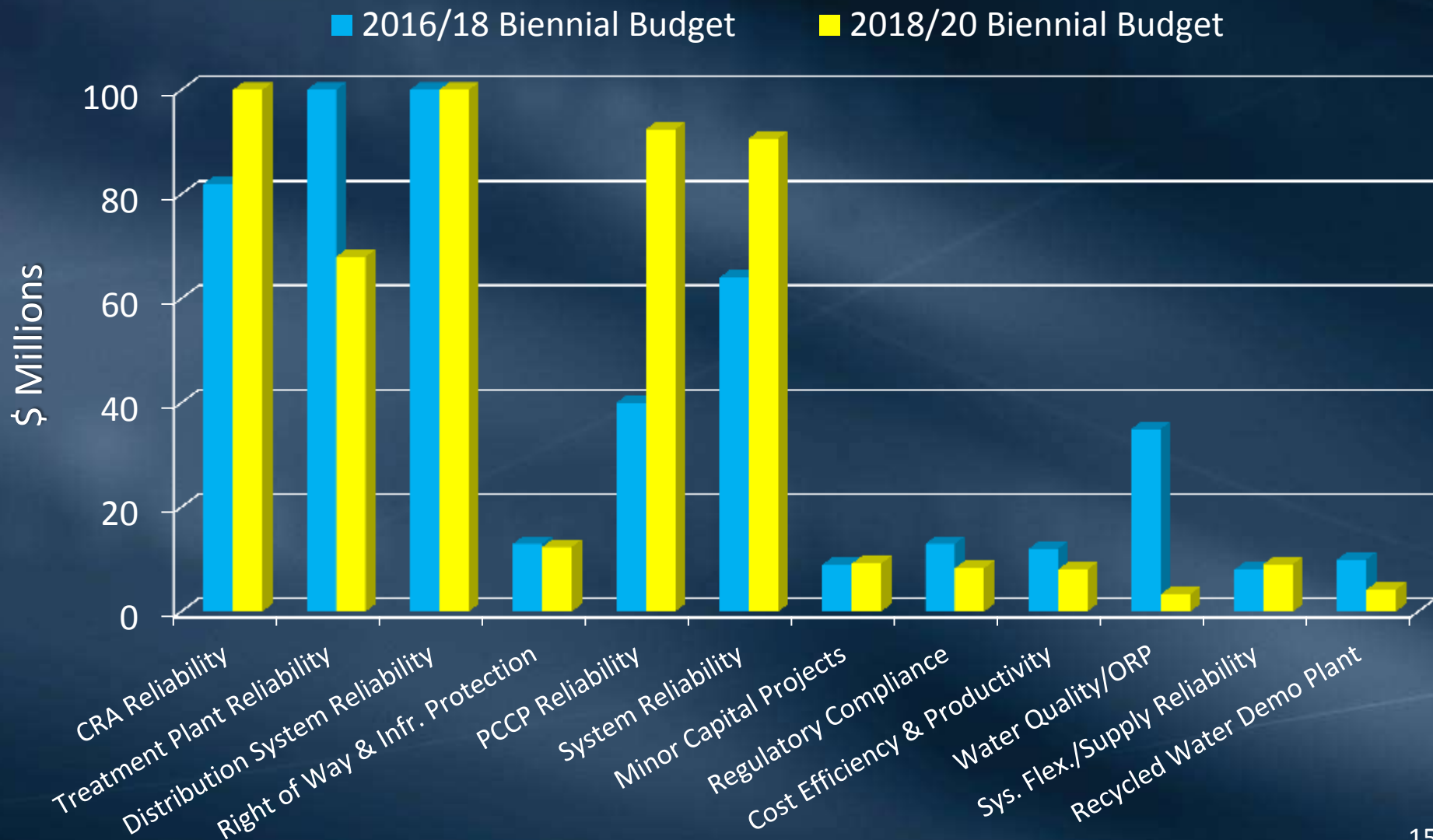


# Capital Program Prioritization

- 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	-

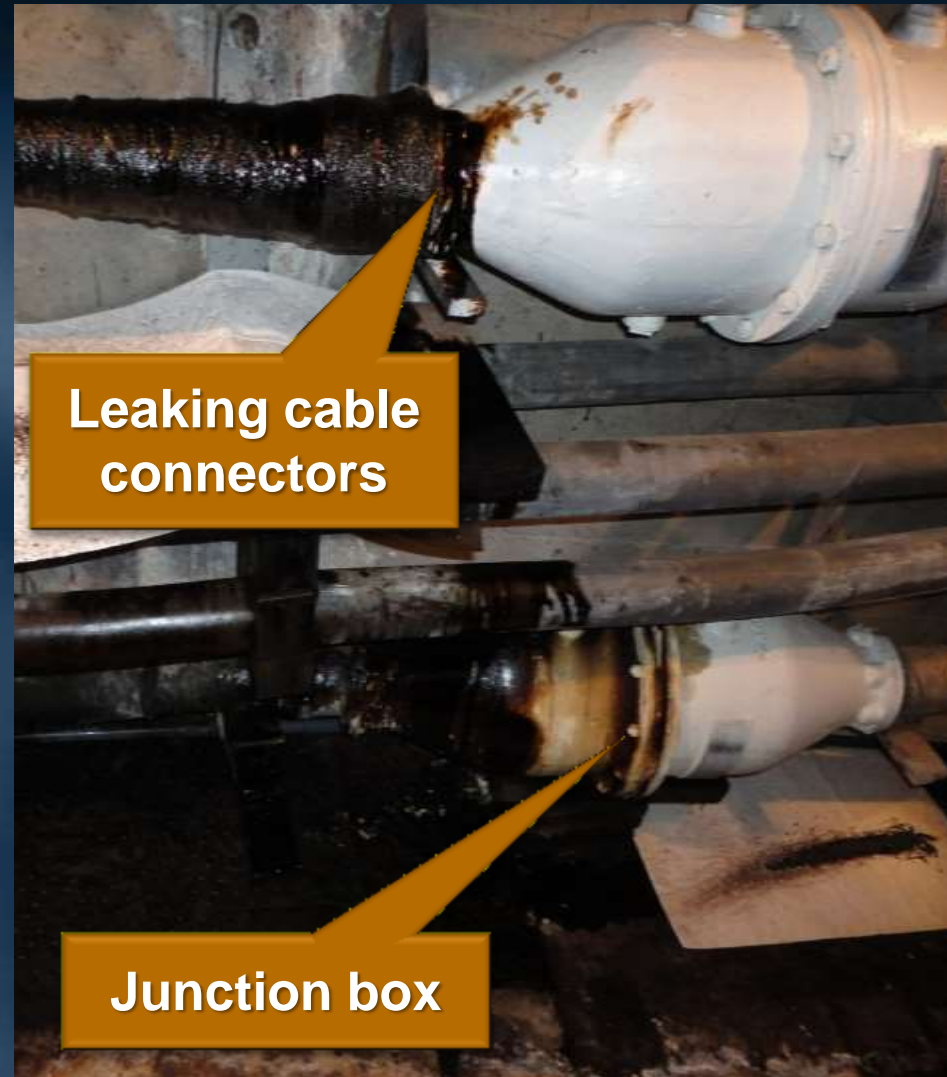
# Main Pump Power Cables Replacement

## Planned work

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

## Estimated cost

- \$42 million





# 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

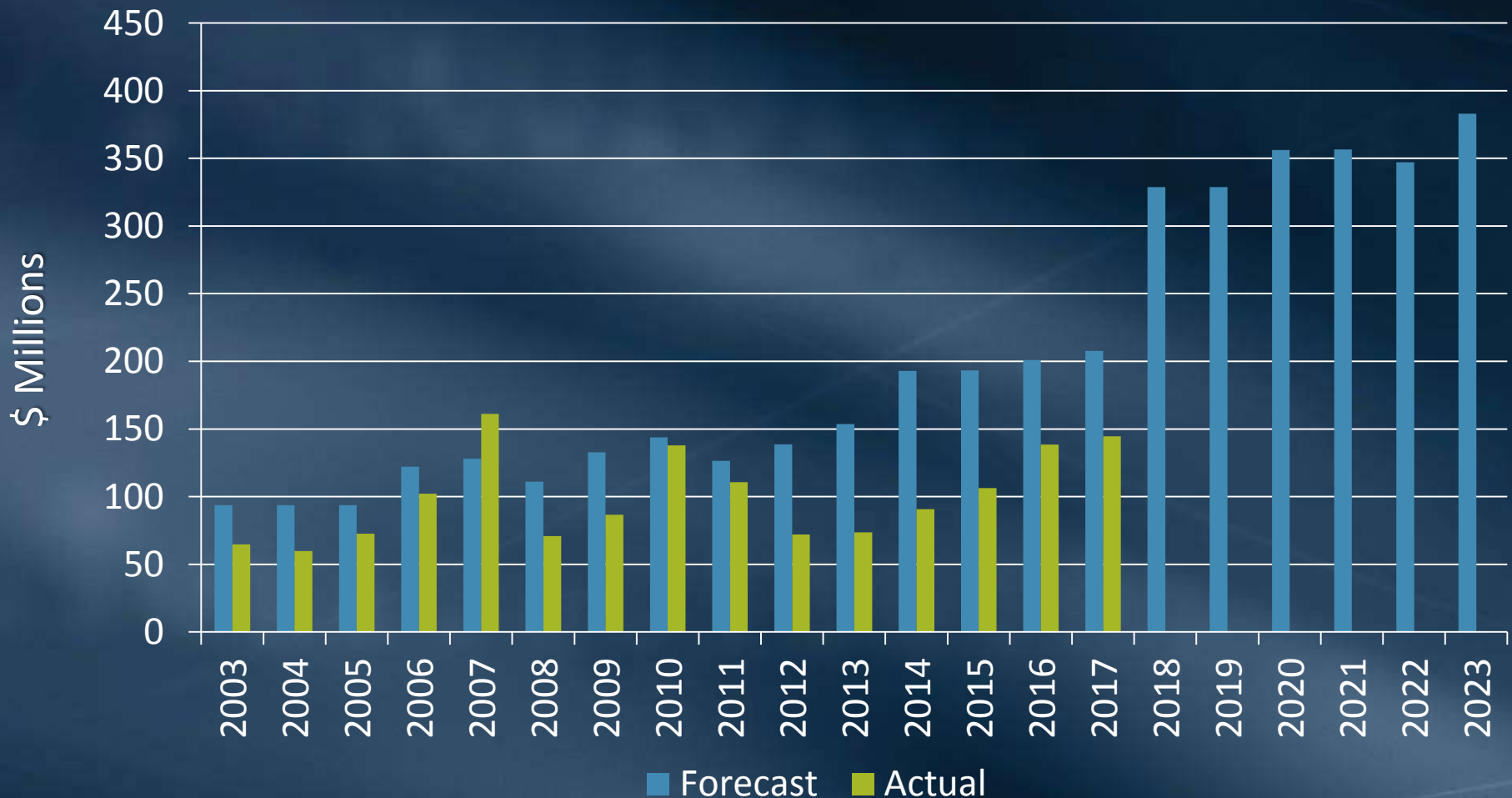
- Skinner facility
- CRA pumping plants

## Estimated cost

- \$ 5 – 8 million/yr.

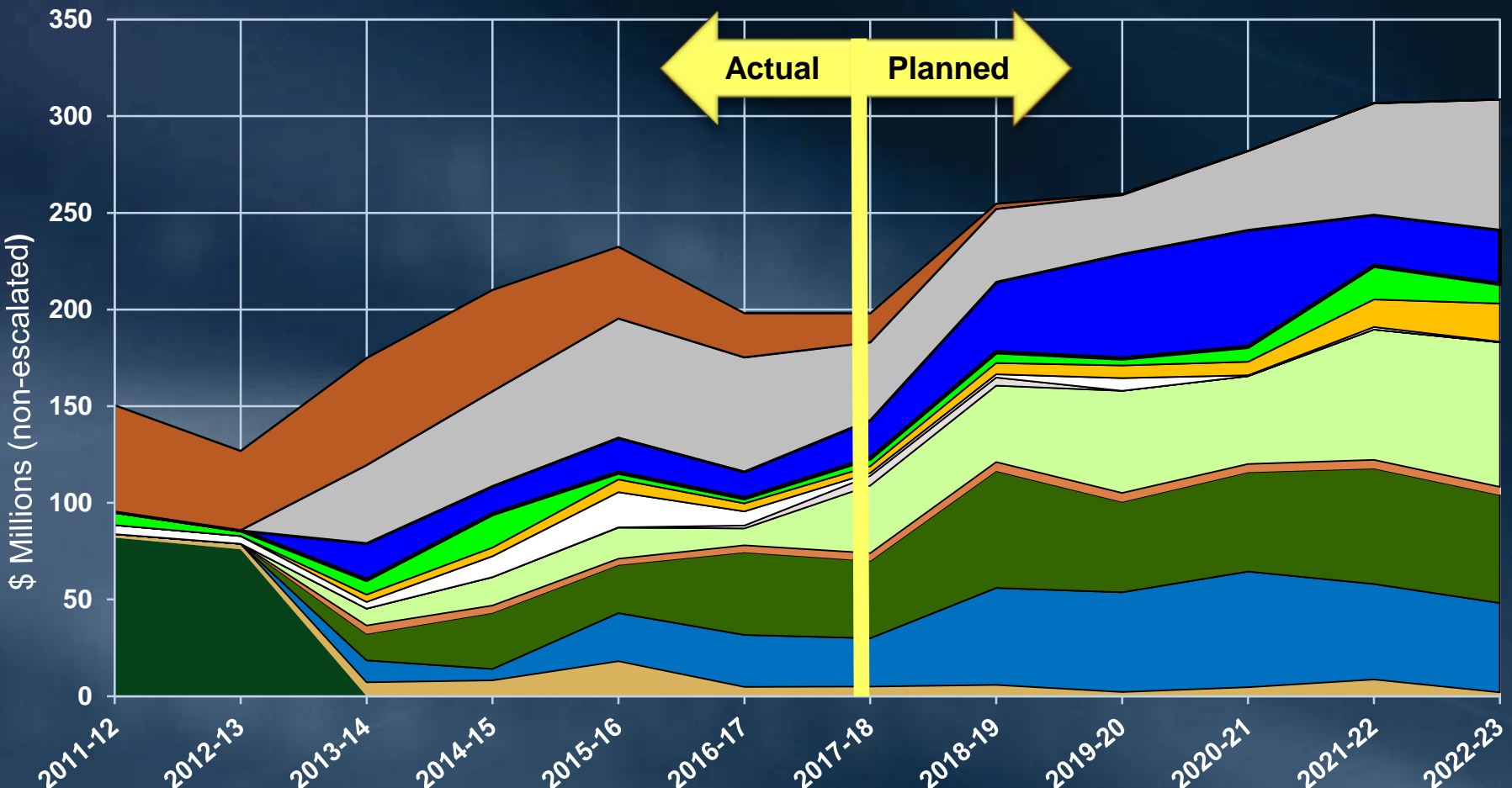


# Replacement Planning and Asset Valuation Model



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

