

Proposed Project: Using DSM2 to Support Delta Emergency Response

Jamie Anderson, Ph.D., P.E

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Department of Water Resources
Modeling Support Branch
Bay-Delta Office

Delta Emergency Response

Operations & Maintenance



Manage SWP Operations

Flood Management



Protect Life and Property

Bay Delta Office Modeling Support



Provide Modeling Support for Decision Making

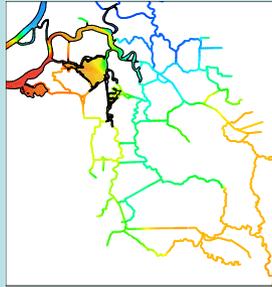
Models used by various DWR groups

Operations & Maintenance



DSM2 real-time forecasting

Flood Management



WAM & ERR Delta
Emergency Response

Bay Delta Office Modeling Support



DSM2 historical
& planning



CalSim, CalLite
SWP&CVP

How can these models be used in a Delta Emergency

Short Term Response

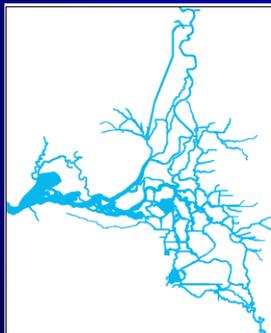
Long Term Recovery



WAM-first cut tidally averaged Delta flows and salinity



Callite-first cut SWP and CVP operations & delivery impacts



DSM2-more detailed Delta flows and salinity



CalSim-detailed SWP and CVP operations & delivery impacts

Preparing to respond to a Delta Emergency

- Explore how DWR groups can work together
 - enhance capabilities and coordination
 - establish redundancy
- Provide staff training and cross training
- Enhance rapid information dissemination
 - Internet, phone/tablet applications, animations, etc
- Develop emergency scenarios
 - Create a “cook book” of information for selected scenarios to guide emergency response
 - Exercise each groups models together using the same scenarios
- Create plans for filling information and resource gaps

Example: Proposal for Proactive DSM2 Modeling Emergency Response Preparation

Operations & Maintenance



DSM2 real-time forecasting

Bay Delta Office Modeling Support



DSM2 historical & planning

Real Time conditions

Levee Breach/
Flooded Islands

DSM2 Emergency Response Package



- Delta Simulation Model 2
- Input files for levee breaches
- Guidance manual
- Staff training
- Exercise using same scenarios as Flood Mgt WAM
- Could extend to toxic spills

ThoughtTs?



Jamie.Anderson@water.ca.gov