

JEH Volume 13 (2005), Paper 20 Posted September 28, 2005

DEVELOPMENT OF AN AQUIFER, STORAGE AND RECOVERY (ASR) SITE SELECTION SUITABILITY INDEX IN SUPPORT OF THE COMPREHENSIVE EVERGLADES RESTORATION PROJECT

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ABSTRACT

In support of the Comprehensive Everglades Restoration Plan (CERP), the U.S. Army Corps of Engineers, U.S. Fish & Wildlife Service, South Florida Water Management District, and others, are currently engaged in the execution of four Aquifer, Storage and Recovery (ASR) pilot projects located throughout the Everglades region. Through data collection efforts and thorough testing, the four pilot projects will enable the project team to better grasp the technical uncertainties associated with implementing ASR on a grand scale. At the same time, the ASR Regional Study is focused upon the development of a numerical model to provide a better understanding of the south Florida environment抐 ability to support a proposed 333 well ASR system, the largest such system in the world. One effort that has been completed as part of the Regional Study is the preliminary optimization of ASR well site selection in support of the proposed 333 well system. After developing an ASR site selection suitability index, an interagency team utilized Geographic Information Systems (GIS) and the new site suitability methodology to evaluate and propose an initial array of potential ASR well locations. The suitability index was based on the premise of maximizing ASR effectiveness while minimizing any attendant impacts.

Reference: Brown, C.J., R. Weiss, R. Verrastro, and S. Schubert. 2005. Development of an Aquifer, Storage and Recovery (ASR) Site Selection Suitability Index in Support of the Comprehensive Everglades Restoration Project, *Journal of Environmental Hydrology*, Vol. 13, Paper 20.

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