

# Vernalis Adaptive Management Plan (VAMP) Updates on Peer Review, Newman modeling and future plans

Pat Brandes  
USFWS  
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# VAMP Peer Review Process History

- SWRCB asks the parties to conduct peer review
- The VAMP Technical Team Develops Proposed Process
  - Develop Two Documents
    - A. Summarize Past (July)
    - B. Suggest future approach (Dec)
  - Conduct Peer Review (After Dec)
- Fishery Agencies Recommend alternative process to better meet SWRCB timeframes
  - Develop Summary Report
  - Conduct Peer Review → Develop future technical approach



# Develop Summary Report

## Draft completed 9/5/08

- Introduction
  - How did we get to VAMP
  - Goals and objectives of VAMP
- Summarizes past VAMP studies
  - hydrology during VAMP
  - past CWT studies (modeling conducted by Newman)
  - acoustic studies
  - HORB
  - complementary studies



## Draft Summary Report

- Were objectives of VAMP met for salmon
  - Did survival improve with VAMP?
  - To what extent did VAMP cover the migration period?
- Is it likely VAMP would have provided information for “new” WQCP standards?
- Has VAMP been beneficial for Delta smelt



# Draft Summary Report

- What have been the problems with VAMP?
  - Didn't meet all flow and export targets with HORB
  - Low Precision
  - Narrow Range of targets
- Why do we need to change VAMP?
  - NO HORB
  - Limitation on study fish
  - Potential trawling limitations
- Other “questions”



# Peer Review Process

- Finalize scope of work for panel
  - Structure
  - Process
  - Charge
  - Questions
- CALFED Science will implement
- Need to firm-up timeline



# Newman Modeling

- Funded through CALFED Science grant

- Final report completed 3/31/08

[http://www.science.calwater.ca.gov/pdf/psp/PSP\\_2004\\_final/PSP\\_CalFed\\_FWS\\_salmon\\_studies\\_final\\_033108.pdf](http://www.science.calwater.ca.gov/pdf/psp/PSP_2004_final/PSP_CalFed_FWS_salmon_studies_final_033108.pdf)

- VAMP study was one of 4 CWT studies reviewed/modeled



# Newman Report/Modeling

- Original report was peer reviewed, final incorporated revisions
- Journal manuscript submitted within year
- Bayesian Hierarchical Modeling - explicitly incorporates variation (multiple types)
- Robust conclusions – but still uncertainty
  - Survival lower OR to JP than DR to JP (HORB)
  - Flow increases survival between DR to JP





# Future Plans

- Conduct peer review → develop future recommendations (2<sup>nd</sup> report)
- Implement 2009 experiment (likely similar to 2008)
  - Flow and export targets?
  - Assuming No HORB
- Parties will start discussing
  - potential 2 year extension of SJRA
  - what to do after VAMP

