

An aerial photograph showing a winding canal or irrigation system cutting through a vast agricultural landscape. The water is a deep blue, contrasting with the brown and green fields. In the distance, a range of mountains is visible under a clear blue sky.

# **Bay-Delta Conservation Plan**

## **Draft EIR Alternatives**

**Special Committee on Bay-Delta**

**Board Item 4c**

**July 27, 2010**

# Presentation Overview

- Identification of Alternative concepts & components
- Alternatives under evaluation in the BDCP Draft EIR/EIS

# All Alternative Concepts include the following components

- Habitat Restoration
- Measures to reduce Other Stressors
- Conveyance
  - Isolated Conveyance
  - Dual Conveyance
  - Through-Delta Conveyance



# Alternative Concepts & NEPA/CEQA Environmental Analysis

## Programmatic Evaluation

Early & Staged Implementation

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Early & Staged Implementation

## Project Specific Evaluation

Long-term Implementation

OTHER STRESSORS

RESTORATION OPPORTUNITIES

CONVEYANCE & WATER SYSTEM OPS

ALTERNATIVE CONCEPT

# Other Stressors Conservation Measures

## BDCP Steering Committee Handout – Mar 2010

- Help maintain Stockton Ship Channel dissolved oxygen levels
- Reduce illegal harvest of salmonids and sturgeon
- Develop hatchery & genetic management plans
- Develop conservation hatcheries for Delta and Longfin smelt
- Implement predator control
- Implement non-physical fish barriers
- Minimize mercury methylation in habitat restoration areas
- Implement non-native aquatic vegetation control

# Other Stressors Conservation Measures

## Undergoing Evaluation – Mar 2010

- Reduction of Ammonia Loads
- Reduction of Endocrine Disruptor Loads
- Reduction of Agricultural Pesticide Loads
- Reduction of Urban Runoff Loads
- Reduction of Activities that Introduce Non-native Species
- Increase Non-native Species Harvest of Predators
- Implement Restrictions on Splittail Harvest
- Implement Mark-Select Fisheries Program
- Reduction of Entrainment by Non-Project Diversions

# Habitat Restoration Conservation Measures

## BDCP Steering Committee Handout – Mar 2010

- Tidal Habitat Restoration – 65,000 acres
- Channel Margin Habitat Enhancement – 20 linear miles
- Riparian Habitat Restoration – 5,000 acres
- Seasonally Inundated Floodplain Restoration – 10,000 ac.
- Fremont Weir/Yolo Bypass Habitat Improvements

# No Action Alternative

## Existing Thru-Delta

Restoration	Conveyance	Other Stressors
Based on Bio Ops Aquatic habitat restoration No terrestrial restoration	15,000 cfs (existing capacity)  Thru-Delta without modifications  Water ops based on Biological Opinions	No actions



# Alt. #1: Bay-Delta Conservation Plan (with Dual Conveyance)

Restoration	Conveyance	Other Stressors
65,000 acres tidal marsh	15,000 cfs (being evaluated)	Full array of other stressors
5,000 acres riparian	Pipeline/Tunnel	
10,000 acres new floodplain	Other sub-alts:	
Enhanced seasonal floodplain	<ul style="list-style-type: none"> <li>• Canal, East, lined &amp; unlined</li> </ul>	
20 mi. channel bank restoration	<ul style="list-style-type: none"> <li>• Canal, West, lined &amp; unlined</li> </ul>	
	BDCP Proposed Water Ops	

# Alt # 2: Dual Conveyance with Smaller Pipeline/Tunnel

Restoration	Conveyance	Other Stressors
Same as Alt #1	6,000 cfs (being evaluated)  Pipeline/Tunnel  BDCP Proposed Water Ops	Same as Alt #1

# Alt. #3: Isolated Conveyance Only (No Thru-Delta)

Restoration	Conveyance	Other Stressors
Same as Alt #1	15,000 cfs (being evaluated) Pipeline/Tunnel Other sub-alts: <ul style="list-style-type: none"> <li>• Canal, East, lined &amp; unlined</li> <li>• Canal, West, lined &amp; unlined</li> </ul> BDCP Proposed Water Ops, plus Fall X2 Rule	Same as Alt #1

# Alt. 4: Dual Conveyance with Enhanced Aquatic Conservation & Smaller Pipeline/Tunnel

Restoration	Conveyance	Other Stressors
Same as Alt. #1 plus: <ul style="list-style-type: none"><li>• 20 additional miles channel bank restoration; and</li><li>• Enhanced seasonal floodplain</li></ul>	6,000-12,000 cfs (being evaluated)  Pipeline/Tunnel  Water Ops modified from Alt. #1 (more restrictive)	Same as Alt #1



# Alt. #5: Thru-Delta Conveyance with Separate Corridors

Restoration	Conveyance	Other Stressors
Same as Alt #1, but less in south Delta	15,000 cfs (being evaluated)  Thru-Delta modifications  Water Ops modified from Alt. #1 (to provide equivalent protection)	Same as Alt #1, but less in south Delta

# Next Steps

- Continue developing array of alternatives
- Incorporate changes from BDCP Steering Committee
- Consider BDCP Separate Analyses & Important Related Actions information in the alternatives review
- Identify potential adverse impacts & mitigation measures