



# SPUR Lunch Forum

March 16, 2010

Monday, October 4, 2010

# Water Operations

Steve Ritchie  
Assistant General Manager  
Water Enterprise



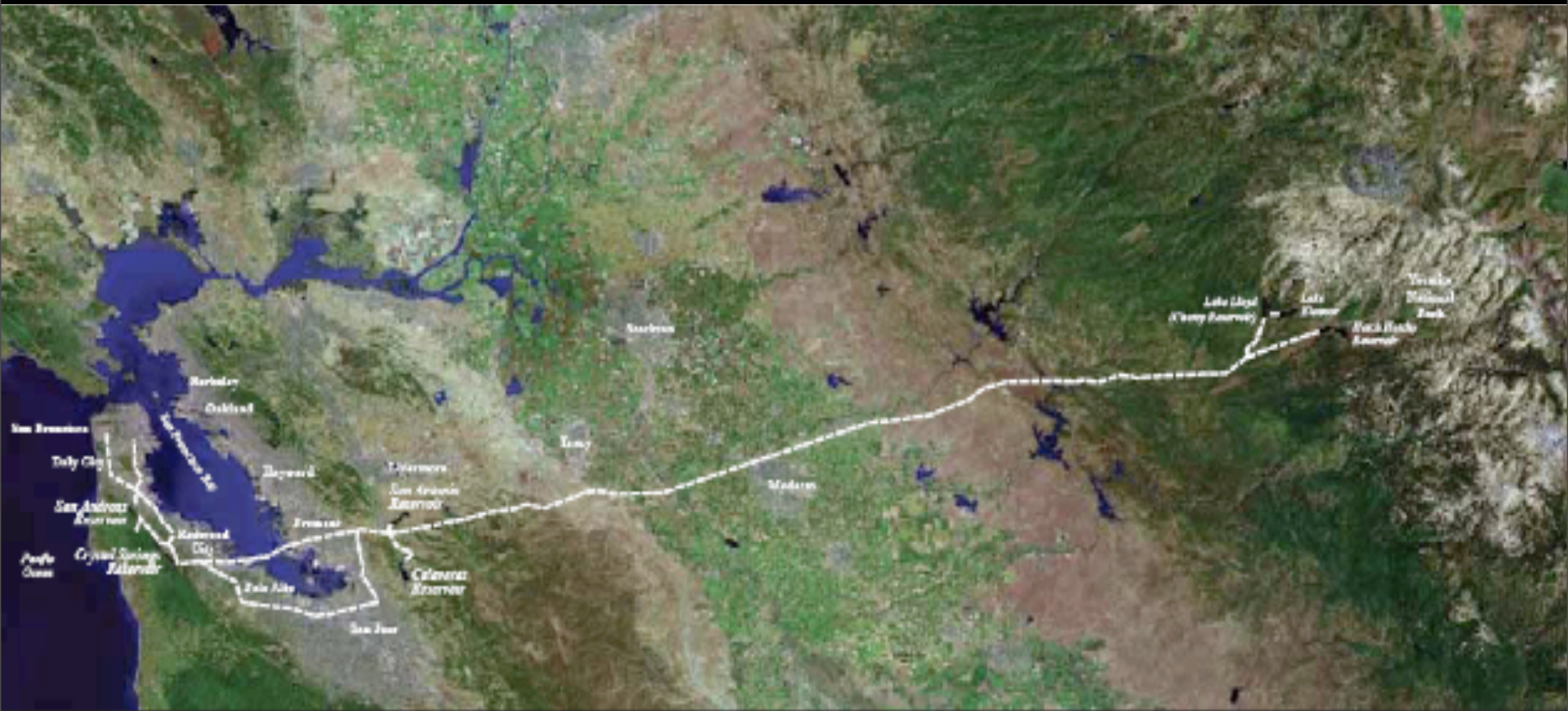




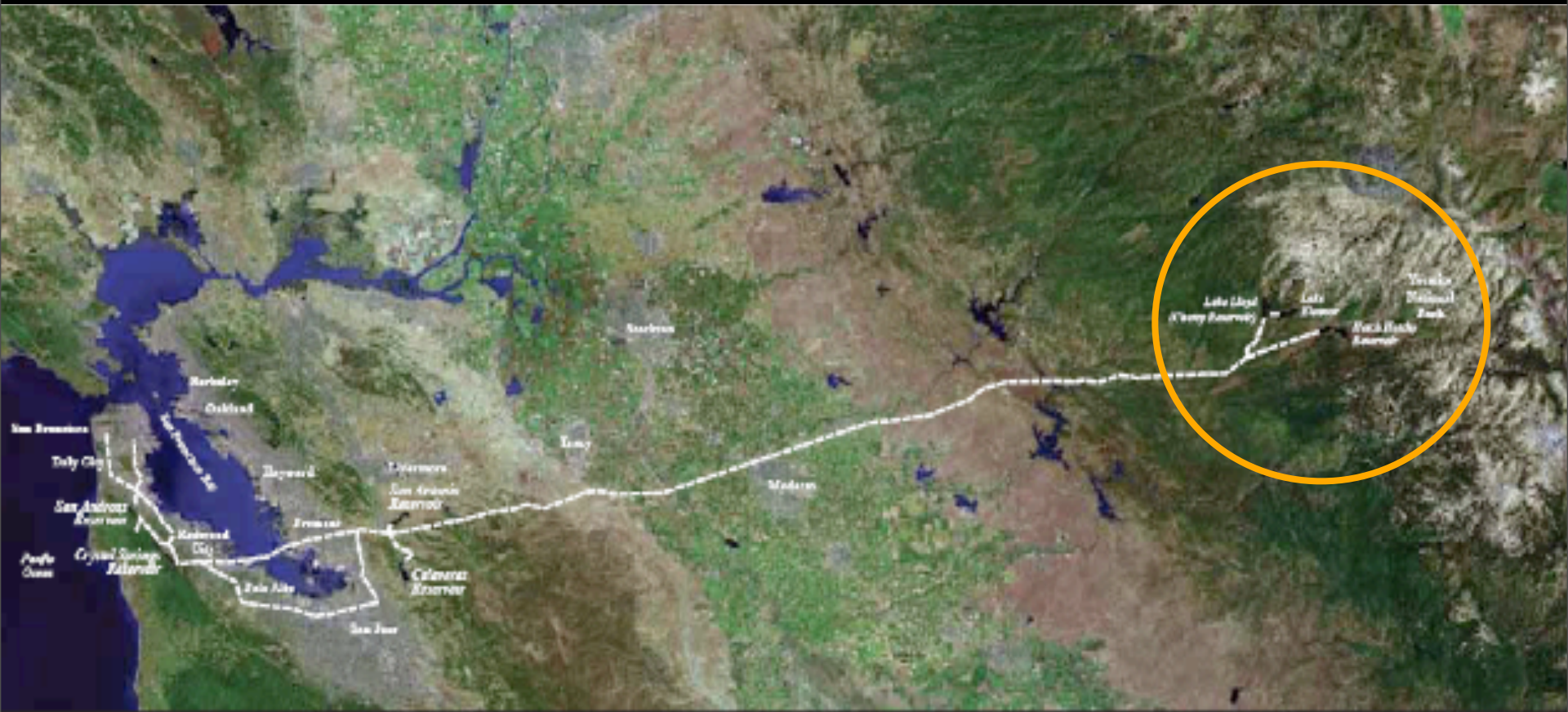
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# SFPUC Water System

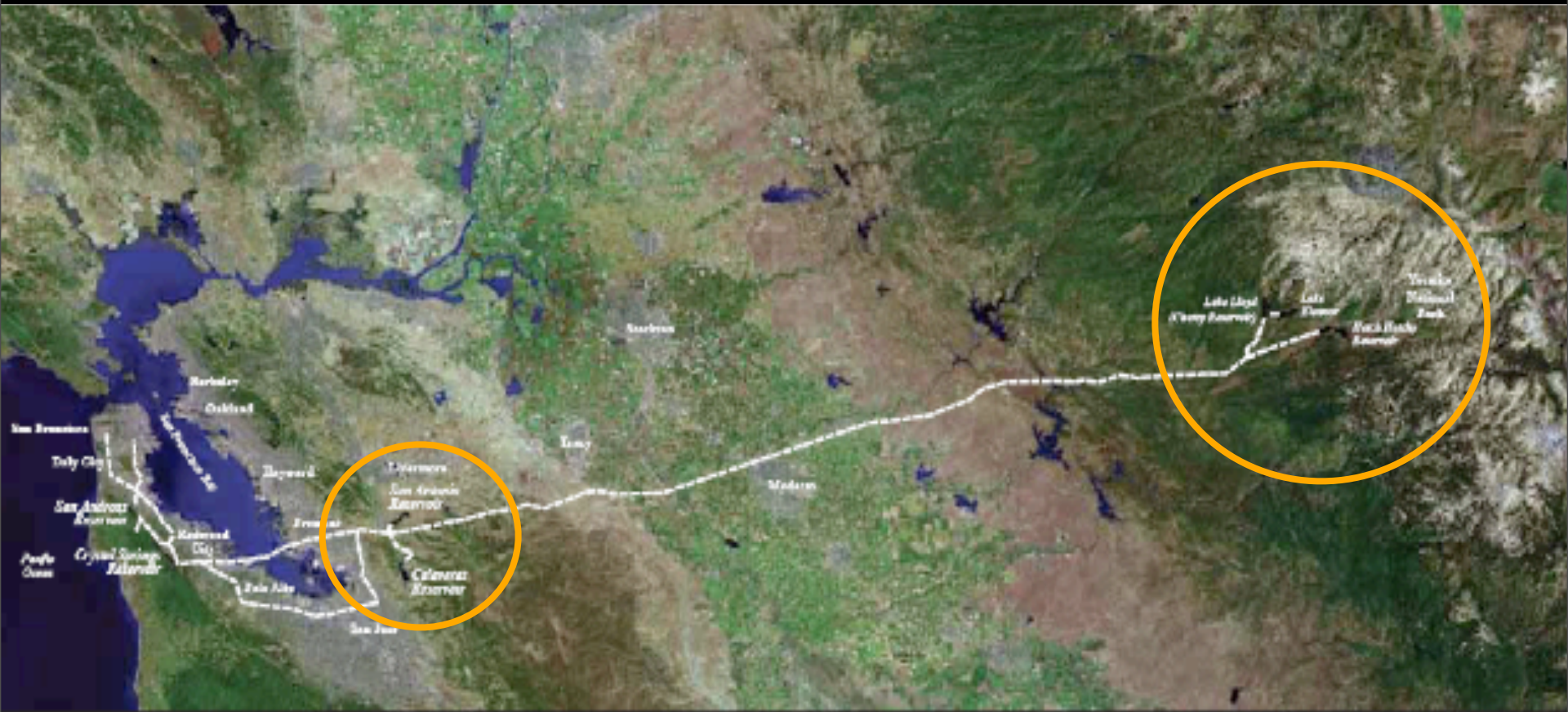


# SFPUC Water System

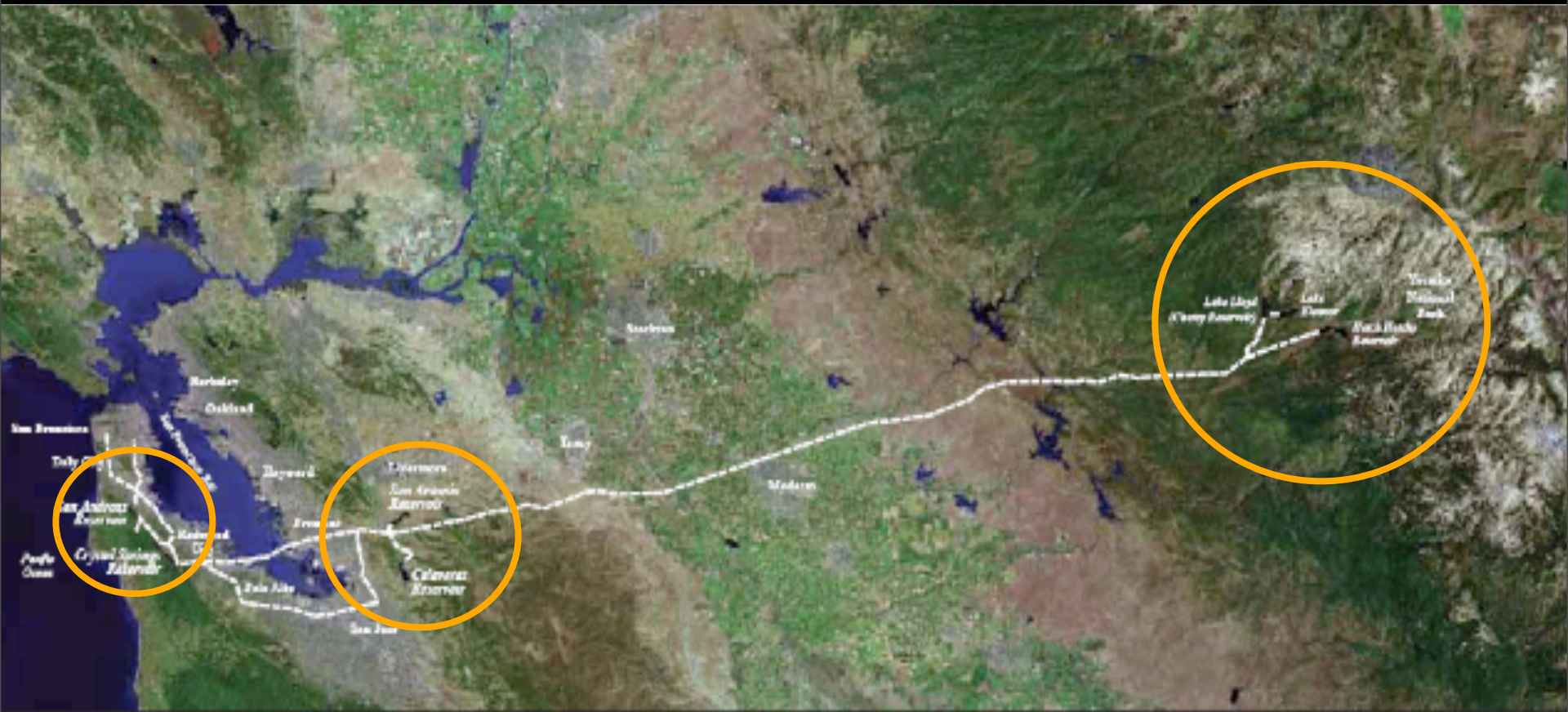




# SFPUC Water System



# SFPUC Water System







# SAN FRANCISCO PUBLIC UTILITIES COMMISSION HETCH HETCHY WATER SYSTEM





# Challenges

- Wide geographic area
- Political landscape
- Institutional boundaries
- Densely populated areas
- Environmental requirements
- System operation



# The Environment

- Achieving a balance
- Program EIR
- Project-specific review & permitting
- Comprehensive mitigation program
- Dedicated stewardship





# System Operations

- No loss of water service
- Operational risks
  - Reduced redundancy
  - Reservoir replenishment
- Mitigation of operational risks
  - Contingency planning
  - Customer coordination
  - System inerties





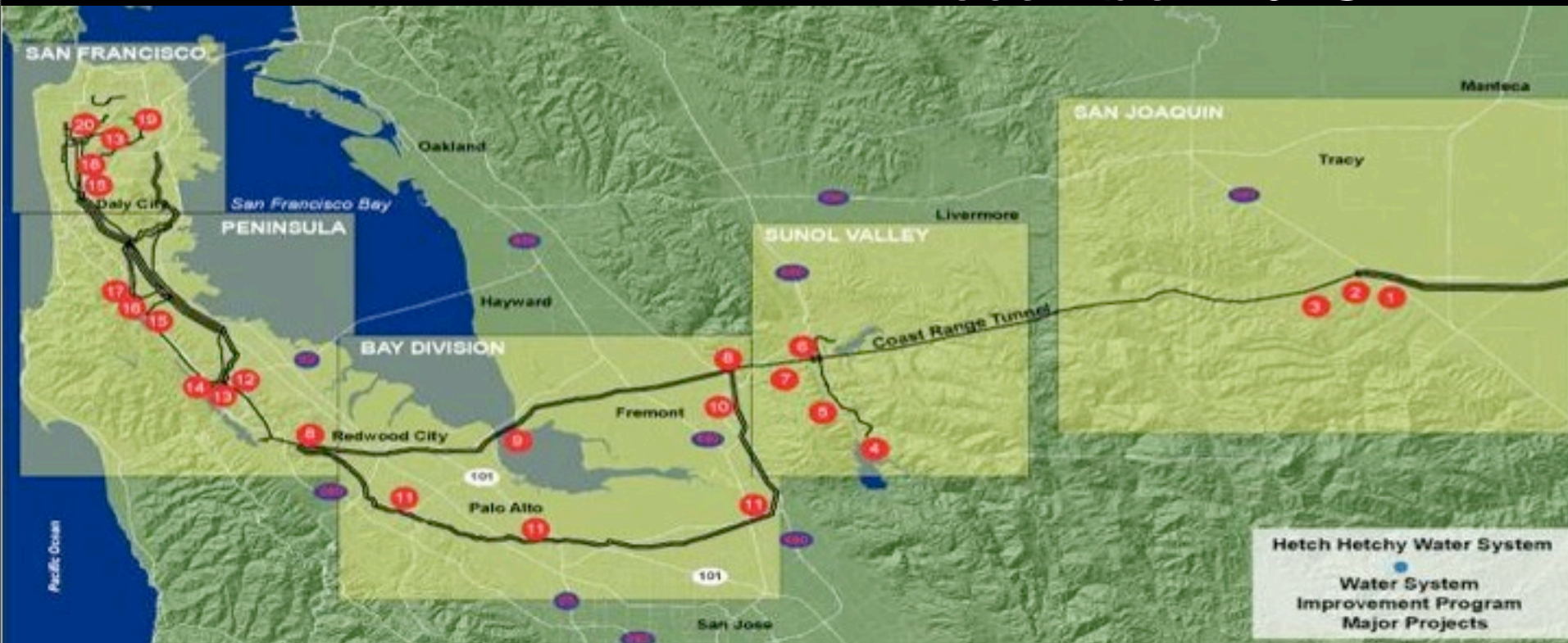
# Water System Improvement Program

**Julie L. Labonte**  
**WSIP Director**



# Water System Improvement Program

- 86 projects in 7 counties
  - 40 local projects
  - 46 regional projects
- Total Cost: \$4.6 Billion
- Completion Date: December 2015



# Our Goals

Seismic

Reliability

Water Quality

Delivery

Reliability







# Environmental Progress





# Environmental Progress



Low Bids

# Environmental Progress



Low Bids

In The Field





# Environmental Progress



## Low Bids

## In The Field



## CM Program

# Program Status

As of February 6, 2010

Active Phase	# of Projects	Value (\$M)	% Complete
Planning	4	\$82M	93.3%
Design	13	\$1,443M	76.9%
Bid & Award	2	\$162M	55.3%
Construction	21	\$648M	15.3%
Completed*	35	\$300M	NA
Multiple	11	\$1,479M	NA

\* Includes projects in Close Out Phase



# Construction Management

- To ensure success:
  - Standardized processes
  - Integrated organization
  - Proactive approach
- Safety approach
- Quality Assurance / Quality Control
- Partnering & Dispute Resolution
- CM MIS



# Contracting

- Delivery methods
  - Design-Bid-Build
  - Design-Build
- Pre-qualification Program
- How to motivate contractors
- Risk allocation
- Changing San Francisco's contracting environment





# Favorable Bidding Environment

- 17 construction contracts awarded in 2009 and 2010
  - Total value = \$499M
  - Engineer estimate (EE) = \$677M
  - Savings = \$178M (26% < EE)
- All awarded bids since Dec 07 under EE
- Average 4 to 8 bids per contract



# Tesla Treatment Facility



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# Alameda Siphon #4



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# New Irvington Tunnel



# SVWTP Expansion & Treated Water Reservoir



# HTWTP Long-Term Improvements



# Calaveras Dam Replacement



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# BDPL Reliability Upgrade

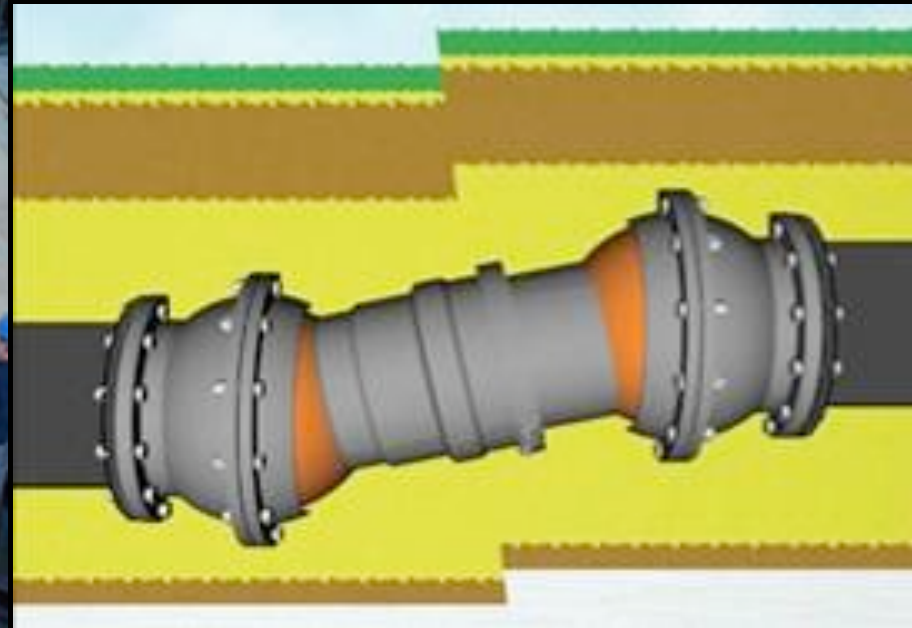


# BDPL Nos. 3 & 4 Crossovers





# Seismic Upgrade of BDPL Nos. 3 & 4





# New Crystal Springs Bypass Tunnel



Courtesy Jacobs Associates

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# Lower Crystal Springs Dam Improvements



# Sunset Reservoir – North Basin



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# Alemany Pump Station



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# Independent Review Panel

- 5-Member panel in Dec 09 asked to assess:
  - Delivery performance to date
  - Readiness for construction workload
- Key findings
  - Progress to date reasonable
  - Systems, procedures and business processes adequate
  - Shutdown planning efforts prudent and impressive
- Key Recommendations
  - Periodic independent CM audits
  - Revised performance reporting

# What's To Come In 2010

- 8 new regional construction contracts valued at \$860M to be awarded
- Implement new risk management approach
- Follow up on Independent Review Panel recommendations
- By end of 2010:
  - Only 4 project-specific EIR certifications remaining
  - Design Phase 97% complete
  - 21 regional projects worth \$2,023M in construction



