

SacWAM Peer Review

October 19, 2016



Agenda

- Bay-Delta Plan Phase II Update
- Introduction to WEAP and SacWAM
- SacWAM Calibration and Validation
- SacWAM – CalSim II Cross Validation



Water Quality Control Planning

- Water Quality Control Plans
- The Bay-Delta Plan or the...
 - Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary
- Beneficial uses, objectives, program of implementation, and monitoring
- Updated periodically



Phase II Update

- Focused on protection of fish and wildlife
- Potential new inflow requirements for Sacramento River mainstem, major tributaries and Delta eastside tributaries
 - Phase I separately addresses San Joaquin flows to Vernalis and southern Delta salinity
- Potential changes to Delta outflow requirements
- Potential new and modified interior Delta flow requirements
- Monitoring and special studies program
- Program of implementation

Modeling to Inform Analysis

- Effects of altered regulatory requirements on:
 - Water diversion – impacts on agricultural resources, water supplies, and groundwater
 - Reservoir storage – impacts on hydropower generation, recreation, fisheries, and water supply
- Estimates of stream flow at locations within the watershed – impacts on delta hydrodynamics, temperature, and economics.

Modeling Considerations for Phase II

- Flexible tool that can be used by State Water Board staff and others
- Ability to simulate State and Central Valley Water Project (Project) reservoirs and Delta operations
- Ability to simulate non-Project reservoirs and operations
- Ability to simulate major upstream hydropower reservoirs and operations
- Ability to expand for use in future efforts
- Thorough documentation of model assumptions and inputs



Previously Available Tools

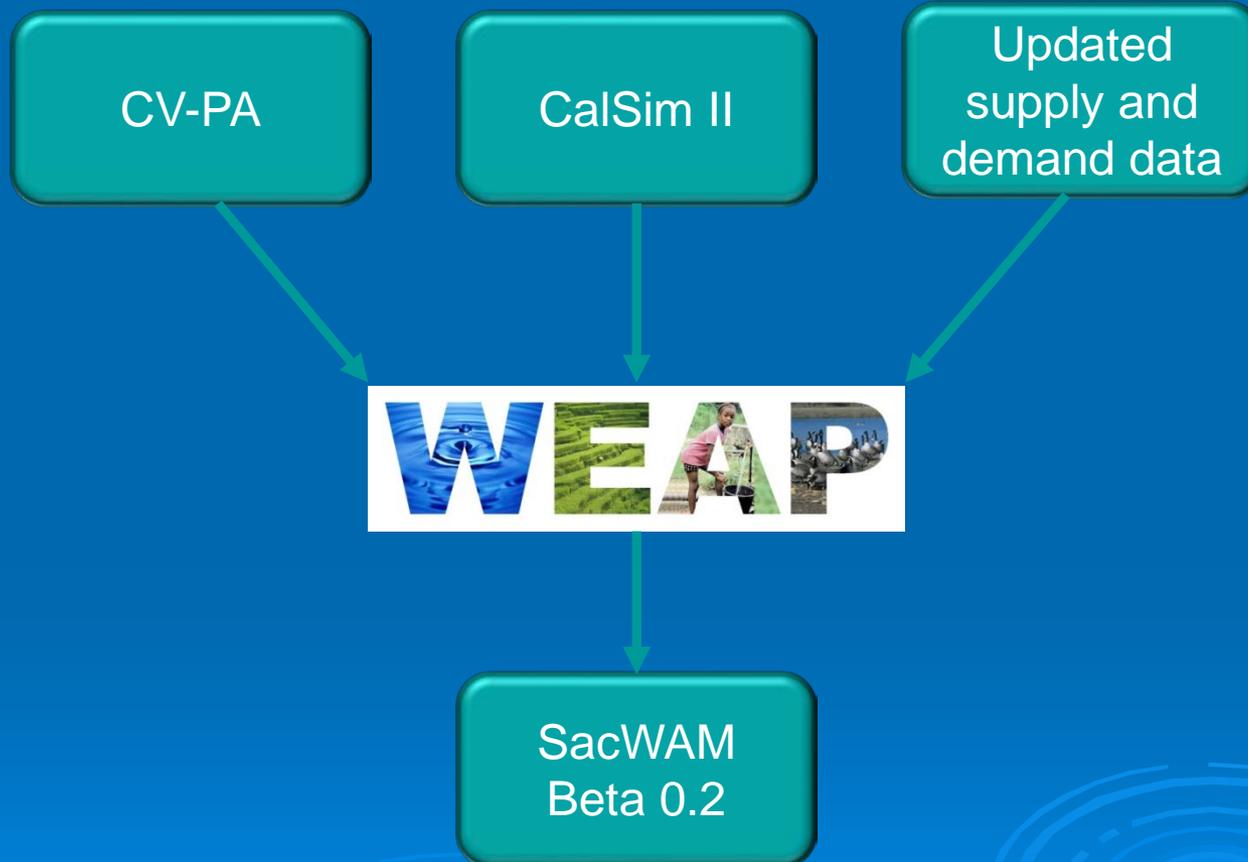
➤ CalSim II

- Detailed representation of Project operations
- Limited representation of non-Project tributaries
- Not user friendly
- Not well documented
- Not readily usable by State Water Board staff and others

➤ Central Valley Planning Area Model (CVPA)

- Coarse representation of entire Sacramento Valley
- Representation of non-Project tributaries
- Representation of upstream reservoirs
- User friendly
- Lacks detail of Project operations

Development of SacWAM



SacWAM Coverage



SacWAM Webpage

- http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/sacwam/

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Phase II Next Steps

- Working Draft Scientific Basis Report- documenting science that supports potential changes to the Bay-Delta Plan
- SacWAM 1.0
- Final Draft Scientific Basis Report
- Phase II draft environmental document- will evaluate broad range of alternatives through a public process