

Progress Toward Restoring the Everglades: The Eighth Biennial Review - 2020

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Abstract

During the past century, the Everglades, one of the world's treasured ecosystems, has been dramatically altered by drainage and water management infrastructure to improve flood management, urban water supply, and agricultural production. The remnants of the original Everglades now compete for water with urban and agricultural interests and are impaired by contaminated runoff from these two sectors. The Comprehensive Everglades Restoration Plan (CERP), a joint effort launched by the state and the federal government in 2000, seeks to reverse the decline of the ecosystem. The multibillion-dollar project was originally envisioned as a 30- to 40-year effort to achieve ecological restoration by reestablishing the natural hydrologic characteristics of the Everglades, where feasible, and to create a water system that serves the needs of both the natural and the human systems of South Florida. The National Academies of Sciences, Engineering, and Medicine established the Committee on Independent Scientific Review of Everglades Restoration Progress in 2004 in response to a request from the U.S. Army Corps of Engineers, with support from the South Florida Water Management District (SFWMD) and the U.S. Department of the Interior, based on Congress's mandate in the Water Resources Development Act of 2000. The committee is charged to submit biennial reports that review the CERP's progress in restoring the natural ecosystem. This is the committee's eighth report. Each report provides an update on progress toward natural system restoration during the previous 2 years, describes substantive accomplishments (Chapter 3), and reviews developments in research, monitoring, and assessment that inform restoration decision making (Chapters 3 and 6). The committee also identifies issues for in-depth evaluation given new CERP program developments, policy initiatives, or improvements in scientific knowledge that have implications for restoration progress (see Chapter 1 for the committee's full statement of task). For the 2020 report, the committee reviewed the recently developed Combined Operational Plan (COP), which is a prerequisite for CERP progress in the central Everglades (Chapter 4), and examined issues facing the northern and southern estuaries, including priorities for science to support restoration decision making (Chapter 5). Additionally, the committee examined the capacity of CERP monitoring, modeling, and synthesis to support decision makers (Chapter 6).

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