

California's Delta

Resolving environmental and economic conflicts

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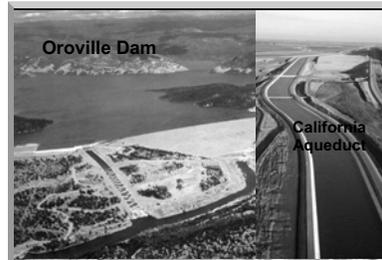
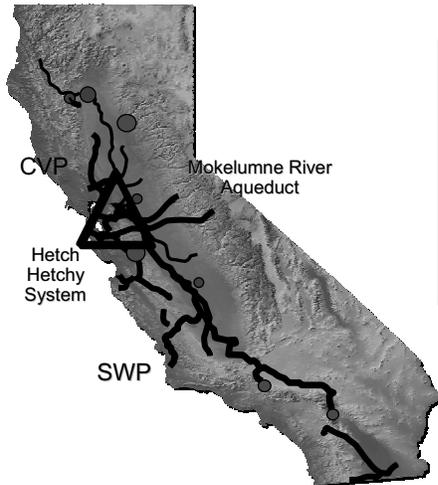


February 17, 2009

Today's discussion

- How the Delta works – and doesn't
- What have we done in the past?
- What's ahead?
- What's different this time?
 - ✓ Delta Vision
 - ✓ BDCP

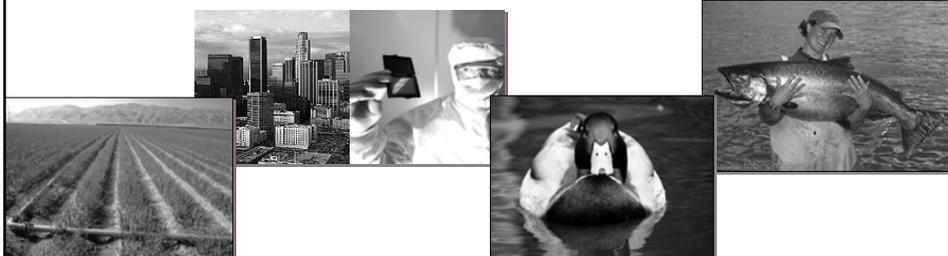
California Water Development



CA Department of Water Resources
State Water Project
1960 - Burns Porter Act
1973 - 1st water to So. Cal.

Importance of the Bay-Delta

- 2/3 of Californians rely on Delta water
- Irrigates 45% of U.S. fruits & vegetables
- 80% of the state's commercial fishery species live in or migrate through the Bay-Delta
- Habitat for 700 species, including 5 listed by ESA

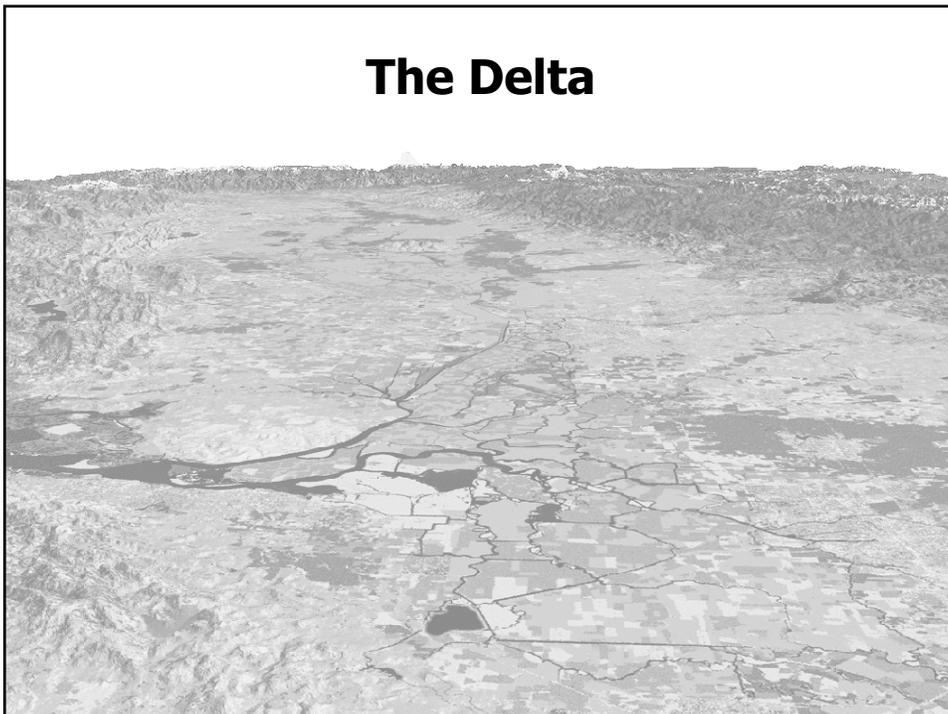


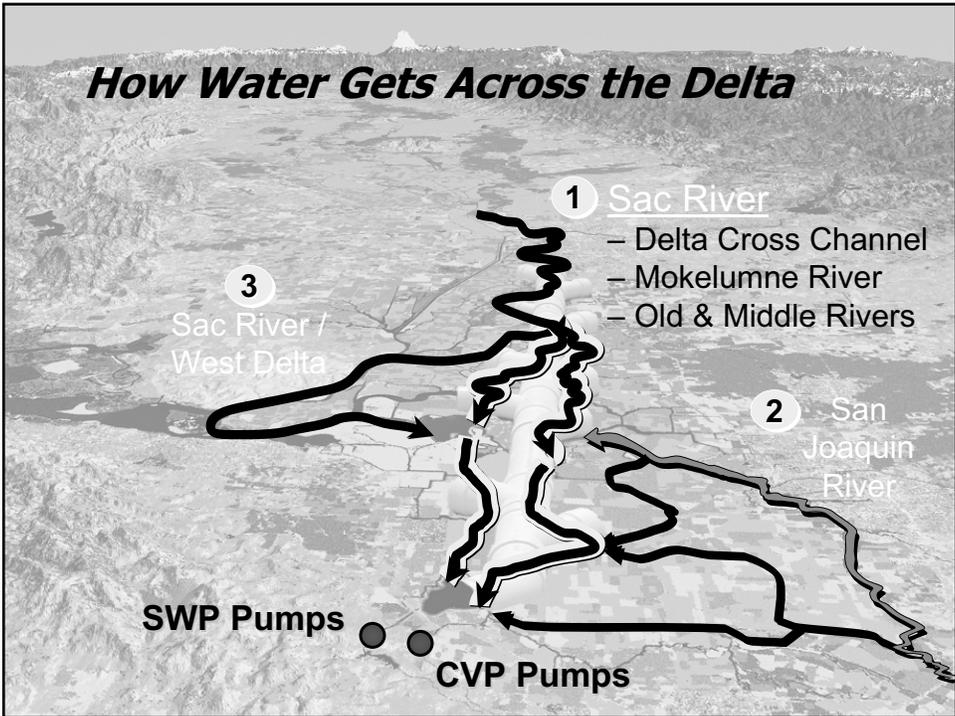
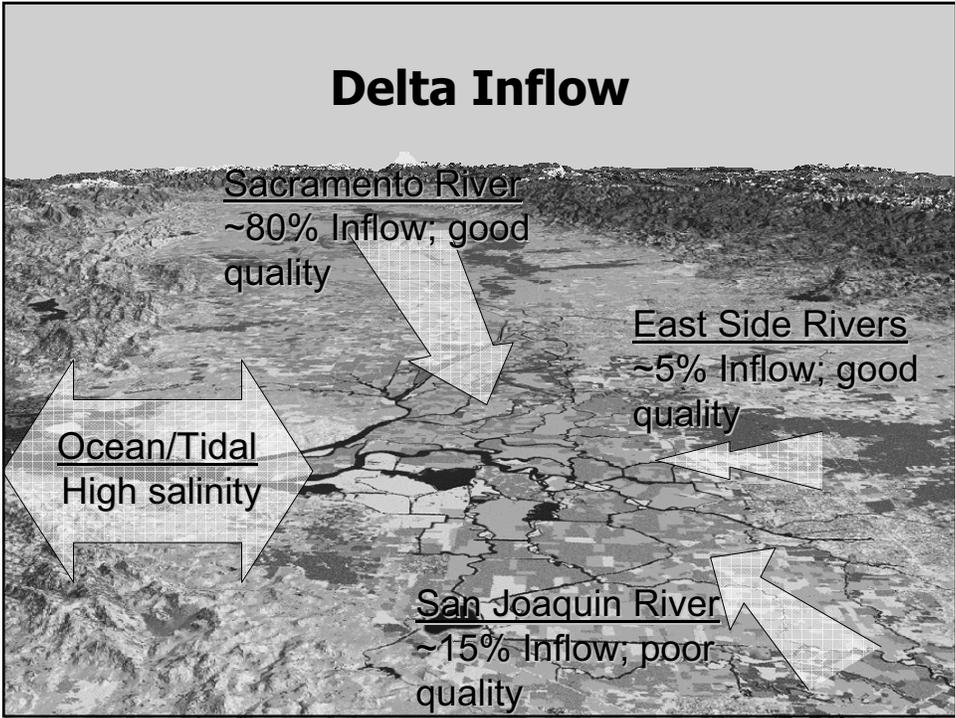
Importance of the Bay-Delta (too)

- More than 500,000 people live in the Delta
- Portions of five counties and 12 cities
- Agriculture - Average Annual Gross Value totals more than \$2 billion.
- More than 12 million visitors annually

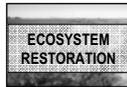


The Delta





Historic Delta Conflicts



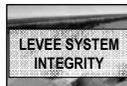
Center of competing demands for quantity and quality



Water supplies are not fully reliable

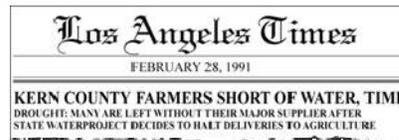
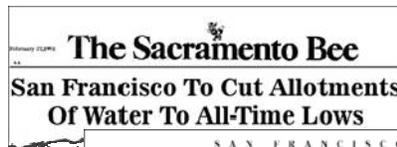


Water quality degradation makes it difficult and expensive to meet drinking water standards



Levee failures threaten agricultural and urban uses

... Led to a state of crisis



... that continues today

San Francisco Chronicle
Peripheral canal, new levees urged for Delta

The Sacramento Bee
Nature Conservancy backs Delta canal, with conditions

Los Angeles Times
L.A.'s water woes worsen

Press-Telegram
The cost of water may rise in L.A. DROUGHT: The hike of as 21 percent could be passed on by supplier.

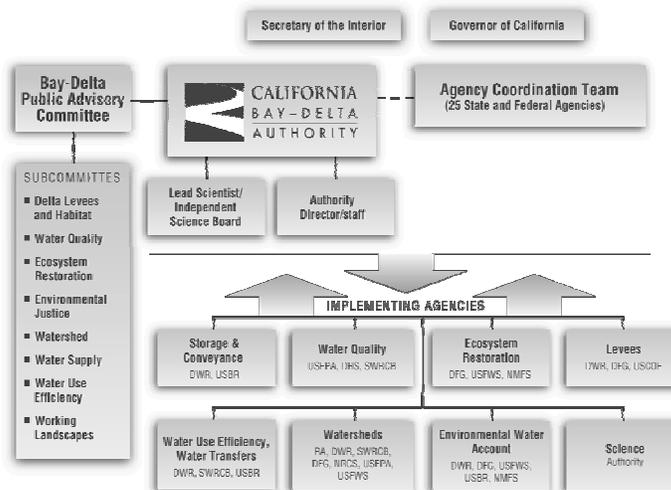
CONTRA COSTA TIMES
Sierra snow pack low, a dry winter looms

The Sacramento Bee
Federal draft report: Delta system imperils fish

CONTRA COSTA TIMES
Delta fish hit record lows in 2008

San Francisco Chronicle
Water rationing likely in SoCal this spring

Wasn't CALFED supposed to fix this?



Lessons from CALFED

☐ What worked ...

- ✓ Water supply enhanced; some ecological successes
- ✓ Agency collaboration
- ✓ Public involvement
- ✓ Strong, useful science

☐ What didn't ...

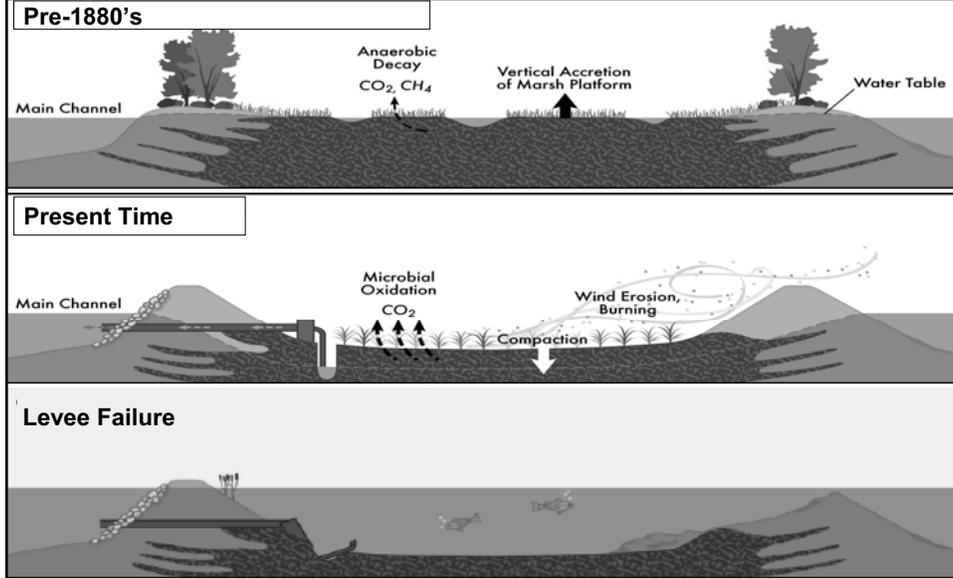
- ✓ Oversight without authority
- ✓ Variable leadership
- ✓ Getting better together
- ✓ Putting off tough decisions
- ✓ Lots of info, little synthesis

What's ahead?

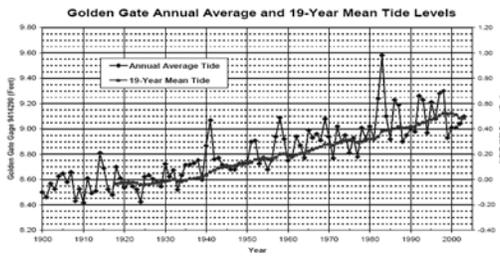
- ☐ Six 'drivers of change' will impact Delta sustainability:
 - ✓ Subsidence
 - ✓ Sea Level Rise
 - ✓ Climate Change
 - ✓ Seismicity
 - ✓ Invasive Species
 - ✓ Population Growth



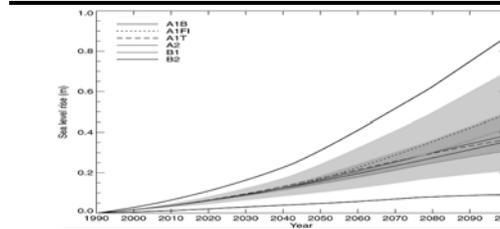
Subsidence – Islands or Holes?



Climate Change Uncertainty



Past (1900 – 2000)
+ ½ ft sea level rise



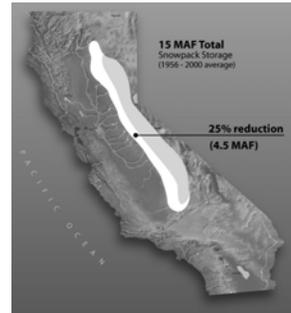
Future (2000 – 2100)
½ to 3 ft sea level rise

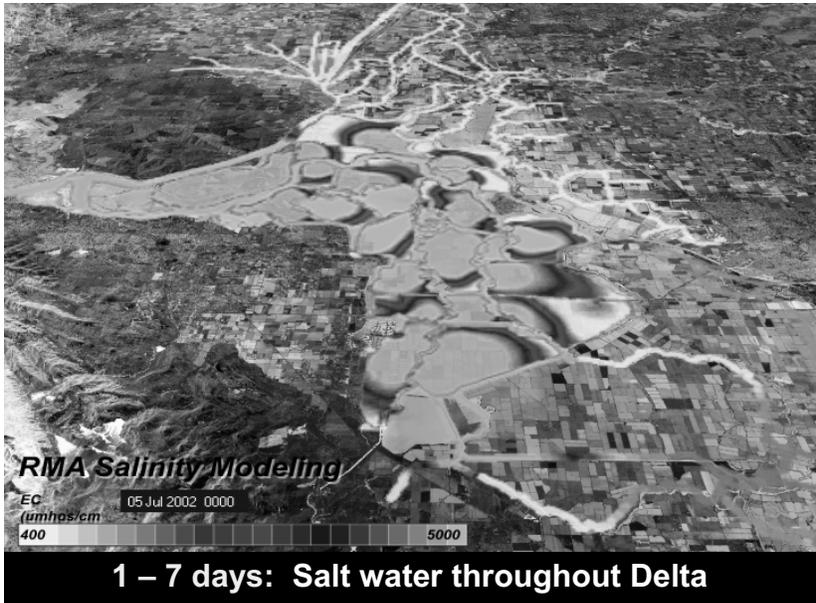
Climate Change Uncertainty

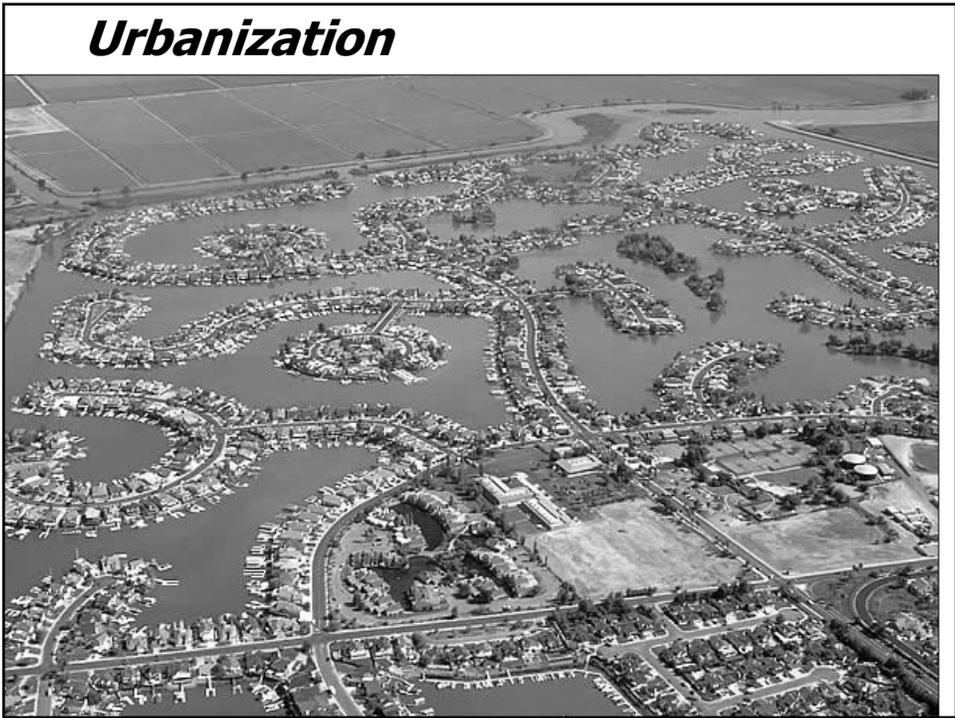


By 2100
+ 1.4 – 5.8 °C degrees

By 2050
1/3 loss of snowpack



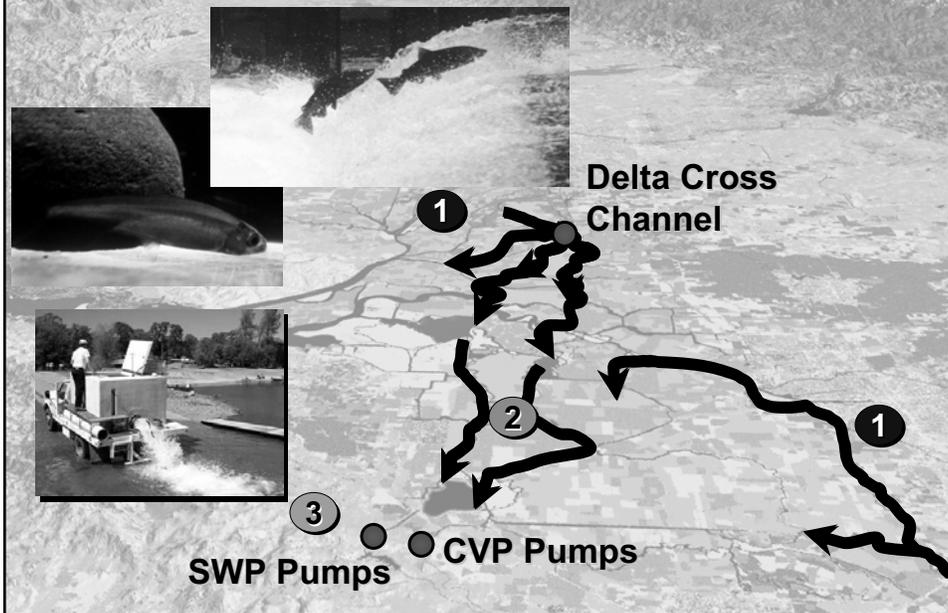




Where are we today?

- ✓ Pelagic Organism Decline
- ✓ ESA lawsuits re: delta smelt and salmon
- ✓ Additional species candidates for listing
 - Green Sturgeon
 - Longfin smelt
- ✓ Drought

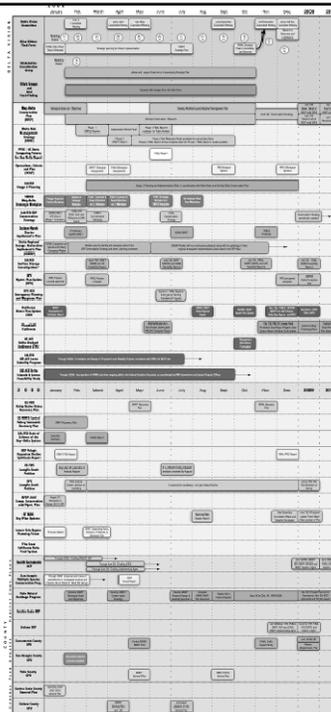
Fishery Implications





Delta Today – Multiple Efforts to address problems

- Delta Vision
- Bay-Delta Conservation Plan
- 26 other state and federal efforts
- 10 county-based efforts



Delta Vision – the Big Picture



Beginnings of Delta Vision

- 2006 - Established by Executive Order
- Develop durable vision for sustainable management of the Delta over long term ...
- Plan to restore and maintain identified functions and values important to the Delta's environmental quality and economic and social well-being of the state
- Seven members appointed to serve by the Governor

How Delta Vision Developed

- Two-year process (Vision and Plan)
- Task Force held 35 days of public meetings
- A 43-member Stakeholder Coordination Group held 20 days of public meetings
- Hundreds of written and verbal comments
- Three drafts & final Vision and five drafts plus final Vision Strategic Plan were published

Key Elements of a Solution



- Co-equal goals
- Local resource development
- Dual conveyance
- Additional Storage
- Habitat restoration
- All stressors
- Governance & financing

What is BDCP and what will it accomplish?

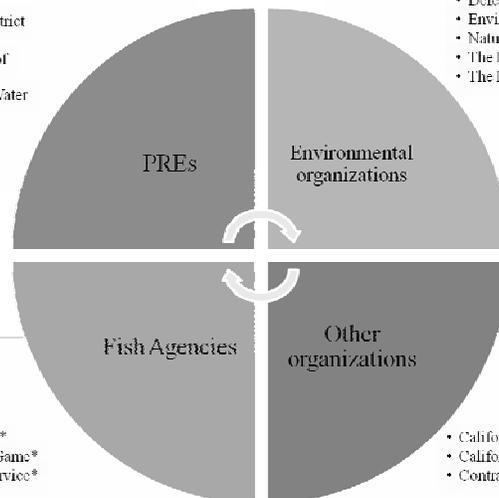
- Voluntary collaboration
- Provide stable regulatory framework for water export operations
- Comprehensive conservation plan expected by the end of 2009



BDCP Steering Committee

- Department of Water Resources
- Bureau of Reclamation
- Santa Clara Valley Water District
- Kern County Water Agency
- Metropolitan Water District of Southern California
- San Luis & Delta-Mendota Water Authority
- Mirant Energy
- Westlands Water District
- Zone 7 Water Agency

- American Rivers
- Defenders of Wildlife
- Environmental Defense Fund
- Natural Heritage Institute
- The Bay Institute
- The Nature Conservancy



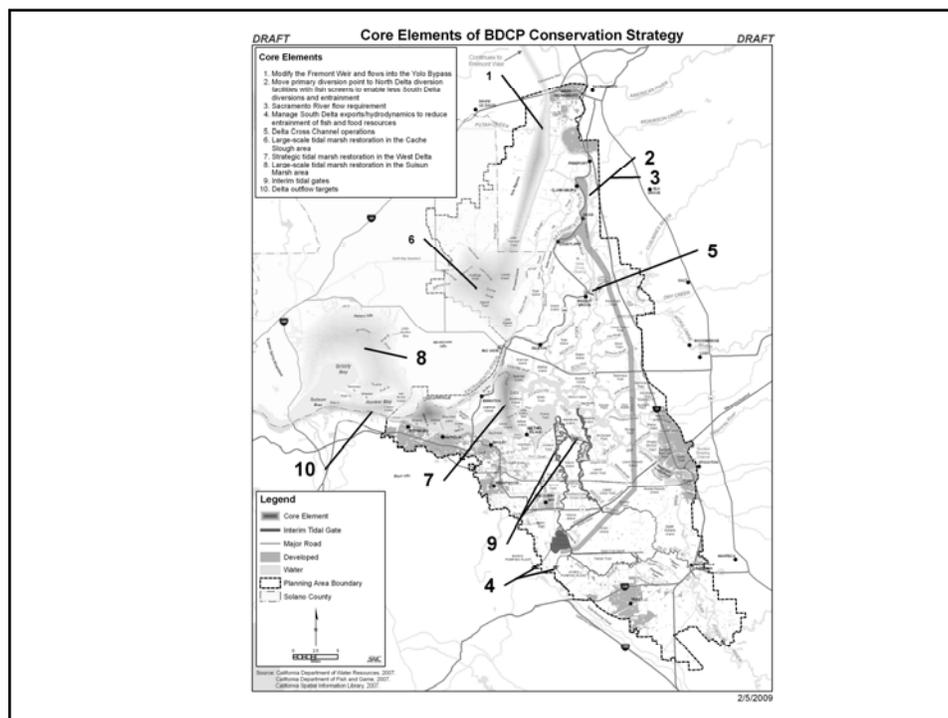
- US Fish and Wildlife Service*
- CA Department of Fish and Game*
- National Marine Fisheries Service*
- *Ex-Officio status

- California Farm Bureau Federation
- California Resources Agency
- Contra Costa Water District

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Bay Delta Conservation Plan

- Aquatic conservation and water reliability
- Incidental take authorizations, water quality certifications, and other regulatory approvals
- Collaborative regulatory negotiation
- Undertaken in a NEPA/CEQA context, with formal public review and comments
- Firm commitments on financing, decision-making, schedules, etc.
- Long-term in duration

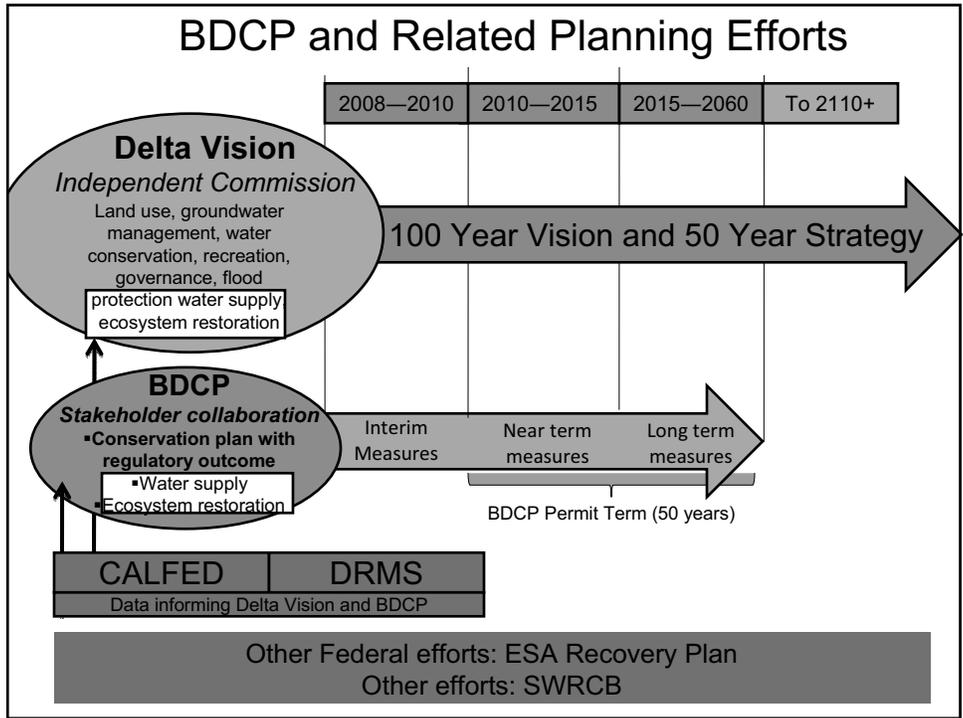


Implementation Considerations
Habitat Restoration/Water Conveyance & Operations
Conservation Measures

- Impacts to existing land use, levees
- Financial impacts to county tax base
- Vector control
- Plants & wildlife
- Water quality, temperature, contaminants
- Recreation

Coordination & Integration Issues

- Governance & implementation
- Water quality modeling
- Multiple species needs
 - ✓ Ongoing coordination to better understand the function of proposed conservation measures in overall conservation strategy
 - ✓ Required to mitigate
 - ✓ Targeted conservation measures to advance local planning efforts
- Adjacent property owners



Questions?

CALFED: www.calwater.ca.gov

Delta Vision: www.deltavision.ca.gov

Bay-Delta Conservation Plan: <http://resources.ca.gov/bdcp/>

CITY OF SACRAMENTO
Workshop on Delta Vision Strategic Plan
Overview of Potential Impacts to Sacramento
February 17, 2009

Dave Brent, Division Manager
Dept. of Utilities
City of Sacramento



**Workshop on
Delta Vision Strategic Plan**

- Overview of Water/Sewer/Drainage
- Overview of Potential Impacts to City
 - Surface Water Rights - Water Quality
 - Land Use - New Delta Conveyance
 - Floodplain Management - Finance
 - Water Conservation
- Principles moving forward
- Next steps

UTILITIES CORE SERVICES

Public Safety

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> ● Safe and Reliable Water Supply ● Flood Prevention ● Combined Sewer System | <ul style="list-style-type: none"> ● Fire Protection ● Floodplain Management ● Sewer Collection ● Trash Collection |
|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|

Economic Development

- | | |
|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> ● Protection of Water Rights ● Floodplain Management | <ul style="list-style-type: none"> ● Master Planning ● Flood Prevention |
|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|

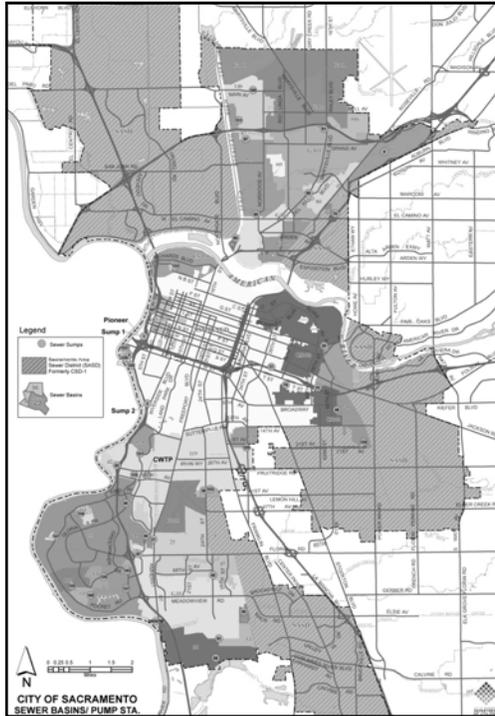
Sustainability and Livability

- | | |
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| <ul style="list-style-type: none"> ● Safe and Reliable Water Supply ● Illegal Dumping Collection ● Recycling Collection | <ul style="list-style-type: none"> ● Protect Creeks and Rivers ● Green Waste Collection ● Street Sweeping |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|



Water System Overview

- Produces more than 45 billion gallons of water for drinking, household use, fire suppression, landscaping, commercial and industrial use
- The Sacramento and American rivers provide 85% of this water. The remaining 15% is well water
- 2 water treatment plant (320 mgd)
- 35 groundwater wells



Sewer System Overview

- 40 + lift stations convey 9 billion gallons of sewage and combine wastewater per year
- Routed to the Sacramento Regional Wastewater Treatment Plant for treatment before discharge to the Sacramento River
- The Combined Sewer System route sewer and drainage in a single pipeline



Drainage System Overview

- 103 pump stations
- 59 detention basins
- Direct discharge to rivers and canals

Overview of Potential Impacts to City from Delta Vision (DV)

Delta Vision City Perspective

- DV is a thoughtful report attempting to provide collective statewide benefit
 - Parallels goals of City supported efforts on the Lower American River, i.e. The Water Forum
- **Impacts could be disproportionately redirected to Sacramento and other Delta communities**

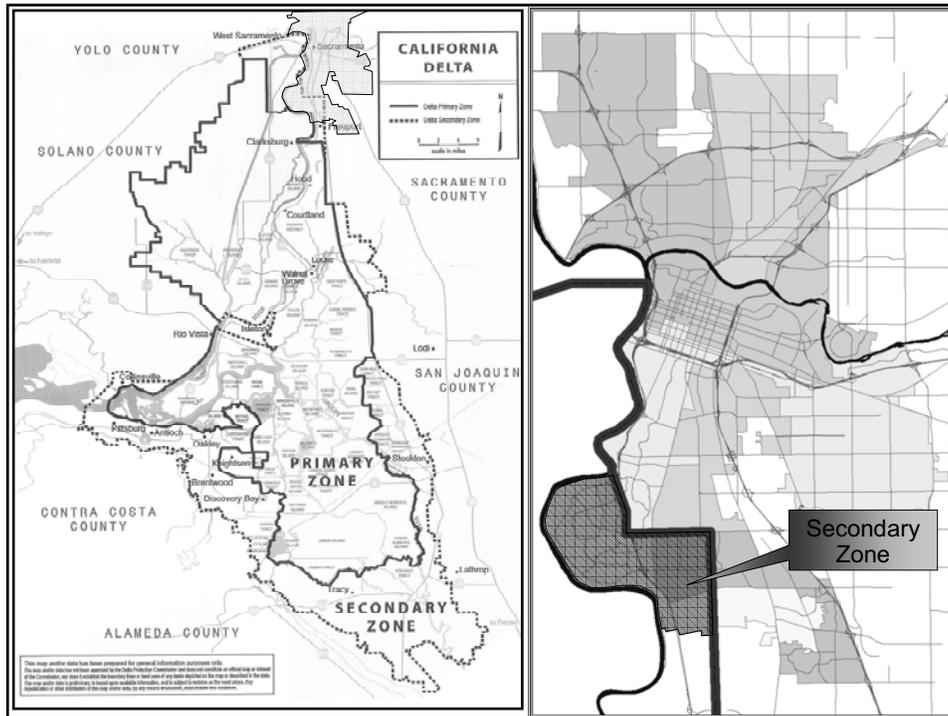


Potential Impacts to the City Surface Water Rights

- City has senior water rights off both American and Sacramento Rivers
 - Under “Public Trust” doctrine: possible upstream water reallocation to environment
 - Under “Reasonable Use” doctrine: possible reduction of water rights water if use fails to comply with State defined efficiency measures or Best Management Practices (BMPs)
- **Potential reduction of Water Rights:**
 - Loss of valuable resource
 - Economic development impacts
 - Reliability of water supply
 - Meet general plan water demands
 - Quality of life

Potential Impacts to the City Land Use Decisions

- DV calls for additional land use authority over Delta counties and cities.
 - To ensure consistency with California Delta Ecosystem and Water (CDEW) plan
 - Distinction between Primary & Secondary zone
- Secondary Delta zone within City mostly built out
 - Freeport Study Area
 - Delta Shores
- **Local jurisdictions should maintain primary land use planning authority**



Potential Impacts to the City Floodplain Management

- Potential to siphon levee improvement funds from Sacramento region
- Change in reservoir operations may impact flood occurrence
- **Maintain adequate funding for flood control within Sacramento region**

Potential Impacts to the City Water Conservation (continued)

- DV recommends legislation
 - requiring a 20% reduction in per capita use by 2020
 - Mandate volumetric (tiered) water pricing
- Potential for disproportionate increase in mandatory conservation for Sacramento, as compared to other regions
 - City~280 gpcd vs. State ~192 gpcd
 - *Gallons per capita per day (gpcd)*
- DV water conservation recommendations do not clearly differentiate between:
 - users who return significant flows to Delta and
 - exporters that permanently remove water

Potential Impacts to the City Water Conservation (continued)

- State mandated pricing structures over current system of local control
 - Could prove highly disruptive to DOU revenue stream
 - Equity issues
- DV encourages recycled water use (purple pipe), stormwater infiltration & reuse
 - Would require significant infrastructure (piping) (\$\$)
 - Significant unexplored technical aspects (\$\$)
- Links state funding to achievement

Potential Impacts to the City **Water Quality**

- Stormwater
- Wastewater
 - Sacramento Regional County Sanitation District
 - perception vs. science
- Additional treatment of these discharges could cost City rate payers hundreds of millions to billions of dollars
- Good science, consideration of existing efforts and economics, and stakeholder input

Potential Impacts to the City **New Water Conveyance and Operations**

- Dual Conveyance of water through and around the Delta. “Peripheral Canal”
 - To provide flexibility for Export Water Supplies and ecosystem needs.
 - Alignment studies are occurring now.
 - Proposed Diversion Structure could be positioned near the City
- Direct Impacts to City are unclear at this time
 - Likely an increased focus on constituents in drainage and wastewater discharge

Potential Impacts to the City Finance

- Financial impacts to City rate payers are unknown at this time. Possibilities include:
 - Hindered economic development if water rights reduced?
 - Fees from water diversion and/or discharge
 - Increased regulations, policies, programs
 - Siphoning off of levee funds
 - New infrastructure: recycled water, stormwater management

Principles

- Good science
- Protection of water rights
- No redirection of environmental impacts
- Water Conservation: oppose “one size fits all”
- Local land use authority
- Beneficiary Pays
- Fair regulatory processes

Suggested Next Steps

- Return to Law and Legislation Committee and Council for policy decisions
- Create Ad Hoc committee to monitor and represent City interests
- Commit resources to monitor, engage and represent City interests in the Delta Vision process