Chapter 1A: Introduction to the *2008 South Florida Environmental Report – Volume I*

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This introductory chapter highlights the governmental, scientific, and legal context behind the *2008 South Florida Environmental Report* (SFER). The SFER – a sweeping consolidation of South Florida Water Management District (District or SFWMD) and Florida Department of Environmental Protection (FDEP) reporting – is essential to support sound, long-term environmental management decisions by the District, the FDEP, and other agencies. The 2008 SFER continues to efficiently unify more than 50 individual reports into a single document, pursuant to Chapter 2005-36, Laws of Florida, and Subsection 373.036(7), Florida Statutes. While continuing to provide efficient communication and production, the annual SFER focuses on reporting on the past year's major results and findings. This year's report also continues to provide current and projected financial information for those chapters that have specific fiscal reporting requirements. Overall, the information presented in the report aids in the implementation of Everglades restoration activities and supports restoration, management, and protection activities associated with Lake Okeechobee, the Kissimmee Basin, and South Florida's coastal ecosystems.

The *2008 South Florida Environment Report* includes the two-volume main report and the Executive Summary. In 13 chapters, *Volume I, The South Florida Environment*, provides data summaries for all major ecosystems in South Florida during Water Year 2007 (WY2007) (May 1, 2006–April 30, 2007) and highlights the District's financial resources management during Fiscal Year 2007 (FY2007) (October 1, 2006–September 30, 2007). Similar to previous SFERs, this year's volume continues the overall objective to summarize available data and findings associated with South Florida restoration activities. Volume I chapters are also supported and enhanced by appended documentation that provides data summaries and detailed analyses for the special-interest reader and complies with various permit requirements.

Volume II, District Annual Plans and Reports, summarizes the FY2007 planning and project status for eight annual reports required under various mandates. Required by all five water management districts in Florida, these reports include the Annual Work Plan Report, Minimum Flows and Levels Priority List and Schedule, Five-Year Capital Improvements Plan, Five-Year Water Resource Development Work Program, Alternative Water Supply Annual Report, Florida Forever Work Plan Annual Update, Land Stewardship Annual Report, and Mitigation Donation Annual Report.

[1] *Content of the 2008 South Florida Environmental Report – Volume I* section
[2] *Public Information, Media and Outreach Activities* section

The *2008 South Florida Environmental Report, Executive Summary*, is written for a diverse readership and provides an abstract of the main report's key facts and supporting information presented in both volumes. It has been developed to highlight key findings to stakeholders and decision makers, particularly regarding regional programs and projects across the District. Continuing with the SFER Executive Summary's theme of conveying the many distinctive areas throughout the South Florida environment, this year's cover will feature the Northern Everglades region (see **Figure 1A-1**).

The first part of this chapter (1A) highlights the Volume I content. An overview of geographical features of the entire South Florida environmental resource, along with related District's programs and comprehensive restoration efforts throughout South Florida is highlighted in this year's chapter. The Volume I objectives, including a summary of the numerous legal and reporting requirements and the processes used to create the 2008 report and to provide peer and public review are also presented. Lastly, a synopsis of the agency's many public education and outreach efforts are specially reported in this year's chapter. The second part of this chapter (1B) outlines a new interagency approach to develop a new water quality monitoring strategy across the South Florida region. An introductory chapter to the report's second volume is also provided in Volume II, Chapter 1.

An overview of the SFER peer-review process is presented in Appendix 1A-1. During this process, the public and panel review resulted in many written comments and suggestions to the report's authors. Comments from the peer-review panel on the final 2007 SFER and draft 2008 SFER, as posted on the SFER WebBoard, are provided in Appendices 1A-2 and 1A-3, respectively. Public comments posted to this WebBoard are provided in Appendix 1A-4. The authors' responses to comments in Appendices 1A-2 through 1A-4 are provided in Appendix 1A-5. Appendix 1A-6 contains the 2007 panel's final report, reproduced verbatim, and the authors' responses to these final panel comments and recommendations are presented in Appendix 1A-7. Advice from the SFER panel and from other reviewers provided guidance to the Volume I authors through revisions while preparing the final 2008 report.

Figure 1A-1. Sand flats and red mangrove (*Rhizophora mangle*) along the St. Lucie River and Estuary, the southeastern portion of the Northern Everglades (photo by the SFWMD).

THE SOUTH FLORIDA ENVIRONMENT

MAJOR GEOGRAPHIC FEATURES

South Florida is characterized by its unique, diverse ecosystems from the Kissimmee Region in the north to the Florida Keys in the south (see **Figure 1A-2**). The major features of the South Florida environment within the District's boundaries are depicted in **Figure 1A-3** and summarized on **Table 1A-1**. As part of the District's strategic initiatives to better manage and report on the many programs and projects throughout South Florida, the region has been newly categorized into two primary sub-regions – the Northern and Southern Everglades. As depicted on **Figure 1A-3**, the Northern and Southern Everglades are delineated across regional watershed boundaries, with the Northern Everglades covering the Kissimmee, Lake Okeechobee, Caloosahatchee, and St. Lucie watersheds, and the Southern Everglades encompassing the watersheds south of Lake Okeechobee to the Florida Keys. The main features in the Northern Everglades include Kissimmee area lakes and rivers, Lake Okeechobee and the Caloosahatchee and St. Lucie rivers and estuaries. Key features in the Southern Everglades include the Water Conservation Areas, Big Cypress National Preserve, Everglades National Park/Florida Bay, and coastal bays and estuaries south of Lake Okeechobee.

Figure 1A-2. Snapshots of the South Florida environment across the Kissimmee, Okeechobee, Everglades and coastal regions (photos by the SFWMD).

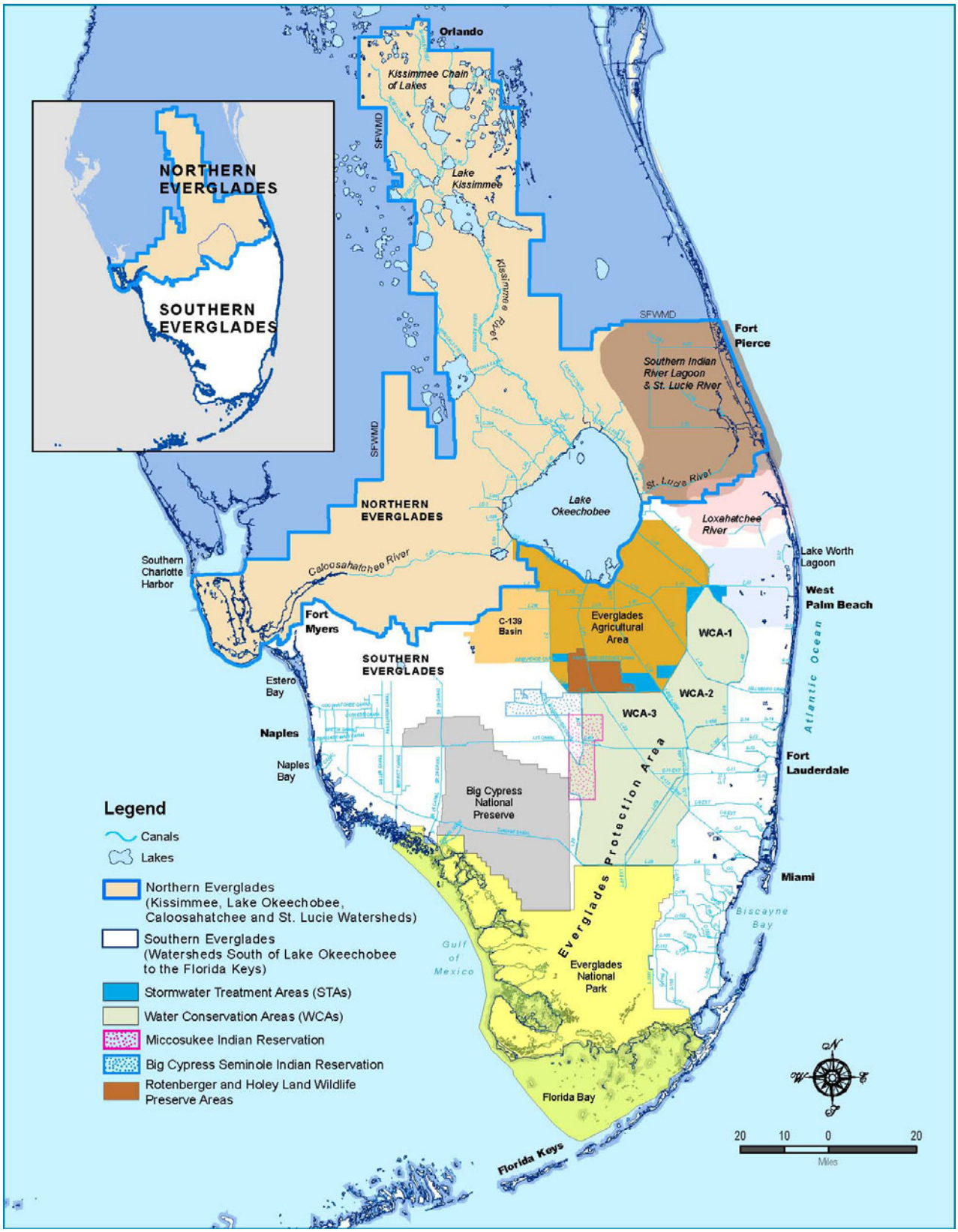

Figure 1A-3. Major features of the South Florida environment within the District's boundaries. [See also Figure 2-1 of this volume for major hydrological features in South Florida.]

Table 1A-1. Major features of the South Florida environment within District boundaries.

GEOGRAPHIC AREA	AREA SIZE (square kilometers)	AREA SIZE (square miles)	DESCRIPTION
Everglades Region			
Everglades Protection Area (EPA)	9,000	3,474	Comprised of Water Conservation Areas 1, 2A, 2B, 3A, and 3B; Arthur R. Marshall Loxahatchee National Wildlife Refuge (Refuge); and Everglades National Park
Water Conservation Area 1 (WCA-1)	566	218	Within the Refuge; managed by USFWS, SFWMD, and USACE; sawgrass wetland with many tree islands; receives water primarily from STA-1W, STA-1E, and EAA region
Water Conservation Area 2 (WCA-2)	537	207	Managed by District with USACE and FWC; smallest WCA divided into WCA-2A and 2B; sawgrass wetland with tree islands; receives water primarily from STA-2, STA-3/4, WCA-1, and EAA region
Water Conservation Area 3 (WCA-3)	2,339	903	Managed by District with USACE and FWC; largest WCA divided into WCA-3A and 3B; sawgrass marsh with tree islands, wet prairies and sloughs; receives water primarily from STA-5, STA-6, WCA-2, Big Cypress National Preserve, and EAA region
Everglades National Park (ENP)	5,569	2,150	Second largest national park and one of the nation's 10 most endangered parks; established in 1934 to preserve the unique Everglades ecology; managed by USFWS and NPS with USACE and SFWMD; freshwater sloughs, marl-forming marshes, and mangroves
Everglades Agricultural Area (EAA)	2,872	1,109	Highly productive agricultural land containing rich, organic peat or muck soils; 77 percent is in agricultural production; recognized as a major contributor to nutrient enrichment of the region; basin is the subject of a water quality monitoring program and a regulatory Best Management Practices program
Holey Land Wildlife Management Area	140	54	Managed by FWC; lies within the EAA boundaries; heavily used for deer and hog hunting; important for game management, water resource protection, and providing habitat corridors adjacent to the EPA
Rotenberger Wildlife Management Area	96	37	Managed by FWC; lies within the EAA boundaries; heavily used for deer and hog hunting; important for game management, water resource protection, and providing habitat corridors adjacent to the EPA
C-139 basin	686	265	Agriculture is the dominant land use; discharges into WCA-3A via structures; basin is the subject of a water quality monitoring program and a regulatory Best Management Practices program
Big Cypress National Preserve	2,280	880	Established in 1974 to protect natural and recreational values of the Big Cypress Watershed; land supports hunting, fishing, and oil and gas production; provides an ecological buffer zone and water supply for Everglades National Park

Table 1A-1. Continued.

GEOGRAPHIC AREA	AREA SIZE (square kilometers)	AREA SIZE (square miles)	DESCRIPTION
Lake Okeechobee	1,730	668	Large, shallow eutrophic lake and largest body of fresh water in the southeastern U.S.; managed by District with USACE and FWC; watershed covers about 3.5 million acres, or 10,400 square kilometers; provides water supply, flood protection, sport and commercial fishery, and wetland habitat; functions as the central part of a large interconnected aquatic ecosystem in South Florida and is the major surface water body of the Central and Southern Florida Flood Control Project
Kissimmee Basin	6,200	2,393	Managed by District with USACE and FWC; watershed forms the headwaters to the greater Kissimmee-Okeechobee-Everglades ecosystem and includes the drainage area of Lake Istokpoga, the Kissimmee River and the Upper Basin; the Upper Basin is an important regional water source and diverse natural resource that transitions between warm, temperate and subtropical areas; the Lower Basin includes the historic Kissimmee River and its tributary watersheds between Lake Kissimmee, Lake Okeechobee, and the C-38 flood control canal; Kissimmee Chain of Lakes consists of 28 prominent lakes that function hydrologically and ecologically as a regional-scale resource, resides within 14 sub-watersheds and is fed by more than 30 tributaries throughout the region
Upper Basin	4,200	1,621	
Lower Basin	2,000	772	
Coastal Ecosystems			
Southern Indian River Lagoon	860	332	Designated for special study, protection, and restoration as part of the regional National Estuary Programs; characterized by the greatest species diversity of any estuary in North America; supports fishing, clamming, ecotourism, agriculture and recreation
St. Lucie River and Estuary	24	9	Part of the Indian River Lagoon estuary system and drained by several creeks and canals that flow into the North or South Fork of the St. Lucie River before entering the lagoon near the St. Lucie Inlet; provides habitat for thousands of plant and animal species and supports commercial, recreational, and educational activities
Loxahatchee River and Estuary	1.5	4	First federally designated National Wild and Scenic River; watershed includes the communities of Hobe Sound, Tequesta, Jupiter, Jupiter Inlet Colony, Jupiter Farms, Juno Beach, and Palm Beach Garden; watershed contains large tracts of undisturbed land, protected parcels, and agricultural land; very diverse habitat includes coastal sand pine scrub, pinelands, xeric oak scrub, hardwood hammock, freshwater marsh, wet prairie, cypress swamps, mangrove swamps, seagrass beds, tidal flats, oyster beds and coastal dunes

Table 1A-1. Continued.

GEOGRAPHIC AREA	AREA SIZE (square kilometers)	AREA SIZE (square miles)	DESCRIPTION
Coastal Ecosystems (cont.)			
Lake Worth Lagoon	11	30	Watershed is highly urbanized; lagoon was historically a freshwater lake with occasional brackish conditions and converted to a marine environment since the early 1900s
Biscayne Bay	1,100	428	Subtropical estuary designated as an aquatic preserve and Outstanding Florida Water; bay is comprised of north, central, and south regions; contains a coral reef system, which is the world's third longest and the only one in the world located in close proximity to a large highly urbanized coastal area; reef is home to more than 200 marine species of fish and is important for fisheries
Florida Bay and Florida Keys	2,200	849	About 80 percent of the bay lies within Everglades National Park; a broad, shallow expanse of brackish-to-salty water that contains numerous small islands, extensive sandbars and grass flats; mangroves and seasgrasses provide valuable habitat for many species; keys watershed consists of a limestone island archipelago of about 800 islands extending southwest for over 320 kilometers, or 200 miles
Estero Bay	39	15	Long, narrow, and very shallow water body; several barrier islands separate the bay from the Gulf of Mexico; the bay has five rookery and roosting islands utilized by thousands of native birds
Caloosahatchee River and Estuary	82	32	Large estuary where the Gulf of Mexico mixes with freshwater inflows from the river, sloughs, and overland sheetflows in the basin; lower reaches of the estuary are characterized by a shallow bay, extensive seagrass beds, and sand flat; extensive mangrove forests dominate undeveloped shoreline areas
Southern Charlotte Harbor	336	130	Florida's second-largest open water estuary and one of the state's major environmental features; designated for special study, protection and restoration as part of the regional National Estuary Programs; area contains three national wildlife refuges and four aquatic preserves

SFWMD or District – South Florida Water Management District
USACE – U.S. Army Corps of Engineers
USFWS – U.S. Fish and Wildlife Service
FWC – Florida Fish and Wildlife Conservation Commission
STA – Stormwater Treatment Area
WCA – Water Conservation Area
EAA – Everglades Agricultural Area
EPA – Everglades Protection Area

SYSTEMWIDE CHALLENGES AND INITIATIVES

Over the past century, South Florida has dramatically changed due to widespread development and increased urbanization, resulting in huge modifications to the hydrology and chemistry of ecosystems throughout the region. Such changes are evident throughout the entire Kissimmee-Okeechobee-Everglades (KOE) and coastal ecosystems, which have been altered fundamentally by changes in spatial extent, hydrology, water quality, and ecology. The Everglades has been reduced to over half of its original extent, and its water supply has been significantly modified in both quantity and quality. Started in the 1950s, the natural Kissimmee River and its floodplain were channelized for flood control improvements, causing extensive losses of valued wetland habitats. Runoff from urban and agricultural lands near Lake Okeechobee pose an ongoing challenge to water management, making it difficult to balance issues related to water supply and prevent impacts to downstream ecosystems. Throughout South Florida, the quality of surface water inflows, particularly for the nutrient phosphorus, is a problem. Also, invasive exotic species are aggressively invading natural habitats and causing displacement of native plants and animals. The far-reaching impacts of these issues, along with multifaceted, comprehensive strategies for restoring the KOE and coastal ecosystems, are addressed throughout this volume. An overview of key District programs and initiatives addressing regional management and restoration efforts is presented in **Table 1A-2**.

While regional development with its associated water management system has altered the local movement and balance of water, it has not removed the interdependence of sub-regions and the overall north-south movement of water. As water moves from the Upper Basin and other parts of the Lake Okeechobee watershed at the northern edge of the KOE ecosystem through the Kissimmee River (Chapter 11) and other tributaries to the lake (**Figure 1A-3**), water comes to reflect surrounding land uses and changes quality before entering Lake Okeechobee (Chapter 10). Like all lakes, the chemistry of Lake Okeechobee reflects the lake's history, and tributary waters are altered greatly as they mix with ambient water in the lake, losing their identity in the process. Water levels in the lake reflect the balance between inflows, outflows, and evaporation (Chapter 2) and are controlled largely by man as a central water repository of the regional ecosystem. High water levels produce high outflows with significant impact on the Caloosahatchee and St. Lucie rivers downstream of the lake (see Chapter 12).

As depicted on Figure 2-1, from the liquid heart of the system, some water moves southward through the Everglades Agricultural Area (EAA) (Chapter 4) and through the Stormwater Treatment Areas (STAs) (Chapter 5). Outflows from the treatment areas and other tributary basins move into the Everglades Protection Area, which contains remnant Everglades marshes providing vital surface water to sustain the natural and human elements of the southern part of the regional ecosystem (Chapter 6). The interconnectedness of this massive system is most obvious during climatic extremes, particularly droughts and floods, when water management must actively control the water balance in various parts of the system. Regional-scale models used widely in the Comprehensive Everglades Restoration Plan (CERP) planning process (see Chapter 7A) are able to quantify the cascading influences of water management across the region and demonstrate the system-wide effects of CERP components.

During the reporting period for the *2008 South Florida Environmental Report*, two notable events affected the South Florida region.

First, a severe drought has affected the entire region since late 2006 and has continued throughout 2007. This drought has followed back-to-back years of unprecedented hurricane activity and higher-than-normal rainfall. A combination of voluntary and mandatory water use restrictions have been in place for most of the District's 16-county region since early 2007. Drought conditions have diminished toward the coasts as the wet season began in June. However, water supplies in the center of the region (Kissimmee Valley and Lake Okeechobee) continued to decline through early July. Widespread drought conditions have continued into late 2007, particularly in the Lake Okeechobee watershed, as evidenced by record-low water levels and dry water control structures in the vicinity of the lake (see **Figure 1A-4**). Water use restrictions are expected to continue in order to balance longer-term regional water availability and supply needs. Additional information regarding the 2006–2007 drought and its related impacts on the regional water management system is presented in Chapters 2 and 10 and throughout other chapters in this volume. Further details on the persistent drought conditions across South Florida are also available on the District's web site at www.sfwmd.gov.

Figure 1A-4. Drought conditions in 2006–2007 severely impacted the entire South Florida region, particularly the Lake Okeechobee watershed, as depicted at the dried out S-135 structure during summer 2007 (photo by the SFWMD).

Second, in June 2007 the state adopted new legislation under Chapter 2007-253, Laws of Florida, in June 2007 (http://election.dos.state.fl.us/laws/07laws/ch_2007-253.pdf). This newly enacted legislation strengthens regional efforts to restore the Everglades through increased focus and integration of regional projects in the Northern Everglades, which includes the Kissimmee Basin, Lake Okeechobee, and the Caloosahatchee and St. Lucie rivers and estuaries. The legislation recognizes the need to address water resource protection issues at a broader, more holistic level, particularly in the District's northern reaches. Ongoing efforts in the southern half of the system, the Comprehensive Everglades Restoration Plan and its fast-tracked Acceler8 initiative are continuing. However, to truly succeed with Everglades restoration, the issues of water quality, quantity, timing, and distribution must be addressed in the northern, upstream areas to improve the health of downstream lakes, rivers, and estuaries. Nothing shows this linkage more clearly than the recent increases in phosphorus levels in Lake Okeechobee and their cascading influence downstream on the performance of the Best Management Practice program in the EAA and the STAs (see Chapters 4 and 5 of this volume, respectively).

The legislation expands the Lake Okeechobee Protection Act, with the addition of the Caloosahatchee (see **Figure 1A-5**) and St. Lucie River Watershed programs and the Caloosahatchee River Watershed Pollutant Control Program, and increases the state's financial commitment to environmental improvement. While these additional mandates and initiatives present significant opportunities and challenges, this innovative approach is intended to translate into a more system-wide perspective on restoration and management efforts across the South Florida region. A prime example of the need for system-wide thinking is water storage in the Northern Everglades for which a series of water retention and water storage approaches are being studied to address the unnatural depth and discharge patterns so pervasive in the lake and its downstream members, particularly coastal ecosystems. Further details on the Northern Everglades initiative are presented in Chapters 7A and 10 of this volume. Annual progress reporting on the Northern Everglades initiative will be folded into the District's consolidated reporting in future South Florida Environmental Reports.

Figure 1A-5. The Caloosahatchee River and Estuary is a prominent feature of the Northern Everglades region, extending from the western end of Lake Okeechobee to the head of the estuary at the Franklin Lock and Dam (photo by the SFWMD).

Table 1A-2. Key District programs addressing management and restoration efforts in South Florida.

Regional Programs	Key Components
Everglades Program *Main 2008 SFER Coverage:* ***Volume I - Chapters 1 –9*** *Key Objective:* To restore and protect the Everglades system as a result of adverse changes in water quality and the quantity, distribution and timing of flows	Southern Everglades Everglades Construction Project Stormwater Treatment Areas Phosphorus Source Control Programs Long-Term Plan for Achieving Everglades Water Quality Goals Comprehensive Everglades Restoration Plan (CERP)
Lake Okeechobee Protection Program *Main 2008 SFER Coverage:* ***Volume I - Chapters 9 & 10*** *Key Objective:* To rehabilitate the lake and enhance its ecosystem while maintaining other project purposes, such as water supply and flood control	Northern Everglades Comprehensive Everglades Restoration Plan Lake Okeechobee and Estuary Recovery Plan Lake Okeechobee Protection Plan Lake Okeechobee Construction Project Lake Okeechobee Watershed Phosphorus Control Program Lake Okeechobee Research & Water Quality Monitoring Program Lake Okeechobee Exotic Species Control Program Lake Okeechobee Internal Phosphorus Management Program

Table 1A-2. Continued.

Regional Programs	Key Components
Kissimmee River Restoration Program *Main 2008 SFER Coverage*: ***Volume I - Chapters 9 & 11*** *Key Objective:* To restore over 40 square miles of river/floodplain ecosystem including 43 miles of meandering river channel and 27,000 acres of wetlands	Northern Everglades Kissimmee River Restoration Project Kissimmee River Restoration Evaluation Program Kissimmee River Headwaters Revitalization Project Kissimmee Chain of Lakes - Long-Term Management Plan
Coastal Watersheds Program *2008 SFER Coverage*: ***Volume I - Chapters 9 & 12*** *Key Objective:* To manage freshwater discharge to South Florida's estuaries in a way that preserves, protects, and where possible, restores essential estuarine resources	Various projects and plans for the following areas: Northern Everglades - Southern Indian River Lagoon and St. Lucie River and Estuary - Caloosahatchee River and Estuary - Southern Charlotte Harbor Southern Everglades - Loxahatchee River and Estuary - Lake Worth Lagoon - Estero Bay - Naples Bay - Biscayne Bay - Florida Bay and Florida Keys

CONTENT OF THE *2008 SOUTH FLORIDA ENVIRONMENTAL REPORT – VOLUME I*

REPORT OBJECTIVES AND CONTENT

The primary objective of the *2008 South Florida Environmental Report – Volume I* is to summarize annual data and findings relating to the District's programs across the South Florida region – the Kissimmee Basin, Lake Okeechobee, the Everglades and coastal ecosystems. In addition to building on and updating information from earlier consolidated reports, this year's report also satisfies many reporting requirements of multiple federal and state permits. While continuing to provide efficient communication, this annual report focuses on the past year's major results and findings, and more routine and background information from earlier consolidated reports is cross-referenced, as appropriate.

The topics of this 13-chapter volume are primarily the same as those in the 2007 SFER, with the addition of a new chapter documenting the development of a newly proposed water quality monitoring strategy for the South Florida region (Chapter 1B). The hydrology of South Florida, the subject of Chapter 2, follows the introduction and provides supporting hydrologic information for subsequent chapters. Water quality status and trends for standard Class III parameters in the Everglades Protection Area (EPA) are presented in Chapters 3A–C. Chapter 3B specifically covers water quality issues of special concern apart from phosphorus, currently mercury and sulfur, including an update on research and monitoring in support of risk assessment for mercury in South Florida, the role of sulfur with regard to the mercury risk, and other risks of sulfur contamination. An update on the activities under the phosphorus source control programs implementing Best Management Practices (BMPs) and the monitoring results are provided in Chapter 4. Chapter 5 highlights the status of STA compliance, performance, and optimization research. The status of ecological research in South Florida is provided in Chapter 6. Chapter 7 consists of a two-part update on Comprehensive Everglades Restoration Plan (CERP) and Restoration Coordination and Verification (RECOVER) activities. Drawing from newly enacted legislation, Chapter 7A has been reorganized in this year's SFER to embrace a more holistic approach to ecosystem restoration through advancement of the Northern and Southern Everglades initiatives. This chapter describes the federal-state partnership to implement CERP and the state initiative to fast-track some initially authorized CERP projects under Acceler8, along with an overview of how these efforts dovetail with other state initiatives across the Northern and Southern Everglades. Chapter 7A also contains appendices with CERP financial information and the progress of CERP implementation in FY2007. Chapter 7B summarizes the ongoing RECOVER activities associated with CERP implementation, including a summary of the first System Status Report. Chapter 8 updates the strategy for achieving long-term water quality goals in the EPA. Chapter 9 summarizes the current status of plant and animal invasive exotic species in the South Florida environment.

Similar to previous SFERs, Chapters 10 through 12 provide coverage of Lake Okeechobee, the Kissimmee Basin, and South Florida's coastal ecosystems, respectively. Chapter 10 updates the status of water quality and habitat conditions in the lake and its watershed and lake-related project implementation activities. Chapter 11 summarizes the accomplishments of the Kissimmee River restoration and Upper Basin initiatives, including the design and implementation of the restoration program. Chapter 12 provides an update on the status of the Districts estuaries, including reports on freshwater inflows, salinity, water quality, and biological resources. Chapter 12 also highlights the status and trends of Florida Bay, with detailed results from monitoring,

research, and modeling projects. Science needs to better protect and restore the District's coastal resources are also considered in this chapter, and science plans to better define and meet these needs are presented (see Appendices 6-1 and 12-1). Detailed financial information on Everglades restoration during FY2007 is included in Chapter 13.

LEGAL AND REPORTING REQUIREMENTS

The entire *2008 South Florida Environmental Report* is the product of a consolidation process authorized by the Florida legislature in Chapter 2005-36, Laws of Florida, in May 2005 (http://election.dos.state.fl.us/laws/05laws/ch_2005-036.pdf). This legislation directs the South Florida Water Management District to consolidate statutorily mandated plans and reports to the Florida legislature and governor, per Subsection 373.036(7), Florida Statutes. Other plans and reporting requirements, such as those required in permits, are also addressed in order to improve coordination, efficiency, and effectiveness as part of this consolidation effort. The annual March 1 deadline has been implemented in lieu of statutory deadlines for the submission of certain District plans and reports, including the Everglades Consolidated Report, the Lake Okeechobee Protection Program Annual Progress Report, and the Comprehensive Everglades Restoration Plan Annual Report.

The District's restoration efforts being implemented under regional programs entail numerous reporting mandates covered in the 2008 SFER – Volume I:

- An Everglades Forever Act Annual Report, required by Section 373.4592, F.S., and Subsection 373.4592(13), F.S., submitted to the FDEP, the Florida governor's office, and the leaders of the Florida legislature. This report must summarize water conditions in the EPA and the status of the impacted areas, STA construction, BMP implementation, and actions taken to monitor and control exotic species.
- An annual peer-reviewed report, required by Subparagraph 373.4592(4)(d)5, F.S., also submitted to the FDEP, the Florida governor, and legislative leaders regarding the research and monitoring program that summarizes all data and findings as an update on most topics included in the 1999 Everglades Interim Report, required by Subparagraph 373.4592(4)(d)5, F.S.
- An annual financial report, required by Sections 373.4592 and 373.45926, F.S., accounting for all monies used to fund the 1994 Everglades Construction Project and the 2003 Long-Term Plan for Achieving Water Quality Goals for EPA Tributary Basins and providing a comparison annually of actual versus projected revenues and a projection of costs and revenues over the successive five-year period.
- A Non-Everglades Construction Project permit annual report, required by Paragraphs 373.4592(9)(k) and (l), F.S., and by FDEP Permit No. 06, 502590709, to be submitted to the FDEP and to address water quality at structures associated with the EPA that are not included in the Everglades Construction Project. This report also addresses schedules and strategies to improve that water quality.

- A Section 404 Clean Water Act permit report, required by Permit No. 199404532, submitted to the U.S. Army Corps of Engineers (USACE) and addressing the District's strategy for achieving water quality standards and updating the USACE on the activities authorized or otherwise regulated by the permit.
- A series of reports on the STAs required under permits issued under the Clean Water Act and the Everglades Forever Act. These permits require information on the quality of water discharged from the treatment systems and on the progress of the treatment systems at improving water quality.
- A Comprehensive Everglades Restoration Plan Annual Report, required by Section 373.036(7), F.S., and submitted to the FDEP, the Florida governor's office, and the leaders of the Florida legislature. This report provides enhanced oversight and accountability for the financial commitments established under the Everglades restoration section and the progress made in the implementation of CERP, Section 373.470(7), F.S., as amended in 2005.
- A Lake Okeechobee Protection Program Annual Progress Report, required by Subsection 373.4595(6), F.S., and submitted to the Florida governor's office, and the leaders of the Florida legislature. This report must include a summary of conditions of hydrology, water quality, and aquatic habitat in the Northern Everglades based on the results of the Research and Water Quality Monitoring Programs, the status of the Lake Okeechobee Watershed Construction Project, the status of the Caloosahatchee River Watershed Construction Project, and the status of the St. Lucie River Watershed Construction Project. In addition, the report contains an annual accounting of the expenditure of funds from the Save Our Everglades Trust Fund. At a minimum, the annual report provides detail by program and plan, including specific information concerning the amount and use of funds from federal, state, or local government sources. In detailing the use of these funds, the district shall indicate those designated to meet requirements for matching funds. The report is prepared in cooperation with the other coordinating agencies and affected local governments.
- A Lake Okeechobee Water Control Structure Operations Permit report, required by Permit 0174552-001-GL and issued pursuant to Subsection 373.4595(9), F.S., of the Lake Okeechobee Protection Act and the FDEP's authority under Chapters 373 and 403, F.S. This permit regulates operation and maintenance of and requires water quality information on 34 water control structures that are owned or operated by the SFWMD and that discharge into or from Lake Okeechobee.

STRATEGIC PLAN REPORTING

To maximize the agency's efficiency and effectiveness, the South Florida Water Management District is committed to a four-part annual business cycle (**Figure 1A-6)**. As the first step of this cycle, the District's 10-year Strategic Plan is updated each fiscal year and outlines the agency's mission, priorities, and success indicators to continually assess progress in each of the 11 programs (see http://www.sfwmd.gov/, under *About SFWMD, Budget & Strategic Plan* section).

As presented in Volume II, Chapter 2, the Annual Work Plan Report (also known as the 4th Quarter Report) is central to the "reporting and evaluation" step of the District's business cycle. In the 2008 SFER, the Annual Work Plan Report serves to evaluate agency compliance with the other elements of the cycle for FY2007, including the District's Strategic Plan, Annual Work Plan, and Budget. Additionally, the complete 2008 SFER – a key success indicator for the District's Modeling & Scientific Support ("S") Program – provides detailed reporting on many of the agency's strategic objectives, success indicators, and deliverables and milestones across programs. Based on the four areas of the District's responsibility, an overview of the connections between the agency's programs and the 2008 SFER is presented in **Table 1A-3**.

Figure 1A-6. The District's annual business cycle.

Table 1A-3. Summary of the District's 11 programs across strategic areas of responsibility and associated chapter coverage in the *2008 South Florida Environmental Report* (SFER).

	COASTAL WATERSHEDS	COMPREHENSIVE EVERGLADES RESTORATION PLAN	DISTRICT EVERGLADES	KISSIMMEE WATERSHED	LAKE OKEECHOBEE
Chapter Coverage in the 2008 SFER, VOLUME I	Ch. 1A, 1B, 2, 7A, 7B, 9, 12, 13	Ch. 1A, 6, 7A, 7B, 9, 13	Ch. 1-9; 13	Ch 1A, 2, 7A, 9, 11	Ch. 1A, 2, 7A, 7B, 9, 10, 13
Chapter Coverage in the 2008 SFER, VOLUME II	Ch. 1, 3, 5A, 5B, 6A, 6B	Ch. 1, 2, 4, 6A	Ch. 1, 2, 4, 6A	Ch. 1, 2, 4, 5A, 5B, 6A, 6B	Ch. 1, 2, 4, 5A, 6A
WATER QUALITY	Improve water quality in various water bodies through the development of water quality targets	Protect and improve the quality of water delivered to the greater Everglades system through CERP implementation	Improve water quality delivered to the Everglades through construction and operation of STAs and implementing the Long-Term Plan	Improve downstream water quality through the Kissimmee Upper Bain Restoration Initiative	Improve quality of water entering Lake Okeechobee through development and implementation of regional projects
FLOOD CONTROL	Increase flood protection capability through stormwater projects and partnerships with FEMA	Maintain levels of flood protection	Operate STAs as part of the District's flood control infrastructure	Maintain flood protection capacity through flood mitigation construction	Ensure flood protection levels are maintained in evaluating Lake Okeechobee regulation schedule modifications
NATURAL SYSTEMS	Improve environmental systems through developing and implementing restoration plans	Restore the greater Everglades natural function, including Lake Okeechobee and estuarine systems, through CERP restoration projects	Restore the ecology of the Everglades	Improve Kissimmee River natural function through restoration of Kissimmee Watershed	Improve ecosystem health through water quality improvements, restoration of isolated wetlands, hydrology management, and by controlling exotic species
WATER SUPPLY	Protect water supply sources through developing technical criteria from MFLs and initial water reservations	Increase the available quantity of water and enable resortation of the timing and distribution of water to the greater Everglades ecosystem	Restore more natural flows and levels within the Everglades	Protect water supply sources through developing technical criteria for MFLs and initial water reservations	Maintain current water supplies to southern Florida by making water deliveries to the C&SF Project from Lake Okeechobee

Table 1A-3. Continued.

	LAND STEWARDSHIP	MODELING & SCIENTIFIC SUPPORT	OPERATIONS & MAINTENANCE	REGULATION	WATER SUPPLY	MISSION SUPPORT
Chapter Coverage in the 2008 SFER, VOLUME I	Ch. 7A, 11	All	Ch. 5, 6, 7A, 9, 10, 11, 12	Ch. 4, 5, 7A, 10	Ch. 2, 5, 7A, 10, 11, 12	All
Chapter Coverage in the 2008 SFER, VOLUME II	Ch. 1, 2, 4, 6A, 6B, 7	All	Ch. 1, 4, 6B, 7	Ch. 1, 3, 5A, 5B, 7	Ch. 1, 3, 5A, 5B	All
WATER QUALITY	Provide a land base to improve water quality	Collect and analyze data to document changes in water quality, and make information available through electronic and published reports	Ancillary benefits, but not a central focus of this program	Protect water quality through Environmental Resource Permitting and Water Use Permitting processes	Protect water resources through the development and implementation of water supply plans	Supports all other programs by providing business, human resource, technical, policy, outreach and safety services
FLOOD CONTROL	Provide a land base to restore natural hydrologic conditions	Develop effective flood management strategies by providing computer simulations of flooding events	Provide regional flood protection through appropriate management of the C&SF Project	Provide flood protection level of service through the Environmental Resource Permitting process	Ancillary benefits, but not a central focus of this program	
NATURAL SYSTEMS	Increase functionality of natural systems through habitat restoration, exotic species control, prescribed burning, multiple use practices, and making recreational lands available	Document water quality changes as a means to assess performance of ecosystem restoration efforts, and make information available through electronic and published reports	Protect and enhance natural systems through water deliveries via the C&SF Project and by controlling exotic species	Protect and enhance natural systems through the Environmental Resource Permitting and Water Use Permitting processes	Protect and enhance natural systems by restoring more natural flows and through establishment of MFLs and initial water reservations	
WATER SUPPLY	Ancillary benefits, but not a central focus of this program	Develop water supply strategies by simulating water supply needs and sources through computer modeling	Enhance water supplies to southern Florida by making appropriate water deliveries via the C&SF Project	Provide available water supplies for reasonable-beneficial uses and protect water supply sources through the Water Use Permitting process	Ensure adequate water supplies through the development and implementation of water supply plans	

SPECIAL REPORT: PUBLIC INFORMATION, MEDIA, AND OUTREACH ACTIVITIES

Over the past decade, environmental restoration at the South Florida Water Management District has significantly impacted the role of public information at the agency. Once focused largely on the District's long-standing missions of flood control and water supply, the District's communication efforts have expanded to include educating and responding to a public that seeks information, answers, and accountability on dozens of multimillion-dollar restoration projects. Additionally, specialized efforts address the varied interests of stakeholders, print and broadcast media, legislators and local governments, federal, and state partner agencies, environmental groups and others—all of whom have intense interest in the progress, funding, and success of environmental restoration in South Florida.

This year, the long-standing Department of Public Information was absorbed into the Office of Government and Public Affairs, comprised of a media relations office, nine regional service centers responsible for community outreach, a creative services group, and business support staff. The Office of Government and Public Affairs manages communication for the entire 1,800-person agency, including 20+ departments, an executive office, and Governing Board. The office also engages in communication activities for multi-agency programs with local, state, and federal partners.

To manage an expansive outreach and public involvement program, the District's annual Strategic Plan identifies those projects and programs that receive priority communication effort throughout the year. Additional priorities are shaped by the Executive Office of the Governor, state agencies, extreme weather conditions (e.g., hurricanes, drought), and public interest. The communication tools used, with examples from issues covered during WY2007, are highlighted in this special report.

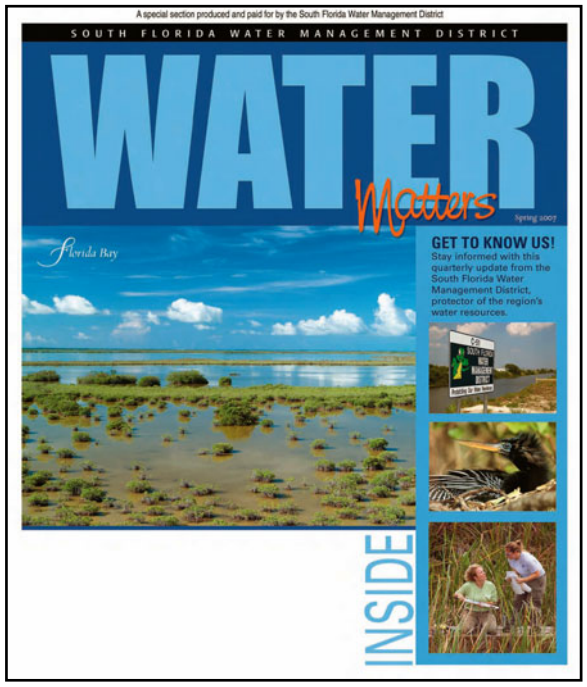

Figure 1A-7. A special edition of the WaterMatters publication, spring 2007.

PUBLICATIONS

The most widely distributed print publication is the District's quarterly *Water Matters* newspaper insert. Its 1.5 million copies appear in 22 newspapers (including Spanish-language editions), reaching approximately three million readers. Quarterly themes focus on restoration progress, weather extremes, recreation on public lands, and water conservation. Each issue also captures in-the-news water resource issues, such as water shortage, and provides local contact information to the service centers and government partners. In 2007, the spring edition mirrored the theme of the *2007 South Florida Environmental Report*, highlighting Florida Bay and other environmental restoration efforts in South Florida (see **Figure 1A-7**). It also widely announced the 2007 SFER's publication, including the web site where the report is found.

A coordinated brochure series provides a structured framework for communicating key District initiatives. The three-tiered publication series provides (1) overview coverage, called "Reflections," (see **Figure 1A-8**) (2) in-depth information, "Below the Surface," and (3) focused details, or "Splash" sheets. Topics range from Kissimmee River Restoration, Stormwater Treatment Areas and Local Government Partnerships to Water Reuse, Xeriscaping, and Land Acquisition for Everglades Restoration.

Additional print publications include a 60-page Recreational Guide for public access to District lands, annual Strategic Plan of District programs and priorities, infrastructure maps, water conservation materials, and specially designed packets on major District programs, such as *Acceler8*. Each of these documents, and many more, are also available for download and printout from the District's web site at www.sfwmd.gov, under the *Recreation, Info & Education* section.

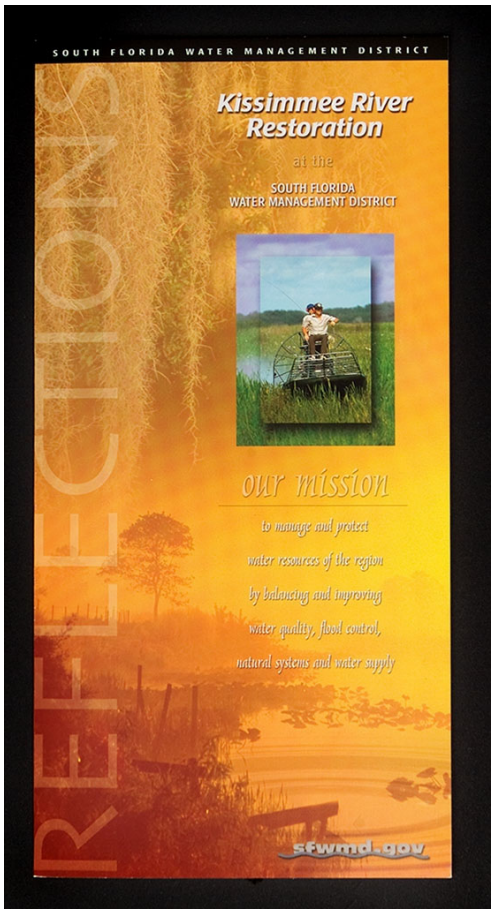

Figure 1A-8. Reflections, one of the District's many publications.

MEDIA

The media relations office handles local, state, national, and international media coverage of District activities throughout the year. In the 12-month period coinciding with Water Year 2007, the office issued 189 press releases and media advisories, coordinated 12 press events, responded to 1,729 media contacts, and documented 4,698 media hits. The media relations office also provided extensive outreach and support this year to the five million Floridians impacted by the 2007 drought. Specific to the drought and subsequent water shortage, the office coordinated more than 700 news interviews and created 62 broadcast and print media campaigns. As an example, **Figure 1A-9** depicts one of the many press conferences that were held in 2007.

District activities sometimes involve unusual and interesting work, drawing media attention and providing excellent opportunities to highlight environmental restoration efforts. This year, a dive team working in alligator-infested waters at a Stormwater Treatment Area drew five press representatives to a remote site and featured an alligator capture to clear the work area. Fifteen national and three local media hits resulted, including coverage by the *NBC Today Show* and *NBC Nightly News*.

Additional media work includes newspaper editorial board visits, local event support with state and federal government agencies, opinion writing to address water resource issues, and computerized analysis of media results.

Figure 1A-9. A press conference at Lake Okeechobee in May 2007 (photo by the SFWMD).

RESOURCES ON THE WEB

The District's web site (www.sfwmd.gov), comprised of more than 100,000 pages and recently upgraded to portal technology, serves a wide variety of users. The general public can learn basic information about the District and its missions in flood control, managing water supply, improving water quality and restoring the environment. Users can see news-of-day items, find their regional service center and click from the home page into popular topics such as weather or recreation. The District's monthly electronic newsletter, the Greater Everglades Ecosystem eNewsletter, is also available on the web site, with the option to signup for a free subscription via email.

Technical users of the District's web site—and there are many—can interface with the site to process permits, obtain regulatory information, obtain updates on operations, learn weather and water level current conditions, submit bids to procurement, apply for employment, read technical reports, check progress of environmental restoration projects, view District videos and photographs, order educational materials, download brochures, etc. The *News Room* page provides 24-hour media contacts, current and archived news releases, videos, and other media resources.

This past year, the web page www.sfwmd.gov/conserve provided the public with details about the prolonged drought, irrigation restrictions for residents and businesses, Lake Okeechobee water levels, and other details associated with water shortage. The site received more than 320,000 visits. A zip-code locator function, a popular feature, allowed users to enter a zip code and learn the current status of residential and commercial water restrictions for that locale. The web site was enhanced by the District's Citizen Information Line, activated during emergencies to provide person-to-person information during emergency water conditions. During its activation for the drought in 2007, the Citizen Information Line answered 22,000 calls from the public and responded to more than 2,000 individual emails.

OUTREACH

Each of the components described above is an essential part of the District's outreach efforts throughout South Florida and beyond. Regional service centers provide significant support in implementing and extending outreach work into local communities (see **Figure 1A-10)**. Several additional efforts are worth highlighting here.

Figure 1A-10. The District's regional service centers are vital to community outreach (photo by the SFWMD).

The Speakers Bureau is a public outreach effort to civic groups such as the Jaycees, Rotary International, homeowners' associations, and the like. Prepared materials, including Microsoft PowerPoint® presentations with scripts, are used by District managers and service center staff to address high-profile issues at the District. Topics include Kissimmee River Restoration, Emergency Management, Restoring the Everglades, and a general overview entitled, Who We Are and What We Do. As new topics develop, new presentations are prepared, such as one on the Northern Everglades. The Speakers Bureau provides face-to-face contact with District staff and provides opportunities for questions, public engagement, and education.

The Great Water Odyssey is an educational curriculum developed by the St. Johns River Water Management District, headquartered in Palatka, FL. This program for upper-elementary (5^{th} grade) students is an interactive video game that teaches the fundamentals of water resource issues in South Florida. It includes components on wetlands preservation, stormwater runoff, balancing the needs of the environment with urban and agricultural users, environmental restoration, and other topics. Teacher workshops for training to use the curriculum are conducted through a partnership with Florida Atlantic University's Center for Environmental Studies.

The District's work also attracts interest from around the world. Tours and special events are coordinated for government representatives, water resource professionals, academic groups, and others. This past year, the District hosted guests from China, Costa Rica, Argentina, the Netherlands as well as from many parts of the United States.

Large-scale District initiatives often receive focused and specific outreach efforts. The *Acceler8* program is one example. Launched in October 2004, *Acceler8* was created to step up the pace of eight Everglades restoration projects. Outreach for *Acceler8* has, each year, included highly successful construction symposiums, which expand the list of qualified vendors participating in *Acceler8* contracts; public meetings to solicit stakeholder and community input on project designs; a monthly *Acceler8* e-newsletter on project progress; a dedicated web site with project descriptions, maps and updates; advertising and email communications to announce meetings and events; and specially designed *Acceler8* fact sheets and outreach materials.

RECOGNITION AND AWARDS

The District's communication work has been recognized with numerous national awards. Last year the public information group received eight Communicator Awards, an international competition of 5,000 entries in the communications field. The National Association of Government Communicators recognizes professionalism in public service. The public information group received six awards in 2006 and nine awards in 2005—including three 1st place awards for individual staff portfolios in writing, graphic design, and photography.

The South Florida Environmental Report, an agency-wide effort, has also received recognition of excellence. The National Association of Government Communicators awarded 1st place for technical editing in 2007 and, over several years, granted six awards for the *2004 Everglades Consolidated Report* and the *2005* and *2006 South Florida Environmental Reports*. The *2006 South Florida Environmental Report* was also honored with a Communicator Award. Most recently, the *2007 South Florida Environmental Report* was honored in an international competition by the Association of Marketing & Communication Professionals with a 2007 Hermes Creative Award.