Focusing on water for Central Everglades essential to reversing whole ecosystem's continuing decline

June 21 2012

Twelve years into a multibillion-dollar state and federal effort to save the Florida Everglades, little progress has been made in restoring the core of the ecosystem, says a new congressionally mandated report from the National Research Council. Expedited restoration projects that improve the quality and amount of water in this area are necessary to reverse ongoing declines. A new federal pilot project offers an innovative approach to this challenge, although additional analysis is needed to maximize restoration benefits within existing legal constraints.

The report is the fourth biennial evaluation of progress made by the Comprehensive Everglades Restoration Plan, a project launched in 2000 that aims to reverse the ecosystem's decline while continuing to meet demands for water supply and flood control. The $13.5 billion effort comprises numerous projects to be completed over the next several decades.

The committee that wrote the report found that restoration remains primarily focused on the periphery of the central Everglades. Consequently, restoration efforts within the water conservation areas and Everglades National Park lag behind other portions. Progress has been made to improve the system's water quality, such as reducing phosphorus and finalizing negotiations for additional water quality projects. Nevertheless, there has been minimal success in increasing the amount and flow of water needed to restore the remnant system. Key

components that depend on the amount of water in the system, such as the ridge and slough and tree islands, continue to degrade.

"Unless near-term progress is made to improve water quantity and restore water flow, ecosystem losses will continue, many of which would require decades to centuries to recover," said William Boggess, chair of the committee and professor and executive associate dean of the college of agricultural sciences at Oregon State University, Corvallis. "However, bringing in more water, or even redistributing existing water flows before water quality is improved, risks introducing levels of contaminants that would have substantial effects on the ecosystem and possibly exceed legal limits. Analyzing the connections between water quality and quantity is one of the remaining challenges of the program, and will be a key component for moving forward."

The committee found that the Central Everglades Planning Project (CEPP) -- one of five U.S. Army Corps of Engineers pilot projects nationwide that will test a new accelerated project planning process -- is an important and promising new initiative. Its goal is to deliver an approved project implementation report on central Everglades restoration to Congress within two years instead of the typical six-year process. At the completion of the committee's report, CEPP remained at an early stage, and no specific project plans were available for the committee to review.

Over the past few years, scientific understanding has advanced and provides a solid foundation for decision making in the program, the committee said. Investment in cutting-edge research, consolidated and timely synthesis, and effective monitoring are critical to supporting sound choices. Additional use of integrated ecosystem modeling and decision support tools could facilitate restoration progress by clarifying potential restoration conflicts, identifying interim strategies for limiting further degradation of critical ecosystem components, and enhancing the

capacity to address trade-offs in a more timely and integrated way.

Provided by National Academy of Sciences