Biscayne Bay Regional Restoration Coordination Team

NOAA SE Fisheries Science Center (SEFSC)
Statistics Building Conference Room
75 Virginia Beach Drive, Miami, FL 33149

October 21, 2015

Attendees
Phil Everingham
Sarah Bellmund
Joan Browder
Joan Lawrence
Dan Kipnis
Caroline Herman
Laura Eldridge
Rebecca Elliott
Michelle Metcalf
Erik Stabenau
Eric Bush
Greg Guannel
Anne ?
Josh Mahoney
Jennifer Tisthammer
Jack Meeder
Pete Harlen
Brent Stoffel
Jack Stamante

1. **Welcome and Introductions**
   Phil Everingham, Chairman of the BBRRCT, called the meeting to order. Introductions were made by attendees.

2. **Sea Level Rise Projections for South Florida National Parks:**
   Erik Stabenau, Oceanographer, South Florida Natural Resources Center, Everglades National Park gave a presentation on Sea *Level Rise Projections for South Florida National Parks*. The effects of sea level rise are already being felt. As examples, saltwater is far into the Shark River Slough which is now showing a tidal signature far inland; headwater behind water control gates is sometimes higher than sea level so that water can only be discharged during low tide increasing the risk that salt water could enter the canal system. Storm surge has caused significant flooding; the park

service is thinking of the storm surges and sea level rise in terms of protecting cultural and natural resources.

There are several economic reports showing how sea level rise is going to negatively affect the economy and assets. Miami is predicted to be the most negatively impacted city. Also, sea level along the shoreline is related to the velocity of the Florida current, which is variable. A decrease in the velocity of the Florida current will cause water to "pile up" nearshore which will contribute to seal level rise along the Florida shoreline.

Other issues, such as the collapse of artic ice sheets, recurrent flooding, and storm surge are not included in this analysis.

Erik's presentation can be found in the BBRRCT section on The Task Force website under the October presentations at:
http://www.evergladesrestoration.gov/content/bbrrct_handouts.html).

3. **Sea Level Rise in Miami Beach:**

BBRRCT Member Dan Kipnis discussed *Sea Level Rise in Miami Beach* with the Team. Due to an increase in flooding, Miami Beach has taken proactive measures including the installation of pumps. There have been problems with water quality.

Dan said that since 1990, there has been a 6 inch rise in sea level at the Virginia Key Station.

Dan quoted the following predictions:

- With an additional 1 foot in sea level rise, 83% of the land surface remains above high tide; all of Homestead/Turkey Point will be underwater,
- With an additional 2 feet of sea level rise, only 72% of the land surface remains and the runways of the airport are covered;
- With an additional 3 feet of sea level, only 3% of the land surface remains and Miami Beach is underwater; and
- With an additional 12 feet of sea level rise, only 3% of the land remains.

4. **Progress Update on the NOAA Habitat Focus Area (HFA) for Biscayne Bay:**

Dr. Joan Browder, NOAA National Marine Fisheries Service, Southeast Fisheries Science Center and BB-HFA Co-Leader, gave a progress update on the NOAA Biscayne Bay Habitat Focus Area. There have been:

- 3 stakeholder meetings;
- Ten implementation meetings with 14 NOAA and 6 Non NOAA members; and
- Creation of a storybook on line.

Four goals have been identified and refined:

- By 2020, understand major sources of nutrients that contribute significantly to algal blooms in Biscayne Bay and work with resource managers to inform development and application of enhanced policies and management approaches to improve water quality and habitat condition in the Bay ecosystem;
- Improve freshwater inflows to enhance habitat conditions for living marine resources;
- Support and enhance recovery of protected species and sustainability of fishery species in the Biscayne Bay HFA (includes protection and restoration of habitat);
- Increase public awareness of the ecological, economic, and social benefits of the Biscayne Bay ecosystem and increase citizen involvement in conservation activities.

There has been a Biscayne Bay HFA Grant Award to Waterkeepers. There have been subawards to Waterwatchers and RSMAS. The AOML-SEFSC Biscayne Bay HFA Water Quality Project (supporting goal 1) is underway as are the Socioeconomic Project (sung goal 4) and the Sawfish Project and Associated Lemon shark Project (supporting goal 3).

There have been a number of coordination meetings held and/or planned with Miami-Dade County, Biscayne National Park, Florida Aquatic Preserves, and The Nature Conservancy.
Joan's discussion points can be found in the BBRRCT section on the Task Force website at:
http://www.evergladesrestoration.gov/content/bbrrct_handouts.html).

5. **Historical Sea Level Rise: The Last Century and Future in South Florida:**

Dr. Jack Meeder gave a presentation/discussion on *Historical Sea Level Rise: The Last Century and Future in South* Florida. The Holocene transgression is when sea level most recently started to melt out of the glaciers. There have been higher rates of sea level rise more recently. There is no increased rate of mangrove accretion with sea level rise; the mangroves are just going underwater. Mangroves in an area take decades to make peat; when mangroves go inland, it does not immediately become a peat-forming environment. Photos from Jack's discussion can be found in the BBRRCT section on the Task Force website at:
http://www.evergladesrestoration.gov/content/bbrrct_handouts.html).

The meeting was adjourned at 3:30pm.