WEST COAST INLAND NAVIGATION DISTRICT

Strategic Plan for 2008–2013
Accomplishments of 2002–2007



June 2009 TP-167









To preserve and enhance the commercial, recreational,

and ecological values of District waterways

Prepared for:

West Coast Inland Navigation District
P.O. Box 1845
Venice, Florida 34284-1845

WCIND Commissioners

Manatee County—Joe McClash
Sarasota County—Nora Patterson
Charlotte County—Robert V. Skidmore
Lee County—Ray Judah

Acknowledgments:

We wish to thank Chuck Listowski, Executive Director, West Coast Inland Navigation District, for helping to articulate plan goals and objectives. We also wish to thank Diane Ballinger, Information Manager, West Coast Inland Navigation District, for providing information and photographs.

This publication was supported by the National Sea Grant College Program of the U.S. Department of Commerce's National Oceanic and Atmospheric Administration (NOAA), Grant No. NA06OAR–4170014. The views expressed are those of the authors and do not necessarily reflect the view of these organizations. Additional copies are available by contacting the West Coast Inland Navigation District, (941) 485-9402, www.wcind.net; or online at flseagrant.org.

TP-167 June 2009







West Coast Inland Navigation District Strategic Plan for 2008–2013

Accomplishments of 2002–2007

Prepared by:

Alisa Coffin¹

Bob Swett^{1,2}

Marlowe Rosenbaum³

- ¹Boating and Waterway Management Program, Florida Sea Grant, University of Florida, Gainesville, Florida
- ² School of Forest Resources and Conservation, University of Florida, Gainesville, Florida
- ³ Digital Media Art, University of Florida, Gainesville, Florida

| MISSION | 1 |
|---|----|
| INTRODUCTION: The 2008–2013 Strategic Plan | 2 |
| History of the WCIND | 3 |
| Challenges and Requirements for 2008–2013 | 4 |
| ACCOMPLISHMENTS: Summary of Projects Completed | |
| in 2002–2007 | 7 |
| PRIORITY AREAS: Projects for 2008–2013 | 11 |
| 1. Project Management, Planning, and Resources | 12 |
| 2. Waterways and Anchorages | 15 |
| 3. Inlets | 16 |
| 4. Waterway Access Points and Land-based Infrastructure | 17 |
| 5. Education | 18 |
| 6. Interagency Coordination | 19 |
| LEGISLATIVE MANDATES | 21 |
| BIBLIOGRAPHY | 26 |

MISSION

he mission of the West Coast Inland Navigation District (WCIND) is to preserve and enhance the commercial, recreational, and ecological values of the coastal waterways within Manatee, Sarasota, Charlotte, and Lee counties (the "District"). Since the WCIND's inception in 1947, the needs of the District's population and the demands on its waterways have changed. Despite the present economic slowdown, the dramatic population increase and urbanization of Southwest Florida will likely continue to intensify recreational boating use and further impact water quality and coastal ecosystems. These changes have been accompanied by a deepening of our knowledge about the complex social, hydrologic, and ecological conditions of the coastal environment. Numerous economic and social benefits are associated both with navigable waterways and ecologically productive coastal ecosystems. In the WCIND's view, the two are inextricably linked.



Sailboat on the Gulf Intracoastal Waterway (GICW) in the City of Venice.

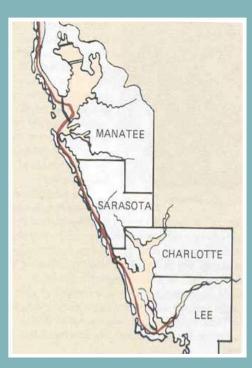


Seagrass and marine life.

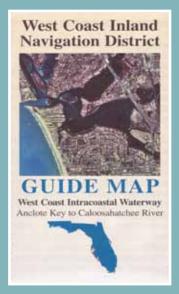


Great blue heron near City of Venice boat ramp.

INTRODUCTION The 2008–2013 Strategic Plan



Map of District showing the Gulf Intracoastal Waterway.



Boaters' guide to the WCIND.

he West Coast Inland Navigation District (WCIND) is a multi-county special taxing district (the "District") composed of Manatee, Sarasota, Charlotte, and Lee counties. An estimated 1.5 million people, or 8% of Florida's population, call the District their home. Many of these residents, along with a multitude of visitors, use the local waterways and shorelines for a variety of commercial and recreational purposes. For example, marine industries, which include recreational boating, are important to the District's economy. Their economic impact throughout Florida exceeds \$18 billion and they employ more than 220,000 people. More than 120,000 boats are registered in the District, accounting for 12% of all boats registered in Florida; 97% of them are used for recreation.^{4,5} By 2016, it is estimated that their number will reach 160,000.12 The transportation infrastructure used by resident boaters and those visiting the District includes the Gulf Intracoastal Waterway (GICW), along with 1,560 miles of channels and canals, most of which were the result of dredge and fill operations to create new land and were never intended to serve as a transportation network. To serve the needs of its four member counties, the WCIND helps to plan and implement waterway projects that promote safe navigation and the enjoyment of water-based activities, such as boating, fishing, and beach recreation.

District ecosystems and the waterways that traverse them are part of the broader southwest Florida coastal ecoregion. Within this context, WCIND programs are designed to enhance the regional economic base while preserving the environment and the quality of life within its member counties. WCIND goals address a gamut of issues at a regional scale that is both economically more efficient and ecologically more appropriate than at the individual county level. Programs include maintaining and enhancing public navigation channels and inlets, boating access facilities, waterfront parks, and piers. The WCIND also provides

leadership in waterway resource-based stewardship by encouraging boating safety and environmental education through the distribution of boaters' guides and waterway maps.

The relevance of WCIND's work continues to increase over time. With an annual budget of approximately \$2 million, the WCIND currently operates by assessing less than 25% of its statutorily allowable millage rate. In 2008, the millage rate was 0.0394; the WCIND's enabling legislation caps millage at 0.2. With reduced federal funding, the local sponsors of the nation's inland navigation systems are being forced to shoulder a larger proportion of the costs to maintain waterway infrastructure. This means that a focused effort is required to accomplish the WCIND's current duties and responsibilities in an efficient and cost-effective manner. This strategic plan reflects an effort to enable the WCIND to serve its member counties as a fiscally responsible community partner.

History of the WCIND

he Florida Legislature established the West Coast Inland Navigation District in 1947 (Chapter 23370, Florida Laws) to perform the duties of local sponsor to the U.S. Army Corps of Engineers. WCIND duties were to share the cost of planning, constructing, and maintaining a 152-mile long, 100-foot wide, and 9-foot deep Gulf Intracoastal Waterway between the mouth of the Caloosahatchee River, near Fort Myers, and the Anclote River, north of Tampa.^{7,8}

The GICW was intended to link natural deep-water sections of bays through a series of artificial channels, thereby providing for the safe passage of commercial goods and access to commercial fishing grounds. The GICW channel would run through six counties (Pinellas, Hillsborough, Manatee, Sarasota, Charlotte, and Lee) and the need for rights-of-way and dredge disposal areas existed along the entire length of the planned waterway. Waterway dredging began in 1960 and the GICW was completed in 1967, at which time the WCIND began maintenance activities.



1948 aerial photo of Venice Inlet.



2004 aerial photo of Venice Inlet.

The WCIND's mandate was broadened substantially in 1979 to include programs to improve and maintain public channels "connected" to the GICW, as well as waters that make a significant contribution to waterway traffic or commerce. Additionally, the WCIND was enabled to assist and support member counties in planning and implementing navigation projects, waterway research, erosion and accretion studies, and environmental restoration projects.

In 1989, the WCIND was authorized to participate in a greater diversity of waterway-related activities, including the promotion of inlet management, and the posting and maintenance of channel markers and manatee protection speed zone signs. The WCIND also started to initiate programs to encourage boating safety and environmental stewardship through the dissemination of boater guides and waterway resource maps. Recent legislation now allows the WCIND to partner with counties located adjacent to its four member distirct.

Challenges and Requirements for 2008–2013



Dredge operation, managed by WCIND, maintaining a secondary channel waterway.



WCIND-managed dredge operation on the GICW.

he next five years* undoubtedly will hold many challenges for local, regional, and state agencies particularly given the current global economic downturn. Expected challenges include fiscal uncertainty, the unknown complexities of environmental change, and the dynamics of collaborating with agencies that have differing mandates and scales of interest. Working together to overcome economic and bureaucratic hurdles requires patience, perseverance, and courage. The results of nonexistent or ineffective collaboration too often are resource waste, inefficiencies, and increased risk. Economic uncertainty frequently leads to reductions in the fiscal resources that government agencies need to accomplish their mission. At the same time environmental change, whether from global climatic trends or the regional effects of population growth, poses direct and imminent challenges to coastal ecosystems. Regardless of upcoming challenges, the WCIND cannot neglect its mandate—which addresses core economic and environmental interests of southwest Florida communities. During the next five years, the WCIND will work with its partners to implement creative, bold, and integrative approaches to overcome future challenges and to fulfill its mission.

*Fiscal years 2008–2012: 1 October 2008 through 30 September 2013

The District's coastal waterways and infrastructure, along with the funding provided for their management, constitute a public trust managed by the WCIND and its Board of County Commissioners. To sustain that trust and maintain the clarity of the WCIND mission will require continued institutional transparency and a thorough accounting of

financial benefits and costs. During the past five years, the WCIND, by managing and operating projects efficiently and conscientiously, has demonstrated that it is in a unique position to help improve the region's economic and environmental sustainability. The cost savings and improved safety and environmental benefits that stem from WCIND efforts, however, have not been adequately documented. To address this gap, the WCIND will better account for and communicate the various benefits its work provides. During the next five years the WCIND also will continue to explore alternative strategies to augment its traditional funding source, the assessed millage contributions of member counties. For example, the WCIND will persist in its efforts to raise awareness among state and federal lawmakers of its mission, priorities, and goals. Its efforts to date have been received favorably and resulted in additional funding for the District from state and federal coffers.

The WCIND, as always, will continue to focus on its legislated purpose: facilitating the planning, management, and maintenance of the GICW and its associated network of critical navigational infrastructure. To do so will require accurate and up-to-date information about biophysical and socioeconomic conditions that pertain to the District. The WCIND often relies on scientists and other professionals for advice as it develops plans, makes decisions, and creates policies. In doing so, the WCIND works with collaborators who use current and proven scientific methods. For example, over the past five years, it has engaged experts using state-of-the-art modeling methods to provide it with an understanding of current conditions in District waterways and inlets, thereby improving its decision-making abilities. High quality, scientifically-based information is an important resource that enables the WCIND to achieve its goals with greater confidence, accuracy, and efficiency. The WCIND will continue to rely on sound information provided by qualified scientists and professionals.



Manatee zone and speed marker.



Osprey nest on a slow-speed sign in the GICW near Venice Inlet.

To make effective decisions, the WCIND and its partners must collaborate in ways that ease communication and establish positive, long-term working relationships. While the numerous benefits that derive from constructive collaboration are difficult to assess, ignoring this important challenge undermines the ability of institutions to serve their constituencies effectively. The WCIND's multi-county composition provides it with a unique and important role among local, state, and federal agencies that respond to local needs while coordinating with broader-scale concerns. For example, during the next five years the WCIND will continue to improve the efficiency of dredge permitting processes to meet environmental requirements and the concerns of local, state, and federal agencies. Increased permitting efficiency will allow local governments to maintain critical coastal infrastructure that is fundamental to their economic and security interests, while addressing environmental protection in a more consistent, affordable, and sustainable manner. The WCIND welcomes potential partnerships from agencies with an interest in working together to achieve shared goals.

The continued prosperity of the District depends on the ability of the WCIND and its partners to manage critical coastal resources efficiently, such as navigation channels and waterway access points, while addressing important security issues and ecological concerns. While economic and environmental changes are not always predictable, it is probable that disturbances will occur that are widespread, sudden, or even catastrophic. Resiliency determines the extent to which the District can recover and adapt to change so that the coastal infrastructure remains functional, productive, and ecologically viable. By increasing its resiliency as an institution, the WCIND will improve its ability to adapt to changes. Taken together, the above elements of creative thinking, alternative funding strategies, sound scientific information, positive collaborative relationships, and benefits accounting will strengthen the resiliency and the ability of the WCIND to manage adaptively.



GICW through Venice Inlet.

ACCOMPLISHMENTS

Summary of Projects Completed in 2002–2007

or the 2002-2007 strategic plan, the WCIND identified eight priority areas within which to organize its goals (Table 1). Priority areas encompass the broad range of the WCIND's responsibilities as mandated in Florida Statutes, Chapter 374¹⁰ and Laws of Florida, Chapter 98-526.⁹ They also take into account the experience and insight of the Executive Director and staff.

Table 1. Priority areas for 2002-2007 strategic plan.

| | Priority Areas |
|---|---|
| 1 | Waterways and Anchorages |
| 2 | Inlets |
| 3 | Emergency Management |
| 4 | Infrastructure Improvements and Maintenance |
| 5 | Dredge Material Management |
| 6 | Sustaining the Environment |
| 7 | Permitting |
| 8 | Coordination |

The WCIND Board of County Commissioners reviews and approves spending for capital expenses on an annual basis. According to the 2002-2007 annual budgets, the WCIND administered over \$14 million that was spent on more than 300 capital expense projects within the four-county District area (Table 2).

Table 2. Capital expense projects and costs categorized by priority area.

| Priority Area | Number of Projects | Percentage of Projects | Cost of Projects (in thousands) | Percentage of Total Cost |
|--|-----------------------|------------------------|---------------------------------|--------------------------|
| 1. Waterways and Anchorages | 73 | 23 | \$ 7,311 | 51 |
| 2. Inlets | 18 | 6 | \$ 1,388 | 10 |
| 3. Emergency Management | 44 | 14 | \$ 3,085 | 22 |
| 4. Infrastructure Improvements and Maintenance | 12 | 4 | \$ 447 | 3 |
| 5. Dredge Material Management | * | * | * | * |
| 6. Sustaining the Environment | 105 | 34 | \$ 1,176 | 8 |
| 7. Permitting | * | * | * | * |
| 8. Coordination | 49 | 16 | \$ 740 | 5 |
| Uncategorized | 9 | 3 | \$ 47 | < 1 |
| Total | 310 | 100 | \$ 14,194 | 100 |

^{*}Waterways and Anchorages (1) incorporates information for Dredge Material Management (5) and Permitting (7).

Projects related to waterways and anchorages accounted for the greatest proportion of WCIND capital expenses in 2002-2007. These were projects related to dredging and maintaining navigable waterways. Their predominance reflects their importance in the WCIND's mandate and the priority given them by its Board of County Commissioners. A typical project in this priority area is the Longboat Key Canal access dredging that occurred in 2004. Another important example was the creation of the Regional Waterway Management System (RWMS). The RWMS is "a GIS-based planning framework for achieving municipal, county, and state goals of facilitating safe navigation and reducing impacts on aquatic habitats," with the objective of creating a formalized waterway transportation infrastructure. 1,11,12 The creation of the RWMS begins with the collection of accurate geographic information about waterways and the coastal environment, as well as use of the waterway infrastructure. The information and analyses are used to formulate management decisions and regulatory policies. The success of the RWMS depends upon a cooperative framework established in a Memorandum of Agreement (MOA) between WCIND, the Florida Department of Environmental Protection, and Florida Sea Grant.¹² The RWMS, which began with the MOA in 1997, has been completed for Lee, Manatee, and Sarasota counties. Data collection for Charlotte County is due for completion in 2009. Once completed, the RWMS will provide integrated information to manage coastal navigational infrastructure with a potential for large cost-savings over traditional piecemeal methods.

Emergency management accounted for the second largest portion of WCIND expenditures in 2002-2007. Routine expenditures in this category included support for marine law enforcement in all four District counties. Expenditures also included rapid response to catastrophic conditions that required immediate attention. Among them were expenses for recovery efforts in the aftermath of Hurricane Charley, which made landfall in Charlotte County in August 2004 with 145 mph winds, severely affecting coastal navigation in the region. The day after Charley hit, WCIND employees were on the water repairing and relocating navigation signs damaged or destroyed during the storm. Subsequent Charley-related work included three years of funding for recovery projects to repair damage to waterways in Charlotte County.

Maintaining navigable inlets also was a significant portion of WCIND expenditures from 2002-2007. While maintaining inlets is part of the WCIND's directive to maintain safe and navigable waterways, inlets are considered unique coastal features that have specialized management needs. Due to their hydraulic and physical characteristics and dynamics, the WCIND categorizes inlets within their own priority area for planning purposes and the allocation of capital resources. The maintenance of Lake LaVista Inlet in the City of Anna Maria is one example of a project supported over several years by the WCIND. Others include the management of Venice Inlet near the City of Venice and the repair of the North Venice jetty.

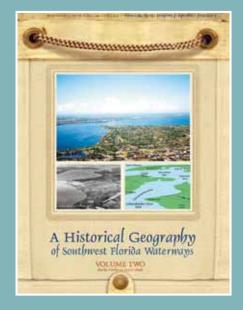
Finally, the WCIND's priority to promote environmental sustainability was reflected in the numerous boater safety and environmental education programs it supported during the past five years. Project partners included federal, state, and local agencies, as well as private, not-for-profit groups. An example from 2002-2007 includes supporting Florida Sea Grant in the completion of Volume 2 of *A historical geography of Southwest Florida waterways: Placida Harbor to Marco Island*, thereby finishing the two-volume set begun by the late Gustavo Antonini, PhD, professor emeritus of the Florida Sea Grant College Program.^{2,3} Other examples are educational and outreach materials, such as guides, maps,



City of Venice boat ramp restoration.



City of Venice boat ramp after restoration.



Historical Geography of Southwest Florida, Vol. 2.



Venice Inlet jetty being repaired after Hurricane Ivan.



Marine Patrol ensuring safety during Venice Inlet jetty repair operation.

and workshops designed to educate boaters and the general public about safe and environmentally responsible use and enjoyment of District waterways.

In addition to these projects, WCIND general funds were used to pay for work in some of these priority areas. In particular, progress in the priority area of Permitting was accomplished using WCIND general funds.

Finally, while not on the list of capital expenditures, significant progress was achieved in raising the profile of the District's needs among state and federal legislators. For example, over the last five years, the WCIND Executive Director visited members of the U.S. House of Representatives whose districts overlap the WCIND, and other members with strong interests in maritime transportation and navigation. Educating legislators on the importance of maintaining a safe and reliable marine transportation system had tangible and immediate benefits: they resulted in an additional \$3 million of federal funding to help fulfill the legislated mandate to maintain safe and navigable waterways.



Venice Inlet jetty following repair.

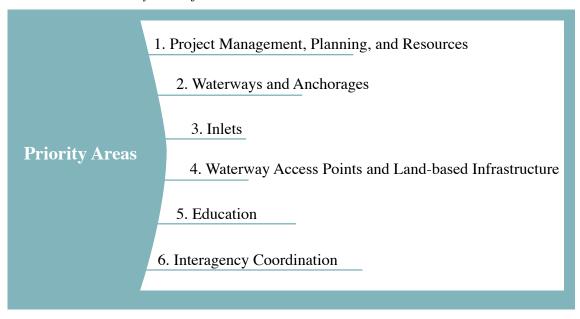
PRIORITY AREAS

Projects for 2008–2013

review of the 2002-2007 strategic plan and the accomplishments that resulted during that period, and an analysis of the District's future needs, led to the designation of six priority areas for the 2008-2013 strategic plan (Table 3).

The 2008-2013 priority areas reflect some changes from those in the previous plan. One change is the removal of a separate priority area for environmental sustainability, since it was recognized that all WCIND work is based on the fundamental principle of environmental sustainability. The 2008-2013 plan imbues all priority areas with responsibility for and responsiveness to long-term ecological considerations. The detailed goals and action items identified for each of the six priority areas are described below.

Table 3. Priority areas for 2008–2013.



1. Project Management, Planning, and Resources

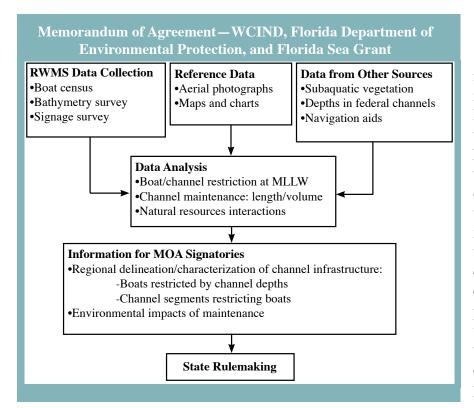


Figure 1. Regional Waterway Management System (RWMS) process flow.

he WCIND regularly manages projects related to the maintenance and management of District waterways. As such, the WCIND has accumulated knowledge and experience over the years about the idiosyncrasies of coastal permitting and how best to manage complex projects while minimizing costs. As a result, the WCIND often can work with contractors more effectively and efficiently to complete the permitting process and projects with less administrative cost than can project management consultants. During the next five years, WCIND staff, working with state and federal agencies, will continue to monitor and improve

the permitting process and ensure its success. Furthermore, WCIND employees will continue to improve their ability to manage coastal infrastructure projects and reduce costs.

Sound project management relies on a logical and consistent planning framework that anticipates the needs of District members. The Regional Waterway Management System (RWMS) is an important component of such a framework. When the RWMS is completed for Charlotte County in 2009, the entire District will have an integrated waterway transportation planning and management system. The RWMS will be used to plan for infrastructure needs, implement dredged-material best management practices, assist counties with emergency management planning, and identify and rank future permitting needs. One important activity anticipated in this priority area will be to redraft and renew the Memorandum of Agreement (Figure 1) with RWMS partners—WCIND, the Florida Department of Environmental Protection, and Florida Sea Grant—and with input from other important parties, including the participating counties.

The WCIND relies on information to achieve its mission. For example, it is imperative that the WCIND be accurately informed about changing biophysical and socioeconomic conditions that influence District counties, such as population changes that affect resource use. Scientific information is itself a resource and a critical component of a knowledge-based decisionmaking process. Over the last five years, the WCIND promoted efforts such as the RWMS and Inlet Management Plan (IMP) modeling to increase scientific understanding it could use for planning and management. Over the next five years, the WCIND will continue to support these and other efforts that increase its knowledge about advances in dredging and waterway management methods and techniques. Finally, since economic conditions and the physical environment



Photo: Capt. John Stur Collecting data for the Regional Waterway Management System.

continually change, the WCIND recognizes the need to meet periodically with its partners to review and update its strategic plan.

Financial resources allow the WCIND to complete projects that benefit the District and thereby fulfill its mandate. Maximizing the efficient use of monetary assets is critical, particularly in times of fiscal uncertainty. During 2008-2013, the WCIND will more effectively monitor and evaluate the time and cost associated with its projects and activities, work to broaden the basis for cost-sharing projects, and search for new funding sources to pay for projects.

Goal 1

Evaluate and implement improved project management techniques.

• Continue to work with state and federal agencies to improve permitting processes.

Goal 2

Promote a planning framework that expands upon the Regional Waterway Management System (RWMS) and is consistent with an integrated waterway transportation system.

- Plan and prioritize waterway, anchorage, inlet, access, and land-based infrastructure needs.
- Implement dredged-material best management practices and planning.
- Assist counties with emergency management planning.
- Identify and rank future permitting needs.
- Implement new programs and activities that benefit from and contribute to Florida's Strategic Intermodal System (SIS).

Goal 3

Maintain currency in knowledge and information that is relevant to the WCIND mission.

- Research and gather information about current conditions (biophysical or socioeconomic) that are relevant to the District.
- Be informed about advances in methods and techniques related to dredging and waterway management.
- Continue Inlet Management Plan (IMP) modeling.
- Identify, monitor, and evaluate local, state, and federal processes that affect WCIND programs and activities.

Goal 4

Maximize WCIND financial capabilities to accomplish projects and activities.

- Continue to monitor and evaluate the time and cost associated with WCIND projects and activities.
- Continue to broaden the basis for cost-sharing of waterway maintenance and improvements.

Recreational boating and fishing make significant contributions to the southwest Florida economy, but depend upon healthy, high-quality environments and safe and adequate access to navigable waters. The WCIND is mandated to maintain, enhance, and, where necessary, modify waterway infrastructure by engaging in activities that include dredging, marking channels, and removing derelict vessels and submerged hazards (broken piling, rock, debris). The WCIND also helps to maintain ancillary structures linked to waterways, such as weirs, jetties, groins, bridges, channel markers, and signs.

The aforementioned RWMS provides a framework to increase waterway accessibility and navigability, while maintaining environmental quality. The RWMS strategy is to identify, on a regional basis, where dredging can improve navigable access and minimize negative impacts to submerged resources. Surgical dredging enhances navigation, safety, and resource protection by removing only the required amount of material necessary to allow safe passage for a portion of the local population of restricted boats. The WCIND also responds to emergency situations affecting waterway safety and navigation, as in the aftermath of Hurricane Charley, by reestablishing navigation markers and removing debris.

Goal 1

Maintain safe, navigable, and accessible waterways and anchorages.

- Perform waterway dredging efficiently.
- Implement general navigation improvements.
- Remove derelict vessels.
- Install and maintain channel markers and manatee zone signs.

Goal 2

Respond rapidly to emergency situations affecting waterway safety and navigation.



Crosley Channel navigation markers.

3. Inlets



Big Sarasota Pass (foreground) and New Pass, both in Sarasota County.

idal inlets are dynamic coastal features that experience major changes in size and configuration due to sediment transport during ebb and flood tidal currents or storm events. Tidal currents also help to form and/or alter channels and spits that, in turn, can cause navigable inlets to close or move. The end results of these processes may include unexpected navigation hazards, blocked inlets, beach erosion, and/or damage to beach structures. Studies show that inlets that are not maintained to established criteria are associated with adjacent eroded beaches

and decreased longevity. The WCIND will continue to sponsor projects that maintain safe navigation through District inlets and maximize the longevity of inlet navigation improvements. Typical WCIND projects include inlet dredging and jetty repair. Efforts also will be made to increase understanding about new inlet management methods that help to maximize their longevity.

Goal 1

Maintain safe navigation through District inlets.

- Manage inlets.
- Dredge inlets.
- Repair jetties.

Goal 2

Maximize the longevity of inlet navigation improvements.

• Continue research and education involving new inlet management methods.

4. Waterway Access Points and Land-based Infrastructure

ithin the RWMS planning framework, the WCIND continually works to maintain navigational access to public marinas, boat ramps, and docks. Also fundamental to a viable waterway transportation system are locations to provide boaters with safe access to waterways from the land. Furthermore, to maintain District waterways, the WCIND relies on a land-based infrastructure that includes spoil islands, upland properties, and pipeline easements. The upland properties serve as secure and safe locations to store and

maintain equipment. The public waterway access points within the District and the WCIND's land-based infrastructure together comprise a priority area within the strategic plan; they also are important elements of the RWMS (Priority Area 1). In addition to assuring the safety and security of its upland properties, the WCIND also is interested in enhancing their ecological value.



Riprap for coastal repair stored on land owned by the WCIND adjacent to the GICW.

Goal 1

Promote adequate and safe access to District waterways.

• Promote adequate and safe access from marinas, boat ramps, and docks.

Goal 2

Ensure the safety and security of WCIND properties and ancillary infrastructure.

- Control access.
- Secure equipment.
- Ensure safe working environments.

5. Education

ustaining the environment for future generations is an important component of the WCIND's mandate and its programmatic activities. Programs that the WCIND sponsors stress the ecological aspects of waterways; promote efforts to encourage safe boating, environmental understanding, and stewardship; and encourage voluntary compliance with existing regulations. The WCIND, for example, sponsors the development and



City of Venice boat ramp.

distribution of products that promote boating safety and navigation, identify sensitive marine habitats, and further the understanding of waterway development history and the safeguards needed to maintain a healthy environment and thriving coastal communities. The WCIND will continue its efforts in this priority area, but will do so by collaborating with partners and sharing resources to a greater degree than in the past.

Goal 1

Promote safe boating and navigation.

Goal 2

Promote environmental stewardship within the coastal and boating communities.

Goal 3

Promote community recognition that dredged material is a valuable reusable resource.

o achieve sustainable use of waterways will require a level of coordination among agencies that transcends political boundaries, bureaucratic hurdles, and narrow agency jurisdictions. The level of coordination between local, regional, and state entities that the RWMS framework establishes must be maintained and enhanced to ensure that waterway management efforts provide long-term security and protection of public investments and natural values. The WCIND is authorized to enter cooperative agreements with federal, state, and local partners. It is essential that the WCIND coordinate closely with federal, state, regional, and local partners to sustain the District's coastal ecosystems and essential navigation functions. Important elements of a coordinated regional management approach for sustainable waterways include: 1) anticipating the need for coordination; 2) identifying and establishing common goals among coordinating entities; and 3) negotiating appropriate protocols. Proper and timely coordination with partner organizations will strengthen the ability of the WCIND to facilitate waterway planning and management.

Coastal security is a priority goal of interagency cooperation for the WCIND. The security of inland waterways and ancillary infrastructure is of special significance to the State of Florida, given the geographic location, extent, and porous nature of our coastline. Coastal communities, ports, and inland waterways must be protected from both natural and human induced events. The WCIND will continue to collaborate with law enforcement and emergency providers to protect and safeguard District waterways.



City of Venice Marine Patrol boat escorting a WCIND dredge operation at Hatchett Creek.

To continue to accomplish its programs and activities, the WCIND will require legislative support at local, state, and federal levels. Without such support, the WCIND will not be able to fulfill its legislative mandate. To that end, WCIND will continue to coordinate with legislators at all levels to maintain that support.

The WCIND is authorized to assist federal, state, and local agencies, including the U.S. Coast Guard, U.S. Army Corps of Engineers, and local law enforcement, by providing recovery support in the event of a natural disaster or other emergency that is related to its mandate. Currently, the WCIND's main role following a disaster is to assure that District waterways are free of debris and that associated infrastructure allows for safe navigation. Additionally, the WCIND maintains land adjacent to waterways that can be utilized as staging areas for equipment deployment or debris removal.

Goal 1

Promote partnerships with governmental and non-governmental organizations to facilitate waterway planning and management.

Goal 2

Collaborate with law enforcement and emergency providers to protect and safeguard the coastline and inland waterways.

Goal 3

Coordinate with local, state, and federal legislators to maintain support for district programs and activities.

Goal 4

Assist coastal communities to prepare for and recover from natural disasters or other waterway emergencies.

LEGISLATIVE MANDATES

The following excerpts are taken from Chapter 98-526 Laws of Florida (1998) and Part 1 from Chapter 374, Florida Statutes (2000). These legislative mandates represent the basis for WCIND authority and program areas.

F.S. § 374.975(1) - The Legislature hereby recognizes [not authorizes] the continuing need for inland navigation districts to undertake programs necessary to accomplish the purposes of construction, maintenance and operation of Florida's inland waterways pursuant to s. 107 of the federal River and Harbor Act of 1960 (33 U.S.C. § 577).

F.S. § 374.975(2) - To undertake, as outlined in this act [s. 107 of the federal River and Harbor Act of 1960], additional programs designed to alleviate the problems associated with the district's waterways.

F.S. § 374.975(3) - Develop long-range plans for maintenance of the intracoastal waterway and for spoil disposal.

F.S. § 374.976(1)(a) - The district may act as local sponsor for any project designated as a section 107, "River and Harbor Act of 1960" project authorized and undertaken by the U.S. Army Corps of Engineers and, in this regard, may comply with any or all conditions imposed on local interests as part of such project.

F.S. § 374.976(1)(b) - The district may sponsor or furnish assistance and support to member counties and local governments within the district in planning and carrying out beach renourishment and inlet management projects. Such assistance and support, if financial in nature, shall be contributed only after a finding by the board that inlet management projects are a benefit to public navigation in the district and that the beaches to be nourished have been adversely impacted by navigation inlets, navigation structures. navigation dredging, or a navigation project. Such projects will be consistent with Department of Environmental Protection approved inlet management plans and the statewide management plan pursuant to s. 161.161. Inlet management projects that are determined to be consistent with Department of Environmental Protection approved inlet management plans are declared to be a benefit to public navigation.

F.S. § 374.976(1)(c) - The district is authorized to aid and cooperate with Federal Government, state, member counties, and local governments within the district in planning and carrying out public navigation, local and regional anchorage management, beach renourishment, public recreation, inlet management, environmental education, and boating safety projects, directly related to the waterway. The district is also authorized to enter in cooperative agreements with the United States Army Corps of Engineers, state, and member counties, and to covenant in any such cooperative agreement to pay part of the costs of acquisition, planning, development, construction, reconstruction, extension, improvement, operation, and maintenance of such projects.

F.S. § 374.976(1)(d) - The district is authorized to enter into cooperative agreements with navigation-related districts to pay part of the costs of acquisition of spoil disposal sites.

F.S. § 374.976(1)(e) - The district is authorized to enter into ecosystem management agreements with the Department of Environmental Protection pursuant to c. 403.075.

F.S. § 374.976(3) - All financing assistance and support furnished by the Florida Inland Navigation District and the West Coast Inland Navigation District to member counties and local governments within the districts shall require matching funds. Such matching funds shall be clearly identified and enumerated as to amount and source. Such financial assistance and support, except as provided pursuant to paragraph (1)(a) and except for a project approved in a county that is recovering from a state of emergency under chapter 252, shall not exceed the proportional share of ad valorem tax collections from each county.

F.S. § 374.977 - Each inland navigation district shall be responsible for posting and maintaining regulatory markers, as approved by the Department of Environmental Protection, for manatee protection speed zones. Such responsibility shall not be limited to the intracoastal waterway, but shall include all waters within each members county for which regulatory markers must be posted.

L.O.F. 98-526(5)(a) -The WCIND is authorized to obtain by donation, purchase, or condemnation and convey without costs to the United States the necessary rights -of-ways for a project together with suitable areas for the deposit of spoil material in connection with the work and its subsequent maintenance, all as contemplated and required by the Congress of the United States and those acting by its authority. Nothing herein contained shall be construed to prohibit said board from expending of money as its discretion may be deemed proper for any purpose authorized, contemplated or required to carry out any work authorized by any acts of Congress.

L.O.F. 98-526(5)(c) - The district may act as local sponsor for any beach nourishment project in the district approved and undertaken by the U.S. Army Corps of Engineers and/or Florida Department of Environmental Protection or its successor, provided the board of commissioners of the district shall first find that such project, is a benefit to public navigation in the district.

- L.O.F. 98-526(5)(d) The district may furnish assistance and support to member counties in planning and carrying out public navigation projects of a purely local or regional nature. Such assistance and support, if financial in nature, shall be granted only after a finding by the board that such a project contributes to public navigation in the area in which it is located.
- L.O.F. 98-526(5)(e) The district is authorized to participate with any local, state, or federal agencies in research, study, or test programs as to the impact, both physical and biological, of waterway construction, maintenance, and operation, including, but not limited to, erosion, accretion, and marine and shoreline vegetation.
- L.O.F. 98-526(5)(f) The district is authorized to assume sponsorship, or to act with other agencies, in environmental restoration and enhancement projects, seeking to protect, restore and enhance, water quality, aquatic habitat, and other marine oriented conservation and environmental values in the navigable waters in the district. Such activities may include studies and work to restore damage to the aquatic environment caused by construction or maintenance of navigation channels, or similar works.
- L.O.F. 98-526(5)(g) The district is authorized to create advisory bodies to assist local governments in the development of county and multi-county anchorage management programs.
- L.O.F. 98-526(5)(h) The district is authorized to enter into interlocal agreements with adjoining coastal counties to implement the purposes and projects authorized in this Act, chapter 374, Florida Statutes, and applicable general law within the boundaries of the cooperating county or counties. The agreement shall also make provision for the continued construction or maintenance of district projects with in a cooperating county or counties in the event an agreement is terminated.
- L.O.F. 98-526(5)(g) The district is authorized to create advisory bodies to assist local governments in the development of county and multi-county anchorage management programs.
- L.O.F. 98-526(8)(a)-(f) The district shall obtain by gift, donation, purchase, or condemnation and shall furnish to the United States: [summarized below]
- (a) required right-of-ways said board shall determine necessary pursuant to requirements for constructing and maintaining the waterway...
- (b) required areas for the deposit of spoil material in connection with the work of improving, constructing, and maintaining the waterway...
- (c) any property, property rights, easement, and interest in property, outside of right-of-ways and designated spoil areas that may be necessary for the construction, maintenance, and operation of a canal to be constructed within a right-of-way...

- (d) such lands, easements, rights-of-way, and spoil disposal areas as may be required to effectuate the purpose and intent of all acts of the United States Congress...with a view to providing a project depth of 12 feet...and in connection with the subsequent maintenance of [the] waterway...
- (e) is authorized to contract for the purchase of any property acquired by [the District] and to pay the purchase price in installments or deferred payments...said contract may provide for the payment of interest as provide by general law.
- (f) funds used for the purchase of right-of-way, spoil areas, and other property shall be obtained by said board either from a tax levy, or levies...or borrowed upon its obligations...
- L.O.F. 98-526(9) The District is authorized to exercise the right of eminent domain, and may condemn for the use of said district or other proper public agencies all lands, easements, rights-of-way, areas for deposit for spoil material, and property rights of every description required for the public purpose and powers of said district herein granted. The District is authorized to secure possession of lands, easements, rights-of-way, areas for spoil deposit material and other property rights...
- L.O.F. 98-526(14)(a) The district is authorized to assume and relieve the United States from the cost and expense of construction, reconstruction, maintaining, and operating any bridge. [The WCIND] board is authorized to contract with the board of commissioners of any county in the district to the end that said county board of county commissioners shall assume responsibility for the construction, reconstruction, maintenance, and operation of bridge[s]...
- L.O.F. 98-526 (14)(c) The district is authorized to exercise the power of eminent domain in securing any lands and rights-of-way necessary for any bridge or bridge approach roads...
- L.O.F. 98-526(16)(a) The district is authorized to collect, compile, and to furnish to the Secretary of Army, the Secretary's officers or agents, appropriate information on the counties within the district's boundaries bearing on the advantages, benefits, and increased usefulness that may be expected to accrue to the public and to the counties traversed by said waterway by reason of any improvement or extension thereof, that has previously been or may subsequently be authorized by said United States Congress.
- L.O.F. 98-526(16)(b) The district is authorized to expend its funds for publicizing to other governmental agencies the completion by the United States of all or any portion of the intracoastal waterway and related waterways and its availability and utility to watercraft, and to distribute information as to route, channel, depth, and facilities of said waterway and such other information and data as may, in the opinion of the board, be desirable or useful to give then public full information regarding the waterway and to promote its use in navigation.

L.O.F. 98-526(5)(18) - The district is authorized to prosecute in behalf of itself or others any administrative procedures necessary to be followed to carry out any activities authorized or contemplated by this act and to pay the reasonable expenses thereof, including, but not limited to, any bulkhead line and dredge and fill procedures required by law to be completed. The district may contract with other agencies or public or private persons to perform any such activities on its behalf.

L.O.F. 98-526 (17) - The district is authorized to pay all or part of the cost of dredging performed on the waterway by the United States, to construct dikes, bulkheads, and levees, to construct ditches and pipelines for the control of water discharged by dredges, to reconstruct, modify, or relocate, bridges, docks, wharfs, and other structures, including water and sewer lines and appurtenances, electric and telephone lines and appurtenances, gas transmission and distribution lines and appurtenances, or to pay for same, and to do all other work necessary to produce economies in meeting the conditions imposed by the local interests...

L.O.F. 98-526(21) - The district is authorized to enter in to agreements with the Department of Transportation, the board of county commissioners of any county in the district, or both, or any other person, corporation, or agency, federal, state or local, public, private in connection with financing, alteration, and construction of any bridge approach or roadway or other structure and said parties are hereby specifically authorized to enter into such agreements with each other respecting responsibility for acquisition of right-of-way, for construction and maintenance of any bridge structure and approach required to be provided or modified because of the construction of the intracoastal waterway.

BIBLIOGRAPHY

- 1. Antonini, G. A. and P. Box. 1996. *A regional waterway systems management strategy for southwest Florida*. TP–83. Gainesville, FL: Florida Sea Grant College Program.
- 2. Antonini, G. A., D. A. Fann, and P. Roat. 1999. *A historical geography of Southwest Florida waterways, Vol. 1: Anna Maria Sound to Lemon Bay.* SGEB–47. Gainesville, FL: Florida Sea Grant College Program.
- 3. ----. 2002. A historical geography of Southwest Florida waterways, Vol. 2: Placida Harbor to Marco Island. SGEB–56. Gainesville, FL: Florida Sea Grant College Program.
- 4. Bureau of Economic and Business Research. 2007. *Florida estimates of population*. Gainesville, FL: Population Program, College of Business Administration, University of Florida.
- 5. Florida Fish and Wildlife Conservation Commission. 2008. 2007 Boating Accident Statistical Report. Boating and Waterways Section, Division of Law Enforcement. Retrieved on: 10-17-2008 from http://myfwc.com/SAFETY/Safety_Boat_Safety_AccidentStats.htm.
- 6. Murray, T. J. 2005. Florida's recreational marine industry: economic impact and growth 1980-2005. Gloucester Point, VA: Thomas J. Murray & Associates, Inc.
- 7. State of Florida, Department of State. 1990. Florida Administrative Code, Chapter 66A-1, West Coast Inland Navigation District, General and Procedural Rules. Retreived on: 10-17-2008 from https://www.flrules.org.
- 8. ----. 1990. Florida Administrative Code, Chapter 66A-2, West Coast Inland Navigation District, WCIND Waterway Development Program. Retreived on: 10-17-2008. from https://www.flrules.org.
- 9. ----. 1998. Florida Laws: Chapter 98-526. Inland waterway management.
- 10. State of Florida. 2000. The 2000 Florida Statutes. Chapter 374: Navigation Districts; Waterways Development. Retreived on: 10-17-2008 from from www.leg.state.fl.us.
- 11. Swett, R. A. and D. A. Fann. 2002. *A manual of methods and procedures for the regional waterway management system*. TP-124. Gainesville, FL: Florida Sea Grant College Program, University of Florida.
- 12. Swett, R. A., C. Listowski, D. Fry, S. Boutelle, and D. Fann. 2008. A regional waterway management system for balancing recreational boating and resource protection. *Environmental Management* 43(6): 962-971.











