

BDCP

BAY DELTA CONSERVATION PLAN

# Public Meeting

December 14, 2011

*California Natural Resources Agency*

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# Effects Analysis Update

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# Presentation Contents

- Review purpose of Effects Analysis
- Provide update on Effects Analysis
- Review appendices deliverable schedule
- Discuss available appendices

# Purpose of Effects Analysis

- Provide necessary information for ESA and NCCPA permitting
- Provide structural foundation for analysis of alternatives
- Determine the overall effects on listed fish and wildlife and natural communities as a result of the BDCP
- Includes only analyses for biological effects

# Organization of Effects Analysis

- Organized by
  - Stressor (i.e., passage obstruction)
  - Geographic subregion (i.e., Yolo Bypass)
  - Species life stage (i.e., sturgeon adults)
- Final conclusions presented for each species by 'rolling-up' the cumulative effects for each stressor, subregion and lifestage for each species
  - 'Roll-up' included in Chapter 5; available April 2012

# Delta Science Program Review

- Reviewed Conceptual Foundation & Analytical Framework (Appendix A) and Entrainment (Appendix B)
- 11 main recommendations
- ICF reviewing report and will modify appendices appropriately
- Review of entire BDCP Effects Analysis (Chapter 5) and remaining appendices in April 2012

# Conceptual Foundation & Analytical Framework (Appendix A)

- Conceptual Foundation
  - Describes purpose, vision, strategy for BDCP
  - Describes structure for biological goals and objectives
- Analytical Framework
  - Describes models used in effects analysis, analytical comparisons—base case assumptions; Climate Change assumptions; weight of evidence
  - ‘Roll-up’

# Entrainment (Appendix B)

- Describes changes in operations of water diversions in the Delta as a result of BDCP
- Provides estimates of entrainment of covered fish species under BDCP
- Uses entrainment estimates to estimate relative difference in entrainment between preliminary proposal and the existing biological condition

# Analytical Tools and Methods

- Over 19 hydrological and biological models
- Model types
  - Conceptual (ex: DRERIP)
  - Environmental (ex: CALSIM II)
  - Biological (ex: Egg mortality model)
  - Population & Life History (ex: OBAN)
  - Habitat Suitability

# Organization of Each Appendix

- Executive Summary
  - Conclusions Summaries and Tables
- Background
- Methods
- Results
- Conclusions

# Schedule for Web Posting

<u>Appendix</u>	<u>Deliverable Date</u>
<ul style="list-style-type: none"><li>•Appendix A - Conceptual Foundation/Analytical Framework</li><li>•Appendix B - Entrainment</li><li>•Appendix G - Fish Life Cycle Models</li></ul>	December 12, 2011
<ul style="list-style-type: none"><li>•Appendix C - Flow/Passage</li></ul>	December 14, 2011
<ul style="list-style-type: none"><li>•Appendix F - Ecological Effects</li></ul>	December 16, 2011
<ul style="list-style-type: none"><li>•Appendix D - Toxics/Water Quality</li></ul>	January 6, 2012
<ul style="list-style-type: none"><li>•Annotated Outline of Chapter 5 (Effects Analysis)</li></ul>	January 12, 2012
<ul style="list-style-type: none"><li>•Appendix E - Habitat Restoration</li></ul>	January 13, 2012
<ul style="list-style-type: none"><li>•Appendix I - Analysis Not Used</li></ul>	January 17, 2012
<ul style="list-style-type: none"><li>•Chapter 5 (Effects Analysis)</li></ul>	April 9, 2012

# Effects Analysis Appendices

- Current appendices available online and findings to date
  - Conceptual Foundation and Analytical Framework (Appendix A)
  - Entrainment (Appendix B)
  - Flow/Passage (Appendix C)
  - Fish Population Analysis (Appendix G)

- Flow/Passage
  - Describes the changes in flows in Sacramento River system, San Joaquin River system, and Delta channels
  - Evaluates effects on fish that result from changes in flows and flow-related parameters by comparing the preliminary proposal to existing biological conditions
  - Divides analysis by Upstream Area, Delta Area, and Passage/Migration effects

# Fish Population Analysis (Appendix G)

- Fish Population Analysis
  - Describes the application of life cycle models used to help determine population-level effects of BDCP covered activities on selected covered fish species.
  - Information gained from models will help inform the roll-up in Chapter 5.
  - Models run:
    - Winter-run Chinook salmon: OBAN & IOS
    - Spring-run Chinook salmon: OBAN
    - Delta smelt: State-Space Multistage

# Appendices In Progress

- Toxins
- Ecological Effects
- Habitat Restoration
- Analyses Not Used
- Construction Effects

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# Questions and Comments

# Working Groups Update

- Yolo Bypass Fishery Enhancement Planning Team
- South Delta Habitat
- Biological Goals and Objectives
- Governance

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# Questions and Comments

- Next public meeting
  - January 25, 2012 at 1:00 p.m. (tentative)
  - Visit [www.baydeltaconservationplan.com](http://www.baydeltaconservationplan.com) for documents and upcoming meeting information