

Characterizing Water Quality in the Charlotte Harbor Florida Estuaries Using a Trained Volunteer Corps: 1998-2003 Results of the Charlotte Harbor Estuaries Volunteer Water Quality Monitoring Network

Judith Ann Ott¹, Katie Fuhr¹, Stephanie Mackenzie¹, and Bobbie Rodgers²

¹ Florida Department of Environmental Protection, 12301 Burnt Store Rd., Punta Gorda, FL 33955

² Charlotte Harbor Environmental Center

Abstract

The Charlotte Harbor Estuaries include 6 FL Aquatic Preserves and greater than 175,000 acres of exceptional submerged resources. Resources, watershed and management issues vary throughout the diverse interconnected estuaries. Aquatic Preserve management focuses on resource management, research and education. Water quality information is essential for estuarine health characterization. Historically, comprehensive water quality monitoring throughout the system has been limited. In 1996 the Charlotte Harbor Estuaries Volunteer Water Quality Monitoring Network began as a cooperative project with the FL Department of Environmental Protection, Charlotte Harbor Environmental Center and Charlotte Harbor National Estuary Program. A corps of over 70 trained volunteers monitor 19 parameters at 44 fixed stations synoptically once a month at sunrise on the 1st Monday. In-situ measurements are made of tide, water clarity, salinity, dissolved oxygen, pH and temperature. Lab analyses are conducted for TP, TN, chlorophyll a, color and turbidity by the FL Department of Environmental Protection Lab. The FL Trophic State Index is used to characterize estuary health from the data. During 1998-2003, conditions in the Charlotte Harbor Estuaries ranged from good to fair. These results represent the 1st system wide characterization of water quality. Data from the ongoing monitoring program is used to complement other monitoring programs and direct resource management activities.