



FLORIDA BAY: AN ECOSYSTEM ON THE BRINK

Background

The Florida Bay estuary is located at the southern edge of the Everglades ecosystem at the tip of the Florida peninsula. This shallow water body, which connects to the Gulf of Mexico to the west and hugs the Florida Keys to the southeast, covers nearly 1,100 square miles of interconnected mangrove islands, sea grass meadows and mud flats. Florida Bay has been a world-class fishing destination for nearly 75 years, with its robust populations of tarpon, bonefish, snook, and numerous other species attracting fishermen from afar.

This one-of-a-kind ecosystem is nourished by freshwater flows from the Everglades that mix with saltwater in the bay to provide important habitat for species, including American crocodiles, roseate spoonbills, and Caribbean spiny lobsters.

Florida Bay is an essential part of South Florida's economy, comprising a significant portion of the coastal Everglades recreational fishing industry worth \$880 million annually. The Bay also supports robust commercial shrimp and stone crab fisheries worth more than \$80 million dollars a year.



Inflows to Florida Bay from Shark River and Taylor Sloughs. Historic inflows from Taylor Slough in blue, and current modified flows in red.



PHOTO: North Swell Media

Fishing in the crystal blue waters of Florida Bay.

The Problem

Historically, Florida Bay received its fresh water from Taylor and Shark River sloughs in what is now Everglades National Park. However, development and man-made canals have diverted more than 50 percent of traditional freshwater which is now discharged it to tide, instead of being sent south into Florida Bay. Thus, the River of Grass no longer provide freshwater inflows needed to maintaining healthy salinity levels needed to support fish, shellfish and other species.

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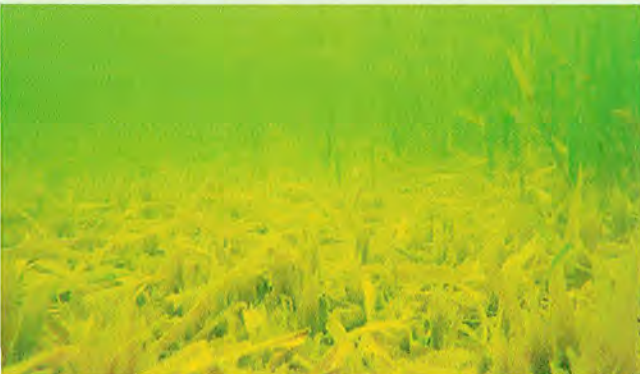
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Today, Florida Bay is more dependent than ever on rainfall; and in the face of South Florida’s record 2015 drought, scientists are reporting record high salinity levels and temperatures, resulting in fish kills and sea grass die-offs—conditions that could lead to catastrophic algal blooms not seen since the early 1990s.

LESSONS NOT LEARNED?

“I am concerned that this is a precursor to the horrible situation we had in the 80’s. The accumulation of neglect and lack of protecting this resource is putting it on the verge of collapse beyond anything we’ve ever seen before.” Sandy Moret, Owner, Florida Keys Outfitters, Nov. 2015.

In 1991, the crystalline turquoise waters of Florida Bay turned to a murky “pea soup” during a toxic algae bloom that lasted for years. The incident triggered by high salinity levels and sea grass die off that began in 1987 following low rainfall wiped out populations of sponges, spiny lobster and diminished sea trout that some scientists believe still have not recovered. The regional drought and reduced Everglades inflows created hypersaline conditions blamed for historic low shrimp harvests and high unemployment within Florida fishing industry are nearly identical to conditions that developed in the summer of 2015.



Close-up showing dead seagrass blades adjacent to remnant healthy plants. PHOTO: FWCC-FWRI

What Can Be Done?

Restoring the flow of clean freshwater to Florida Bay can prevent future algae blooms and ensure a healthy habitat and viable estuary for future generations. The plan to do this already exists — the Comprehensive Everglades Restoration Plan (CERP), authorized by Congress in 2000, will achieve a more natural flow of water to protect Florida Bay if political and bureaucratic delays can be overcome.



Dead seagrass floating to the surface in central Florida Bay, Summer 2015. PHOTO: NPS

Solutions

- 1** Secure dedicated funding to accelerate priority CERP projects, including new storage outlined in Florida’s 20-year plan;
- 2** Fast track authorization and construction of the Central Everglades Planning Project (CEPP), which can bring more than 200,000 acre-feet of water will increase freshwater flows to Florida Bay;
- 3** Further bridging of Tamiami Trail and operation of the C-111 N Spreader to deliver promised benefits.