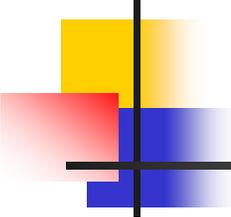


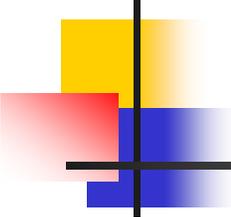
Response to CALSIM II Review

Francis Chung
DWR



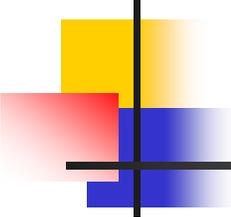
Why Reviewed?

- CalFed ROD
 - In Delta Storage
 - North Delta Storage
 - SDIP
 - Intertie
 - Others
- Oroville FERC
- Monterey EIR
- CALSIM II Allocation Model
- EWA
- B160
- Others



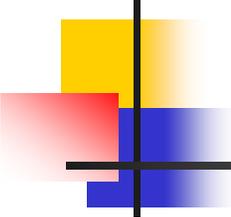
Background

- CalFed Science Program sponsored the review with close coordination with DWR and USBR.
- UCD conducted a stakeholder survey and released a survey report.
- A panel of experts convened a review during 11/13 and 14.
 - Prior to this review, DWR submitted a pre-review briefing package.
 - A report filed on 12/4/2003.



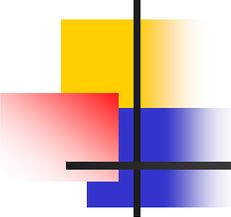
Panelists

- A. Close
- M. Haneman
- J. Labadie
- P. Louks (Chair)
- J. Lund
- D. McKinney
- J. Stedinger



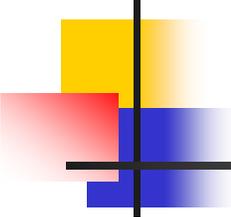
CALSIM II is Well-Rated

- “an appropriate approach and in fact the approach many serious efforts of this kind are using.” (p2)
- “a substantial improvement of the previous modeling approaches” (p2)
- “provides a basis for consensus among federal and state interests” (p2)



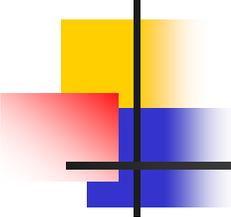
CALSIM II is Well-Rated (cont)

- “CALSIM II represents a state-of-the-art modeling system that is similar ... to other ... modeling systems such as ARSP, MODSIM, OASIS, REALM, RiverWare and WEAP.” (p4)
- “CALSIM II can provide a showcase for other states as to what can be accomplished with Federal and State cooperation for river basin management.” (p19)



CALSIM II is Well-Rated (cont)

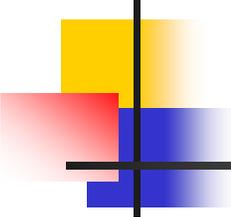
- “to be commended for their work to take California water modeling beyond past “closed shop” practices in favor of the development and dissemination of modeling capabilities that are more relevant to California’s current water management problems.” (p20)



Plenty of Recommendations

Chapter 6

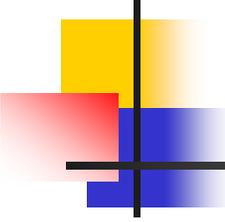
- Establish a consortium that includes staffs from DWR, USBR, MWD, KCWA, CCWD and other agencies
- Establish a quality control program
- Train others
- Improve supporting models
- Improve data
- Develop performance-based optimization
- Make CALSIM II modular
- Improve calibration
- Document



More Recommendations

Chapter 4

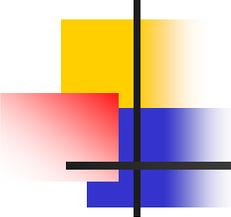
- Upgrade the MIP solver to speed up execution
- Enhance confidence through documents, seminars, data, calibration
- Consider other factors in assessing reliability of delivered water



Recommend IMC

Chapter 5

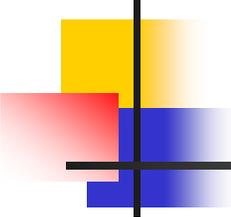
- Continue improvements. Statewide political, economic, environmental and financial stakes are high.
- Need an “Outsiders” view beyond CVP-SWP management.
- Form Interagency Modeling Consortium



More Recommendations

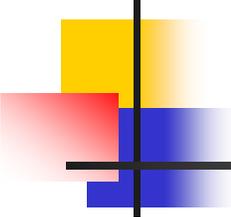
2.2 Some Prominent Weaknesses

- Improve data. Improve DBM, update data
- Involve local experts
- Expand geographical scope
- Expand management scope
- Make modular—geographical, hydrologic, management, and demand
- Continue updating and testing model and data



General Impression

- Academic review
- Strategic recommendations
- Reinforce what should be done next
- Compilation of the panel's comments



Possible DWR Response

- Use to build a road map for the next decade
- Initially work with USBR, gradually involve the public and other public agencies to solicit inputs, and guide developments
- Develop a work plan for near- and long-term improvements and developments