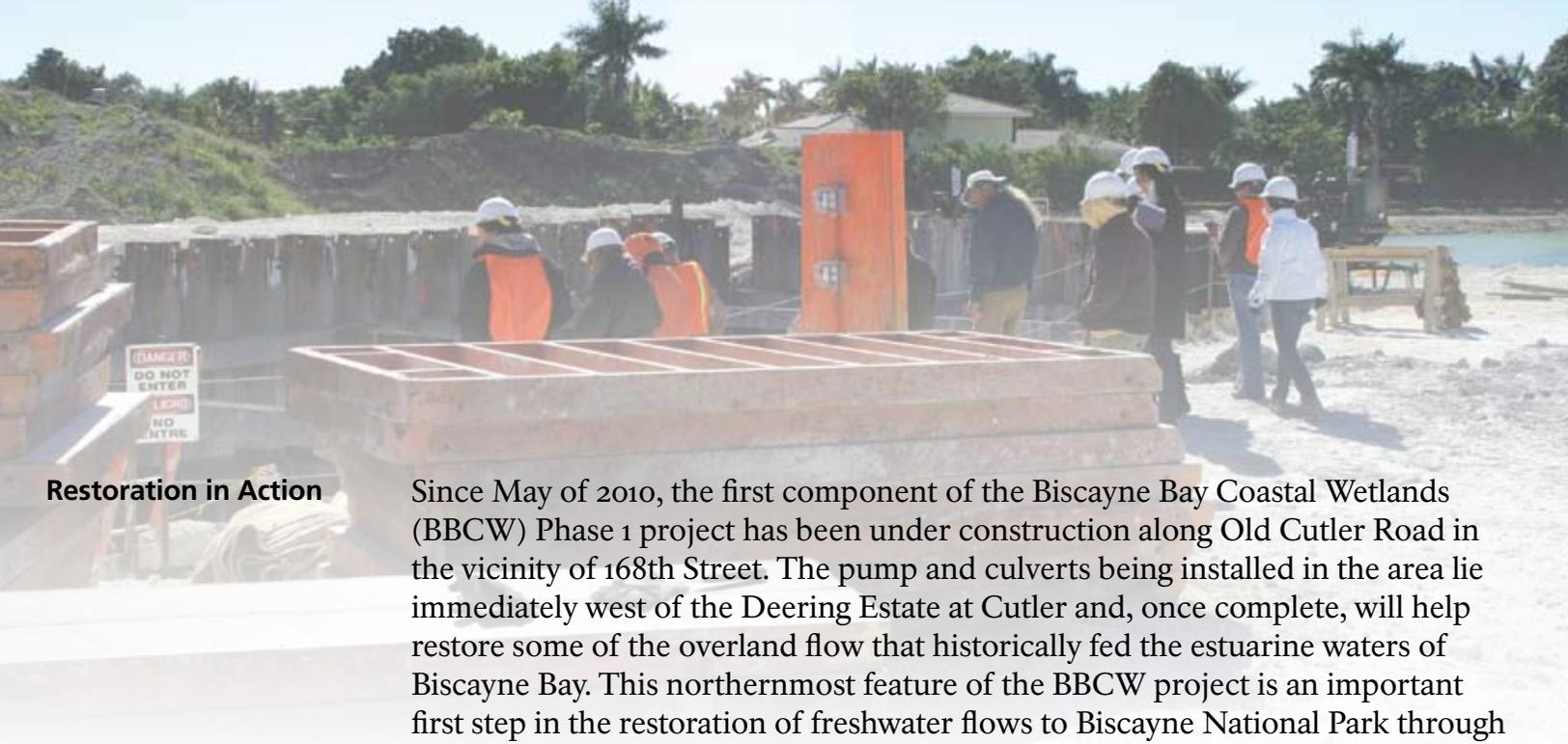




What's Happening Along Old Cutler Road & Biscayne Bay?



Restoration in Action

Since May of 2010, the first component of the Biscayne Bay Coastal Wetlands (BBCW) Phase 1 project has been under construction along Old Cutler Road in the vicinity of 168th Street. The pump and culverts being installed in the area lie immediately west of the Deering Estate at Cutler and, once complete, will help restore some of the overland flow that historically fed the estuarine waters of Biscayne Bay. This northernmost feature of the BBCW project is an important first step in the restoration of freshwater flows to Biscayne National Park through the wetlands of Southern Miami-Dade County.

Reflections from the Past

Historical accounts abound regarding the marvels of Biscayne Bay. Significant annual rains fueled a nearly continuous flow of freshwater into the bay from the Everglades to the west. As it marched toward the bay both overland and through a series of narrow creeks, the water would nourish a wide swath of coastal freshwater marsh before emptying into the broad estuary of the bay.

In southeastern Florida, copious amounts of water moved both above ground and beneath. Along the length of the coast, and within the bay itself, flowing freshwater springs were known to persist. The abundance of freshwater reaching the bay rendered the area hospitable to a wide array of life dependent upon the nearly year-round estuarine conditions present near the coast.



Estuarine life thrives both above and below the waters of Biscayne Bay.
NPS photo by Brett Seymour

Unintended Consequences

Drainage and development along the southeastern coast have greatly diminished the quantity of freshwater that now reaches Biscayne Bay. What flows do reach the estuary arrive as periodic point discharges from only a handful of canals. Low and moderate salinity habitats are now almost non-existent. Today, the waters of the bay are unnaturally high in salt and often subject to rapid fluctuations. The completion of the L-31E levee in 1968 worsened the problem by inhibiting the free flow of water to coastal wetlands to the east.

The ecosystem has responded significantly to changes in water flow to the Bay. Freshwater springs—once conspicuous features along the coast—have been greatly reduced. Freshwater marshes, which historically extended to the edge of the bay, have now been replaced by salt marsh and mangrove forest. Numerous marine species that rely upon low salinity environments during part or all of their life cycle have become scarce—including spotted sea trout, red drum, oysters, blue crabs, and American crocodiles.

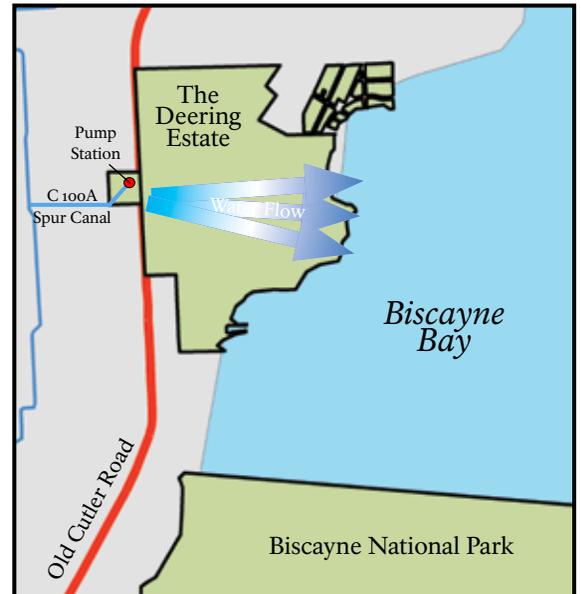


Over the past century, a community of approximately 2.5 million people has grown along the shoreline of Biscayne Bay. Image courtesy of iStockphoto

What the Project Will Accomplish

The BBCW Phase 1 project aims to redirect freshwater east of the L-31E levee and allow overland flow through the remnant coastal marshes on the way to Biscayne Bay. Several new pumps will be constructed to move water through culverts installed beneath roadways and across spreader canals which will then be used to distribute water to coastal wetlands. Remnant mosquito ditches in the area will also be plugged to encourage overland flow.

The Deering Estate Flow Way is the northernmost project site of the BBCW Phase 1 project. Here a 100 cubic foot per second (cfs) pump is being constructed to draw water from the C-100A Spur Canal and direct it beneath Old Cutler Road and into the coastal marshes of the Deering Estate. Once complete, the project site will also feature a newly constructed demonstration wetland.

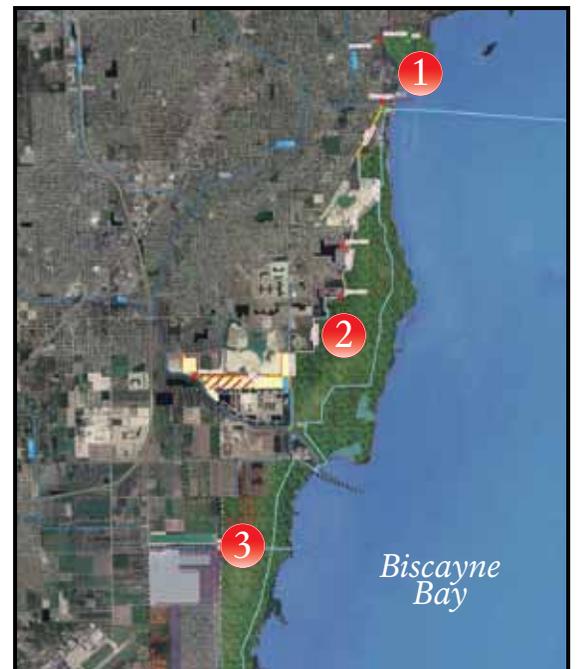


The Deering Flow Way will help move freshwater across coastal wetlands before emptying into northern Biscayne Bay.

What the Project Won't Do

The Deering Flowway (1) is an important first step in returning freshwater flows to the bay. Additional Phase 1 projects will also restore some freshwater connectivity to the Cutler Wetlands (2) and saltwater wetlands to the east of the L-31E Canal (3). Once complete, all components of the Phase 1 project will restore approximately 400 acres of coastal wetlands.

The footprint of the BBCW project, however, extends further south to include the Model Lands and the South Dade Wetlands. The continued health of these vast coastal habitats is equally dependent on greater infusions of freshwater flow. Unfortunately, Phase 1 provides no benefits for these critical areas. Restoring more natural quantity, quality, timing, and distribution of flows to Biscayne Bay will be particularly important in the coming century, as current estimates of sea level rise threaten to negate the benefits gained by the implementation of Phase 1 alone.



Project features at the Deering Estate (1), the Cutler Wetlands (2), and along the L-31E Canal (3) are all part of BBCW Phase 1.

Learn More & Get Involved

You can learn more about this and other Everglades restoration projects online at:

www.EvergladesPlan.org

Sign up to receive the Everglades Report newsletter, view the calendar of upcoming events, browse teaching materials for the classroom, and follow our progress on Facebook and Twitter.



See the Project Site

Want to see this restoration project in person? All you need is a handheld GPS!



Follow these coordinates to the first stop of the Everglades Restoration Geocache #1 and get a great view of the Deering Flowway project site:

N 25° 37.124'
W 080° 18.512'



Please be sure to seal the cache well and return it to its original location. New to geocaching? You can learn more by visiting the park website at:

www.nps.gov/ever/geocaching

This cache has been placed with the kind permission of our partners at the South Florida Water Management District and Miami-Dade Park and Recreation for the purposes of public outreach and education.



As a reminder, geocaching is generally prohibited within areas managed by the National Park Service and the U.S. Fish and Wildlife Service.