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## The Regional Waterway Management System: A Tool for Balancing Coastal Resource Use and Protection<sup>1</sup>

Robert A. Swett and David A. Fann<sup>2</sup>

**ABSTRACT:** The Regional Waterway Management System applies the latest science and technology to address a daunting planning dilemma faced by coastal counties—how to balance the phenomenal growth of the boating population with conservation and management of surrounding environmental resources. The Regional Waterway Management System is designed to allow for the simultaneous use and protection of coastal waters, while maintaining the economic vitality of coastal communities.

The foundation of the System consists of: 1) comprehensive on-the-water census of the locations and characteristics of boats, moorings and related facilities; and (2) a survey of channel centerline depths. The boat draft and waterway depths are combined in a geographic information system (GIS) to identify (a) for each channel segment, which boats may be blocked at mean lower low water, and by how much, and (b) conversely, for each boat, which channel segments may block it, again by how much. The information is made available to counties, as maps, along with statistical analyses that help identify and quantify actual or potential problems.

The scientific approach provides unbiased information for a rational and objective method of waterway management, and allows local decision-makers to assign priorities on a regional basis. In situations where dredging is selected as an appropriate management option, the prescribed dredge depth and width will depend on a number of factors, such as regulatory and historical precedents, potential environmental impacts, draft characteristic of the present boat population, and cost.

The Regional Waterway Management System evolved from an initial pilot study in Sarasota Bay, followed by applications in Sarasota, Manatee and Lee counties. These projects are the foundation of a Florida administrative code, "Chapter 62-341.490 Noticed General Permits for Dredging by the West Coast Inland Navigation District (WCIND)." The general permit allows for better efficiency and effectiveness in dredging and maintaining Florida's waterways. The public policy successes of the Regional Waterway Management System stem from a combination of research and extension efforts, and a proactive process that involves various stakeholder groups.

### Footnotes

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2. Robert A. Swett, Florida Sea Grant and the Department of Fisheries and Aquatic Sciences, PO Box 110400, University of Florida, Gainesville, FL 32611-0400; [rswett@ufl.edu](mailto:rswett@ufl.edu). David A. Fann, Florida Sea Grant, PO Box 110400, University of Florida, Gainesville, FL 32611-0400; [dafann@ufl.edu](mailto:dafann@ufl.edu).

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