



The Center for Nature-Based Solutions at Naples Botanical Garden is a research, education, and applied science program that seeks to harness the power of nature to improve ecosystem health, support biodiversity, improve economic conditions, and enhance human well-being.

Our principal areas of practice are:

### Beach Dune Restoration

Beach dunes are the first line of defense against water and wind damage. Armed with extensive research on natural coastal ecosystems, the Garden has developed a dune restoration strategy using an array of native plants that capture and accumulate sand, recover quickly after storms, and provide wildlife habitat. Coastal resiliency measures like these are critical to both ecological and economic health.

### Water Quality

Garden experts help residents, homeowner associations, policymakers, landscapers and pond management firms understand how to plant retention pond shorelines and install bioswales to filter runoff and improve the health of Southwest Florida's water. The Garden's lakes, parking lots, and its Hamilton Avenue bioswale—a partnership with Collier County—demonstrate how plants add beauty and water-purifying power to the landscape.

### Restoration Seed Bank

The United States suffers from a vast shortage of native plant seed available for restoration following hurricanes, floods, fires, and other natural disasters. Naples Botanical Garden is amassing and storing locally collected, genetically diverse seeds for future ecosystem restoration projects. As of late 2024, the Garden had nearly half a million native plant seeds conserved.



### The Collier Enterprises South Wetland Preserve

Invasive exotic melaleuca trees and cattails once dominated this part of the Garden. When cleared, native plants reclaimed the land, purifying runoff water and creating habitat for wildlife, notably wading birds. Following recent hurricanes, our researchers have calculated the millions of gallons of floodwater held in the Preserve and are investigating ways to make communities more resilient by maintaining open spaces within developed areas.

### Collaborative Research

The Garden partners with fellow researchers, conservation organizations, and graduate students to broaden its investigations, gain new perspectives, and magnify the impact of these collective efforts. Florida Gulf Coast University's Harvey Kapnick Research and Education Center, located on the Garden's campus, facilitates knowledge sharing.