

# Science for Decision Making Monitoring

Summer 2012



Protecting Florida's coast for people and the environment

Monitoring programs keep a finger on the pulse of Collier County's natural systems which support more than 10,000 local jobs<sup>1</sup>

## The Issue

Environmental conditions are constantly changing. Monitoring, or the ongoing collection of "baseline data," provides a series of reference points that provide a clear picture of current conditions or circumstances. These conditions can include anything from weather or water quality to the number of plants or animals living in a specific area.

Many of us have dealt with monitoring on various levels particularly with regard to the security of our homes and businesses. Even if we have an alarm, if there is no one to hear it sound, we could be robbed of our valuables.

When a significant change occurs in the baseline data, scientists begin to search for trends and compare the "new" conditions to previously known ones. Regardless of whether positive or negative, if something becomes different, it is important to figure out why and to what extent.

## How is the data used?

- Rookery Bay staff is monitoring weather, water and wildlife. The collected data is used to inform management decisions being made by local municipalities, DEP management, Florida Fish & Wildlife Conservation Commission, the general public, and beyond.
- Data can result in a thorough assessment of entire estuaries through collaboration with other agencies.

## Why this matters

Estuaries are the foundation of the culture and livelihood of Naples and Collier County. Commercial fishing and tourism depend on clean and healthy water to attract visitors and the local community expects the same.

- In 2010, Naples was sixth in fishing ports for landed commercial value, totaling \$7.3 million.<sup>2</sup>
- In 2010, over 1.5 million pounds of seafood products, including 608,000 pounds of stone crab claws, were harvested for a total \$5.5 million in dockside value.<sup>3</sup>
- In Florida wildlife viewing accounts for over 5,000 jobs and has an economic impact over \$5 billion.<sup>4</sup>

Monitoring programs are providing a very important baseline to which we can refer so that we can have an idea when something goes wrong before it is too late.

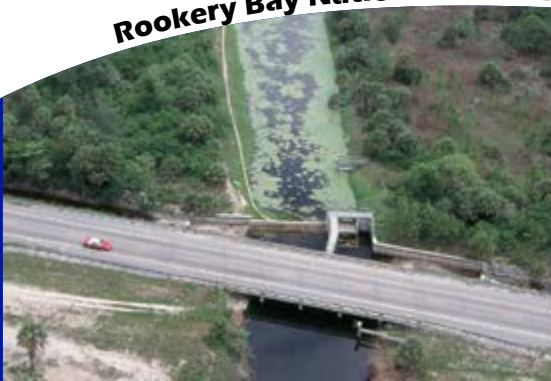
## Data we collect

Water quality monitoring collects physical and chemical data characterizing the state of the waters. Data is recorded every 15 minutes by an instrument installed at key locations known to exhibit various levels of alteration.

Sea turtle and beach nesting bird monitoring collects information on the numbers, species, and locations of nests indicating regional population trends.

Fisheries monitoring collects data on recreationally and commercially valuable fish and shellfish species living downstream of Everglades Restoration.

Rookery Bay National Estuarine Research Reserve • Coastal and Aquatic Managed Areas



## Rookery Bay National Estuarine Research Reserve



Designated more than 30 years ago, Rookery Bay National Estuarine Research Reserve manages 110,000 acres of coastal lands and waters near Naples on the Southwest coast of Florida. The mission of the Rookery Bay Reserve is to promote informed coastal decisions through research,

stewardship and education. The Environmental Learning Center serves as a regional education, research and training center with a 150-seat auditorium, classrooms, research labs and state-of-the-art visitor center with aquaria and interactive exhibits.



Rookery Bay National Estuarine Research Reserve serves as an outdoor classroom and laboratory for students and scientists from around the world. It is managed by the Florida Department of Environmental Protection's Office of Coastal and Aquatic Managed Areas in cooperation with NOAA's National Ocean Service.

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