

Everglades Project - Hydrologic Needs of Everglades Marshes

Management Issue:

Everglades plant communities have been significantly impacted by changes in hydrologic conditions. In the northern Everglades, cattail has invaded areas previously occupied by sawgrass and sloughs. In other areas of the system, sawgrass, woody and exotic vegetation have expanded into areas previously occupied by wet prairie communities. The determination of hydrological criteria necessary to sustain native plant communities is required by the EFA and the CERP. This project includes research and monitoring to evaluate and refine CERP performance measures and establish Minimum Flows and Levels for vegetation and soils in different areas of the Everglades.

Project Overview:

Monitoring and research conducted in this project will be used to provide an ecological basis for the establishment of hydrologic targets. Specifically this project will experimentally assess the hydrologic needs of native vegetation and determine the response of peat and marl soils to hydrologic manipulation.

Project Objective:

Establish hydrologic conditions necessary for the long-term sustainability of native wetland communities and determine the mechanisms controlling peat decomposition under different hydrologic regimes.

Application of Results:

Results from this project will be used to establish water requirements of sawgrass, slough and wet prairie communities, as mandated by the EFA. These results will also provide a biological basis for water allocation under CERP and thus contribute to the long-term sustainability of the Everglades ecosystem.