

## MEMORANDUM

**TO:** Governing Board Members

**FROM:** Terrie Bates, Director, Water Resources Division

**DATE:** April 12, 2012

**SUBJECT:** Amendment to Cooperative Agreement C-14050 with Arthur R. Marshall  
Loxahatchee National Wildlife Refuge

**Background:** The South Florida Water Management District (District), Federal Scientific Restoration Task Force, the U.S. Army Corps of Engineers and the Comprehensive Everglades Restoration Plan (CERP) have identified a critical need to better understand the ecological and biological benefits of restoring historic flow regimes and flow velocities in the Everglades. An important and cost-effective means for achieving this is by conducting flow experiments and measuring ecological responses in the Loxahatchee Impoundment Landscape Assessment (LILA) facility, an “Everglades Living Laboratory” located on the property of the Arthur R. Marshall Loxahatchee National Wildlife Refuge (Refuge). The facility has hosted a variety of important experiments over the last 10 years that has effectively addressed a number of management questions regarding the Everglades restoration effort.

This amendment to the 10-year cooperative agreement with the Refuge will extend the term by five years and will allow the District to use the LILA facility to continue investigative studies that will provide information on how a restored hydrology will influence tree islands, the ridge and slough landscape, and the return of wildlife, especially wading birds. This agreement provides not only the site upon which LILA was constructed but also includes the logistical and maintenance support that is necessary to operate LILA.

**How this helps meet the District’s 10-Year Strategic Plan:** The LILA facility significantly contributes to the core mission of the District as it generates the science needed to develop operational criteria and recovery strategies needed for protecting and restoring the ridge and slough system and tree islands found in Water Conservation Area (WCA) -3 and that once existed in WCA-2. This information will also be used to guide performance measure development in the CERP RECOVER Program and reduce uncertainty in the implementation of the CERP and the Central Everglades Planning Project (CEPP).

**Funding Source:** Ad valorem funding for this project is in an amount not to exceed \$13,000/year for five years for a total of \$65,000, subject to Governing Board approval of the FY13 – FY17 budgets.

**This Board item impacts what areas of the District, both resource areas and geography:** The LILA facility is located at the headquarters of the Refuge, which is located west of Boynton Beach, Palm Beach County, on Lee Road, just west of U.S. 441. Staff from the Everglades Systems Assessment Section of the Applied Sciences Bureau will be coordinating with the staff of the Refuge regarding logistics and maintenance of the facility, along with appropriate hydrologic management and on-site coordination of experiments.

**What concerns could this Board item raise?** A concern may be the appearance that the Refuge is charging the District for access, but the \$13,000 annual funding reimburses the Refuge for utility costs associated with the LILA pump and offices, as well as some of their staff time to assist with maintenance and logistics.

**Why should the Governing Board approve this item?** The five-year extension to this cooperative agreement will ensure that the District's Applied Sciences Bureau staff can maintain the facility in order to continue generating key information needed by water managers, operations staff and restoration planners to determine optimal hydrologic conditions for preservation and recovery of the Everglades ecosystem.

Attachments – Resolution, Map