

MEMORANDUM FOR RECORD

SUBJECT: Civil Works Review Board Briefing, Caloosahatchee River (C-43) West Basin Storage Reservoir Project, Comprehensive Everglades Restoration Program (CERP)

Date of CWRB: 23 August 2007

CWRB Members: MG Johnson (DCG, Chair), Gary Loew (Acting DCW), Tom Waters (Planning CoP), Michael White (LRD-RIT), and Ed Theriot (Environmental CoP)

Key Participants:

HQUSACE: Gary Hardesty (SAD RIT, Everglades Program Manager), Office of Water Project Review (OWPR) (Robyn Colosimo, Lee Ware, Jeanette Gallihugh, Miguel Jumilla), CECW-SAD RIT (Steven Kopecky, Brenda Johnson-Turner), CECW-P (Raleigh Leef), Office of Counsel (Aaron Hostyk).

SAD: BG Joe Schroedel, Wilbert Paynes, and Mike Magley

SAJ: Colonel Paul Grosskruger, Stu Appelbaum, Beth Marlowe, David Apple, Susan Conner, Brian Cornwell, Marie Burns

Office of the Assistant Secretary of the Army (Civil Works) (OASA(CW)): Doug Lamont

OMB: Gary Waxman, Dick Feezle, Elizabeth Lien

DOI: Terrence "Rock" Salt

SPONSORS: Tom Olliff, Assistant Executive Director, Janet Starnes, PDT representative, Ken Ammon, Deputy Executive Director, South Florida Water Management District (SFWMD) and Greg Knecht, Florida Department of Environmental Protection

OWPR Recommendation: Release of the project implementation report and environmental impact statement for State and Agency review concurrent with resolution of policy issues involving land valuation and crediting issues. The SFWMD letter of support for the project appeared to be conditional on resolution of the policy issues involving land valuation for crediting purposes, and should be resolved during State and Agency review.

CWRB Decision Made: Approval of release of the report for State and Agency review. During State and Agency review, policy issues involving land credit issues should be resolved prior to the completion of a final Chief's Report.

Vote: Unanimous.

Key Issues/Questions Raised by the CWRB:

1. **PEER REVIEW:** Questions involving internal technical and external peer review requirements were raised. The Project Delivery Team (PDT) members stated, and Ms. Jodi Staebell verified on behalf of the Ecosystem Restoration Center of Expertise, that compliance with recent external peer review requirements has been documented and approved by MVD and SAD.

2. **LAND CREDIT AND WATER QUALITY:** A discussion was held concerning cost sharing for water quality and real estate credit. This discussion centered around the role of water quality cost sharing and the way real estate is credited within CERP. These issues are beyond the scope of Corps policy, and it was recommended that the issues be pursued with the ASA(CW) and CEQ. Pending further guidance from CEQ or the ASA(CW), current CERP guidance applies. The draft Chief's report will reflect current policy.
3. **902 COST LIMITS:** A question was asked as to whether the project exceeded 902 cost limits? Mr. Stu Appelbaum, Deputy for Restoration Program Management, explained that this project does not have a 902 limit yet because it has not yet been authorized. Cost comparisons between the Restudy and PIR were developed using constant price levels (Oct. 2006).
4. **FUTURE WITH AND WITHOUT PROJECT:** Questions were asked concerning the population growth in both the future-with and future-without project conditions. The PDT, including the sponsor, explained that the same increase in population is expected in both conditions, but water in the Caloosahatchee Basin will be better managed in the future-with project condition.
5. **RELATIONSHIP TO EVERGLADES NATIONAL PARK:** a question was raised concerning potential benefits to the Everglades (specifically the National Park) further to the South. Col. Grosskruger (SAJ Commander) explained, and Mr. Terrance (Rock) Salt of Department of Interior verified, that recent research hypothesizes conditions in the Caloosahatchee Estuary and its wildlife populations impact the health of the Ten Thousand Islands area of Florida Bay and the wildlife populations there. This effect is due to the southerly direction of prevailing currents from the Caloosahatchee Estuary. While the PDT did not to calculate quantitative benefits for this, it is expected to be an additional ecosystem benefit. A discussion concluded that in the future, such benefits should be quantified to the extent practicable, although modeling challenges were recognized.
6. **OPERATIONS AND MAITENANCE COST:** A question was raised about the \$3M in Operations and Maintenance costs and if they were reasonable. The PDT clarified that efforts were made to minimize O&M costs. For example, soil cement embankment design helps minimize maintenance costs by eliminating some of the need for mowing and embankment repair. Mr. Ammon added that this project can be operated remotely, negating the need for and cost of operations personnel on the ground. These costs have been reviewed by an Independent Technical Review Team. The DCG also raised the question as to how future funding shortages would be handled, if they occur. The PDT responded that this issue was being addressed between the District and SFWMD.
7. **SAFETY:** Questions were raised concerning the safety of the embankments and structures. The PDT explained how the embankments have been designed to dam safety standards, how safety of design was maximized by applying lessons learned in

construction of the test cells and implementation of overwash tests. The project design also took into account the most problematic scenario of a Probable Maximum Precipitation event, along with strong winds and wave run-up to calculate the necessary freeboard to prevent excessive overwash or embankment failure, and the necessary embankment erosion protection. In discussion, the importance of risk communication was emphasized. It was also pointed out that much of the cost increase in the project from the Restudy is because of the increased levee heights due to revised design standards for safety, instituted since the 2004 hurricane season and since hurricane Katrina devastated New Orleans.

8. RESEVOIR OPERATIONS: A question was raised about how the reservoir would be operated. Mr. Appelbaum explained that there is a draft Operating Manual included with the PIR, which will be refined as design progresses. It will also be operated in concert with the Central & Southern Florida System Operating Manual. Operation decisions are made jointly by the USACE and SFWMD, and costs are shared 50/50, as specified in the Water Resources Development Act of 2000. Finally, the Restoration, Coordination and Verification Program (RECOVER) will monitor effects of reservoir operation and provide guidance on operations adjustments.
9. FUTURE DEVELOPMENT: A question was raised concerning the effects of population growth and development, and how they contribute to the identified problems? Mr. Ammon emphasized that this reservoir and the water it captures and releases are for the natural system, specifically the Caloosahatchee Estuary. The State is implementing an initiative to convert municipal and agricultural water users from surface water sources to groundwater sources. General Schroedel added that the State of Florida is focused on controlling development and that USACE helps inform the state on where issues may arise and where risk assessment is called for.
10. COST ESTIMATES: A question was raised concerning the ITR of cost estimates. Specifically, has the Walla Walla Cost Engineering Center of Expertise reviewed the project cost estimates? The PDT explained that the Walla Walla District reviewed the cost estimates and includes some risk based analysis.
11. SITING ANALYSIS: A question was raised as to whether a siting analysis was conducted? Mr. Appelbaum stated that a thorough siting analysis was conducted. The land was acquired under previous legislation which included funds from DOI and the state of Florida. The PDT recertified that this site was the best location to achieve the planning objectives. The PDT looked at sites throughout the watershed. For the purposes of this project, a site in the lower basin was necessary. Of potential sites, the SFWMD had a chance to secure the Berry Groves property at a good price, and it has good geotechnical qualities for construction of a reservoir. Most importantly, it is underlain by a clay layer, which helps minimize groundwater seepage and which is unusual in South Florida. In addition, there is no large population nearby that would be at risk in case of embankment failure.

12. PROJECT INDEPENDENCE: Are this project and any potential future Caloosahatchee Watershed PIR features independent? Mr. Ware stated that the Office of Water Project Review determined that in their review, this project provides stand-alone benefits that do not depend on future projects. In addition, future projects can be constructed that will not impact this project's ability to provide benefits. Finally, more pumping capacity can be built here without tearing out existing pumps, if it is determined to be necessary at a later date.

Attachments:

1. Jacksonville District Commander Colonel Paul Grosskruger, CWRB Presentation.
2. SFWMD, Mr. Ken Ammon, CWRB Presentation
3. South Atlantic Division Commander, BG Joseph Schroedel, Presentation (Not Used)
4. Office of Water Project Review, Mr. Lee Ware, CWRB Presentation.
5. Project Summary
6. DE Transmittal Letter
7. Proposed Chief of Engineers Report.