# Everglades Project - Everglades Marshes Following Phosphorus Enrichment

**Management Issue:**

The Settlement Agreement and the Everglades Forever Act (EFA) require research and monitoring to establish a numeric criterion for surface-water phosphorus (P) in the Everglades. Once this criterion is established, continued monitoring will be required to gauge compliance and to document the rate and trajectory of marsh recovery following P reductions. This project is a key aspect of adaptive management in the Everglades as it will provide information on the extent of ecological recovery and continued impacts from P enrichment, thereby ensuring that adopted standards are protective of different areas of the Everglades.

**Project Overview:**

Ecological responses to P enrichment are currently being measured along nutrient gradients and in controlled P dosing studies in all major regions of the Everglades to support establishment of a P criterion by FDEP. Responses along nutrient gradients provide information on the long-term effects of P on the Everglades while shorter-term changes observed in P dosing studies provide a causal basis for assigning P impacts. Phosphorus reductions resulting from this criterion and associated ecological recovery will be monitored along gradients and in dosing enclosures to gauge the rate of marsh recovery and the extent of any continued impacts, thereby assuring adherence to the mandates of the Settlement Agreement and the EFA.

**Project Objective:**

Determine the rate and extent of ecological recovery of P-enriched enclosures and enriched areas of the marsh following the reduction of P loads to these systems.

**Application of Results:**

Information from the threshold project will be used to establish a scientifically defensible P criterion for the Everglades. Results of this study will be used to determine that a net improvement is occurring in areas currently impacted by P.