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OPERATIONAL CONSIDERATIONS AND RECOMMENDATIONS FOR THE EVERGLADES RESTORATION ASR SCHEME

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ABSTRACT

The purpose of this paper is to evaluate three different water resources operational scenarios for the Comprehensive Everglades Restoration Project (CERP) Aquifer, Storage and Recovery (ASR) scheme. The ASR scheme for the CERP proposes to utilize 333 wells to store up to 6,300,000 cubic meters of freshwater per day into a brackish water carbonate aquifer located in southern Florida, USA. The three different schemes analyzed represent a range of realistic operational plans that could be utilized for the restoration project. The various ASR operational schemes were developed based upon existing research and new numerical modeling efforts. The numerical model developed is capable of simulating the mixing of freshwater and ambient groundwater within the Floridan Aquifer System. The modeling effort determined that each of the three operational schemes tested could represent the optimal plan depending upon the site-specific geology and hydrodynamics. Therefore, care must be taken in matching the best operational scheme to the given geological environment. In addition, the modeling effort demonstrated that the long-term cumulative recovery efficiency assumed for the CERP ASR plan should be feasible and obtainable.

Reference: Brown, C.J. 2006. Operational considerations and recommendations for the Everglades Restoration ASR scheme. *Journal of Environmental Hydrology*, Vol. 14, Paper 17.

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