

Comprehensive Everglades Restoration Plan Adaptive Management: Integrating Science across Projects to Increase Restoration Success

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The Comprehensive Everglades Restoration Plan (CERP) was approved by Congress in 2000 to restore, preserve, and protect the south Florida ecosystem while providing for other water-related needs of the region, including water supply and flood risk management by improving the quantity, quality, timing, and distribution of water throughout the system. The Everglades is an extensive mosaic of natural communities with complex interactions. This complexity produces a considerable amount of uncertainty related to ecological responses to hydrologic restoration. Recognizing significant uncertainties exist within the Everglades, CERP was designed to be implemented iteratively within an adaptive management framework.

Within the context of CERP, adaptive management is a structured management approach to address restoration uncertainties by testing hypotheses, linking scientific results to decision making, and adjusting design and implementation, as necessary, to improve the probability of restoration success. The development and coordination of CERP adaptive management was tasked to the REstoration, COordination and VERification (RECOVER) Program, an interagency and interdisciplinary scientific and technical team seeking continuous improvement in CERP by using and building upon existing science and technology. RECOVER instituted a monitoring and assessment plan to address key uncertainties and to provide an assessment of baseline conditions for future comparison as CERP is implemented. With the incremental execution of CERP, RECOVER established interim goals and targets to ensure restoration progress remains aligned with CERP goals and objectives.

Understanding communication and collaboration are fundamental keys to restoration success. RECOVER developed the CERP Adaptive Management Strategy, CERP Adaptive Management Integration Guide, and CERP Programmatic Adaptive Management Plan, to facilitate the integration of new science and information between restoration project delivery teams to improve the implementation of CERP. Together these documents: (1) identify the process for integrating adaptive management, (2) outline adaptive management strategies including monitoring and management options to reduce uncertainty, and (3) provide a communication framework for sharing knowledge on both system-wide and project-level scales.

In recent years, improved scientific understanding has resulted in adaptive management refinements to several CERP projects through collaborative sharing of scientific knowledge and data to improve restoration success. Examples of successful adaptive management adjustments to design or operations will be highlighted to showcase the application of the CERP adaptive management framework.

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