Preliminary Analysis of the Effects of the New Lake Okeechobee Regulation Schedule (LORS2008) on the Performance of the Northern Everglades Lake Okeechobee Technical Plan (LOTP)

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Why do this analysis?

- Questions asked by Lake O Committee

  "Why does the Northern Everglades LOTP & River Watershed Protection Plan (RWPP) modeling assume the old Lake O Regulation Schedule, LORS-2000 (a.k.a. WSE)?"

  – Stakeholder concerns about effects on water supply and discharges to the estuaries

Response to Question

- LOTP modeling was completed & report sent to legislature Feb ’08, before the April ’08 approval of the new regulation schedule (aka LORS-2008)
- RWPP modeling ongoing
  - Desire to be consistent with LOTP assumptions
  - Large effort to build capability within RSM to simulate new LORS
  - Schedule for plan development does not include sufficient time to revise model and still meet the January 1, 2009 legislative deadline

Response to Question (continued)

- Small chance that regional storage areas proposed by LOTP & RWPP's would be constructed & operational within expected life of LORS-2008
- System wide evaluation of new Lake O regulation schedule with CERP Band 1 projects is required by WRDA 2000 Programmatic Regulations
  - System Operating Manual (SOM) Study
- However, sensitivity analysis was still conducted to look at the relative performance of the LOTP with WSE versus the LOTP with LORS-2008

Results of Sensitivity Analysis

- Results presented to WRAC Lake O Committee in April ’08
- Findings showed LOTP w/LORS worsens water supply performance and reduces utility of C43 & C44 reservoirs as compared to LOTP w/WSE
- Potential for underestimating storage needs in the estuary if LORS-08 schedule is assumed in RWPP Modeling
- Analysis demonstrated the necessity of revising the Lake Okeechobee regulation schedule once regional storage is available in order to take advantage/optimize use of storage and maximize benefits to all system components including-
  - Lake Okeechobee Water Levels
  - Estuary Discharges
  - Water Supply

Bottom Line

- Use of WSE for RWPP modeling ensures consistency with LOTP
- Unlikely that LORS-2008 will exist concurrently with Northern Everglades storage
- Inability to predict future Lake Okeechobee regulation schedule, however design of future schedules will take into consideration this additional storage
- Need to utilize the best planning condition for the River Watershed Plans

Therefore

- RWPP should use WSE as modeling assumption to assure storage needs of estuary will not be underestimated
- It is critical that the Lake Okeechobee regulation schedule be updated to account for and maximize benefits provided by regional storage
- The System Operating Manual Study, as required by WRDA 2000, is the means by which to make appropriate adjustments to the regulation schedule