

Bringing the Coast into the Partnership for Ecosystem Restoration in South Florida

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Beginning in the early 1990s, a multi-lateral partnership of state and federal agencies and local tribes formed around the goal to restore the Florida Everglades. This partnership is embodied in the South Florida Ecosystem Restoration Task Force and the Comprehensive Everglades Restoration Project (CERP). Over time, the geographic scope has expanded to encompass downstream estuaries and coastal marine ecosystems; however monitoring and assessment activities remain focused on the freshwater Everglades. The coastal marine ecosystem is not yet included in regular reports on the status of the regional ecosystems produced by the Task Force.

The goal of the NOAA-supported South Florida Marine and Estuarine Goal Setting for South Florida (MARES) project is fill this gap and include the coastal ecosystems in regional ecosystem assessments. The necessary scientific knowledge and data exist, in large part. What is missing are synthetic products based on this information, i.e. the conceptual ecosystem models and quantitative indicators, that form the basis for system-level assessments. The MARES project engages scientists, managers, policymakers, academics and environment organizations in a collaborative effort to develop these tools.

The MARES project has adopted a Driver-Pressure-State-Ecosystem Services-Response (DPSE) framework for developing integrated conceptual ecosystem models. The DPSE framework explicitly represents the interdependence between human dimensions of the ecosystem and environmental attributes. Linking conditions in the ecosystem to “ecosystem services”, rather than the more general “impacts,” allows human-use values, activities, and impacts to be modeled explicitly. The DPSE models identify key attributes of the coastal environment that then form the basis for defining quantitative ecosystem indicators. The ultimate goal of the MARES project is to develop a report card for the coastal marine ecosystem comparable to the report card already in use for the Everglades.

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