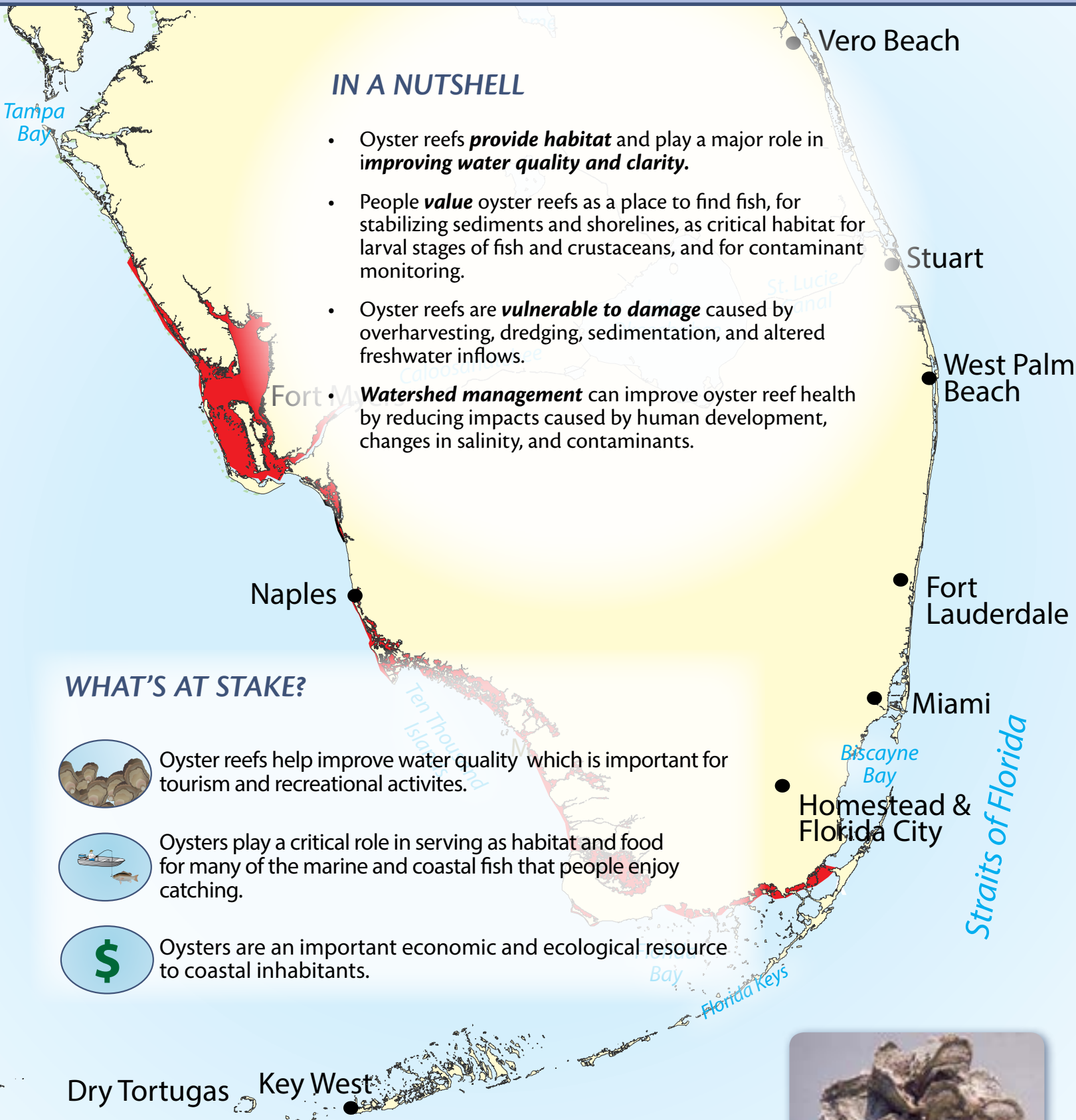


Oyster reef communities

Marine and Estuarine Goal Setting for South Florida



IN A NUTSHELL

- Oyster reefs **provide habitat** and play a major role in **improving water quality and clarity**.
- People **value** oyster reefs as a place to find fish, for stabilizing sediments and shorelines, as critical habitat for larval stages of fish and crustaceans, and for contaminant monitoring.
- Oyster reefs are **vulnerable to damage** caused by overharvesting, dredging, sedimentation, and altered freshwater inflows.
- **Watershed management** can improve oyster reef health by reducing impacts caused by human development, changes in salinity, and contaminants.

WHAT'S AT STAKE?



Oyster reefs help improve water quality which is important for tourism and recreational activities.



Oysters play a critical role in serving as habitat and food for many of the marine and coastal fish that people enjoy catching.



Oysters are an important economic and ecological resource to coastal inhabitants.

 Oysters



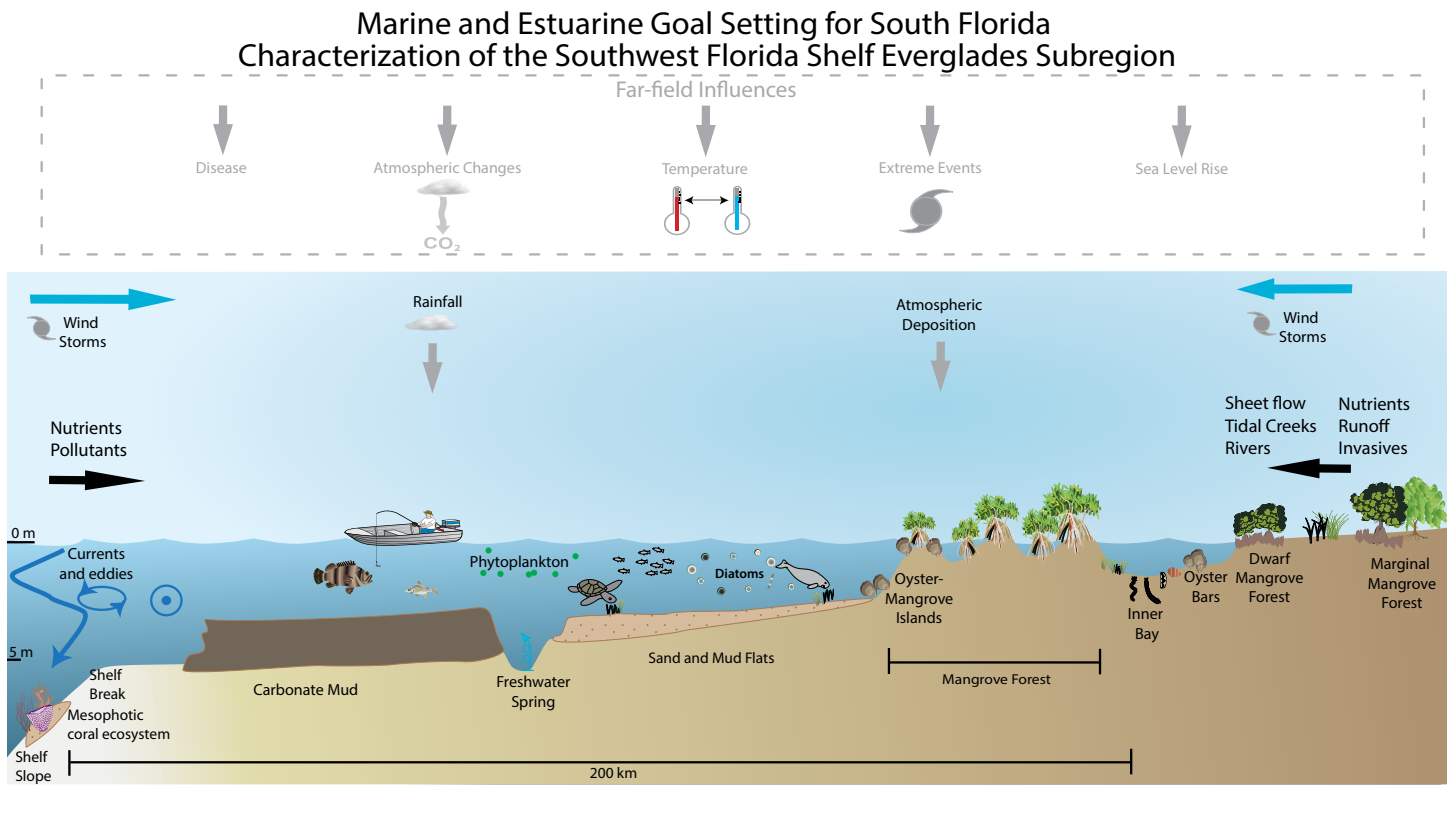
Maryland DNR

OYSTER REEF COMMUNITIES ON THE SOUTHWEST FLORIDA SHELF

Oysters reef communities provide a number of valuable ecosystem services that in turn can be impacted by local, regional, and global influences depicted in the diagram below. Oysters form the base of the food chain in the estuarine portions of the Everglades and other estuaries in South Florida. Many of the crustaceans and fishes that are members of the oyster reef community are important prey for fishes and birds. The health and biodiversity of these oyster reef communities are directly linked to hydrology, oyster reef survival, and the form and structure of the oyster reef communities. Watershed alteration and restoration are two critical factors in the health of oyster reefs and associated environments of the Southwest Florida Shelf.

CURRENT CONDITIONS

Long-term monitoring reflects a greater abundance of crustaceans and fishes associated with clusters of live oysters compared to clusters of dead oysters, and that the structure provided by both living and dead oyster shells supported a greater abundance than no shells. High and low salinity estuaries have been demonstrated to possess distinct oyster abundance, distribution, and health responses.



Healthy oyster reefs provide habitat for animals and plants such as the mangroves shown here. Changes in salinity from freshwater flows can alter the health of these communities.

MANAGEMENT ACTIONS

Management actions are activities to promote use and that protect and conserve natural resources. They consist of gathering information, decision-making, and program implementation that are carried out by agencies responsible for making policies and implementing management actions that affect oyster reef communities.

One example of how oyster reefs are being managed comes from the Caloosahatchee estuary. Salinity has been identified as a major oyster reef stressor in the estuary. The Army Corps of Engineers and the South Florida Water Management District are using this information in making management decisions about freshwater releases from Lake Okeechobee and dredging activities in the region.