Preserving the Ecological and Recreational Values of Florida Waterways

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Coastal communities face the challenge of balancing the use and protection of their waterway resources. Over the past four decades, Florida's coasts were transformed as population growth and demand for shorefront property led to the creation of residential canal developments. Thousands of miles of channels and basins were dredged as a by-product of this urbanization process, and boaters soon followed: Florida has the most registered boats in the U.S., with just under 1 million. A result is that navigable waterways and aquatic resources are being stressed by increasing boat traffic and canal-side activities.

Recognizing their common goal to preserve the recreational and ecological value of southwest Florida waterways, the Florida Department of Environmental Protection, the West Coast Inland Navigation District, which serves four counties that contain 8% of Florida's population and 12% of its registered boats, and the University of Florida Sea Grant College Program signed a Memorandum of Agreement. The signatories agreed to develop a science-based Regional Waterway Management System (RWMS): a new approach to waterway planning and permitting based on carefully mapped channel depths, a census of actual boat populations, and the spatial extent of aquatic resources. The GIS-based RWMS provides a comprehensive, regional overview of channel conditions and the geographic distribution and severity of existing impediments to safe navigation and resource protection. RWMS information and analyses result in regional-scale permitting to accommodate water-dependent uses while minimizing environmental impacts and reducing public expenditures. It is the basis for counties, the WCIND, and the state to move boating channels from a series of ad hoc user "trails" to a defined boating transportation infrastructure that serves to separate boats from sensitive marine habitats.

Since its inception, this state-approved approach to waterway planning and permitting has resulted in two innovative state administrative rules and has saved taxpayers over $3 million dollars. The state rule for one county authorizes zones to exclude vessels with combustion engines in areas of scarred seagrass to mitigate maintenance dredging activities in aquatic preserves. This approach helps to achieve an appropriate balance between waterway use and resource protection.

The adoption of the RWMS by the State of Florida and implementation of the state administrative code demonstrate the ability of sound science to guide state waterway management activities. Benefits include: (1) state policy based on "best available science," (2) better efficiency and effectiveness in waterway maintenance, (3) savings in dollars and staff time, and (4) better public policy through holistic, ecologically based decision-making that is predictable, fair, and cost effective.

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