Gary Roderick: Martin County's Oyster Reef Restoration Project will benefit estuaries

Over the past several months, tremendous progress has been made on Martin County's Oyster Reef Restoration Project. For those not familiar with the project, it involves the placement of more than 30 million pounds of cultch — fossilized shell, limestone rock and recycled concrete rubble designed to provide points of attachment for oyster larva — that is being distributed within the St. Lucie Estuary and the Northwest fork of the Loxahatchee River.

The project is being funded through a $4 million grant from the National Oceanic and Atmospheric Administration as part of the American Recovery and Reinvestment Act of 2009 (also known as "stimulus funding") and through supplemental matching/ monitoring funds from the South Florida Water Management District.

Nationwide, 814 projects were submitted for consideration, with 50 chosen. Martin County's Oyster Reef Restoration Project was one of only four projects selected in Florida.

Martin County is home to both the St. Lucie Estuary and a portion of the Loxahatchee Estuary. An estuary is a region where river water mixes with sea water. Estuaries have been described as “cradles of the ocean” because of the relative abundance of the species of plants and animals they support. The Florida Fish and Wildlife Conservation Commission estimates that more than 95 percent of Florida’s recreationally and commercially important fishes, crustaceans and shellfish spend some periods of their lives in estuaries.

Oyster habitat is vital to the health of an estuary, filtering nutrients, fine sediments and toxins from the water column. An adult Eastern Oyster can filter between 20 and 50 gallons of water per day. Oyster reefs provide important habitat and food for numerous estuarine species, including mollusks, crustaceans, fish and birds. More than 300 species of animals have been documented to live in or have a relationship with oyster beds.

Within the last 50 years, the oyster coverage that historically was present in our local estuaries has declined by more than 75 percent. Salinity levels, water quality and muck layer depth are some of the factors that have affected oyster population. In the St.

Lucie, oyster reefs exist almost exclusively in the middle estuary between the Roosevelt and Evans Crary bridges. This is the area

where our barge has been deploying cultch during the past several months.

The Oyster Reef Restoration Project complements the Comprehensive Everglades Restoration Plan being implemented as a means of restoring and enhancing the natural ecosystems of South Florida. The Eastern Oyster is included as a target species to be monitored and enhanced because of its historical existence and essential habitat value.

Perhaps the most frequently asked question we get is: “Why do this project if lake releases will continue and decimate the oyster reefs?” While large freshwater releases from Lake Okeechobee will remain a threat to the oyster reefs, oyster populations rebound once salinity levels return to normal. The source of larva that repopulates existing reefs is supplied by surviving oysters and oyster populations within the tidally influenced Indian River Lagoon. More oyster shell will result in more larval attachment sites which will result in greater numbers of restored oysters and faster recovery of oyster beds.

Just as corals provide reefs offshore in the marine habitat, oysters provide reefs in the estuarine habitats. These marine resources, although being seriously threatened, are an integral part of a healthy marine ecosystem and play a critical role in improving

fisheries and offshore habitats. Enhancing these resources will benefit all of us who enjoy Martin County's good nature.

For more information about the Oyster Reef Restoration Project, visit www.oysterrestoration.com.

Roderick is chief of water quality for Martin County.