Estero Bay Water Quality Monitoring Programs

Poster Created by FDEP-South District.

Lee County Surface Water Monitoring

Project Partners: Lee County Division of Natural Resources, FDEP-South District, and EBAP-DEP

Sampling Design: Water quality monitored monthly by Lee County at 14 estuary sites & over 40 basin sites since 1990.

DEP has partnered with Lee County to monitor 7 additional stations in tributaries to Estero Bay.

Objective: Identify water quality status and trends to support Lee County's Surface Water Management Plan and Capital Improvements Projects

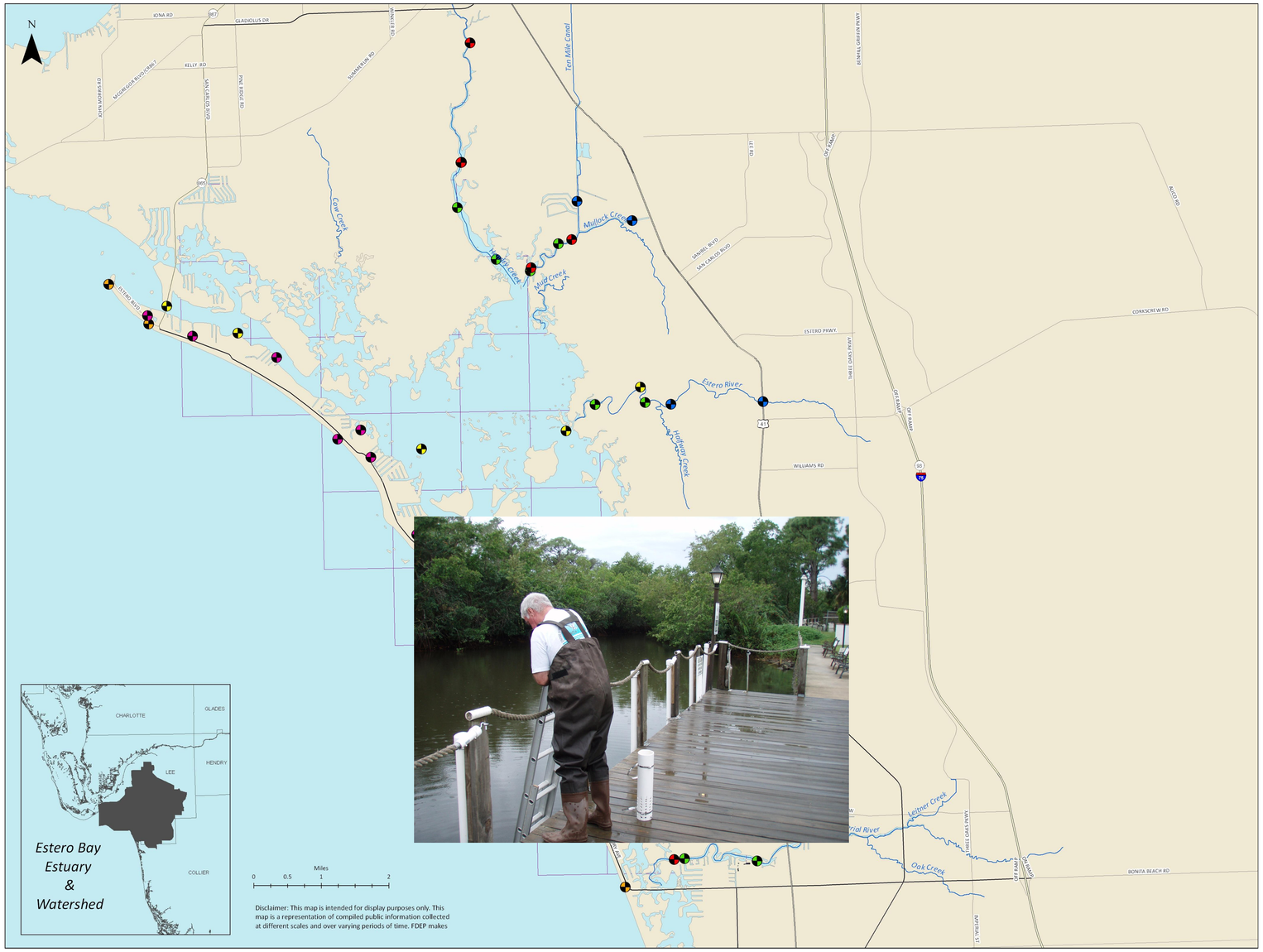
Lee County Department of Health Beach Sampling

Project Partners: Lee County Department of Health, Lee County Division of Natural Resources

Sampling Design: Enterococci and fecal coliform bacteria monitored weekly at 13 public beaches throughout Lee County

Objective: Monitor bacteria concentrations that may pose a threat to human health. Concentrations exceeding state criteria will result in beach advisories or closures.

Preliminary Findings: Since the program started in 2000, there have only been 4 beach closures in Estero Bay



Charlotte Harbor Volunteer Water Quality Monitoring Network

Project Partners: Charlotte Harbor & Estero Bay Aquatic Preserves-FDEP, Charlotte Harbor National Estuary Program, 100+ Volunteer Monitors

Sampling Design: Volunteer monitors collect samples once a month at 46 stations across the greater Charlotte Harbor area, 7 sites have been sampled in Estero Bay since 1998

Objective: Provide consistent, scientifically sound water quality data to guide resource management by identifying the most critical water quality parameters, locations and trends within the region. Increase environmental awareness and public stewardship of our local estuaries.

Estero Bay Tributary Continuous Salinity Monitoring

Project Partners: FDEP-South District and South Florida Water Management District (SFWMD)

Sampling Design: The DEP is currently collecting continuous water quality data (Salinity, Depth, Dissolved Oxygen, Temperature, and pH) every 15 minutes, at 9 monitoring stations during 2009.

Objective: In order to develop a Minimum Flow and Levels (MFLs) for Estero Bay, relationships between tributary inflows and salinity need to be established. The purpose of this study is to measure salinity in tributaries and provide the data source to build such salinity-flow relationships.

Coastal Charlotte Harbor Monitoring Network

Project Partners: Lee County Division of Natural Resources, Charlotte Harbor National Estuary Program

Sampling Design: Water quality samples collected monthly at 5 randomly selected sites throughout the Bay since 2003.

Objective: Implement long term monitoring strategy of CHNEP through a collaborative partnership to identify water quality status and trends throughout the greater Charlotte Harbor estuaries

Town of Fort Myers Beach Water Quality Monitoring

Project Partners: Town of Fort Myers Beach, Lee County Natural Resources, under an agreement with DEP

Sampling Design: 7 stations monitored quarterly during 2009

Objective: Fill existing monitoring gaps on Fort Myers Beach to establish baseline water quality conditions in the waters surrounding the town.

Estero Bay Tributary Dissolved Oxygen Monitoring

Project Partners: FDEP-South District & Lee County Division of Natural Resources

Sampling Design: Water quality recorded every 30 minutes at 7 tributary stations during 2007 & 3 tributary stations in 2008

Objective: Evaluate current sampling methods & describe conditions in water bodies not meeting DO standards

Data logger in Hendry Creek

Integrated Water Resource Monitoring (IWRM)

Project Partners: FDEP-South District

Description: The IWRM sampling program is a multi-level monitoring program designed to answer questions about Florida's water quality. It includes the Status Network and Trends Network monitoring, TMDL monitoring, and monitoring tied to regulatory permits.

FDEP Total Maximum Daily Load (TMDL) Monitoring

Project Partners: FDEP-South District

Description: The TMDL sampling program is based on a rotating schedule which collects data at stations where little to no information exists approximately every 5 years.