

# *California's Delta*

## *Executive Briefing*



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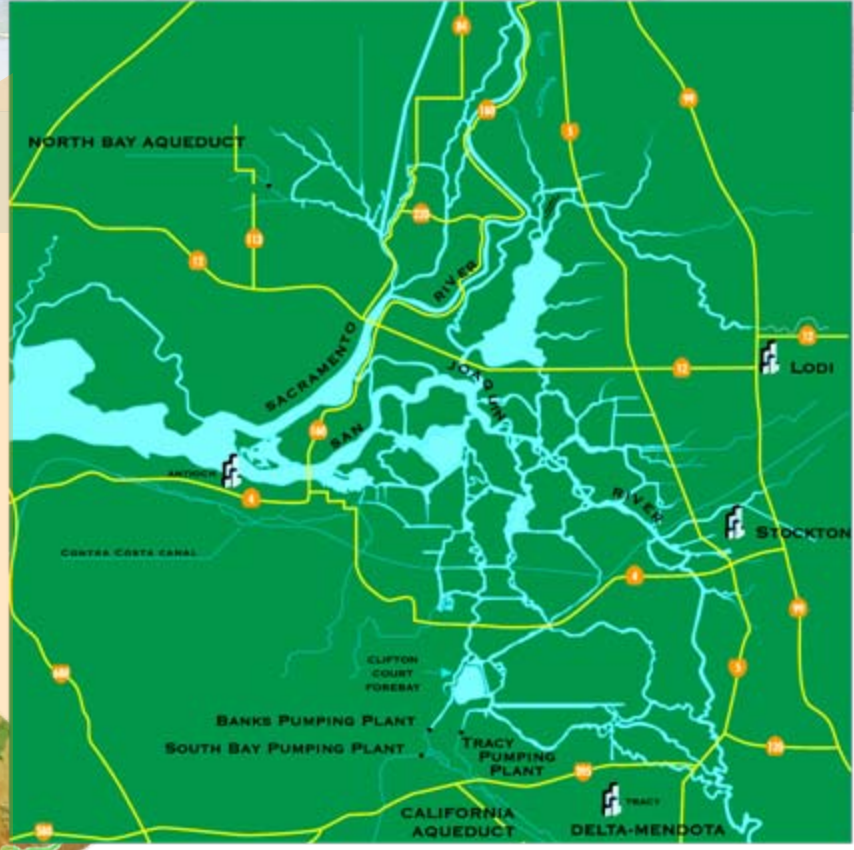
July 23, 2008



# ***Water Challenges of California***

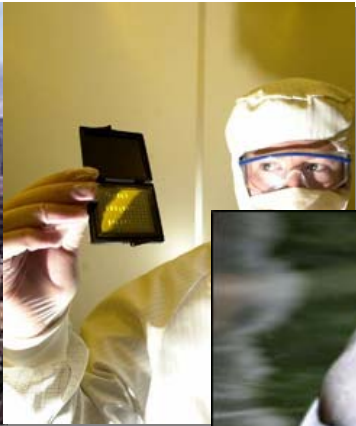
- ❑ State uses 40 million acre feet annually
  - ✓ 10 million for urban use
  - ✓ 30 million to irrigate the most productive ag land in the world
  
- ❑ Water that flows through the Delta
  - ✓ One-third of all drinking water
  - ✓ 15-20% of all ag water

# *The Delta: Hub of California's Water Systems and Major Environmental Habitat*


















# *Importance of the Bay-Delta*

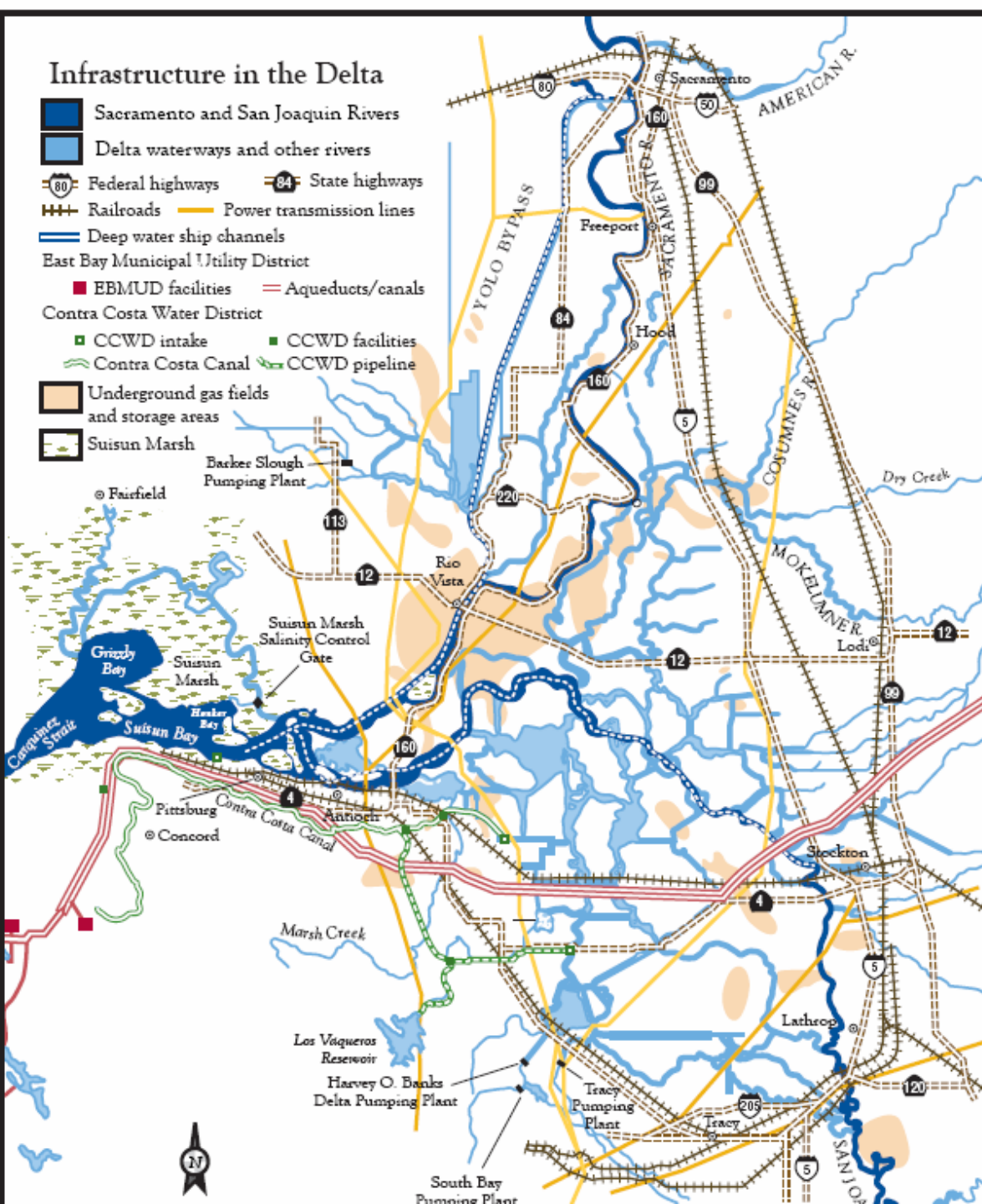
- 2/3 of California's 25 million residents rely on Delta water
- Irrigates 45% of nation's fruits and vegetables
- 80% of the state's commercial fish species live in or migrate through the Bay-Delta
- Habitat for 750 species, including 5 listed as "threatened" or "endangered"



# Delta Infrastructure

## Infrastructure in the Delta

-  Sacramento and San Joaquin Rivers
-  Delta waterways and other rivers
-  Federal highways
-  State highways
-  Railroads
-  Power transmission lines
-  Deep water ship channels
-  East Bay Municipal Utility District (EBMUD) facilities
-  Aqueducts/canals
-  Contra Costa Water District (CCWD) intake
-  CCWD facilities
-  Contra Costa Canal
-  CCWD pipeline
-  Underground gas fields and storage areas
-  Suisun Marsh



- Hundreds of gas lines
- 6 highways
- 5 high-voltage lines
- 3 railroads
- 9 towns and villages in primary zone, 16 in whole or part in the secondary zone

Map courtesy of PPIC

# *Importance of Delta Water Supply*

■ Supplies Bay Area, Central Valley & So. California

Bay Area – 33%

Kern County – 23%

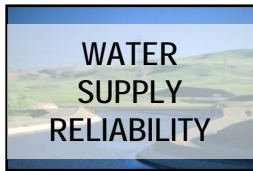
Southern California – 30%

Some regions up to 100%  
dependent on the Delta

# *Defining the Delta Crisis*



The Delta is at the center of competing demands for water quantity and quality



Water supplies from the Delta are not fully reliable



Poor Delta water quality makes it difficult and expensive to meet drinking water standards



Delta levee failures threaten agricultural, urban and environmental uses

# *Challenges to Delta Sustainability*

- ❑ Six 'drivers of change' will impact Delta sustainability:
  - ✓ Subsidence
  - ✓ Seismicity
  - ✓ Climate Change
  - ✓ Sea Level Rise
  - ✓ Invasive Species
  - ✓ Population Growth
- ❑ Any one of these could have catastrophic results







# ***Delta Vision***

- ❑ Governor Schwarzenegger established through Executive Order in late 2006
- ❑ *Our Vision for the California Delta* released in late 2007, naming 12 integrated and linked recommendations
- ❑ Highest priority is co-equal values of ecosystem restoration and water supply reliability
- ❑ Task Force selects dual conveyance as ‘preferred direction’
- ❑ Strategic Plan development in progress; to be finalized by October 2008



# ***Delta Vision Recommendations***

- ❑ **Habitat:** Restore physical habitats, appropriate water flows, remove stressors
- ❑ **Delta as Place:** Increase recognition and enhance multi-purpose river corridors
- ❑ **Outside the Delta:** Maximize regional water self-sufficiency and integrate water management
- ❑ **Climate Change:** Plan to store and move excess water during wet times
- ❑ **Public Safety:** Improve flood protection and levee system
- ❑ **Funding:** Link true value of resources and benefits to users
- ❑ **Laws and Governance:** Use existing laws and principles related to water; create overarching governance structure



# ***Bay-Delta Conservation Plan***

- ❑ Identify conservation strategies to improve overall ecological health of Delta
- ❑ Identify and implement ecologically friendly ways to move water through and/or around Delta
- ❑ Address toxic pollutants, invasive species and impairments to water quality
- ❑ Provide framework for implementation over time
- ❑ Require extensive environmental analysis and public review and comment



# ***BDCP Projected Actions***

- ❑ **Permitting:** Basis for, and streamlining of, permits under state/federal endangered species laws for plan-covered activities
- ❑ **Conservation/Restoration:** Comprehensive approach to Delta habitat
- ❑ **Funding:** New sources and methods of decision-making for ecosystem improvements
- ❑ **Adaptive Management:** Guide decision-making based on based available science
- ❑ **Species of Focus:** delta and longfin smelt, Chinook salmon, Central Valley steelhead, green and white sturgeon, Sacramento splittail

# ***Delta Interim/Habitat Actions***

- Emergency planning and preparedness
- Restoration of certain channels, islands and tracts
- Flood control
- Subsidence research
- Work on screens and barriers
- Levee repairs and maintenance

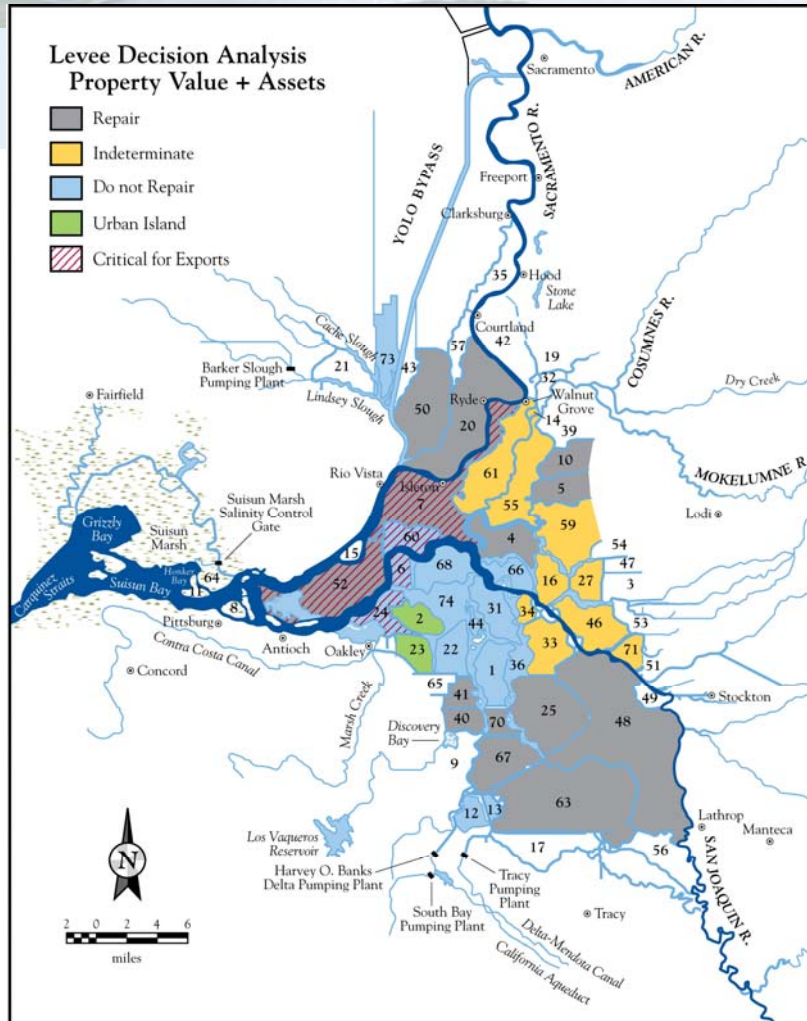




# ***Public Policy Institute of California***

- Peripheral Canal is best option to ensure co-equal values
- Allow some Delta islands to flood permanently for habitat
- Transition away from current management that harms native fishes and makes state susceptible to larger costs of levee failures and flooding

# Delta of Tomorrow will be Different



- Large bodies of open water and higher sea level
- Increased salinity, habitat variability
- Higher water quality costs – even if all islands remain intact
- Long-term choice is no exports or peripheral canal

Based on economic value of land and assets, many islands not worth repairing after flooding (blue)

Source: Public Policy Institute of California



## *Other Delta Initiatives*

- ❑ Nearly 40 separate initiatives focused on the Delta
  - ✓ Ranging from broad initiatives like Delta Vision to county plans
  - ✓ Runs gamut from species restoration to land use planning, from investigations of surface storage to levee safety





# *General Alternatives*

- Through-Delta Conveyance

- ✓ Improved, possibly armored channel

- Dual Conveyance

- ✓ Armored channel through the Delta and conveyance around the Delta

- Peripheral Canal

- ✓ No through-Delta conveyance

- No Export Alternative

- ✓ Use other water sources and conservation

- All alternatives involve major ecosystem improvements and efforts to dedicate a water supply for ecosystem



# ***Bond Measure***

- ❑ Governor Schwarzenegger and Senator Feinstein have proposed a \$9.3 billion bond that includes elements from all stakeholders and is a compromise approach that will move California toward a reliable water future:
  - ✓ Increased water storage to ensure more reliable water supply year-to-year ,and excess water in wet years can be captured for use in dry years
  - ✓ Improved water conveyance to reduce water shortages
  - ✓ Restored Delta ecosystem to allow California to take control of its own water systems
  - ✓ Increased conservation and tools to use water more efficiently



# ***Proposed Bond Funding Breakdowns***

- Water Supply Reliability -- \$2,000,000,000
- Delta Sustainability -- \$1,900,000,000
- Statewide Water System Operational Improvement -- \$3,000,000,000
- Conservation And Watershed Protection -- \$1,335,000,000
- Groundwater Protection And Water Quality -- \$800,000,000
- Water Recycling -- \$250,000,000



## ***Big Picture DV***

- Water Reliability and Ecosystem are co-equal
- Delta as place
- Governance and finance
- Linkages among recommendations critical



# ***Big Picture BDCP***

- ❑ Focuses on critical species and their habitats
- ❑ Voluntary collaboration and best available science
- ❑ Long-term activities that support water supply and power generation
- ❑ “Covered Species” are those that would benefit from enhanced conservation and management
- ❑ Plan approved and permit decisions by end of 2010



# *Questions & Comments*

- CALFED Bay-Delta Program

- ✓ [www.calwater.ca.gov](http://www.calwater.ca.gov)

- Delta Vision

- ✓ [www.deltavision.ca.gov](http://www.deltavision.ca.gov)

- Bay-Delta Conservation Plan

- ✓ <http://resources.ca.gov/bdcp>

- Governor's Delta Actions

- ✓ <http://gov.ca.gov/index.php?/press-release/8911/>

- Public Policy Institute of California

- ✓ <http://www.ppic.org/main/publication.asp?i=810>