

**Delta ISB review of the BDCP Draft EIR/S,
particularly regarding reliance on habitat restoration**

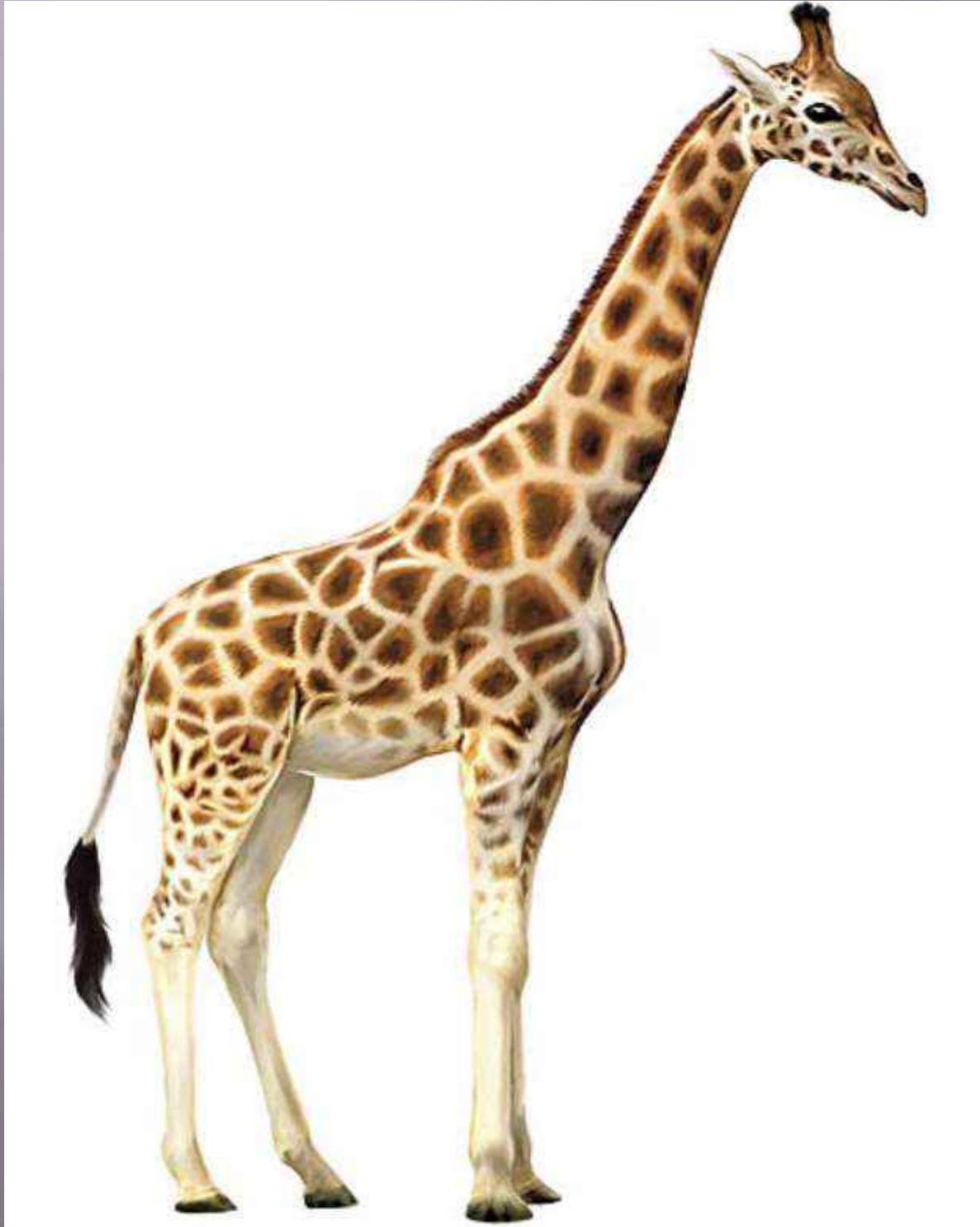
Tracy Collier
Delta Independent Science Board

Bay-Delta Science Conference

Sacramento, CA

October 30, 2014

The only physical copy of the
BDCP and DEIR/S?





Minimum reading
assignment
per ISB member



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Delta Independent Science Board

May 15, 2014

To: Randy Fiorini, Chair
Delta Stewardship Council

Charlton Bonham, Director
California Department of Fish and Wildlife

From: Delta Independent Science Board

Subject: Review of the Draft EIR/EIS for the Bay Delta Conservation Plan

The Delta Reform Act of 2009 (§85320(c)) instructs the Delta Independent Science Board to review the Bay Delta Conservation Plan (BDCP) Draft Environmental Impact Report/Environmental Impact Statement (DEIR/DEIS) and to submit our comments to the Delta Stewardship Council and the California Department of Fish and Game. We have focused our review on the adequacy of the science and the validity of the conclusions drawn from that science. The accompanying document constitutes our legislatively mandated review.

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California Department of Fish and Wildlife

Carl Wilcox, Policy Advisor on the Delta

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U.S. Fish and Wildlife Service

Ren Lohofener, Regional Director, Pacific Southwest Region



**Review of the
Draft BDCP EIR/EIS
and Draft BDCP**

Conducted by the

Delta Independent Science Board

May 15, 2014

Summary of Major Concerns:

- Effectiveness of conservation actions, especially habitat restoration
- Treatment of uncertainty and use of modeling
- Effects of climate change and sea level rise on BDCP implementation and outcomes
- Linkages between species, landscapes, and the proposed action
- Effects on SF Bay, effects of levee failures, effects of increased water availability
- Implementation of adaptive management
- Lack of risk assessment and decision support tools
- Presentation of the document itself



Review of the Draft BDCP EIR/EIS and Draft BDCP

**Conducted by the
Delta Independent Science Board**

May 15, 2014

- Many of the impact assessments hinge on overly optimistic expectations about the feasibility, effectiveness, or timing of the proposed conservation actions, especially habitat restoration.
- The project is encumbered by uncertainties that are considered inconsistently and incompletely; modeling has not been used effectively...
- The potential effects of climate change and sea-level rise on the implementation and outcomes of BDCP actions are not adequately evaluated.
- Insufficient attention is given to linkages and interactions among species, landscapes, and the proposed actions themselves.
- The analyses largely neglect the influences of downstream effects on San Francisco Bay, levee failures, and environmental effects of increased water availability for agriculture and its environmental impacts in the San Joaquin Valley and downstream.
- Details of how adaptive management will be implemented are left to a future management team without explicit prior consideration of (a) situations where adaptive management may be inappropriate or impossible to use, (b) contingency plans in case things do not work as planned, or (c) specific thresholds for action.
- Available tools of risk assessment and decision support have not been used to assess the individual and combined risks associated with BDCP actions.
- The presentation, despite clear writing and an abundance of information and analyses, makes it difficult to compare alternatives and evaluate the critical underlying assumptions.



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We noted several areas in which the BDCP efforts are noteworthy:

- Background descriptions are detailed yet clear
- Presentation of alternative water-conveyance designs is comprehensive and evenly balanced
- Many resource chapters are extensive and comprehensive
- Where impacts are anticipated, appropriate mitigation measures or avoidance and minimization measures are often described
- The models that are used are employed effectively
- There is frequent reference to the important role that adaptive management and monitoring will play in implementing the actions
- There are in-depth evaluations of some individual species.



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Many of the negative impacts of the project are expected to be mitigated by habitat restoration, some 150,000 acres.....

“Many of the impact assessments hinge on overly optimistic expectations about the feasibility, effectiveness, or timing of the proposed conservation actions, especially habitat restoration.”



Image from Whipple et al. 2013, Sacramento-San Joaquin Delta Historical Ecology Investigation: EXPLORING PATTERNS AND PROCESS

“In particular, the Panel observed that the critical uncertainties associated with presumed beneficial effects of tidal wetland restoration were not recognized in the Chapter 5 summary.”

Delta Science Program Independent Review Panel Report BDCP Effects Analysis Review, Phase 3

**A report to the
Delta Science Program**

Prepared by

Alex Parker, Ph. D., California Maritime Academy, California State University (Panel Chair)
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T. Luke George, Ph.D., Colorado State University
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The DISB recommended several improvements in the scientific framework of the BDCP

3. Initiate pilot restoration actions as soon as possible.—



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Pilot restoration actions (and other projects to address critical uncertainties) should be initiated as soon as possible, within a scientific framework that will allow BDCP and others to test, refine, and improve the effectiveness of restoration.

Some studies that are already underway can be incorporated into BDCP once (or if) it is permitted; other studies being planned could benefit by addressing needs identified in the Draft BDCP or DEIR/DEIS.

Current and planned habitat restoration projects in the Delta should be aligned as much as possible with the priorities identified in BDCP and the Delta Plan.

...the effects of recent marsh restorations in the Delta and Suisun Marsh could help test the benefits of habitat restoration that the DEIR/DEIS assumes in concluding that a net impact is beneficial under NEPA or less than significant under CEQA (e.g., Chapter 11, p. 3023).

Contingency plans....What if things do not go as planned? The history of ecological restoration shows that restoration projects rarely have exactly the intended consequences in the expected time frame....There will inevitably be situations....where there is a large-scale failure of restored habitat to function as anticipated. What happens then?



In total, we used

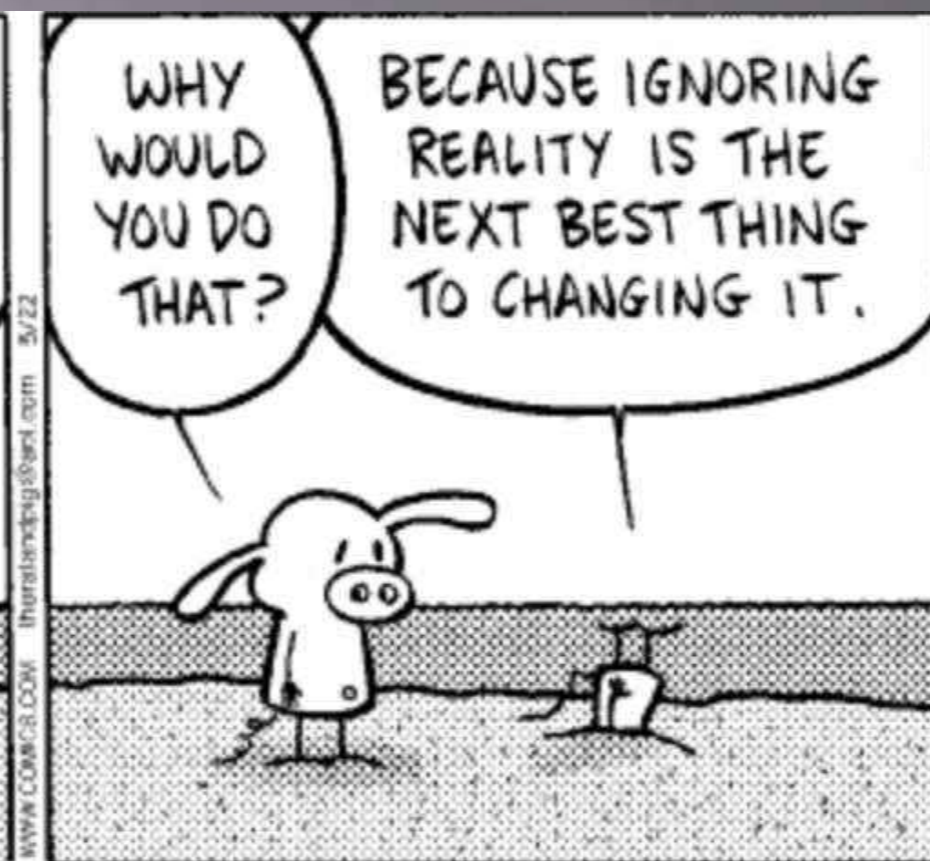
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