Flood Risk Management Benefits of FIRO

Cary Talbot US Army Engineer Research & Development Center



Lake

Mendocino

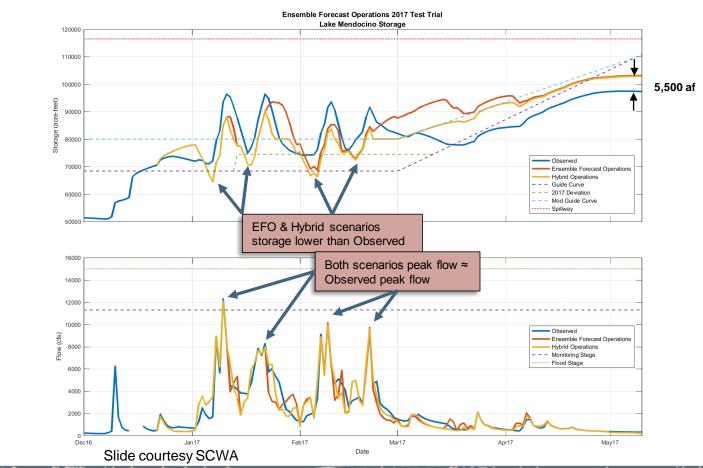
Flood Risk Management vs. Water Supply??

- Original FIRO fact sheet:
 - "It is anticipated that FIRO will improve water supply and environmental outcomes without diminishing flood protection or dam safety."
- Does an increase in water supply always come with an increase in flood risk?
 - Not if flood risk management is derived from operation of project vs. from inherent space in reservoir



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2017 Shadow Operations Results



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Assessing FIRO Flood Risk Management Benefits

- Build on PVA analyses of economic impacts of increased water supply
- Corps software enhancements needed to handle ensemble forecast operations (EFO) scenario
- Work is needed to expand period of record for flood risk beyond 1995-2010
 - CNRFC and lessons learned from Folsum can help



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Assessing FIRO Flood Risk Management Benefits

- HEC scoping detailed efforts for
 - Software improvements (ensemble forecast support, continuous simulation of economic damages, temporal variability of precip within a lifecycle to test resilience, etc.)
 - Overall FIRO FRM assessment effort



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