

WHO'S SAMPLING OUR WATER AND WHERE

Betty Staugler, Florida Sea Grant Marine Agent - Charlotte County UF/IFAS Extension Service

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Maintaining good water quality is essential to maintaining the health of our harbor. Water quality refers to the condition of water relative to legal standards, social expectations, or ecological health. In order to track water quality conditions in the harbor and identify specific areas of concern, long term water quality monitoring is a must. After doing some poking around, I've identified a number of organizations monitoring water quality in Charlotte Harbor and its adjacent tributaries. They include:

Florida Department of Environmental Protection (FDEP) - Charlotte Harbor Aquatic Preserves Volunteers. Conduct monthly sunrise sampling at 40+ fixed locations from Lemon Bay to Estero Bay. Initiated in 1996, trained volunteers sample mostly near shore shallow waters. Sunrise sampling serves to identify Dissolved Oxygen levels (necessary for plant and animal survival) at their lowest levels.

FDEP - South District Laboratory. Conducts water quality sampling as part of a Total Maximum Daily Load (TMDL-more about this at end of article) rotation schedule in the canals of Port Charlotte and Punta Gorda. They are also sampling benthic invertebrates and water quality in four tidal creeks along the east wall of Charlotte Harbor. This later sampling is being done in collaboration with the fisheries sampling efforts of Mote Marine Laboratory. FDEP is also monitoring water quality along the west wall using a continuous data logger (24 hour water quality data). Finally FDEP will be starting a hypoxia (when dissolved oxygen is low) study in the lower Peace and Myakka rivers and upper Charlotte Harbor where they will be taking ponar grabs (for benthic invertebrates) and conducting water quality sampling.

Florida Fish and Wildlife Conservation Commission - FWRI. Samples water quality with all of their fisheries sampling. They also conduct water quality sampling for the Charlotte County Stormwater monitoring project that is detailed below.

Charlotte County Stormwater. Monitors water quality at 30 randomly selected locations monthly, by dividing the estuary into five distinct regions and then randomly selecting five points within each region (i.e., five in the Lemon Bay region, five in the Gasparilla Sound region, etc.). Initiated in 2001, the random design allows more of the har-

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bor to be sampled, which over time produces more statistically valuable information. This project is conducted in collaboration with the Southwest Florida Water Management District, FWRI, FDEP and the Charlotte Harbor National Estuary Program. Lee County waters are also sampled using the same monitoring approach.

Peace River Manasota Regional Water Supply Authority. Monitors water quality in the Peace River at fixed stations and moving isohaline (salinity) stations. Initiated in the 1970s, this sampling is designed to ensure water withdrawals do not adversely affect downstream harbor health.

City of Punta Gorda. Monitors water quality in Shell Creek to ensure water withdrawals do not adversely affect downstream water quality.

Florida Department of Health. Monitors bacteria levels at public bathing beaches. Data is available online at <http://esetappsdoh.doh.state.fl.us/irm00beachwater/default.aspx>. The Department of Health is also monitoring water quality in El Jobean, some Port Charlotte canals and some Punta Gorda canals.

Information collected by each of these programs is used by State and Federal agencies to determine whether the water quality is meeting its designated use (drinking water, shellfish harvesting, or recreational). If a water body or water body segment does not meet its designated use then it receives a TMDL (total maximum

daily load). A TMDL is essentially a plan which outlines actions that will be taken to get water quality back to meeting its intended use. In addition to supporting the TMDL process, water quality data collected by the various agencies and organizations mentioned also supports specific research and resource management objectives. For instance, water quality data collected by FWRI is used to help determine physical conditions that effect habitat utilization of particular fish species.

Some of the water quality information mentioned above is available in really cool map format on the Charlotte Harbor Environmental Center's website. Just go to www.checflorida.org and then click on the Watershed Resource Center.

Betty Staugler is the Florida Sea Grant Agent for Charlotte County. Florida Sea Grant is a University of Florida-IFAS Extension Program. Betty can be reached at 941.764.4346.



BETTY STAUGLER

*Florida Sea Grant Marine Agent
Elizabeth.Staugler@CharlotteFL.com*

CHARLOTTE COUNTY UF/IFAS EXTENSION SERVICE

*25550 Harbor View Road, Suite 3 - Port Charlotte, Florida 33980
941.764.4340 - 941.764.4343 (fax) - <http://charlotte.ifas.ufl.edu>*