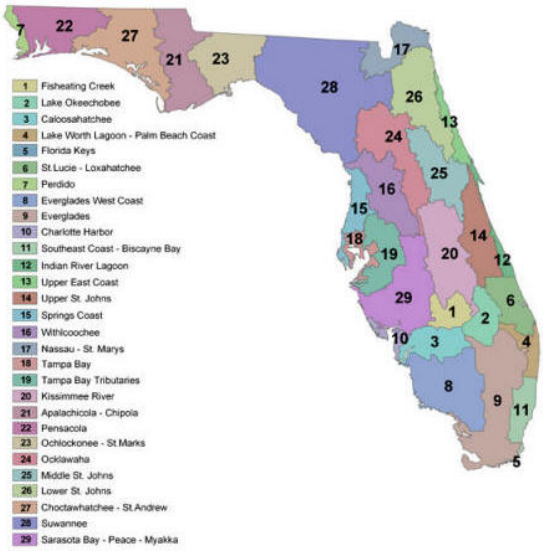
STATE OF FLORIDA

ANNUAL REPORT

NONPOINT SOURCE MANAGEMENT PROGRAM

JANUARY 1, 2010 to DECEMBER 31, 2010

Submitted December 31, 2010
Florida Department of Environmental Protection
Nonpoint Source Management Section
Tallahassee, Florida



From the Bureau of Watershed Restoration

The Department's Bureau of Watershed Restoration develops restoration strategies to mitigate the impacts of wastewater facilities, industries, agriculture, septic tanks, urban development and other sources of pollution on Florida's surface waters.

The Department has identified 29 major watersheds in the State of Florida in which it rotates activities such as data collection, assessment of impairments, development of Total Maximum Daily Loads (TMDLs), and formation of restoration plans. Restoration plans or Basin Action Management Plans (BMAPs) are coordinated comprehensive sets of strategies designed to implement the pollutant reductions established by the TMDLs. These strategies include permit limits on wastewater facilities, urban and agricultural best management practices, conservation programs, financial assistance and revenue generating activities, and more. There have been four BMAP adoptions in Federal Fiscal Year 2010.

Last, but certainly not least, the Department has overseen 138 projects for the restoration and management of nonpoint sources in 2010. These contracts include 96 projects funded by EPA's Section 319 s and an additional 42 funded by the State. The projects represent both structural and non-structural activities toward watershed restoration. The State of Florida continues to focus on the protection and restoration of its waters and has proposed 24 new projects for 319 funding for 2011.

The Department looks forward to putting restoration at the top of its agenda as it moves into 2011.

Sincerely,

Thomas Frick
Bureau Chief
Bureau of Watershed Restoration
Division of Environmental Assessment and Restoration
Florida Department of Environmental Protection

Nonpoint Source Management Section: Program Administration

The Department's Nonpoint Source Management Section continues to develop its expertise. 2010 has brought with it several significant changes to the section's everyday operation, including new laws relating to contracting and fertilizer application and a new program administrator. The program, however, did not miss a beat. Each of the section's staff members have ensured that, in spite of a state-wide economic hardship, nonpoint source management remained priority. This 2010 Annual Report will demonstrate just that.

The 2010 Annual Report will provide information on the following exceptional successes this year:

Sincerely,

Kristine P. Jones

Kristine Papin Jones
Environmental Administrator
Nonpoint Source Management Section
Florida Department of Environmental Protection

A Message from the Watershed Planning and Coordination Section

The primary responsibility of the Watershed Planning and Coordination Section is to coordinate with other state, regional and local governmental agencies, local watershed groups, non-governmental organizations, and other interested stakeholders to develop and implement Basin Management Action Plans (BMAPs). These BMAPs are developed collaboratively with local stakeholders and designed to identify management actions and schedules required to meet the pollutant load reductions required by adopted Total Maximum Daily Loads (TMDLs). Management strategies include permit limits on wastewater facilities, urban and agricultural best management practices, conservation programs, local ordinances and guidelines, public education and outreach, and more. BMAPs are adopted by the Secretary of the Department of Environmental Protection with commitments from local agencies to carry out the projects and activities specified in the BMAP.

The Department has adopted a total of eight BMAPs through the end of 2010. Four of these, Hillsborough River Basin, Lower St. Johns River Tributaries, Lake Jesup, and Lower St. Johns River Tributaries II BMAPs, were adopted in late 2009 and 2010. During 2010, our section also continued working with stakeholders to further development of BMAPs for an additional 8 basins (see map on the following page for current activities). Several of these are expected to be completed in 2011 and we expect to initiate BMAP development in a few more watersheds this next year.

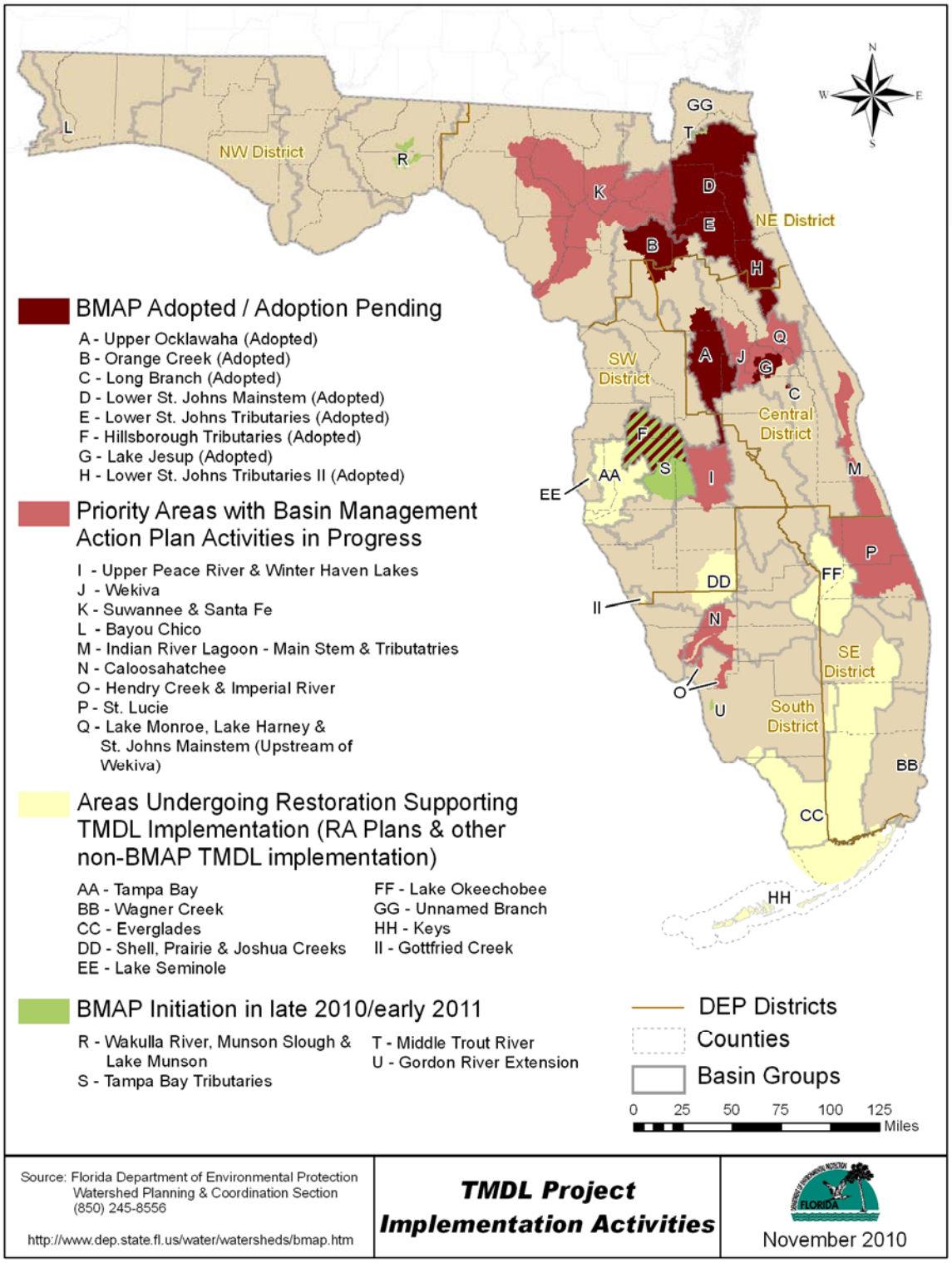
Some BMAPs are developed for a single waterbody while others address numerous TMDLs (the most recent Lower St. Johns Tributaries BMAP, for example, addresses fecal coliform bacteria impairments in 15 separate TMDL waterbodies within the basin). The Department also continues to work with local interests in other watersheds that are undertaking local and regional restoration activities to track implementation that may reduce or replace the need for additional department TMDL actions.

The Department values the expertise and interest provided by all of the entities participating in our process and we look forward to continued collaboration and coordination as we work to develop watershed restoration plans.

Sincerely,

John Abendroth
Environmental Administrator
Watershed Planning and Coordination Section
Division of Environmental Assessment and Restoration
Florida Department of Environmental Protection

Basin Management Action Plans



Basin Management Action Plans
Federal FY 2010

Basin Management Action Plans, or BMAPs, are constantly being developed to implement TMDLs through a partnership between the Department and local stakeholders, including point and nonpoint sources. In October and December of 2009, and May and August of 2010, the Department adopted the Hillsborough River Basin and Lower St. Johns River Tributaries, and the Lower St. Johns River Tributaries II and Lake Jesup BMAPs, respectively.

Hillsborough River Basin

The Hillsborough River action plan was developed in partnership with the Tampa Bay Estuary Program; Hillsborough, Pasco, and Polk counties; the Cities of Plant City, Tampa, and Temple Terrace; the Hillsborough County Environmental Protection Commission; the Florida Department of Health; the Florida Department of Agriculture and Consumer Services; the Florida Department of Transportation; the Southwest Florida Water Management District; and the University of Florida Institute of Food and Agricultural Sciences. It specifically identifies projects and management actions needed to decrease bacteria for a portion of the Hillsborough River Basin. TMDLs were adopted by the Department to provide numerical water quality restoration targets for the tributaries of the Hillsborough River Basin.

The BMAP will provide for the reduction of the discharges of pollutants into the Hillsborough River Basin to help achieve water quality standards and designated uses established by the Department. Implementation projects include improved stormwater management; continued water quality sampling to better control and understand the sources of these pollutants; wastewater infrastructure and stormwater system management; regulations, ordinances and guidelines; conservation and land acquisition; best management practices for agricultural lands; and public education and outreach.

The Hillsborough River Basin BMAP is available at:
http://www.dep.state.fl.us/water/watersheds/docs/bmap/hillsb_bmap_adopted.pdf

Lower St. Johns River Tributaries Basin

The Lower St. Johns River Tributaries action plan was developed in partnership with the City of Jacksonville; JEA; the Duval County Health Department; the Florida Department of Agriculture and Consumer Services, and the Florida Department of Transportation. It specifically identifies projects and management actions required to decrease bacteria in the tributaries of the Lower St. Johns River Basin. The tributaries of the Lower St. Johns River are Class 3 waterbodies suitable for recreational use and the propagation and maintenance of a healthy, well-balanced population of fish and wildlife. Due to high levels of fecal coliform bacteria, ten tributaries in the Lower St. Johns River Basin did not support these uses. TMDLs were adopted by the Department to provide numerical water quality restoration

targets for the tributaries of the Lower St. Johns River. The BMAP is the implementation plan that identifies actions that will be taken to achieve these restoration targets.

The BMAP will provide for the identification, elimination, and prevention of discharges of fecal coliform bacteria into these waterbodies in order to help achieve water quality standards and designated uses established by the Department. Implementation projects include the removal of septic tanks close to surface waters; intensive inspection programs for septic tanks; sewer infrastructure to better prevent and control fecal coliform sources; wastewater infrastructure repair and upgrade; increased stormwater system maintenance management; septic tank regulations, ordinances and certified operator programs; best management practices for agricultural lands; public education and outreach; and continued water quality monitoring.

The Lower St. Johns River Tributaries BMAP is available at:
http://www.dep.state.fl.us/water/watersheds/docs/bmap/adopted-lsjr-bmap.pdf

Lower St. Johns River Tributaries II

The Lower St. Johns River Tributaries II action plan was developed in partnership with the Cities of Jacksonville, Jacksonville Beach, Atlantic Beach, and Neptune Beach; the Naval Station Mayport; JEA; the Duval County Health Department; and the Florida Department of Transportation. It specifically identifies projects and management actions required to decrease bacteria in fifteen Waterbody Identification units (WBIDs) for the tributaries of the Lower St. Johns River Basin and is the second action plan developed to address bacteria impairments in tributaries to the basin. The tributaries of the Lower St. Johns River are Class 3 waterbodies suitable for recreational use and the propagation and maintenance of a healthy, well-balanced population of fish and wildlife. Due to high levels of fecal coliform bacteria, fifteen tributaries in the Lower St. Johns River Basin did not support these uses. In 2006, 2009, and 2010, the Department adopted TMDLs that provided numerical water quality restoration targets for these fifteen WBIDs. The BMAP is the implementation plan that identifies the actions needed to achieve restoration.

The BMAP will provide for the identification, elimination, and prevention of discharges of fecal coliform bacteria into these waterbodies in order to help achieve water quality standards and designated uses established by the Department. Implementation projects include the removal of septic tanks close to surface waters alongside activities such as intensive inspection programs for OSTDS and sewer infrastructure to better prevent and eliminate fecal coliform sources; highly integrated local stakeholder communication and response source identification protocols; wastewater infrastructure repair and upgrade; increased stormwater system maintenance and management; septic tank regulations, ordinances and certified operator programs; public education and outreach; and continued water quality monitoring.

The Lower St. Johns River Basin Tributaries II BMAP is available at:
http://www.dep.state.fl.us/water/watersheds/docs/bmap/bmap-lsjt2.pdf

Lake Jesup

The Lake Jesup action plan was developed in partnership with Seminole and Orange counties; the Cities of Altamonte Springs, Casselberry, Lake Mary, Longwood, Maitland, Orlando, Oviedo, Sanford, Winter Park, and Winter Springs; the Town of Eatonville; the Florida Department of Agriculture and Consumer Services; the Florida Department of Transportation; the Florida Turnpike Enterprise; the Florida Fish and Wildlife Conservation Commission; and the St. Johns River Water Management District. It specifically identifies projects and management actions required to decrease nutrients in Lake Jesup. Lake Jesup is a Class 3 waterbody suitable for recreational use and the propagation and maintenance of a healthy, well-balanced population of fish and wildlife. Due to high levels of nutrients, Lake Jesup does not support these uses. TMDLs were adopted by the Department to provide numerical water quality restoration targets for Lake Jesup. The BMAP is the implementation plan that identifies actions that will be taken to achieve these restoration targets.

The BMAP will provide for reducing the discharges of pollutants into this waterbody so as to help achieve water quality standards and designated uses established by the Department. Implementation projects include stormwater system management; regulations, ordinances and guidelines; conservation and land acquisition; best management practices for agricultural lands; public education and outreach; wastewater infrastructure; and ongoing water quality monitoring.

The Lake Jesup BMAP is available at:
http://www.dep.state.fl.us/water/watersheds/docs/bmap/jesup-bmap.pdf

BMAP NEWS

2010 National Coastal Spirit Award Recipient

The Florida Department of Environmental Protection, City of Jacksonville, JEA, Duval County Department of Health, and the Florida Department of Transportation received the National Coastal Spirit Award for their water quality work on the Lower St. Johns River (LSJR). The partnership, created to investigate elevated levels of fecal coliforms in the Lower St. Johns River tributaries, ended in a BMAP, which identifies steps that must be taken to reduce bacteria, a schedule for their implementation, and potential resources to accomplish the reductions in 10 water bodies within the LSJR Basin. The local stakeholders identified more than 480 projects to achieve restoration in these waterbodies and have committed to monitoring to ensure restoration occurs and to identify additional fecal coliform sources.

Wagner Creek Fecal Coliform TMDL

On November 18, 2010, the Department and City of Miami conducted a Walk the Waterbody field event for Wagner Creek to implement the Fecal Coliform TMDL adopted by FDEP in 2006. This field event is designed to tour the waterbody and identify all potential sources of fecal coliform and then develop and implement management actions to eliminate those sources. This collaborative event included participation from the Florida Department of Transportation, Miami- Dade County Health Department, Miami-Dade Department of Environmental Management, the Miami River Commission, and Miami Water and Sewer Authority.

Trout River BMAP in Development

On December 9, 2010, the Department held the first meeting on the Middle Trout River BMAP. Topics discussed included a review of the dissolved oxygen and nutrient TMDL for the Middle Trout River and an overview of the BMAP process.

Bayou Chico BMAP

The Bayou Chico Watershed has a 10.36-square-mile drainage area and discharges directly to Pensacola Bay. The waterbodies addressed in the Fecal Coliform TMDL and by the Basin Management Action Plan include Bayou Chico Drain, Bayou Chico Beach (at Lakewood Park), Sanders Beach, and the Bayou's tributaries, Jones Creek and Jackson Branch.

A draft BMAP was presented to stakeholders on November 19th, 2010, but additional information is still needed to finalize the report. The stakeholders will reconvene in February of 2011 to finalize the document and pursue future endorsement and final adoption.

St. Lucie BMAP

The St. Lucie River and Estuary BMAP kicked off in July 2009. The two technical meetings to date have focused on defining and gathering GIS and project information in the basin planning area related to public conservation and managed lands; MS4 jurisdictions; water control districts; central drainage districts; state highways; and agricultural lands. They have also examined the detailed allocation process, which will be the focus of the upcoming meeting in early February 2011. The BMAP will address nutrient and BOD impairments in the St. Lucie River and Estuary.

The Florida-Friendly Landscaping™ Program, a partnership between the University of Florida Institute of Food and Agricultural Sciences (UF IFAS) and the Department, has grown throughout 2010 and has now been rolled out in 52 of Florida's 67 counties. By 2015, UF IFAS intends to have ensured the development of FFL in every county in Florida.

The Florida-Friendly Landscaping™ Program consists of three sub-programs:

- **The Florida Yards and Neighborhoods Homeowner Program**, which educates homeowners about how to design, install, and maintain Florida-Friendly Landscapes;
- **The Florida Yards and Neighborhoods Builder and Developer Program**, which educates builders and developers, landscape architects, homeowners associations, and property managers; and
- **The Green Industries: Best Management Practices Program**, which trains and certifies landscape professionals.

The Nine Florida-Friendly Landscaping Principles

1. **Right Plant, Right Place**
2. **Water Efficiently**
3. **Fertilize Appropriately**
4. **Mulch**
5. **Attract Wildlife**
6. **Manage Yard Pests Responsibly**
7. **Recycle**
8. **Reduce Storm Water Runoff**
9. **Protect the Waterfront**

Award-Winning Public Outreach

Proof that education can create change…

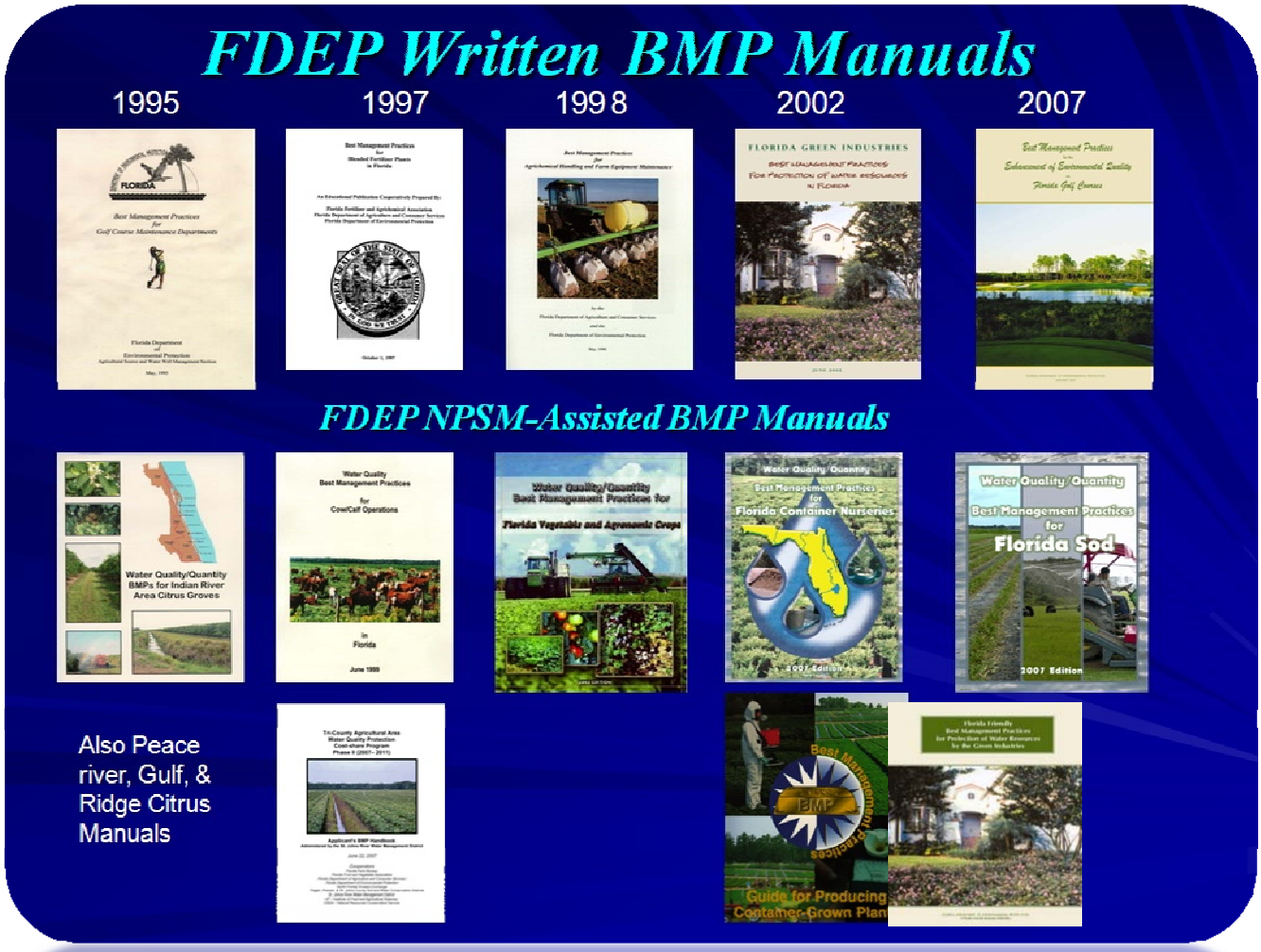
The Florida-Friendly Landscaping™ Program's four newest publications are receiving considerable acclaim.

NEW The urban fertilizer use ordinance in the *Florida-Friendly Guidance Models for Ordinances, Covenants, and Restrictions* was adopted by the Florida Legislature and made a mandatory minimum standard in impaired watersheds.

NEW The *Florida-Friendly Landscaping™ BMPs for Protection of Water Resources by the Green Industries* training was made mandatory for commercial fertilizer applicators statewide by 2014.

NEW The *Florida Yards and Neighborhoods Handbook* won a Silver Award at the 2010 Association for Communication Excellence's Critique and Awards program.

NEW The *Florida-Friendly Landscaping™ Guide to Plant Selection and Landscape Design,* a new 100-page publication, has received rave reviews from the public since its initial publication in September 2010. The publication includes several sample design solutions to common landscaping challenges and 70 pages containing photographs and critical information about more than 500 native and well adapted plants for Florida landscapers.



The Department has been producing nonpoint source educational materials for decades and has produced no less than 17 Best Management Practice manuals in the past 15 years. These include the popular 2002 Waterfront Property Guide, golf course BMPs, cow and calf BMPs, citrus BMPs, sod BMPs, landscape BMPs, and many more.

Statutory Update

2009 Water Rights Bill

Florida Senate Bill 2080

Following the 2009 legislative session, Governor Charlie Crist signed into law Florida Senate Bill 2080, which declared that ordinances, covenants, and deed restrictions that prohibit an owner from voluntarily using Florida-Friendly landscaping practices on their property are invalid.

As a result of the legislative change, in 2009-2010, the Florida-Friendly Landscaping staff educated and provided technical assistance to homeowners associations and condo associations as they adapted to the new law.

Florida-Friendly Landscapes are "quality landscapes that conserve water, protect the environment, are adaptable to local conditions, and are drought tolerant. The principles of such landscaping include planting the right plant in the right place, efficient watering, appropriate fertilization, mulching, attraction of wildlife, responsible management of yard pests, recycling yard waste, reduction of stormwater runoff, and waterfront protection. Additional components include practices such as landscape planning and design, soil analysis, the appropriate use of solid waste compost, minimizing the use of irrigation, and proper maintenance." Fla. Stat. § 373.185

2010 Fertilizer Statutes

With a new bill passed in 2010, the Florida Legislature took aim at the overuse and misuse of fertilizer in urban landscapes. The new statute encourages all county and municipal governments "to adopt and enforce the Model Ordinance for Florida-Friendly Fertilizer Use on Urban Landscapes or an equivalent requirement" and went as far as *requiring* every "county and municipal government located within the watershed of a water body or water segment that is listed as impaired by nutrients…[to] adopt the department's Model Ordinance for Florida-Friendly Fertilizer Use on Urban Landscapes." Fla. Stat. § 403.9337(1) and (2). The statute allows local governments to go beyond the measures in the model ordinance if they demonstrate that more stringent measures are necessary, based on science, economics, and technology, "to adequately address urban fertilizer contributions to nonpoint source nutrient loading to a water body" and if the local government has considered input from state agencies. Fla. Stat. § 403.9337(2).

The statute also set out the requirement that the Department, in cooperation with the Institute of Food and Agricultural Sciences, "[p]rovide training and testing programs in urban landscape best management practices" and provided the Department with the authority to "issue certificates demonstrating satisfactory completion of the training." Fla. Stat. § 403.9338(1). The statute sets out a provision whereby a person who has received a certificate from the Department "may apply to the Department of Agriculture and Consumer Services to receive a limited certification for urban landscape commercial fertilizer application…." Fla. Stat. § 403.9338(2). Beginning January 1, 2014, this limited certification is require for any person applying commercial fertilizer to an

urban landscape. Fla. Stat. § 482.1562.

As a result of the statutory certification changes described above, the Department training program was updated and revised, as was the instructor training program. An online training program was developed and made available to the public in July 2010 through the University of Florida Florida-Friendly Landscaping™ Program website located at **http://fyn.ifas.ufl.edu**.

Since this legislation became law, the Department has expanded the Green Industries BMP pilot regional coordinator program to all three National Estuary Research Reserves. Department coordinators work with NOAA Coastal Training Program and IFAS state offices to educate, evaluate, and coordinate training opportunities in an effort to train an estimated 100,000 people by January 1, 2014.

In addition, the Builder and Developer Program reached out to the Homeowners Associations' and Condominium Associations' management industry. The Nonpoint Source Management Section has provided interviews, responded to innumerable emailed and telephoned questions on the various aspects of the laws, and drafted updates to the model ordinances to ensure the model keeps up-to-date with the new laws.

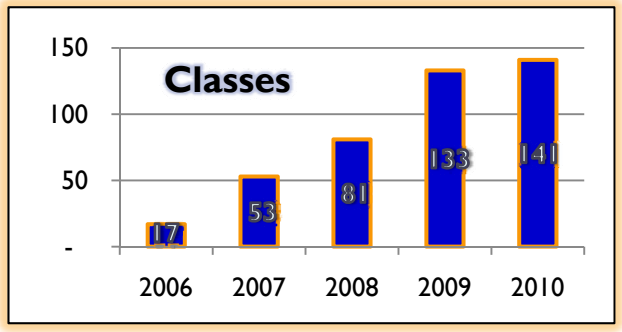
As a result of the State of Florida's leading national role in fertilizer regulation, the Department has also offered to assist New Jersey with its new fertilizer training program and has received inquiries from several other states and the Gulf of Mexico Alliance for technical assistance.

Green Industries Best Management Practices

2010 TRAINING UPDATE

As of September 30, 2010, the Department and its affiliates had trained 3,880 new certified applicators in FY 2010, for an overall total of 11,013. This represents a dramatic growth in the past two years and the Department expects further growth in the coming years.

GI-BMP Participation



Additionally, the Department has expanded its **certified instructors** from 77 in October of 2009 to 149 as of September 30, 2010—this has exceeded the Department's earlier set goals and includes 49 industry trainers. The Department intends to continue its educational pursuits, including increasing the network to 400 instructors and maintain a team that is empowered, informed, and engaged.

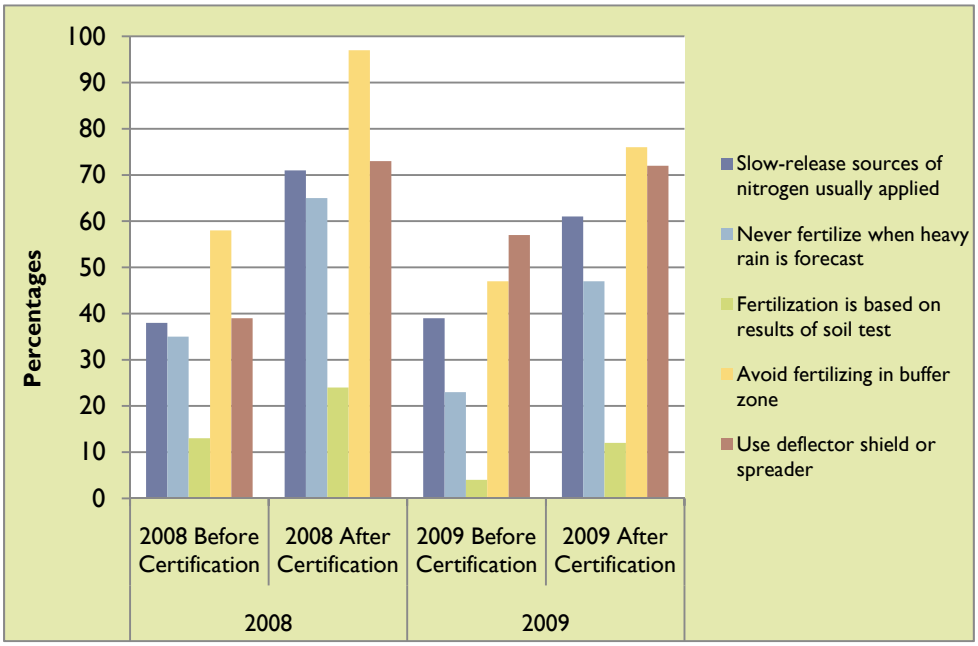
Florida's urban coastline, with its interlinking canals and endless jurisdictional waters, demonstrates the need for urban green space management and the vulnerability of adjacent waterways.

The Department's Green Industries program, in coordination with the University of Florida Institute of Food and Agricultural Sciences, emphasizes the protection of urban green spaces and their many environmental benefits through education of Best Management Practices to those stakeholders who manage green spaces to maintain their recreational, aesthetic, and psychological benefits.

EDUCATION & OUTREACH

GREEN INDUSTRY BMPS

In 2010, the Department's partner in Green Industries, the University of Florida Institute of Food and Agricultural Sciences, began using **Community-Based Social Marketing (CBSM)** to measure behavior changes in target audiences. Were the classes effective? Did education result in behavioral changes?



On the initial study to measure the effectiveness of the Green Industry BMP training course conducted in Sarasota County, the results were dramatic. In both years, applicators were doing a much better job at following BMPs and protecting the water. The decrease in before and after knowledge in 2009 is attributed to the class demographics: in 2008, participants were usually owners and supervisors; by 2009, the trainers were teaching more and more subordinates. A similar study was conducted in Flagler County, where surveys showed that 75 percent of surveyed residents who attended Florida-Friendly Landscaping™ classes used fertilizer correctly, 63 percent reduced their water use, 61 percent utilized the "right plant, right place" model, and 58 percent mulched in accordance with Florida-Friendly Landscaping™ recommendations.

Over the next five years, the Florida-Friendly Landscaping Program™ intends to continue and expand their use of CBSM to ensure its message is changing behavior and resulting in real protection of Florida's waters.

Onsite Sewage Treatment and Disposal System

IN PARTNERSHIP WITH

NEW The 2010 legislative session brought with it a significant change to the onsite sewage treatment and disposal systems program. Amendments to Florida Statute Chapter 381 require the Department of Health (DOH) to create and administer a statewide septic tank evaluation program. The purpose of the evaluation is to assess "the fundamental operational condition of systems and [identify] any failures within the systems." Section 381.0065(5), Fla. Stat. This shall include a "schedule for a 5-year evaluation cycle, requirements for the pump-out of a system or repair of a failing system, enforcement procedures for failure of a system owner to obtain an evaluation of the system, and failure of a contractor to timely submit evaluation results to the department and the system owner." Section 381.0065(5), Fla. Stat. Statewide implementation is required by January 1, 2016. The statute establishes minimum separations from the bottom of the drainfield to the wettest-season water table, depending on installation and modification dates.

NEW The Florida Legislature also instituted a grant program for repair of onsite sewage treatment and disposal systems, effective January 1, 2012. A Grant "may be awarded to an owner only for the purpose of inspecting, pumping, repairing, or replacing a system serving a single-family residence occupied by an owner with a family income of less than or equal to 133 percent of the federal poverty level at the time of application." Section 381.00656, Fla. Stat.

FLORIDA DOH RESTORATION PROJECTS

NEW **Passive Nitrogen Reduction Research Project.** The 2010 Legislature provided $2 million in additional funding for the DOH Passive Nitrogen Reduction Research Project, which evaluates cost effective options to reduce the nitrogen input and load from onsite sewage treatment and disposal systems, particularly in springsheds and other sensitive environmental areas.

NEW **Florida Keys Decentralized Wastewater Demonstration Project.** US EPA has awarded a $3.6 million grant to the Florida Keys Aqueduct Authority for the Florida Keys Decentralized Wastewater Demonstration Project. This project, which addresses the upgrade of approximately 400 onsite sewage treatment and disposal systems in the lower Keys, will allow owners the option of giving ownership of their system to the Florida Keys Aqueduct Authority, who will then provide upgrade, maintenance, and repair services. This project is the first of its kind in Florida; the utility will manage onsite customers as if they were connected to sewer service. Under state law, the systems must be upgraded to nutrient reduction systems by July 2016.

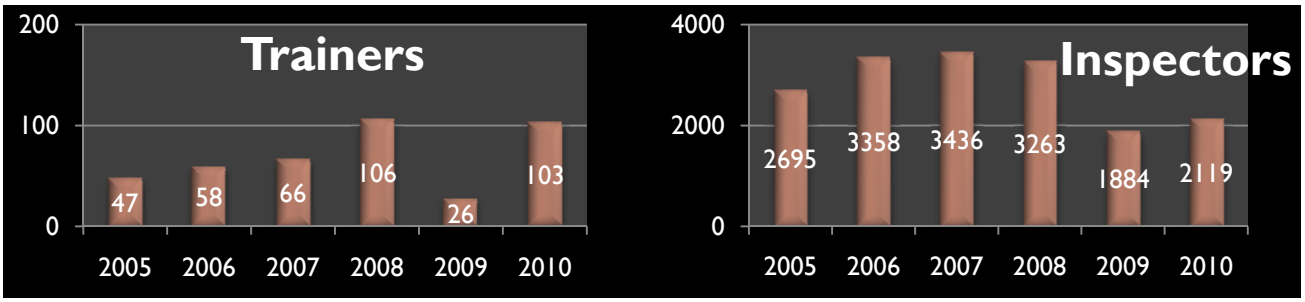
Lower St. Johns River Initiative Program Septic Tank Enforcement Project. The Duval County Health Department staff completed their first Lower St. Johns River Initiative Program Septic Tank Enforcement Project using state and 319 grant funds dedicated to accomplish the work. Door-to-door inspections identified system failures and direct or indirect potential for pollution of the St. Johns River and its tributaries. While inspecting the 2,419 residences and commercial properties included in the project, the Duval County Health Department staff distributed educational materials to help citizens understand their roles in proper use and maintenance of the treatment and disposal units. Problems discovered during the inspections were followed up with repairs, modifications, replacements, or connections to sewer. When necessary, enforcement proceedings were undertaken.

To the left is a Duval County Health Department staffer inspecting a replacement at a residential site found to be in failure during door-to-door inspections.

Maintain the Drain. "Maintain the Drain" campaign advertisements were aired statewide on network stations over a period of six paid months in mid-2010. The ten television advertisements (30-seconds each) and radio advertisements (15 and 30-second versions) were produced for the State of Florida Department of Health by the Department, with NOAA Section 310 and EPA Section 319 grant funds. Airing of the advertisements was paid for with Section 319 grant funds. The ratio of donated ads to paid ads was 8.4 to one; in all, the Nonpoint Source Section spent $140,000 and received $1,178,545 in advertisement value for 15,250 television and radio advertisements aired. The advertisements continue to be seen and heard as individual stations elect to provide additional free air time. "Maintain the Drain" advertisements are available for viewing online at http://www.doh.state.fl.us/environment/ostds/PSA/protect.htm.

EROSION AND SEDIMENTATION CONTROL

In FY 2010, the Department trained 2,119 new inspectors and 103 new trainers! To date, the Department has 637 active inspectors throughout Florida. Florida's stormwater program is technology based, using performance standards and BMP design criteria. Training and certification consist of a two-day course using a standard program curriculum, followed by a proctored examination, for which minimum passing grade of 70% must be made on the exam. The Department also offers "Train the Trainer" workshops to prepare new instructors for the implementation of the inspector's training program. Trainers must already be certified and attend a one-day workshop that covers the program teaching guidelines.



NPDES STORMWATER ENFORCEMENT

This year, the Department's **NPDES Stormwater Program** settled its largest litigation case ever against a contractor whose facility resulted in more than 6 acres of sedimentation and more than a hundred water quality violations. The settlement resulted in a $575,704 fine, of which $313,604 was calculated as the economic benefit received by the violator for failing to utilize permit-required sediment and erosion controls.

During the later part of 2010, the Department's Hal Lunsford began updating the Erosion and Sedimentation Control Inspector's Manual. Last amended in July 2008, the Department looks forward to releasing a new manual in spring of 2011. Updates to the manual will include new technologies and "real-world" instruction on using sediment and erosion controls and inspecting active construction sites. The Department also plans to roll out continuing education courses online to ensure that trained inspectors and instructors are able to keep up with new technologies.

Northwest Florida Unpaved Roads

Under-road pipe and culvert installation

The Nonpoint Source Management Section is pleased to have Michael Scheinkman on staff, as he has become a statewide expert on the pollution caused by unpaved roads. Working with the U.S. Fish and Wildlife Service, local municipalities, and other stakeholders, 319 grant funds have been used to assess the impacts of road-stream crossings on the aquatic ecosystems of the Choctawhatchee River and Bay Basin, and prioritize these crossings for restoration.

In 2010, the Department supported many unpaved roads projects through the use of 319 grants. The Three Rivers Demonstration Project, closed out in 2010, but continuing its work, highlights the efforts of this program.

Unpaved roads provide a clear and distinguishable impacts to our waters. Sediment from unpaved roads, included eroded particles of rock, is transported by sheet flow runoff into nearby waters. This process is accelerated as citizens utilize the roads. Sedimentation in streams impairs water quality, increases flooding, reduces aquatic habitats, impairs navigation and recreation, and alters fluvial and alluvial geomorphology.

Three Rivers Demonstration (FY 2004). Four unpaved road/stream crossing stabilization demonstration projects were implemented within the Pensacola Bay and Apalachicola Bay watersheds. The purpose of these projects was to reduce sediment loading, protect and restore aquatic habitats, and promote awareness on the part of citizens and local governments. Total construction cost for the project was $913,878.51 of which $257,620 was provided by 31904 grant funds; this averaged out to $100.80 per linear foot. Pensacola Bay portion of the project involved two sites along Panther Creek and one site along an unnamed tributary of the Shoal River within Okaloosa County. The Apalachicola Bay portion of the project involved one site along an unnamed tributary close to the Apalachicola River within Liberty County. These unpaved roads contained mixed clay and sand transported into the streams during rain events through ditches lacking vegetation or sediment abatement features. Eight very steep roadway approaches with slopes up to nearly 10% were addressed with a variety of BMPs ranging from a stepped down piping system topped with a shallow swale at

BMPS Completed at Construction site 1

Liberty Lane to rip-rap ditch blocks at Whitaker Road and conventional turnouts with additional reinforcement at the Panther Creek sites in the Blackwater River State Forest. All four sites were successfully stabilized eliminating virtually 100% of the erosion and sedimentation that was occurring at these important stream crossings. All in all, $913,879 was spent on this project, of which $257,620 came from EPA Section 319 funds.

In addition to road paving projects, a major component of the demonstration project involved conducting two unpaved road maintenance and training workshops. These workshops educated attendees, which include road crews from seven counties and the Forest Service, on unpaved road BMPs and maintenance. The workshop included a demonstration of road grading and one also included erosion and sediment control inspector certification training.

This picture shows the erosion caused by stormwater overtopping the unpaved road. Sediment is washed into the stream.

Walton County Oakwood Hills Subdivision Unpaved Road/Stream Crossing Stabilization Initiative (FY2004, 2006, 2008, 2009). This $1.8 million project, utilizing $759,241 in Section 319 grant funds, entails paving and providing stormwater runoff management for approximately five miles of unpaved roads in north Walton County. Each of the road segments has one or more major stream crossings as well as several secondary crossings. At this time, about 3.3 miles or two-thirds of the project is completed.

The picture to the right shows the completed section of Trout Toad, fully stabilized. The 6% slopes in the parallel swales are rep-rapped to prevent washout.

In 2011, the Department intends to update its website to reflect its unpaved road projects, highlighting the benefits gained by paving and/or routine maintenance for both water quality and wildlife habitat. Additionally, the Department intends to work closely with Washington County and form a new partnership to evaluate alternative maintenance practices and BMPs. The Department intends the next BMP implementation effort to take place on Aspalaga Road, which is directly adjacent to the Apalachicola River in Gadsden County, and which involves state lands and will require a multitude of partners in order to achieve success.

Department of Agriculture and Consumer Services and Department of Environmental Protection

BMP manuals are presently being drafted for two major areas, both of which are expected to be completed in 2011.

Equine Operations (non-CAFO) BMP manual: Key components of these BMPs are nutrient management in both feeding and forage production, manure management, pasture management, sediment and erosion control, stormwater management and water resource protection, mortality management, and pesticide and pharmaceutical management.

Specialty fruit and nut growers BMP manual: Key components of these BMPs are plant nutrition, timing rate and sources of nutrients, irrigation method and scheduling, sediment and erosion control, stormwater management and water resource protection, and integrated pest management.

Agricultural BMP Success Stories

Tornello Nursery: The Florida Commissioner of Agriculture awarded a CARES certificate to Tornello Nursery, a Hillsborough County plant nursery, for the installation of drip/micro-irrigation and tensiometers. Though their water limit had been 98,000 gallons per day on 8.5 acres, the installation of the new BMPs allowed the nursery to drop to 41,000 gallons per day on 11 acres. After that success, the nursery decided on its own to build a 4.5 acre hydroponic food farm under greenhouses made from recycled materials. The greenhouses have stormwater cisterns that collect most all rainwater from roofs and roads, which they intend to re-use on crops. The reuse is expected to save 8-10 million gallons of groundwater per year. That project is slated to be completed in 2011. The nursery then intends to install windmills and solar energy collectors and use UUV reuse water purification systems. This will save hundreds of thousands gallons of water and a significant amount of fertilizer.

Other Successes: One citrus operation eliminated phosphorus from their fertilization program, and another reduced fertilizer use by 30%. T large Tree Farm in Central Florida installed a new demand controlled water system and estimated 60%-75% water savings and increased fertilizer efficiency. Another citrus grower reported annual savings of 1.5 million lbs. of fertilizer on their 5,000 acre farm. The same farm reduced pesticide use 20% with electronic sensors on the sprayers.

Statewide Agricultural BMP outreach teams. Statewide Agricultural BMP outreach teams are an integral part of the Nonpoint Source Management Section's agricultural program and provide one-on-one outreach, education, and technical assistance to growers in the region. The teams are funded by 319 grants, with matching funds from the Department of Agriculture and Consumer Services and local Water Management Districts, and in-kind support and supervision from the University of Florida. Several teams are located in the citrus and vegetable areas in the southern and central part of the state as well as in the Suwannee River basin. In September of 2009, rather than amending, extending, or refunding these teams, the duties of these teams were put under a new contract, which is now funded annually as a key part of Florida's base Nonpoint Source Management program. This funding mechanism allows the funds to be spent more rapidly than when encumbered under a long term competitive contract and allows for rapid response to new water quality priorities.

Farm employees tour demonstration plots that show high yields with BMPs.

Urban Stormwater Program

Statewide Stormwater Treatment Rule

Since 2007, the Department has been working on the creation and regulatory implementation of a Statewide Stormwater Treatment Rule, which will amend its performance and design criteria for its Environmental Resource Permitting program and is intended to ensure that post-development nutrient loading will not exceed the nutrient loading from natural landscapes. The state has been regulating nonpoint source urban stormwater runoff since the early 1980s and this rule amendment demonstrates Florida's dedication to furthering that commitment.

NEW The objectives of this significant rule change is to increase nutrient removal, establish requirements for discharges to impaired waters, establish statewide consistency, update BMP design criteria, allow BMP Treatment Train credits, encourage low impact design, and encourage retrofitting.

The performance standard (level of nutrient load reduction) to be established by this new rule is still being evaluated. BMP effectiveness monitoring will continue to be conducted during 2011 to provide the additional data needed to establish the final BMP design criteria.

Bioassessment in the wake of Deep Water Horizon

A large portion of the Northwest District's Bioassessment staff 2010 sampling schedule was dedicated to coastal monitoring after the Deep Water Horizon Oil Spill. In total, 40 water quality and two sediment samples were collected during 41 sampling trips between May 1 and December 23, 2010.

Bioassessments were conducted in the panhandle of Florida for a number of projects for the 2010 calendar year. Bioassessments were conducted by performing one or more of the following: the Stream Condition Index, the Lake Vegetation Index, a Bio-Recon survey, and or a Hester-Dendy survey. In total, twenty-five Stream Condition Index surveys were conducted in support of four separate projects. These projects include participation in a statewide Dissolved Oxygen Study of spring runs, a statewide biological survey of streams designated with high biological integrity, Total Maximum Daily Load Surveys, and a Fifth Year Investigation of the Gulf Power Crist Plant, which discharges into the Escambia River, Escambia County, FL. The Gulf Power project also utilized a Hester-Dendy survey in addition to the Stream Condition Index survey. A Bio-Recon survey was performed for post monitoring of a restoration project of Big Escambia Creek, Escambia Co. FL. Lake Vegetation Index surveys were conducted at ten lakes for two separate projects during the 2010 calendar year. Compass Lake, Jackson County, FL was successfully surveyed as part of a Quality Assurance Auditing Program. Nine panhandle lakes were surveyed with this tool in support of the Ambient Status Monitoring Program. Additional biological sampling included two Light Trap surveys, six Dip Net surveys, and eleven Habitat Assessments surveys in support of a Macro-Invertebrate Diversity Project led by researchers at Florida Agricultural and Mechanical University (FAMU).

Six citizen based complaint surveys were conducted during the 2010 year. Concerns for complaints ranged from fish kills, algae and bacteria blooms, concerns over the Deep Water Horizon Spill event, and eutrophic and sedimentation caused by a construction project. The last complaint resulted in a preliminary report which investigated the eutrophic and sediment loading issues at Lake Fred, a small impounded pond in Crestview, Okaloosa County, FL.

A presentation, "What lives in the Pond," was given at the annual Roy Hyatt Environmental Center's Open House in Cantonment, Escambia County, FL. The incumbent attended the Joint Biocriteria Meeting and South Eastern Water Pollution Biologists Association Meeting in Tallahassee this past fall.

It is anticipated that 2011 will be another active sampling year for the Department. Sampling events are planned in support of the Total Maximum Daily Load Program, and Ambient Status Monitoring Program. Additional sampling may occur in support of Restoration Monitoring Projects with additional projects to be determined throughout the year.

The Department continues to maintain and augment reference collections of Freshwater Macro-Invertebrates and Wetland Macrophytes for quality assurance protocols. Biologists in the section continue to participate in auditing programs for Water Quality Sampling, Stream Condition Index Sampling, Habitat Assessment surveys, Lake Condition Index surveys, and Macro-Invertebrate Taxonomy for quality assurance and control purposes. Five biologists were certified to conduct Stream Condition Index sampling, four biologists were certified for Habitat Assessment surveys,

two biologists were certified for Lake Vegetation Index surveys, and two biologists were certified for Macro-Invertebrate Taxonomy during the 2010 Calendar year. Next year I expect to have five biologists certified for Habitat Assessment surveys, three biologists certified for macro-Invertebrate taxonomy, and three biologists certified for Lake Vegetation Index surveys.

From the 2004 319 Grant, the Department's Nonpoint Source section was able to fund six career service biologist positions in the bioassessment program. . These staff conducted hundreds of biological assessments in NPS priority watersheds with a special focus on expanding our knowledge about Florida lakes. The biologists also were involved on a regular basis in the ongoing development and refinement of Florida's bioassessment techniques and metrics, especially the Stream Condition Index and the Lake Condition Index. They also assisted the Stormwater/NPS Management Section bioassessment staff in refining the "Bioreconnaissance" method. As part of their responsibilities the biologists participated in the Biocriteria Committee meetings where they met to discuss the further development and refinement of our bioassessment protocols.

Projects included continued refinement of the Stream Condition Index, continued refinement of lake sampling methods, continued refinement of wetland bioassessment methods, and development of web-based Report Tracking tool to QA reports before posting to web. The following were completed as part of the 319 2004 grant:

- **Taxonomic verifications for Ephemeroptera, Plecoptera, Trichoptera, Megaloptera and aquatic Neuroptera for DEP reference collections.** For $ 11,868 in grant funds, the Bioassessment program had 311 Ephemeroptera verifications, 119 Plecoptera verifications, 542 Trichoptera verifications, 14 Megaloptera verifications, and 3 aquatic Neuroptera verifications.
- **Taxonomic Verification Services for the FL Amphipod collections.** For $4,750 in grant funds, this project verified the Amphipod specimens in the FDEP reference collection. This makes the collections scientifically defensible by having an expert from outside of the agency verify the specimens to the lowest taxonomic level.
- **An Illustrated Guide to the Nearshore Marine and Estuarine Gammaridean Amphipoda of Florida.** For $31,502 in 2004 grant funds, this resulted in a Final Project Report entitled "An Illustrated Identification Guide to the Nearshore Marine and Estuarine Gammaridean Amphipoda of Florida, Vol. 4." This project produced a taxonomic identification manual for the Gammaridean Amphipoda of Florida to assist Department biologists identify Gammaridean Amphipoda in their samples for the Marine Fifth Year Inspections and other FDEP biological assessments and programs. This volume (fourth in a series of five volumes) includes a guide for the following Amphipod families: Anamixidae, Eusiridae, Hyalellidae, Iphimediidae, Ischyroceridae, Lysianassidae, Megaluropidae, and Melphidippidae.
- **An Illustrated Guide to the Common Cumacea of Florida Coastal Waters.** For $18,000 in grant funds, this project produced a complete identification manual for the Cumacea that are commonly found in Florida's coastal waters. The manual includes detailed drawings and text to make identification as clear as possible. The manual can be found at http://www.floridadep.org/ labs/cgi-bin/sbio/keys.asp for download.

2010 CONTRACTING CHANGES

As a result of legislative changes designed to ensure that contractual services were rendered in accordance with the contract terms (amending section 287.057(14), Florida Statutes), the following changes were made to the Department's contracting procedures:

"Agreements must include the following:

- A scope of work that clearly establishes all of the specific tasks the recipient/subrecipient is required to perform.
- Documentation required to be maintained by the recipient/subrecipient to evidence the completion of the tasks.
- Specific deliverables that must be provided and accepted prior to payment. Deliverables must be quantifiable, measurable and verifiable. Each deliverable must be directly related to a task specified in the scope of work and must identify the minimum level of service to be performed.
- Agencies should not confuse reports with deliverables. Reports usually are not deliverables.
- Rather, a report is the means to attest to the tasks performed during a given period of time.
- Specified criteria that will be used to determine the recipient/subrecipient's successful performance."

CFO Memorandum 05 2009-2010,
http://www.myfloridacfo.com/aadir/docs/CFOM091005.pdf.

The above changes mean that Department contracts and grant agreements are more specific and provide more definable deliverables. This will ensure that the projects are successfully completed prior to invoice payout.

In addition to the above, the Contract Manager now must certify that the invoice presented by a party is accurate and is intended to complete a certification as follows:

"I certify that the goods and services have been satisfactorily received and payment is now due. I understand that the Office of the State Chief Financial Officer reserves the right to require additional documentation and/or conduct periodic post audits of any agreement."

2010 Stories of Success

Lincoln High School Stormwater Improvement and Educational Facility, Tallahassee. This project was funded with FY2002 Section 319 funds. It was designed to serve as a "live" stormwater lab to be used for the education of the students and the community, teaching them about best management practices for urban stormwater runoff. The facility was constructed in an existing depressional area and includes both a retention pond and a detention pond, separated by a walkway berm, with underground equalizer pipes to maintain water flow between the two ponds. There are also four rain gardens in the facility to help with stormwater treatment and pollution removal.

A local construction firm, Baycrest Corporation, and a local engineering firm, Scott Mateo Engineering, provided significant in-kind contributions for this project. The plants that were used in the facility were from the school's Horticulture Department. The students performed the plant installation and will also be changing plants and performing water quality monitoring as part of their science classes.

Indian River Egret Marsh Regional Stormwater Facility, Indian River County. This $6.3 million project was funded with $490,000 of FY04 Section 319 grant funds. Construction was completed in December 2009. The facility, which treats 9,000 acres, is an Algal Turf Scrubber® stormwater treatment system on a 35 acre site. The facility takes the water from the Lateral C Canal into a wet pond to settle the solids and sediments out. The water then is directed onto the 6 acre Algal Turf Scrubber®. Algae grows taking up nitrogen and phosphorus, is harvested, then composted. The water leaves the Algal Turf Scrubber® and flows into a polishing pond, then passive wetlands, before being released into the Main Relief Canal to flow into the Indian River Lagoon. This facility is designed to handle an average flow of 10 million gallons/day.

Though monitoring continues, the project has estimated reductions of Total Suspended Solids at 203,251 kg/yr, Total Phosphorus at 5,169.6 kg/yr (35% of the basin's loading), and Total Nitrogen at 17,124.5 kg/yr (20% of the basin's loading).

Blackwater River State Forest Sediment Reduction Project, Okaloosa County. This project was completed in July 2009. The primary objective of this Division of Forestry project was to improve the water quality of Blackwater River by reducing sediment moving into the river system from adjacent forest roads and creeks in the project area. The Section 319 grant project treated a total of 49 secondary, tertiary and user engineered roads or road segments along with the replacement of an existing old bridge with a longer, higher bridge. By constructing the new bridge with pilings located out of the stream bed, scouring of river bed sediments was eliminated. Of the 49 roads, 26 highly erodible tertiary roads (total of 15 miles) were restored, 21 secondary and tertiary roads (total of 31 miles) were repaired and improved through use of crushed rock or asphalt millings to reduce erosion, and two roads (total of four miles) along with the approaches to the new bridge (1,500 feet) were paved using two different types of asphalt paving, hot mix and cold mix.

Results of simplistic monitoring (tarping the old and new bridge undersides) indicated a reduction of 1,481 lb/yr of sediment or a 13.6 percent reduction per year into the Blackwater River from the new bridge's deck area. No other monitoring efforts resulted in numeric values. A Davis Productivity Award was awarded in 2009 to the Kennedy Bridge Partnership. The award was

given for innovation, dedication and commitment to excellence, as well as cost savings for the state.

City of Tallahassee "Think About Personal Pollution" (TAPP) Campaign. The local campaign to reduce pointless personal pollution uses a variety of means to make citizens aware of their connections to nature and of the pollution they create and can control. Media includes billboards, radio, television, the local online newspaper, the www.tappwater.org website, and several publications, including a rain garden manual and palm cards on key topics such as stormwater runoff and pet waste.

The campaign started in 2003 and presently focuses on the Lake Lafayette, Lake Jackson, and Munson Lake watersheds. With support of multiple Section 319 grants and match funds provided by private sector companies involved in making the media and surveys a possibility, the program has continued all of these years.

Of recent note are the several awards that have been received for the pet waste television advertisement, promoting the need to pick up dog waste. These include:

- 2009 National Academy of Television Arts and Sciences (Suncoast Chapter) **Emmy Award** for *Community Service/Public Service (PSAs)*
- 2010 American Advertising Federation - Tallahassee - **Gold Addy** for *Public Service, TV*
- 2010 Florida Public Relations Association - Capital Chapter - **Image Award** for *Public Service Program* and the **Award of Distinction Award** for *Audio/Visual Tools: Public Service Video, one minute or less*
- 2010 American Advertising Federation Fourth District **silver Addy Award** for *Public Service*
- 2010 Florida Public Relations Association **Golden Image Award** for *Video Public Service One Minute or Less* and the **Award of Distinction** for *Public Service*

The campaign has used pre- and post-advertising surveys to assess the impacts on the community. In the most recent survey, specific actions that citizens said they had taken that reduce yard runoff included: 29% began picking up their dog's waste within six months of the survey; 18% changed to non-phosphorous fertilizers in the same six months; and, 10% fewer respondents used fertilizer.

Western Road Stormwater Treatment System. This project was funded with the 2005 grant for $100.000 and was completed in May 2010.

In the wake of tropical storm Gordon in 1994, the City of South Daytona began a multiphase effort to provide relief from flooding during storms and to remove pollutants from stormwater. One such effort was the implementation of the project "Western Road Stormwater Treatment System," which is located in South Daytona in Steven's canal/Halifax River basin. The project consisted of installation of an improved runoff collection system and construction of a wet detention pond that would treat stormwater within an urban area of 50 acres sub-basin. To determine the efficiency of the treatment, water quality was monitored for 12 months at inflow and outflow.

Monitoring results have revealed that the wet detention system is allowing the pollutants to settle or be biologically assimilated. The implementation of the project resulted an annual reduction of approximately 5.9 tons of suspended solids, 45 pounds of phosphorus and 236 pounds of total nitrogen from going to the Halifax River.

The pond also provided an attractive water feature for a passive park constructed on the premises. With proper maintenance, this wet detention system will provide much needed relief from nutrient loading in the Halifax River and will provide a closer step for South Daytona to achieve TMDL requirements of its surface waters.

Wood Stork Trail Greenway Stormwater Improvements Project. This project targets a

222-acre drainage basin with stormwater flowing to the Indian River Lagoon. The stormwater facilities and greenway system includes 15,460 linear feet of storm sewers, the excavation of new lakes, the widening of existing lakes, the inter-connection of the lakes, ~5 acres of littoral plantings, ~ 1.5 acres of upland planting, ~6,500 linear feet of trails, and other recreational amenities, including pavilions, boardwalks and educational signage.

The stormwater strategy for this project was reduction of suspended solids and nutrients from runoff using BMPs to trap sediment and remove nutrients. This project includes the implementation of stormwater treatment BMPs, including the construction of nutrient separating baffle boxes, wet detention expansion (lake reconfiguration), swales, and filter marshes, which are all designed to reduce total suspended solids and nutrients.

Monitoring was performed to determine the system's treatment effectiveness. Results showed an 85.05% reduction in Total Suspended Solids (15,203 kg/yr), 19.7% reduction in Total Nitrogen (52 kg/yr), and 28.95% reduction in Total Phosphorus (22.5 kg/yr). Additionally, public education signage was constructed to educate the public about the stormwater treatment system at the Wood Stork Trail.

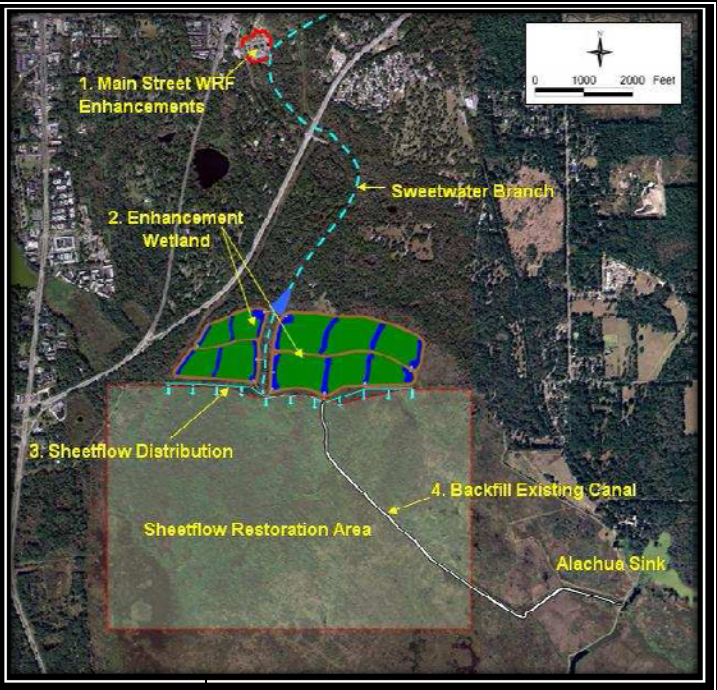
McKay Bay – East Shore Commerce Park Stormwater Retrofit Project. The McKay Bay – Eastshore Commerce Park Parcel Stormwater Retrofit Project is located in the basin of the McKay Bay watershed. The project was made possible through the efforts of three public entities: the Southwest Florida Water Management District, Tampa Bay Water, and Hillsborough County. In the cooperative agreements between the three entities, Tampa Bay Water provided ten acres of land, SWFWMD was responsible for design and construction, and the County took ownership of the completed facility and is responsible for operation and maintenance. Prior to construction, approximately 1,051 acres of off-site McKay Bay Watershed drained through two ditches adjacent to the 10-acre parcel and eventually to McKay Bay. The goal of this project was to treat stormwater runoff in the two ditches to the maximum extent possible to reduce loadings of nutrients and other pollutants to McKay Bay.

Diversion weirs were constructed across the north ditch and south ditch to divert stormwater runoff into the constructed treatment system. The runoff inputs initially enter a wet sediment sump for deposition of heavy solids, followed by 3 acres of created emergent marsh. After passing through the emergent marsh, the water discharges through a 250-ft, 48-inch RCP culvert into a 1.04-acre settling basin. The flow rate of runoff discharging through the culvert is measured using an ultrasonic Doppler flow meter. The water flow rate signal is transmitted to an alum pump facility located near the northern-central portion of the treatment facility site. A chemical metering pump injects liquid aluminum sulfate back into the 48-inch RCP, approximately 18-ft downstream from the flow sensor, at a rate proportional to the rate of discharge through the storm sewer pipe. Compressed air is also injected into the stormwater flow at this point to assist in mixing the alum and the stormwater flow. After the alum is added to the stormwater, an aluminum hydroxide flocculent is generated, which attracts and adsorbs phosphorus, nitrogen, suspended solids, bacteria, and heavy metals and discharges into the 1.04-acre settling pond. The flocculent settles onto the bottom of the pond, and the treated water passes through a skimmer structure and outfall weir and returns to the southern ditch.

Monitoring results revealed there was a 61% removal of Total Suspended Solids (12,515 kg/yr), 24% removal of Total Nitrogen (399 kg/yr), and 61% removal of Total Phosphorus (226 kg/yr).

EnviroScape Models. The Department continues to use or loan out the EnviroScape models for demonstrations about nonpoint source pollution. The models, some purchased with Section 319 grant funds, were used this year in conjunction with relevant publications and stickers for children in three Wakulla County schools' Project Learning Tree events, which touched at least 300 students and about 20 teaching staffs; in Project WET teacher trainings; in various school classrooms focusing on coastal issues, wetlands, and groundwater; and for a school science night. The Nonpoint Source Section staff and the Petroleum Cleanup Section staff each used models to enhance the Earth Day at the Capitol experience for the many school children that attended that event in Tallahassee in April.

Paynes Prairie Sheetflow Restoration. In 2010, the Department put under contract the Paynes Prairie Sheetflow Restoration Project. This project, which encumbers both 319 grant funds and state TMDL Water Quality Grant funds as well as a significant amount of local funds, is expected to cost nearly $20 million. The 319 funded portion of the project construction is expected to be completed in the fall of 2013.



The proposed Paynes Prairie Sheetflow Restoration Project is a nutrient reduction project for a 2100 acre water shed that is 80% urbanized.

The project will meet TMDL requirements for reducing nitrogen discharges from the watershed to Alachua Sink, which is an impaired water body located within Paynes Prairie Preserve State Park (the Park). The proposed BMPs include a 1) water reclamation plant upgrade, 2) Sweetwater Branch channel improvements to stabilize the channel, capture sediment and trash, 3) creation of a 125-acre treatment wetland to provide a unique and innovative approach to achieving TMDL requirements, 4) construction of a 1.25 mile long sheetflow distribution channel, and 5) back fill approximately one mile of existing canal to eliminate short circuiting.

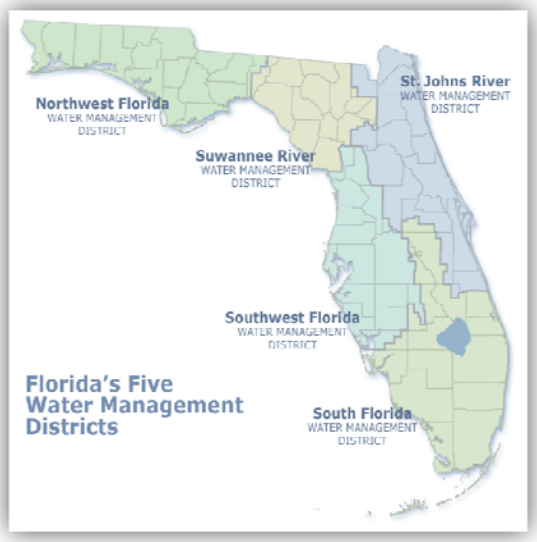
This combination of BMP's provide an innovative treatment train that will improve water quality in Alachua Sink and restore roughly 1300 acres of wetlands in the Park. The anticipated removals are for 56,412 kg/yr Total Nitrogen, and 29,316 kg/yr for Total Phosphorus.

Environmental Restoration in Florida

The State is dedicated to protecting its resources and putting its money where its mouth is. Independent of the Section 319 grant, the State funds multiple grant programs each year for the protection of our waters. Those relating to nonpoint source management are described below.

TMDL Water Quality Restoration Grants. In addition to Section 319 grants, the Department's Nonpoint Source Management Section manages the TMDL Water Quality Restoration Grant program. TMDL Water Quality Restoration grants have been issued primarily to local governments for urban stormwater retrofit projects that will reduce stormwater pollutant loadings to impaired waters. In 2010, in its first grant solicitation period, the Department selected four projects with a grant value of $2.14 million. Its second solicitation, in December 2010, resulted in an additional two projects for a total grant value of $900,000. Many of the 2010 projects are already underway. Additionally, earlier funded projects are also now yielding significant technical information.

Surface Water Improvement and Management (SWIM) Program. Since the late 1980s, the SWIM program, run through a partnership between the Department and the State's five Water Management Districts, has been responsible for developing plans for at-risk waterbodies, directing the work needed to restore damaged ecosystems, preventing pollution from both point and nonpoint sources, and educating the public. During the 2008 legislative session, the Florida Forever program, which funds the SWIM program, was extended through 2020. Since its inception, SWIM has made great strides toward improving the quality of a number of troubled waterbodies and increasing our understanding of healthy waterbodies. Today, twenty-nine water bodies are on the SWIM waterbody priority list. Though significantly less than its previous $300 million-per-year funding prior to 2009, the Florida Legislature provided $15 million for the Florida Forever program in the 2010 legislative session, ensuring that the SWIM projects may continue even in tough economic times. A summary of 2010 SWIM projects and other restoration projects completed by the Water Management Districts is found in this Annual Report.



• • • 2010 TMDL GRANT AWARDS • • •

Huntington Lakes Stormwater Park

This project, which received a $300,000 state grant, consists of a 28-acre wet detention pond, which connects to a 40-acre pond funded by a previous state grant in 2009. The new pond will treat an additional 95 acres in the Grand Lagoon watershed, impaired for nutrients, mercury, and dissolved oxygen. Total nitrogen will be reduced by 35 percent, down 62.68 kg/yr, and total phosphorous will be reduced by 45 percent, down 9.95 kg/yr. Construction has just begun and will be completed by March 2011.

Indiantown Habitat Treatment Train

The Department helped fund this project with a $600,000 grant to restore the St. Lucie River Estuary, impaired for nutrients. This environmental justice project, located in low-to-moderate income neighborhoods, will provide drainage for older residential areas and Habitat for Humanity homes, totaling 142 acres. An additional 114 acres of agricultural land will also be treated. The project will have a silver LEED certified Boys and Girls Club in the neighborhood, which will provide for educational opportunities. A wet pond will provide a 45 percent reduction for total phosphorous and a 35 percent reduction for total nitrogen, 27.0 kg/yr and 151.9 kg/yr, respectively. A wetland detention area will then further reduce loading by 44 percent for total phosphorous and 20 percent reduction for total nitrogen, 14.5 kg/yr and 56.4 kg/yr, respectively.

Cane Slough Stormwater Park

A $500,000 state grant went to a stormwater retrofit/habitat restoration project in the nutrient-impaired North Fork of the St. Lucie River to drain 249 acres. Consisting of an 8-acre stormwater treatment area connected to a 7-acre wetland marsh, which will act as a polishing cell, this project is slated to be constructed by February 2012. It will provide a 45 percent reduction for total phosphorous and a 35 percent reduction for total nitrogen, 63.6 kg/yr and 467 kg/yr, respectively, for the wet pond and an additional 44 percent reduction for total phosphorous and 20 percent reduction for total nitrogen, 62 kg/yr and 267 kg/yr, respectively.

Eustis Downtown Master Stormwater Plan

The state funded this $6.7 million project with a $1 million state grant. The City of Eustis is a low-population, low-income city. The project will drain 38.67 acres and provide for treatment of stormwater, primarily from commercial uses, to Lake Eustis, impaired for dissolved oxygen, nutrients, lead, and un-ionized ammonia. The project is part of the Upper Ocklawaha River Basin Management Action Plan and consists of capturing runoff through new inlets and stormwater pipes and diverting it to a wet detention pond.

Casselberry Baffle Box with Media Filter

This baffle box project will provide for treatment of 155.89 acres of residential lands and was included in the Lake Jesup Basin Management Action Plan. The project will provide a 24 percent reduction for total phosphorous and a 9.2 percent reduction for total nitrogen, 31.1 kg/yr and 63 kg/yr, respectively. It will also reduce Total Suspended Solids by 6165.8 kg/yr, a 21 percent reduction.

Paynes Prairie Sheetflow Restoration Project

The Department has also awarded a $389,000 grant to the Paynes Prairie Sheetflow Restoration Project, which was also partially funded by a Section 319 grant (see 2010 Stories of Success).

Northwest Florida Water Management District

Under the auspices of the SWIM program, the NWFWMD has identified numerous priority NPS pollution abatement and other watershed resource restoration projects across seven major watersheds. Implementation is accomplished through cooperative efforts with local governments, watershed initiatives, and state and federal agencies, combining NWFWMD and local resources to match state and federal funding. Additionally, the NWFWMD has provided construction grants to local governments with funding from the SWIM program and the state's Florida Forever Trust Fund.

Capital improvement grants for watershed retrofit and restoration projects in eight Florida counties have provided stormwater treatment, wetland and riparian habitat restoration, and sedimentation reduction. Since 2003, the District has provided over $21 million in construction grants for watershed restoration, primarily NPS pollution abatement, leveraging over $53 million in local match funding. To date, 48 projects have been completed, and four are ongoing.

- One such project, completed in June 2009 was the $0.5 million Chain Lake Road Bridge Replacement, which reduced sedimentation into Pine Log Creek, a tributary to Choctawhatchee River. This joint unpaved stream crossing project between the NWFWMD and Washington County involved stabilization of the roadway, construction of grassed swales, installation of a concrete bridge, and removal of approximately 250 cubic yards of sediment from Pine Log Creek. The sediment smothered existing vegetation, especially the cypress head that leads to Dog Lake, which empties into Choctawhatchee Bay. The sedimentation further released fines into the Choctawhatchee River, which disperses them into Choctawhatchee Bay, a breeding ground for the endangered Gulf Sturgeon.

The picture to the left shows the erosion on the embankment prior to completion of the project, which is pictured on the right.

Additional notable 2009-2010 projects undertaken by the NWFWMD include:

- Development of the Eastpoint Stormwater Management Plan, which will identify priority water quality and flooding problems from stormwater runoff in the community of Eastpoint, on Apalachicola Bay, develop watershed models, and recommend specific structural and nonstructural improvements to improve watershed conditions. Funding sources will also be identified.

- Financial assistance was also provided to Wakulla County for development of a stormwater retrofit plan for a neighborhood constructed without adequate stormwater treatment systems.
- District-wide LiDAR coverage acquisition is nearly complete for northwest Florida, which will significantly enhance the agency's capabilities to define and address stormwater and flooding problems. The goal is to develop a complete LiDAR data set that will be available for local governments, other agencies, and the public.
- Efforts to restore Bayou Chico, part of Pensacola Bay, continue. Restoration dredging was completed in 2008, and follow-up water quality monitoring and analysis continues.
- Grant funding and technical assistance is provided for the St. Andrew Bay Resource Management Association (RMA) and Friends of St. Andrew Bay to enhance water quality and seagrass monitoring and stormwater planning.
- The Tates Hell State Forest Restoration Plan has been completed, detailing hydrologic, water quality, and habitat restoration needs and opportunities in one of the most important areas of the Apalachicola Bay watershed. The restoration plan may be accessed at http://nwfwmdwetlands.com/index.php?Page=30 .
- New restoration projects have been initiated for Pine Log Creek and Live Oak Point, both within the Choctawhatchee River and Bay watershed.
- In addition to the projects above, the District has recently updated a watershed management plan for the St. Marks River watershed and is development plans for the Perdido and Ochlocknee River and Bay watersheds.

Southwest Florida Water Management District

- From 2009-2011, the SWFWMD has dedicated $5.35 million towards the Lake Hancock Outfall Treatment System, a 900-acre treatment wetland adjacent to Lake Hancock, which discharges into the Peace River and, ultimately, Charlotte Harbor. Reducing Nitrogen is the primary goal of this project, as Lake Hancock contributes 6% of the water flow to the Peace River, but 13% of the total annual Nitrogen load. The project is expected to initiate construction in 2011 and complete construction in 2013.
- The Clam Bayou Stormwater Regional Stormwater project is under construction for a total of $8.3 million. This wet detention project with associated habitat restoration in St. Petersburg, Florida, drains 2,500 acres and is expected to be completed in 2011.
- Sarasota County, in partnership with SWFWMD and the Department, has invested $16.7 million in the construction of an expanded wet detention area and treatment wetlands at Phillippi Creek/Celery Fields. The project is currently under construction and, when complete, will provide drainage for 3,500 acres. Construction is slated to be completed in March 2011.
- Nearly $16 million will be spent on the Lake Seminole Watershed Stormwater Pollution Reduction Projects in five subbasins and the Long Bayou/Lake Seminole

Bypass Alum Project. Subbasin 1's alum treatment, for which construction is to begin in 2011, will reduce total nitrogen by 774 lbs/year, total phosphorous by 169 lbs/year, and total suspended solids by 30,460 per year. The Long Bayou/Lake Seminole Bypass Alum Project, also set to begin in 2011 and which drains urbanized 5120 acres, will reduce total nitrogen by 5,049 lbs/yr, total phosphorous by 1,876 lbs/yr, and total suspended solids by 207,118 per year.

NEW The $5.2 million Sarasota Catfish Creek Stormwater Facility, *pictured to the right*, was completed in early 2010 under the direction of Sarasota County, in partnership with SWFWMD and the Department. The 24-acre wet detention pond, with associated swales, an oak hammock, and a six-acre wetland area, drains 810 urbanized acres and has significant TSS and sediment load reductions, as well as associated total phosphorous and total nitrogen reductions.

For more information, see the Southwest Florida Water Management District 2010 Annual Report. http://www.swfwmd.state.fl.us/documents/reports/consolidatedannual2010.pdf.

South Florida Water Management District

Nonpoint source controls are an integral component of Northern and Southern Everglades restoration and protection programs by the SFWMD. SFWMD regulatory nonpoint source control efforts include requirements for BMP plan permits and stormwater management system permits. Specifically, the SFWMD Regulatory Source Control Program requires permits for BMPs that reduce total phosphorus in landowners' runoff (both agricultural and urban, existing and new projects) and performance metrics based on water quality monitoring results for the regulated areas.

NEW SFWMD monitoring data, as of 2010 for the approximately 470,000 acres under SFWMD BMP permits in the Everglades Agricultural Area (EAA) alone, show the actual total cumulative reduction in total phosphorus loads due to BMP implementation is 2,237 metric tons. This represents a long-term reduction trend of 53% over the past 12 years of program implementation. Continued effectiveness of these mandatory programs hinges upon SFWMD and landowners' monitoring data (over 300 structures in the EAA), field inspections to verify BMP implementation, and field demonstration projects for continued development of improvements in BMP implementation techniques. In 2010, SFWMD conducted BMP verification inspections for more than 20% of the land with BMP permits and funded $350,000 in demonstration projects and BMP implementation grants to ensure continued effectiveness of the regulatory BMP program as a whole. Similar Regulatory Source Control Programs are under development by

SFWMD for the Lake Okeechobee, St. Lucie River and Caloosahatchee River Watersheds.

SFWMD also provided cost share to local governments for 142 stormwater improvement projects, of which 72 were completed in Fiscal Year 2010. These local projects provide multiple benefits, including water quality, flood control, and wetland protection/habitat enhancement. SFWMD also conducted 14,077 Environmental Resource Permit (ERP) inspections in Fiscal Year 2010 to ensure ERP permit compliance.

Everglades Stormwater Treatment Area (STA) Highlights

Since 1994, the STAs combined have received more than 10 million acres-feet of inflow and retained 1,403 metric tons (mt) of total phosphorus that would have otherwise entered the EAA. Total Phospohorus loads are reduced by 74 percent and levels from an overall annual flow-weighted mean Total Phosphorous concentration of 145 down to 40 parts per billion.

During WY2010, the six STAs collectively treated about 1.4 million acres-feet of water — nearly 30 percent more than WY2009 — and reduced inflow Total Phosphorous levels from a flow-weighted mean concentration of 147 to 15 parts per billion in the outflow. The STAs retained 253 mt of Total Phosphorous and reduced the inflow Total Phosphorous load to the EPA by 76 percent. Overall, all the STAs were in compliance with their respective operating permits.

Agency research continues to be focused on optimizing and sustaining STA performance, particularly through vegetation management. Conversions from emergent to submerged aquatic vegetation are under way in portions of STA-2 and STA-3/4. Giant bulrush (*Scirpus californicus*) also was planted in certain open areas in STA-1E and STA-1W, which has adapted well to fluctuating hydrologic conditions in other STAs.

Suwannee River Water Management District

The SRWMD and Columbia County have dedicated $10 million between 2006 and 2010 to complete construction of a regional stormwater treatment system within the Ichetucknee Springshed. For more information, see the Suwannee River Water Management District 2010 Annual Update: http://www.srwmd.state.fl.us/documents/Land%20Acquisition%20and%20Management/2010%20Florida%20Forever%20Update%20Final.PDF.

Additionally, the **Suwannee River Partnership** is a coalition of 65 federal, state, and local government agencies, as well as private organizations, agriculture, and other associations working together to help protect and conserve the water resources of the Suwannee Basin. The Partnership has received grants from the U.S. Department of Agriculture and the Florida Natural Resource Conservation Services to help farmers continue to improve irrigation systems and irrigation water management. The Partnership intends to help farmers maximize their irrigation system efficiency. This saves water, reduces farmers' costs for irrigation, and helps reduce the loss of fertilizers. Additionally, the Partnership has the following credits to its name:

- ✓ 85% of the region's dairy farms and 99% of its poultry farms have plans in place to implement the Partnership's BMPs that help protect and conserve water.[1]
- ✓ Close to 75% of crop farmers in the basin have agreed to implement the State of Florida Vegetable Agronomic Crops BMP Guide[2]
- ✓ Over 325 center pivots have been retrofitted to be more efficient.[3] These retrofits allow for more efficient low pressure nozzles, which have been shown to save millions of gallons of water per irrigation system. An estimated 1 billion gallons of water are saved per growing season.
- ✓ The USDA grants will allow the Partnership to help farmers to upgrade older irrigation system power units and pumps in order to save water and fuel and reduce air emissions.

"Protecting Florida's Groundwater through Best Management Practices" is a video produced by the Suwannee River Partnership and explains Best Management Practices from a farmer's perspective. The video, which focuses on educating farmers on nutrient loading from livestock and fertilizer application, can be found online at http://www.suwannee.org/v/suwannee.wmv.

In 2010-2011, the Suwannee River Partnership has prioritized BMP research, education, and implementation. Notably, they intend to provide one-on-one communication to agricultural producers to provide technical assistance with nutrient and irrigation management; to provide additional staff training on water conservation; to increase demonstration projects to show farmers the quantity of water saved, improved results, and economic benefits of progressive farms; and to research and demonstrate nutrient and irrigation management tools.

St. Johns River Water Management District

The SJRWMD has spent the past few years working on completion of numerous SWIM projects and other stormwater retrofit projects. The following were completed in 2010:

- NEW Herndon Swamp Canal Structures in the Indian River Lagoon Watershed. This project involves filling an existing canal and constructing three weirs as well as grading and planting a restoration site to create a 20-acre restored wetland slough. This project is promoting infiltration of nonpoint runoff and restoring the natural hydration of the 5,461-acre Herndon Swamp, reducing and slowing freshwater discharges to the North Fork of the St. Sebastian River and Indian River Lagoon.

- NEW Egret Marsh Regional Stormwater Park in the Indian River Lagoon Watershed. Constructed in partnership with Indian River County, this 35-acre stormwater treatment park employs a 4.6-acre aquatic plant-based Algal Turf Scrubber system and 9.5 acres of deep wet ponds for primary, intermediate, and final polishing treatment with a 3-acre

[1] http://www.suwannee.org/docs/Brochure.pdf
[2] http://www.suwannee.org/docs/08summer.pdf
[3] http://www.suwannee.org/docs/08summer.pdf

wood stork habitat area. The park treats 10 mgd from Indian River Farms Water Control District Lateral Canal D that drains 9,000 acres of primarily agricultural lands. The project removes 21,780 lbs/year of total nitrogen and 11,555 lbs/year total phosphorous discharged to the lagoon, helping to meet TMDL load reductions.

- Lake George Regional Stormwater Park in the Indian River Lagoon Watershed. Constructed in partnership with Brevard County, this Merritt Island flood mitigation and nonpoint source reduction treatment train of wet ponds, conveyance channels, and wetland treatment will reduce pollutant loadings to Sykes Creek and the Indian River Lagoon from a 630-acre residential drainage basin. The project will reduce total suspended solids by 76 percent, total phosphorous loadings by 27 percent, and total nitrogen loadings by 33 percent, helping to meet TMDL load reductions.

- City of Edgewater Eastern Shores Stormwater Improvement Project in the Indian River Lagoon Watershed. Constructed in partnership with the City of Edgewater in southeastern Volusia County, this nonpoint source treatment train captures runoff in a series of ditch-bottom inlets that is directed into a baffle box, that in-turn discharges into a 1-acre stormwater pond converted from a stagnant borrow pit with an elevation control structure. The graded and littoral-planted stormwater pond discharges into an upgraded stormwater pipe and eventually to Mosquito Lagoon. The project will reduce total suspended solids by 99 percent (8,562 kg/yr), total phosphorus by 88 percent (48.2 kg/yr), and total nitrogen by 53 percent (163.8 kg/yr) from this 47-acre basin of commercial, industrial, and high-density residential land uses.

- City of Rockledge Orange Ave. and Barton Ave. Baffle Box Retrofits. Constructed in partnership with the City of Rockledge, the retrofit of two baffle boxes with internal stormwater upgrades, including turbulence deflector systems with flow spreaders, nutrient separating screen systems, and floating skimmer systems with hydrocarbon absorption booms, will increase the pollutant removal efficiencies of these sediment traps, enhancing the treatment of runoff from 40-acres of older residential and urban landscapes.

- City of Palm Bay Boundary Canal Baffle Box Retrofit. Constructed in partnership with the City of Palm Bay, this is a retrofit of a baffle box upgrading the internal stormwater treatment components. Upgrades include a turbulence deflector, trash collection screen, hydrocarbon skimmer, adsorption boom, and an observation window top. The new observation window will increase inspections of internal components, monitoring of captured sediments, trash, and debris, and enhance education opportunities by allowing residents to view the workings of the system while reading about the baffle box on adjacent signage. The baffle box captures sediments and trash from a 295-acre residential basin, plus an additional 425-acres of undeveloped lands in the Town of Malabar.

- City of Palm Bay Port Malabar Inlet Inserts. Constructed in partnership with the City of Palm Bay, this project installed 14 roadside inlet baskets to capture debris, sediments, petroleum and trash from 30 acres of residential development prior to discharge into

Turkey Creek and the Indian River Lagoon. These stormwater inlet inserts are capturing 120 lbs/yr of total suspended solids and reducing total nitrogen and phosphorus loadings by 57 percent.

- West Melbourne Baffle Boxes. Installation of nine baffle boxes within the City of West Melbourne, reducing loadings to the M-1 Canal, Crane Creek and the Indian River Lagoon.

- Washington Road-Upper Eau Gallie. Construction of this 2.9-acre storm water pond treating runoff from a 274-acre residential basin included 319 funding and was in partnership with the SJRWMD, the Department, and Brevard County.

- Merritt Island Baffle Boxes and Inlet Inserts. The installation of 10 baffle boxes in various basins in central Merritt Island treating a total of 160-acres of residential development included 319 funding and was in partnership with the SJRWMD, the Department, and Brevard County.

- Mark Barnes Farm. The Mark Barnes Farm is located in St. Johns County and consists of 1,165 acres in the Deep Creek drainage basin. Both nutrient and water management practices were implemented by the grower over a three year period (2008-2010). Nutrient management practices include the use of control release fertilizer in addition to drip/fertigation. Water management practices include both plasticulture and drip irrigation and are designed to reduce water use and nutrient and sediment loading.

- Blue Sky Farms – Phase II BMP. The Blue Sky Farm is located in St. Johns County and consists of 792 acres. The majority of the farm acreage is located within the Deep Creek and Mocassin Branch drainage basins. Both nutrient and water management practices were implemented as a BMP system by the landowner. Nutrient management practices included an enhanced nutrient management BMP system that included the use of control release fertilizer (CRF) and a fertilizer application method of banding. Fifteen water control structures, designed to reduce nutrient and sediment loading to receiving waters, were also installed.

- City of Jacksonville Cost Share Projects. The District has provided cost share funding, utilizing state and ad valorem funds, to the City of Jacksonville. This work includes extending sewer service and removing septic tanks from areas where they are impacting impaired waters as identified by FDEP. The primary factors to consider for direct anthropogenic sources contributing to fecal coliform impairment are poorly maintained/failing on-site sewage treatment systems (septic tanks) or infrastructure for

off-site sewage treatment plants. The City's Water Sewer Expansion Authority (WSEA) Septic Tank Remediation project will actually provide sanitary sewer, eliminating failing septic tanks in two fecal coliform impaired WBIDs.

Lake Monroe Subbasin Midway Regional Facility (IFAS). Seminole County's Midway Regional Stormwater Facility construction started January 5, 2009. The project area watershed drains into Lake Monroe. The lake is included on the Section 303(d) list of impaired waterbodies for nutrients and dissolved oxygen. One of the two principle objectives of the project was to provide stormwater treatment to a 22-acre site along Celery Avenue by constructing four wet detention ponds to serve as a regional stormwater facility. The ponds are projected to reduce TP at a rate of 1551 lbs/year into Lake Monroe.The other objective included retrofit of the existing drainage infrastructure in the vicinity of the project area and construction of a facility to accommodate additional drainage areas for future retrofits and provide treatment for areas without any existing forms of treatment facilities. The total cost of construction was $3.5 million. The District partnered with $2.6 million toward the total Midway Project cost.

Sweetwater Cove Tributary to the Wekiva River. The Sweetwater Cove Tributary to the Wekiva River restoration phases that have been a partnership project with the District and Seminole County were completed in 2010. This project began in 2000, following funding availability from the Legislature, and included sampling and a study to identify the actions that would result in the most beneficial restoration. The study was then followed by a multi-phased implementation plan that included erosion control of an upstream creek to reduce the transport of sediments to the lake system, followed by dredging of the lake area to increase residence time and thus improve the reduction of pollutants discharging to the Wekiva River. The lake system is actually a pre-permit-era pond that was excavated during the construction of the surrounding residential area and serves as a stormwater treatment pond. The Wekiva River is an OFW, Aquatic Preserve, and FDEP has adopted TMDLs for both nitrates and total phosphorus for the river and spring. The Sweetwater Cove Tributary to the Wekiva River project resulted in the removal of 85% of the targeted dredge material and is anticipated to reduce the load to the Wekiva River of total nitrogen by 5,811 kg/year and that of total phosphorus by 451 kg/year.

Blue Villa Stormwater Park. The Blue Villa Stormwater Park along the Reed Canal in the Nova Canal Watershed was completed in August 2010. The five acre pond on an 8.8 acre parcel is the final phase of a three pond South Daytona/ District partnered retrofit initiative that stores and treats stormwater from over 600 acres of developed urban watershed and provides flood abatement during severe storm events. The District contributed $500,000 of the $1.3 million project.

DELISTED WATERS

Since 2002, Florida has delisted 278 verified impairments on 167 impaired waterbodies identified by Waterbody Identification Numbers (WBIDs) throughout the state. These areas make up no less than 13 distinct basins, including:

- 20 impairments in the Ocklawaha basin
- 4 impairments in the Apalachicola/Chipola basin
- 2 impairments in the Apalachicola Bay basin
- 74 impairments in the Lower St. Johns basin
- 33 impairments in the Middle St. Johns basin
- 6 impairments in the St. Lucie – Loxahatchee basin
- 37 impairments in the Tampa Bay Tributaries basin
- 20 impairments in the Kissimmee basin
- 25 impairments in the Nassau-St. Marys basin
- 1 impairment in the Ochlockonee - St. Marks
- 35 impairments in the Pensacola Bay basin
- 12 impairments in the Southeast Coast - Biscayne Bay basin
- 9 impairments in the Withlacoochee basin

The Nonpoint Source Management Section has had 11 urban stormwater projects within or immediately adjacent to those WBIDs prior to the delisting. While not presumed to have been the singular factor in the delisting, the nonpoint source management section is ensuring that dollars spent go towards restoring our waterbodies.

Grant Year	Project Title	319 Funding	Project Completion Date	Delisted WBID	Year Delisted	Waterbody Segment Name	Delisted Pollutant
2004	Long Bayou/Lake Seminole Bypass Canal STF	$650,000	9/5/09	1618	2009	Lake Seminole	Fecal Coliform
2003	Reed Canal Stormwater Retrofitting	$286,500	2/1/07	2363A	2009	Halifax River	Fecal Coliform
2003	Grandview Daytona Exfiltration	$500,000	9/1/06	2363B	2009	Halifax River	Nutrients (Chlorophyll-a), Lead
2003	New Smyrna 27th Ave SW Retrofit	$90,000	8/1/08	2924B	2009	Mosquito Lagoon	Fecal Coliform
2003	Marina Basin SW Retrofit	$298,800	11/22/07	2963E	2009	Indian River	Dissolved Oxygen

Grant Year	Project Title	319 Funding	Project Completion Date	Delisted WBID	Year Delisted	Waterbody Segment Name	Delisted Pollutant
2002	Lake Seminole SW Treatment Facility	$500,000	6/30/08	1618	2009	Lake Seminole	Fecal Coliform
2002	Garden Street SW Park	$666,760	5/8/07	2963E	2009	Indian River	Dissolved Oxygen
2002	East Roseland SW Improvement	$289,000	9/19/07	3129A	2009	Sebastian River	Nutrients (Chlorophyll-a)
2003	Stormwater Management Demo Project	$12,100	10/1/04	1584A	2009	Ybor City Drain	Total Suspended Solids, Nutrients
2002	Lincoln HS SW Treatment and ED Facility	$85,496	11/4/08	756	2009	Lake Lafayette Drain	Nutrients (Chlorophyll-a), Turbidity
2002	Sarasota County SW Improvements	$126,324	4/22/06	1968D	2009	Roberts Bay	Nutrients (Chlorophyll-a)

ATTACHMENT 1

FY2004 319 Grant

Load Reductions

FY 2004 319 Grant Load Reductions

Project Number	Project Name	Pollutant Type	Load Reduction Estimate (lb/yr)
2004-7	Abatement Unpaved Roads NW FL	Sedimentation-Siltation	455
2004-9	Eastpoint Regional SW Mgmt Systems	Nitrogen	141.09
		Phosphorus	52.91
		Suspended solids	81119.83
2004-11	Banana River Baffle Boxes	Phosphorus	158
		Suspended solids	86651
2004-13	Egret Marsh Regional SW Mgmt Facility	Nitrogen	37754
		Phosphorus	11399
		Suspended solids	448091
2004-15	Rockledge's Levitt Park SW Park	Nitrogen	1295
		Phosphorus	509
		Suspended solids	74303
2004-16	St. Armands Key Project	Nitrogen	113.16
		Phosphorus	66.84
		Suspended solids	24670.31
2004-17	Woodstork Trail Greenway SW Improvements	Nitrogen	2639
		Phosphorus	384
		Suspended solids	77329
2004-18	Capital Cascades Greenway SW -Phase 1	Biochemical Oxygen Demand (BOD)	12590
		Nitrogen	1460
		Phosphorus	460
		Suspended solids	80102
2004-19	Gainesville Revitalizing Sweetwater - Phase 1	Metals (Cadmium)	0.79
		Metals (Copper)	9.37
		Metals (Lead)	14.33
		Metals (Zinc)	44.35
		Nitrate	185.1
		Phosphorus	212
		Suspended solids	50750
		Total Kjeldahl Nitrogen	425.8
2004-20	Booker Lake Alum Treatment Facility	Nitrogen	1828
		Phosphorus	477
		Suspended solids	70473
2004-21	English Creek Surface Water Area - Site 2	Nitrogen	553
		Phosphorus	88

Project Number	Project Name	Pollutant Type	Load Reduction Estimate (lb/yr)
2004-22	McKay Bay-Eastshore Park SW Retrofit	Nitrogen	1153
		Phosphorus	221
		Suspended solids	50594
2004-24	Sarasota Catfish Creek	Nitrogen	2626
		Phosphorus	521
		Sedimentation-Siltation	281
		Suspended solids	1224363
2004-25	Long Bayou Seminole Bypass Canal	Nitrate	0
		Nitrogen	10719
		Phosphorus	2923
		Suspended solids	244512.18
2004-26	Winter Park Elizabeth Drive Baffle Box	Phosphorus	17.64
		Sedimentation-Siltation	21.2
		Suspended solids	4797.21
2004-27	Winter Park Alexander Place Baffle Box	Phosphorus	8.82
		Sedimentation-Siltation	11.03
		Suspended solids	2500.02
2004-29	Polk Circle B Bar Reserve Env Ed Center Pervious Concrete Demo Project	Nitrogen	13.67
		Phosphorus	2.2
		Sedimentation-Siltation	277.19
		Suspended solids	1033.96
2004-30	Abatement of Nonpoint Source Pollution from Unpaved Roads in Northwest Florida	Sedimentation-Siltation	14666.66
2004-31	Winter Park Melrose Avenue Baffle Box	Phosphorus	17.64
		Suspended solids	2449.31
2004-33	Sawgrass Water Quality Improvements Phase 2	Biochemical Oxygen Demand (BOD)	156.53
		Metals (Copper)	0.15
		Metals (Zinc)	0.99
		Nitrogen	15.54
		Phosphorus	1.76
		Suspended solids	275.58
2004-35	Halifax Canal Reclaimed Water Augmentation	Nitrogen	2533.09
		Phosphorus	304.24

ATTACHMENT 2

FY2010 Section 319(h) Projects

FY2011 Section 319(h) Proposed Projects

FY2010 SECTION 319(H) PROJECTS					
Project	**Type**	**Title**	**Lead Agency**	**Watershed**	**319 Funding**
1	Base	NPS Program Administration	DEP	Statewide	$384,299
2	Base	Erosion Sediment Control Training Program	DEP	Statewide	$161,881
3	Base	Green Industries BMP Training	DEP	Statewide	$304,581
4	Base	NPS Bioassessment Program	DEP	Statewide	$554,959
5	Base	NPS Bioassessment Quality Assurance Program	DEP	Statewide	$36,000
6	Base	Continued Expansion and Sustainability of the FYN	UF-IFAS	Various Statewide	$569,862
7	Base	Pointless Personal Pollution Education Campaign	UCF-Stormwater Management Academy (SMA)	Statewide	$250,000
8	Base	CZARA -Continuation of OSTDS County Outreach Project	DEP	Selected Counties	$200,000
9	Base	Agricultural BMP Implementation and Education	UF-IFAS	Statewide	$313,377
10	Base	Northwest Florida Unpaved Roads Stream Crossing Improvements – Walton County	Walton County	NW Florida	$84,541
11	Incremental	Gap Creek Watershed Water Quality Improvements	Okaloosa County	Choctawhatchee Bay	$722,400
12	Incremental	Capital Cascade Park Stormwater Treatment System	Blueprint 2000 Intergovernmental Agency	Apalachee Bay-St. Marks	$421,919
13	Incremental	Paynes Prairie Sheetflow Restoration – Phase I	City of Gainesville	Ocklawaha	$750,000

FY2010 SECTION 319(H) PROJECTS					
Project	**Type**	**Title**	**Lead Agency**	**Watershed**	**319 Funding**
14	Incremental	Northwest Florida Apalachicola and Ochlocknee River Basin Stream Crossing Assessment	West Florida Resource Conservation & Development Council	Apalachicola and Ochlocknee River	$297,087
15	Incremental	Melbourne Beach Stormwater Quality Improvements	Town of Melbourne Beach	Cape Canaveral	$250,000
16	Incremental	Elizabeth Place Hydrologic Enhancement Program	Polk County Natural Resources Division	Peace River	$400,000
17	Incremental	Lake Seminole Regional Alum Treatment Facility	Pinellas County Government	Lake Seminole	$500,000
18	Incremental	Coconut Lane Outfall Improvements	Town of Ocean Ridge	Lake Worth Lagoon	$119,415
19	Incremental	Lake Concord Alum Treatment & Baffle Box	City of Orlando	Lake Jessup	$516,079
20	Incremental	Lake Harris Water Quality Improvement Project	City of Leesburg	Upper Ocklawaha River, Lake Harris	$217,800
21	Incremental	Reconstruct Riberia Street/Revitalize San Sebastian River	City of St. Augustine	San Sebastian River	$450,000
22	Competitive	North Lake Lawne Stormwater Treatment Project	Orange County EPD	Little Wekiva River/Canal	$60,000
				319 TOTAL	$7,564,200

FY2011 SECTION 319(H) PROJECTS (Proposed)					
Project	**Type**	**Title**	**Lead Agency**	**Watershed**	**319 Funding**
1	Base	NPS Program Administration	DEP	Statewide	$419,299
2	Base	Erosion Sediment Control Training Program	DEP	Statewide	$161,881
3	Base	Green Industries BMP Training	DEP	Statewide	$297,264
4	Base	NPS Bioassessment Program	DEP	Statewide	$594,619
5	Base	NPS Bioassessment Quality Assurance Program	DEP	Statewide	$36,000
6	Base	Continuation of the Florida Friendly Landscaping™ Program	UF-IFAS	Various Statewide	$436,056
7	Base	Pointless Personal Pollution Education Campaign	UCF-Stormwater Management Academy (SMA)	Statewide	$200,000
8	Base	CZARA -Continuation of OSTDS County Outreach Project	DEP	Selected Counties	$200,000
9	Base	Agricultural BMP Implementation and Education	UF-IFAS	Statewide	$313,377
10	Base	Northwest Florida Unpaved Roads Stream Crossing Improvements – Walton County	Walton County	NW Florida	$84,187
11	Incremental	Ford Street Preserve	City of Fort Myers	Caloosahatchee River	$606,000
12	Incremental	FDOT North Dale Mabry Restoration	Southwest Florida Water Management District	Sweetwater Creek	$255,000
13	Incremental	Paynes Prairie Sheetflow Restoration – Phase II	City of Gainesville	Ocklawaha	$920,000

FY2011 SECTION 319(H) PROJECTS (Proposed)					
Project	**Type**	**Title**	**Lead Agency**	**Watershed**	**319 Funding**
14	Incremental	Lake Down Alum Treatment System	Orange County	Kissimmee River	$790,000
15	Incremental	Pine Island Stormwater Improvement – Phase II	Brevard County Natural Resources Management	Cape Canaveral	$800,000
16	Incremental	South Lake Lawne Stormwater Reuse	Orange County Environmental Protection Division	Lake Lawne	$270,000
17	Incremental	North Atlantic Drainage Basin Water Quality Enhancement	City of New Smyrna Beach	Indian River Lagoon	$275,000
18	Incremental	Bay Lake Stormwater Retrofit Project	Orange County Environmental Protection Division	Bay Lake	$150,000
19	Incremental	Pansy Avenue Stormwater Exfiltration System	City of Winter Park	Howell Branch Creek/Lake Jesup	$144,000
20	Incremental	Canton Avenue Stormwater Outfall Improvement	City of Winter Park	Howell Branch Creek/Lake Jesup	$90,000
21	Incremental	Park North Subdivision West Exfiltration System	City of Winter Park	Howell Branch Creek/Lake Jesup	$150,000
22	Incremental	Melbourne Beach Stormwater Quality Improvements	Town of Melbourne Beach	Cape Canaveral	$114,000
23	Incremental	Gap Creek Watershed Water Quality Improvements – Phase II	City of Fort Walton Beach	Choctawhatchee Bay	$260,000

FY2011 SECTION 319(H) PROJECTS (Proposed)					
Project	**Type**	**Title**	**Lead Agency**	**Watershed**	**319 Funding**
24	Incremental	Gap Creek Watershed Water Quality Improvements – Phase III	City of Fort Walton Beach	Choctawhatchee Bay	$30,000
				319 TOTAL	$7,596,528

ATTACHMENT 3

GOALS AND ACTIVITIES

NPS PROGRAM ADMINISTRATION AND COORDINATION

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
GOAL 1: To continuously update, refine, and improve the effectiveness and efficiency of the administration of the Florida NPS Management Program.	**FDEP All NPS Partners**
Assure that Section 319 grant work plans and applications are submitted to the EPA by September 30 of each year. ***Grant packages were submitted before the September 30 deadline.***	**FDEP**
Assure that all Section 319 grant funds are encumbered and spent in an expeditious manner. ***FY 2010 projects are currently being contracted. All FY 2009 funds have been encumbered. FY 2004 grant has been closed and all funds expended. Remaining funds in the FY 2005 grant will be expended before the end of the calendar year 2010.***	**FDEP**
Assure that information in GRTS is entered or updated by April 30 and October 30 of each year. ***Continuously done as part of program implementation. Staff attended Region V GRTS Training and have signed on to get OBI access so as to create those reports that might help Florida report more easily.***	**FDEP**
Assure that the NPS Annual Report is submitted to the EPA by December 31 of each year. ***2010 Annual Report covering FY 2010 to date was submitted with this list on December 31, 2010.***	**FDEP**
Seek additional resources to implement the watershed approach and refine watershed assessment and management tools. Use the watershed approach to increase partnering and stakeholder involvement in the enhancement and evolution of the state NPS Management Program. ***The watershed approach has greatly increased cooperation and coordination with watershed stakeholders. Partnerships include BMAPs, the Suwannee River Partnership, and many others as described in the 2010 Annual Report.***	**FDEP**
Assure that grants are closed out in a timely and efficient manner. ***FY 2004 Grant closure packet was mailed to EPA on December 28, 2010.***	**FDEP**
Assure that final products from Section 319 grant funded projects are publicized and that project closeout forms are prepared and put on the section's web site in a timely manner. ***The 2010 Annual Report and close-outs will be placed on the section's website upon being made ADA Compliant.***	**FDEP**

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
GOAL 1: To develop, implement, and refine a rotating watershed approach to improve the effectiveness of Florida's land and water resource management programs in reducing pollution contributed from point and nonpoint sources.	**LEAD: FDEP** **COOPERATING:** WMDs, FDACS, FDOH, FDCA, local governments, SWCDs, environmental groups, private sector, citizens
Prepare and distribute a document that sets forth the rotating watershed approach and the roles and responsibilities of FDEP programs and other partners. ***Completed in FY 2001.***	**FDEP,** WMDs, FDACS, FDOH, FDCA, local governments, SWCDs, environmental groups, private sector, citizens
Develop and/or refine technical tools (i.e., geographic information system [GIS], databases, public information dissemination) needed to better assess the cumulative effects of watershed pollution sources and develop TMDLs or Pollutant Load Reduction Goals (PLRGs) as needed to protect or restore the beneficial uses of waters. ***The Watershed Monitoring and Data Management Section and the Watershed Assessment Section continue to develop a variety of technical tools to enhance productivity.***	**FDEP, WMDs,** FDACS, FDOH, FDCA. local governments, SWCDs, private sector, citizens
Improve integration of federal, state, and regional watershed planning and implementation efforts to better target and implement watershed restoration programs. ***Under way as part of program implementation. BMAP staff worked tirelessly with stakeholders to achieve four adopted BMAPs in FY 2010. Additionally, Nonpoint Source Staff worked closely with Florida Department of Agriculture and Consumer Services on Agriculture BMPs; with Water Management Districts on restoration projects; and, of course, with grant recipients on their selected projects.***	**FDEP, WMDs,** EPA, FDACS, FDOH, FDCA, local governments, SWCDs, environmental groups, private sector, citizens
Expand locally led conservation processes to assure that local stakeholders are involved in setting priorities for local NPS needs, and to build local consensus for the development and implementation of watershed management plans and programs. ***Under way as part of rotating basin approach.***	**FDEP, WMDs, FDACS,** FDOH, FDCA, local governments, SWCDs, environmental groups, private sector, citizens

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
Continue to partner with the WMDs, local governments, and the private sector to implement watershed restoration projects and programs to reduce loadings in priority watersheds. ***Under way using funding from the Section 319 Grant, Florida Forever, Lake Okeechobee Protection Program, Florida Springs Initiative, and Florida Water Advisory Panel process.***	**FDEP,** WMDs, FDACS, FDOH, FDCA, local governments, SWCDs, environmental groups, private sector, citizens

AGRICULTURAL NPS MANAGEMENT PROGRAM

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
GOAL 1: To continuously update, refine, and improve the effectiveness of the Agricultural NPS Management Program in reducing NPS pollution.	**LEAD:** FDEP, FDACS **COOPERATING:** WMDs, SWCDs, NRCS, FSA, IFAS, FAMU, Farm Bureau, Ag. Commodity Assns.
Continue to identify all state, regional, and local agricultural NPS programs, and agricultural community partners. ***Activity ongoing. Executed Memoranda of Understanding with NRCS and WMDs for agricultural water resources cooperation. Existing cost-share programs are in place in many locations around the state using the SWCDs as the delivery mechanism.***	**FDACS** SWCDs
Continue to use the AWPG and explore additional procedures to enhance input and participation by agricultural producer groups in the refinement and implementation of the Agricultural NPS Management Program. ***The AWPG has been replaced by the SWCC, which is the main forum for agricultural water resource issues. Routine coordination is occurring between FDEP and FDACS. See 2010 Annual Report.***	**FDACS,** FDEP, WMDs, SWCDs, NRCS, IFAS, FAMU, Farm Bureau, Ag. Commodity Assns.
Continue to use Technical Advisory Groups and other working groups to enhance communication between agencies and the agricultural community. ***Routinely coordinate with all agricultural commodity groups and BMP TACs. Also, use WMD AAC as a forum to enhance communication.***	**FDACS, FDEP**, WMDs, NRCS, SWCDs, IFAS, FAMU, Farm Bureau, Ag. Commodity Assns.
Develop new mechanisms and refine existing ones to better integrate agricultural NPS programs across jurisdictional divisions and to reduce duplication and increase efficiency. ***LO and FARMS Interagency Teams are good examples of mechanisms that integrate agricultural NPS programs***	FDACS, FDEP, **WMDs**, **NRCS,** SWCDs, IFAS, FAMU, Farm Bureau, Ag. Commodity Assns.
Better coordinate and enhance agricultural NPS program delivery to the farming community. ***319 funded BMP Implementation Teams in place to assist growers with citrus, row crop,sod and nursery BMP implementation (WM815). Additionally, outreach programs are in place through outreach by the Suwannee River Partnership. See the 2010 Annual Report.***	**FDACS, SWCDs**, **NRCS**, FSA, IFAS, FDEP, WMDs, Farm Bureau, Ag. Commodity Assns.
Improve the integration of federal, state, and regional watershed planning and prioritization efforts to better target watersheds most in need of Agricultural NPS Management Program activities and funding. ***FDEP's Bureau of Watershed Management is conducting watershed stakeholders (outreach) meetings and is holding quarterly planning meetings with FDACS staff.***	FDEP, NRCS, FDACS, WMDs, SWCDs, local governments

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
Expand locally led conservation processes to assure that local stakeholders are involved in setting priorities for local NPS needs, and to build local consensus for agricultural NPS solutions. ***SWCDs and Resource Conservation and Development Councils have emerged as principal cost-share delivery agents statewide. FDACS and FDEP are also members of the USDA–NRCS State Technical Committee.***	FDACS, NRCS, SWCDs, FDEP, IFAS, local governments, Ag. Commodity Assns., environmental groups
GOAL 2: Continue to refine existing agricultural regulatory programs to enhance their effectiveness in reducing agricultural NPS pollution and to streamline the process for the regulated community.	**LEAD:** **WMDs, FDEP** **COOPERATING:** FDACS, SWCDs, NRCS, FSA, IFAS, FAMU, Farm Bureau, Ag. Commodity Assns.
Develop intra- and interagency regulatory incentives to encourage the adoption of voluntary BMPs, including reduced or streamlined permitting, the use of regulatory alternatives, reduced monitoring requirements, and the presumption of compliance for implementation of farm plans and the adopted BMPs. ***State statutes now require BMP implementation or water quality monitoring during the BMAP phase. Right to Farm Statute also recognizes BMP implementation. In FY 2010, four BMAPs were adopted and many more are underway.***	**WMDs, FDACS, FDEP,** FDCA, local governments, Farm Bureau, Ag. Commodity Assns.
Continue to use the ARSG and other working groups to explore the feasibility of alternative regulatory mechanisms, such as the SWFWMD AGSWM Program. ***See I(b) above. ARSG is a subgroup of the AWPG, which has been disbanded and replaced with the SWCC.***	**WMDs, FDACS, FDEP**
Continue to adopt BMPs and BMP manuals that can be included by reference in streamlined agricultural regulations. ***The Florida-Friendly Landscaping™ Guide to Plant Selection and Landscape Design was printed in 2010. Two more manuals are presently being developed: Fruit and Nut and Equine.***	**WMDs, FDACS, FDEP**
Assure that requirements in agricultural regulations are achieving their desired environmental goals in the most flexible and cost-efficient manner. ***Ongoing implementation of CARES Program in the MSRB.***	**WMDs, FDACS, FDEP,** IFAS, NRCS, FAMU, Farm Bureau, Ag. Commodity Assns.
Better coordinate regulatory incentives and reduce regulatory barriers to maximize flexibility and benefits to agricultural producers while maintaining desired environmental results. ***Florida moved into Phase II of an updated Environmental Resource Permitting program in the panhandle in late 2010, which turns over certain wetland and stormwater permitting tasks to the NWFWMD.***	FDEP, WMDs, **FDACS,** IFAS, NRCS, FAMU, Farm Bureau, Ag. Commodity Assns.

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
GOAL 3: Continue to refine and, where feasible, expand non-regulatory, incentive-based programs to reduce agricultural NPS pollutant loadings to surface and ground waters.	**LEAD:** WMDs, FDACS, FDEP **COOPERATING:** NRCS, Farm Bureau, Ag. Commodity Assns.
Explore the use of whole farm plans and ecosystem management agreements as mechanisms to assure the implementation of BMPs to minimize NPS pollution from agricultural sources. ***Partnerships, such as the Suwannee River Partnership, and FDACS continue to work with farms for effective implementation of BMPs. Development projects continue, including a pine straw study and others.***	**WMDs, FDACS, FDEP,** Farm Bureau, Ag. Commodity Assns.
Better coordinate regulatory incentives and reduce regulatory barriers to maximize flexibility and benefits to agricultural producers while maintaining desired environmental benefits. ***Development projects and outreach continues to demonstrate the most environmentally friendly BMPs while maintaining yield.***	FDEP, WMDs, **FDACS**
Assist agricultural commodity groups in developing and implementing their own BMP initiatives to protect water quality and sustain agricultural production, through non-regulatory and incentive-based programs and technical assistance. ***Continue to meet with FFVA, FNGLA, FSGC, NFGE, FFAA, FCA, IRCL, and FFB to foster a cooperative atmosphere for BMPs.***	**FDACS, FDEP,** WMDs, SWCDs, NRCS, FSA, IFAS, local governments
Conduct at least one project in a priority watershed that uses an incentive approach to reduce agricultural NPS pollution. ***MSRB nutrient management project, TCAA controlled release fertilizer project, and LO water conservation projects. See 2010 Annual Report.***	**WMDs, FDACS, FDEP,** Farm Bureau, Ag. Commodity Assns.
Explore the development of an agricultural BMP cost-share program, thus providing additional state funding to supplement federal agricultural cost-share programs. ***FDACS uses state-provided TMDL funds to create financial partnerships for BMP cost-share delivery in most areas of the state.***	**WMDs, FDACS, FDEP,** Farm Bureau, Ag. Commodity Assns.
GOAL 4: Continue refining agricultural BMPs to improve their effectiveness in preventing or reducing agricultural NPS pollution and to expand their implementation.	**LEAD: FDACS, FDEP, IFAS** **COOPERATING:** WMDs, SWCDs, Farm Bureau, FAMU, Ag. Commodity assns.

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
Develop a prioritized list of agricultural commodities for which BMPs will be developed/refined and evaluated for their effectiveness, and for which BMP Manuals will be prepared and distributed. ***Equine and specialty fruit and nut crops BMP manuals are presently being developed. Additional BMP manuals will be prioritized in 2011.***	**SWCC, Nitrate BMP TAC**
Based on the prioritized list, evaluate the effectiveness of current or modified BMP designs/systems for a specific commodity and refine them to provide the greatest environmental benefits without adversely affecting farm productivity or economics. ***Preliminary effectiveness evaluations have been conducted for citrus, row crops, container nurseries, sod and ferns, with other projects pending.***	**FDACS, FDEP, IFAS**, WMDs, SWCDs, Farm Bureau, FAMU, Ag. Commodity Assns.
Periodically re-evaluate the priority list and revise it as needed to better direct BMP effectiveness evaluations and enhancements. ***New 319 guidance in place will affect this activity and may result in reprioritization.***	**SWCC and ad hoc TMDL Work Groups, Nitrate BMP TAC**
Implement, demonstrate, and verify the effectiveness of new or revised BMP designs/systems on a commercial scale. ***Flatwoods Citrus BMP project; Santa Fe Nursery project; Pine Straw Fertilizer Application project***	**FDACS, FDEP,** NRCS, IFAS, WMDs
Continue to assist the FFAA with the implementation of the ongoing BMP initiative. ***Assisted in the development of BMP manuals and outreach.***	**FDACS, FDEP, FFAA**
Continue to assist the Florida Nursery Growers and Landscape Association with the implementation of the ongoing BMP initiative. ***Assisting FNGLA and nursery industry with modification on BMP manual to include in-ground nursery activities. Highlighted successful environmentally-friendly practices—see 2010 Annual Report.***	**FDEP, IFAS, FNGLA,** WMDs
Assist the Florida Cattleman's Association with the implementation of its new BMP Manual and associated training and public education efforts. ***Project complete. Manual currently being verified for BMP effectiveness by FDEP.***	**FDACS, FDEP, FCA**, IFAS, WMDs
Track the adoption and use of BMPs by agricultural producers and provide technical assistance to persons using the BMPs. ***BMP Tracking System is operational and NOI forms are being submitted to FDACS to track the progress of BMP implementation. Technical assistance teams are in place for most locations throughout the state.***	**FDACS, SWCDs,** NRCS, IFAS, Farm Bureau, Ag. Commodity Assns. .
Develop, adopt, and assure the implementation of aquaculture BMPs that will minimize impacts on water quality. ***BMP Manual adopted, certification process ongoing, and educational programs in place.***	**FDACS,** FDEP, WMDs, Aquaculture industry

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
GOAL 5: Continue to enhance and expand technical assistance and educational programs to producers by improving state, regional, and local delivery mechanisms.	**LEAD: FDACS, FDEP, WMDs, CES** **COOPERATING:** SWCDs, Farm Bureau, FAMU, Ag. Commodity Assns.
Develop, refine, and maintain an online clearinghouse to disseminate information about agricultural NPS pollution and management tools and programs to the public. ***Educational opportunities include trainings provided by the GIBMP program and others. Demonstration projects continue.***	**FDACS, FDEP,** WMDs, IFAS, Farm Bureau, Ag. Commodity Assns.
Develop and distribute BMP reference and education materials, conduct workshops and seminars, and support local (e.g., school) conservation education efforts. ***FDEP distributed agricultural NPS public educational materials and BMP manuals.***	**IFAS, FDEP, FDACS,** SWCDs, WMDs, Farm Bureau, Ag. Commodity Assns.
In priority watersheds, build capacity at the local SWCD and CES level, in conjunction with the private sector, to expand and improve technical assistance to agricultural producers. ***FDACS staff continue to work with SWCD and CES to improve their capabilities for providing technical assistance.***	FDACS, SWCDs, IFAS, NRCS, FDEP, WMDs, Farm Bureau, Ag. Commodity Assns.
Assist aquaculture producers in meeting the water quality protection objectives of the streamlined regulatory program.	**FDACS, SWCDs**, aquaculture industry
GOAL 6: Continue to refine and expand monitoring programs so that they can effectively assess agricultural NPS impacts on surface and ground water, evaluate the effectiveness of the Agricultural NPS Management Program, and better target the delivery of program activities to priority watersheds.	**LEAD:** FDEP, FDACS, WMDs **COOPERATING:** SWCDs, IFAS, FAMU
Continue to determine the long-term effects of agricultural NPS pollution and BMPs on surface and ground water quality through long-term monitoring of biological communities, sediments, and water chemistry. ***Ongoing, with active BMP monitoring programs being implemented in the IR, MSRB, and LO areas. Bioassessment work also continues, as does groundwater and springshed studies. DEP staff continue to examine sources for TMDL allocations.***	**FDEP, WMDs**

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
Continue to participate on the State Technical Committee to assure that USDA programs are better integrated and coordinated with the state Ag. NPS Program, especially for the selection of priority watersheds and the delivery of financial and technical assistance programs. ***Staff continue to be a member of the State Technical Committee, as do staff from FDACS and WMDs. Priority areas are generally aligned with FDEP's Basin Management Cycle/Priority Waters.***	FDEP, FDACS, WMDs, NRCS, FSA, SWCDs, IFAS, Farm Bureau, Ag. Commodity Assns.
In priority watersheds, assure that the monitoring program established as part of the watershed management planning effort can direct where BMPs are most needed and can determine the effectiveness of their implementation. ***DEP coordination meetings with FDACS through watershed planning efforts and Water Management District Florida Forever project coordination continues.***	**FDEP, WMDs,** watershed stakeholders
In priority watersheds, cooperate with agricultural commodity groups to establish a process to track the adoption and success of agricultural NPS and BMP initiatives. ***BMP participation rates are generally being met and progress reported on by FDEP during the BMAP process. Implementation Teams assist with this effort.***	**FDACS, SWCDs, NRCS, FSA,** Farm Bureau, Ag. Commodity Assns., IFAS, FDEP, WMDs
Use the data from statewide and priority watershed monitoring programs to better identify and target impaired waters (i.e., TMDL list) and to prioritize Agricultural NPS Management Program activities. ***The FY 2010 and 2011 Section 319 Applications and Key Ranking Factors reflect new priorities that are closely tied to the TMDL schedule. Ranking in 2011 for the FY 2012 grant will go further on this goal to ensure that projects result in success, including delisting waterbodies.***	**FDEP, FDACS, WMDs, NRCS, FSA,** SWCDs, IFAS, Farm Bureau, Ag Commodity Assns.
Continue to track the implementation of BMPs by Florida fertilizer plants and provide assistance as needed to maximize compliance. ***Ongoing as part of MOA between FDEP, FDACS, and FFAA.***	**FDACS, FDEP, FFAA**
In cooperation with the Florida Nursery Growers and Landscape Association, develop a mechanism to track implementation of the BMPs in the new BMP Manual. ***Statewide Nursery Rule includes NOI tracking mechanism.***	**FDEP, IFAS, FNGA,** WMDs
In cooperation with the Florida Cattleman's Association, develop a mechanism to track implementation of the BMPs in the new BMP Manual. ***Statewide Cow/Calf Manual and rule adoption.***	**FDACS, FDEP, FCA**, IFAS, WMDs
Use the aquaculture certification process as a means of tracking the implementation of adopted aquaculture BMPs. ***In implementation, annual recertification process.***	**FDACS,** SWCDs FDEP, WMDs, Aquaculture industry
GOAL 7: Continue to seek additional funding for implementing the Agricultural NPS Management Program and for constructing BMPs on agricultural lands.	**FDACS**, **FDEP**, **WMDs,** NRCS, FSA, SWCDs, Farm Bureau, Ag. Commodity Assns.

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
Continue implementing the Nitrate BMP Program and seek additional funding for it. ***Nitrate program reauthorized for next 10 years by 2003 Legislature to include both surface water and ground water impacts for nitrogen and phosphorus.***	**FDACS,** FDEP, WMDs, SWCDs, Farm Bureau, Ag. Commodity Assns.
Explore the development of an agricultural BMP cost-share program, thus providing additional state funding to supplement federal agricultural cost-share programs. ***Florida Legislature provides recurring revenue for this purpose. FDACS leveraging state dollars with federal dollars for EQIP cost-share.***	**WMDs, FDACS, FDEP,** Farm Bureau, Ag. Commodity Assns.
Explore options to either create an agricultural BMP loan program or to expand the SRF Loan Program to agricultural BMPs. ***SRF funds are being made available to private landowners meeting certain criteria to implement certain BMPs to reduce NPS pollution.***	**FDEP, FDACS**

SILVICULTURE NPS MANAGEMENT PROGRAM

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
GOAL 1: To continuously update, refine, and improve the effectiveness of the Silviculture NPS Management Program in reducing NPS pollution. **NOTE: The BMP TAC is composed of members from State and Federal agencies, Forest Products Industry, Florida Forestry Association, Association of Consulting Foresters, Audubon Society, Sierra Club, Florida Wildlife Federation, TNC, and private nonindustrial forest landowners**	**LEAD:** DOF, FDEP **COOPERATING:** USFS, WMDs, UF, NRCS, FWC, BMP TAC
Identify and address silviculture-related water quality issues on public and private lands. ***Silviculture water quality issues are examined with the allocation of TMDL and BMPs are developed during a BMAP process.***	**DOF, FDEP,** USFS, WMDs, UF, NRCS, FWC, BMP TAC
Cooperate with state and local regulatory agencies to develop and/or refine regulatory standards affecting silviculture activities. ***On February 11, 2004, DOF established a new rule in the Silviculture BMP Program. Rule 5I-6, F.A.C., was established to provide an additional incentive for landowners to implement forestry BMPs. Compliance with Rule 5I-6 involves submitting a NOI to DOF. This NOI is simply a commitment to implement BMPs during all bona fide forestry operations, and there are no fees or waiting periods involved. DOF has received NOIs encompassing over 5.1 million acres of private and public land.***	**DOF, FDEP** USFS, WMDs, UF, NRCS, FWC, BMP TAC
Continue to implement the Silviculture BMP Program by disseminating information through training workshops and publications. ***DOF's Hydrology Section conducted a total of 22 BMP training workshops that collectively trained 500 individuals, as follows: 1 workshop for professional foresters; 1 for professional loggers through the Florida Forestry Association Master Logger Program; 3 workshops for new wildland firefighters as part of Basic Fire Control Training; 1 workshops as part of DOF's Basic Forest Management Training for new foresters; 1 BMP workshop for the forest hydrology class at the University of Florida (UF); 4 BMP-related activities in conjunction with DOF's Forestry Training Camp for high school Future Farmers of America (FFA) students; 3 workshops for the Southeastern Wood Producers Association to inform out-of-state loggers (in Georgia and Alabama) about Florida BMPs; 3 workshops for Water Management Districts (NWFWMD, SJRWMD, and SRWMD), 1 workshop for the USDA Forest Service, 2 BMP Program presentations (Jackson County Blue Spring Basin Working Group and Management Strategies for Ephemeral Ponds at Tall Timbers) and 2 BMP workshops open to landowners, foresters, and land managers.***	**DOF, FDEP** USFS, WMDs, UF, NRCS, FWC, BMP TAC

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
Review, revise, reprint, and distribute the Silviculture BMP Manual as needed based on research and survey data. ***Distribution ongoing. The manual was revised and reprinted in 2008. In 2004, BMP evaluations began on all 36 State Forests in Florida where forest management activity involved the implementation of BMPs. These annual evaluations continue to be an important aspect of the DOF mission in protecting and managing Florida's forest resources through a stewardship ethic. Twenty state forests were evaluated in 2007, with overall BMP compliance of 99.3% for all identified Silviculture activities.***	**DOF, FDEP** USFS, WMDs, UF, NRCS, FWC, BMP TAC
GOAL 2: Continue to refine existing silviculture regulatory programs and BMPs to enhance their effectiveness in reducing NPS pollution and to streamline the process for the regulated community.	**LEAD:** **DOF, FDEP** **COOPERATING:** USFS, WMDs, UF, **NRCS, FWC, BMP TAC**
Continue monitoring BMP applications to determine compliance level on public and private forest lands throughout the state. ***2007 biennial BMP Compliance Survey found a 98.6% statewide compliance rate***	**DOF, FDEP,** USFS, WMDs, UF, NRCS, FWC, BMP TAC
Continue and expand monitoring projects to gain scientific knowledge about BMP effectiveness. Develop a "real-time" BMP monitoring process to function within the TMDL Program. ***DOF has developed and continues to distribute a brochure and process for conducting "real-time" BMP monitoring in the form of voluntary Courtesy Checks, which are made available to loggers, landowners, and contractors in an effort to enhance DOF's outreach for BMP training, in addition to the evaluation of random forestry operations after completion. The real-time monitoring is targeting specific areas (such as TMDL watersheds) within which to conduct intensive, in-the-field evaluation and training at or near the initiation of the forestry activity. For the period of record—from October 1, 2007, to September 30, 2008—34 Courtesy Audits were performed statewide, with an overall compliance rate of 97.2%.***	**DOF, FDEP,** USFS, WMDs, UF, NRCS, FWC, BMP TAC
Continue to disseminate findings of BMP Implementation Survey via summary report and publications. ***Ongoing as part of base program efforts.***	**DOF, FDEP,** USFS, WMDs, UF, NRCS, FWC, BMP TAC
Re-evaluate the use of fertilizers in forestry operations and revise BMP as needed. ***The TAC met in November 2003 and established new BMPs for forest fertilization. As a result of the new BMPs, the BMP Manual for Silviculture was revised and reprinted in 2008, and the training for these new BMPs is ongoing and has been the focus of the 2008 training sessions.***	**DOF, FDEP** USFS, WMDs, UF, NRCS, FWC, BMP TAC

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
GOAL 3: Continue to enhance and expand technical assistance and educational programs to foresters, landowners, and citizens by improving state, regional, and local delivery mechanisms.	**LEAD**: **DOF** COOPERATING: FDEP, USFS, WMDs, UF, NRCS, FWC, BMP TAC
Develop and distribute BMP reference materials through state and local agents (County Foresters) during workshops and site visits. ***Ongoing as part of base program activities. Another item to enhance the BMP training program for loggers was the 2007 production of a 30-minute DVD depicting the proper use and implementation of BMPs focusing on Streamside Management Zones (SMZs), Wetlands, Forest Roads, Stream Crossings, and Waste Disposal.***	**DOF,** FDEP USFS, WMDs, UF, NRCS, FWC, BMP TAC
Continue to implement BMP training programs and Master Logger Program to increase understanding of silviculture NPS issues and the use of BMPs to resolve them. ***See above.***	**DOF,** FDEP, USFS, WMDs, UF, NRCS, FWC, BMP TAC
Participate in Environmental Education and school programs to promote awareness of Florida's water environment and the use of sound forest management tools that protect water quality. ***Ongoing as part of base program activities.***	**DOF,** FDEP, USFS, WMDs, UF, NRCS, FWC, BMP TAC

URBAN STORMWATER NPS MANAGEMENT PROGRAM

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
GOAL 1: To continuously update, refine, and improve the effectiveness of the Urban NPS Management Program in reducing NPS pollution.	**LEAD:** **FDEP, WMDs** **COOPERATING:** Local governments, SWCDs, FASU, FSPA, FES, FHBA
Continue to identify all state, regional, and local urban NPS programs, and urban stormwater program partners. ***Ongoing as part of base program tasks associated with the rotating basin approach.***	**FDEP, WMDs,** local governments, FASU, FSPA,
Continue to use FASU and SPMA to enhance input and participation by urban stormwater managers in the refinement and implementation of the Urban NPS Management Program. ***Ongoing as part of base program tasks.***	**FDEP, WMDs,** FASU, FSPA, local governments, FES
Continue to use Technical Advisory Groups and other working groups to enhance communication between agencies and the urban stormwater community. ***Ongoing as part of base program tasks and incremental project implementation.***	**FDEP, WMDs,** FES, ASCE chapters, FHBA
Better coordinate and enhance urban NPS program delivery to the public, local governments, and other stormwater managers. ***Ongoing as part of base program tasks. GI:BMP participation has sky-rocketed in 2010 with legislative changes. See Annual Report. Additional, TMDL Water Quality Grants encourage educational component.***	**FDEP, WMDs,** FASU, FSPA, local govts, FES, FHBA, environmental groups
Improve the integration of federal, state, and regional watershed planning and prioritization efforts to better target watersheds most in the need of urban NPS management program activities and funding. ***Ongoing as part of base program tasks in all watersheds as part of the rotating basin approach.***	**FDEP, WMDs, FASU, FSPA, local governments, SWCDs**
Expand locally led conservation processes to assure that local stakeholders are involved in setting priorities for local NPS needs and to build local consensus for urban NPS solutions. ***Ongoing as part of base program tasks in all watersheds as part of the rotating basin approach.***	**FDEP, WMDs, FASU, FSPA, local governments, SWCDs, environmental groups**
Continue to partner with WMDs and local governments to implement stormwater retrofitting projects to reduce loadings from older development in priority watersheds. ***Ongoing as part of base program tasks, especially in NPS priority watersheds such as those with SWIM or NEP plans. Incremental funds continue to be used for retrofit projects.***	**FDEP,** WMDs, local governments

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
GOAL 2: Continue to refine existing urban stormwater regulatory programs to enhance their effectiveness in reducing urban stormwater pollution and to streamline the process for the regulated community.	**LEAD: WMDs, FDEP** **COOPERATING:** FASU, FSPA, local governments, FES, FHBA, SWCDs, environmental groups
Continue to work toward implementing the ERP Program in northwest Florida. ***Phase II has been implemented as of Nov. 2010. State continues to work on the Statewide Stormwater Rule. See Annual Report.***	
Continue to adopt BMPs and BMP manuals that can be included by reference in streamlined urban stormwater regulations. ***Continued working with Green Industries to implement the Green Industry BMP Program for the professional lawn/landscape service industry. Spanish-language versions of Green Industry BMP manuals have been published. Staff are working with local governments to encourage the adoption of a model ordinance—model is now required in many areas. See Annual Report.***	**WMDs, FDEP,** FASU, FSPA, local governments, FES, FHBA, SWCDs, environmental groups
Assure that requirements in urban stormwater regulations are achieving their desired environmental goals in the most flexible and cost-efficient manner. ***Staff completed a landscape installation and maintenance manual in late 2010. The model ordinance for fertilizer application was adopted by the legislature and made mandatory for certain areas.***	**WMDs, FDEP,** FASU, FSPA, local governments, FES, FHBA, SWCDs, environmental groups
Continue to revise stormwater rules, especially BMP design criteria, to improve their effectiveness. Work with the WMDs to create and implement unified, statewide stormwater BMP design criteria. ***During 2006, FDEP undertook rulemaking to develop a statewide, unified stormwater treatment rule. Rulemaking continues. See Annual Report.***	FDEP, WMDs, **Local governments, FASU, FSPA, FES, environmental groups**
GOAL 3: Continue to refine and, where feasible, expand nonregulatory, incentive-based programs to reduce urban stormwater pollutant loadings to surface and ground waters.	**LEAD:** FDEP, WMDs **COOPERATING:** FASU, FSPA, local governments, FES, FHBA, environmental groups
Continue to use the growth management process to assure the implementation of nonstructural, pollution prevention BMPs to minimize NPS pollution from urban stormwater. ***Worked with Green Industries, IFAS, FDCA, and FDACS to continue Green Industry BMP program for the professional lawn/landscape service industry. WMDs continue to regulated large ERP projects in most of the state. BMPs continue to be utilized at regulated NPDES Stormwater facilities.***	**FDCA, FDEP, WMDs,** FASU, FSPA, local governments, FES, SWCDs, environmental groups

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
Work with trade groups and others who use products that become an urban stormwater pollution source to develop and implement their own BMP initiatives to protect water. ***See Annual Report on GI: BMPs. Continue to distribute Golf Course BMP Manual.***	**FDEP, WMDs,** trade groups, FASU, FSPA, local governments, FDCA, FES, FHBA, SWCDs, environmental groups
GOAL 4: Continue refining urban stormwater BMPs to improve their effectiveness in preventing or reducing urban stormwater pollution and to expand their implementation.	**LEAD:** **FDEP, WMDs** **COOPERATING:** FASU, FSPA, local governments, FES, SWCDs, environmental groups, universities
Develop and periodically revise a prioritized list of urban stormwater BMPs for which better effectiveness data are needed and for which design criteria need to be evaluated. ***Design criteria are being examined through the rule-making of the statewide stormwater rule. See Annual Report.***	**FDEP, WMDs**, FASU, FSPA, local governments, universities, FES, environmental groups
Based on the prioritized list, evaluate the effectiveness of current or modified BMP designs/systems and refine them to provide the greatest environmental benefits in the most cost-effective manner. ***BMPs for 319 incremental funded projects are examined and evaluated for efficacy. BMPs are further evaluated through development projects as well as independent research.***	**FDEP, WMDs**, FASU, FSPA, local governments, FES, universities
Revise the *Florida Development Manual: A Guide to Sound Land and Water Management* as needed to assure that it is current with the state of the art. ***No activity until stormwater rules are revised.***	FDEP, **WMDs, FASU, FSPA, local governments, FES, FHBA, SWCDs, environmental groups**
Continue to partner with UF–IFAS to expand the implementation of the FYN Program and to evaluate the program's effectiveness in reducing NPS pollutants from residential and commercial landscapes. ***Ongoing as part of base program activities. See Annual Report.***	FDEP, IFAS, WMDs, local governments, landscaping groups, FHBA

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
GOAL 5: Continue to enhance and expand technical assistance and educational programs to homebuilders, local governments, and citizens by improving state, regional, and local delivery mechanisms.	**LEAD:** **FDEP, WMDs** **COOPERATING:** FASU, FSPA, local governments, universities, FES, FHBA, environmental groups
Develop, refine, and maintain an online clearinghouse to disseminate information about urban stormwater pollution and management tools and programs to the public. ***FDEP web site updated as new information is made available. A major revision is planned for 2011. Establishing online distance learning courses for Green Industry workers using community college system under Contract G0041.***	**FDEP** WMDs. FASU, FSPA, local governments, universities, FES, FHBA, environmental groups
Develop and distribute BMP reference and education materials, conduct workshops and seminars, and support local (e.g., school) conservation education efforts. ***GI: BMP training, as well as Sediment and Erosion Control training, continues. See Annual Report.*** ***The TMDL Water Quality Grant encourages an educational component.***	**FDEP, WMDs**, **FASU**, FSPA, local governments, SWCDs, universities, FES, FHBA, environmental groups
Continue implementing and refining the Stormwater Operators Training Program and the Stormwater, Erosion, and Sediment Control Inspector Training Program. ***See Annual Report for latest data.***	**FDEP,** WMDs, FASU, FSPA, local governments
Complete preparation of Contractor Stormwater and Erosion Control Training Program and begin implementation. ***See Annual Report for latest data.***	**FDEP,** WMDs, FHBA, contractor assns.
GOAL 6: Continue to refine and expand monitoring programs so that they can effectively assess urban stormwater impacts on surface and ground water, evaluate the effectiveness of the Urban NPS Management Program, and better target the delivery of program activities to priority watersheds.	**LEAD:** FDEP, WMDs **COOPERATING:** FASU, FSPA, local governments, universities, FES, FHBA, environmental groups
Continue to determine the long-term effects of urban NPS pollution and BMPs on surface and ground water quality through long-term monitoring of biological communities, sediments, and water chemistry. ***Ongoing as part of watershed monitoring efforts.***	FDEP, WMDs, local governments, environmental groups

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
Continue to use the SWIM Act/process and the rotating watershed approach to improve the selection of priority watersheds and the delivery of financial and technical assistance programs to these watersheds. ***Ongoing as part of base program tasks, especially those related to the implementation of the rotating basin approach.***	**FDEP, WMDs,** FASU, FSPA, local governments, universities, FES, FHBA, environmental groups
In priority watersheds, assure that the monitoring programs established as part of the watershed management planning effort can direct where BMPs are most needed and can determine the effectiveness of their implementation. ***Being established as part of Strategic Monitoring Plans for implementation during Phase 2 of the rotating basin approach. Also being included as part of reissued NPDES MS4 permits.***	**FDEP, WMDs,** local governments, watershed stakeholders
In priority watersheds, cooperate with local governments to establish a process to track the adoption and success of urban NPS and BMP initiatives. ***Will be implemented when Phase 5 of the rotating basin approach begins in the Group 1 basins. Also being included as part of reissued NPDES MS4 permits.***	**FDEP, WMDs,** local governments, watershed stakeholders
Use the data from statewide and priority watershed monitoring programs to better identify and target impaired waters (i.e., TMDL list) and to prioritize urban stormwater management program activities. ***Ongoing as part of base program tasks, especially those related to the implementation of the rotating basin approach.***	**FDEP, WMDs,** local governments, watershed stakeholders
Continue to use the NPDES municipal stormwater permitting program as a mechanism to implement structural and nonstructural BMPs in priority watersheds and to track the implementation efforts. ***Ongoing as part of base program tasks, especially those related to the implementation of the rotating basin approach.***	**FDEP, local governments,** WMDs
GOAL 7: Continue to seek additional funding for implementing the Urban NPS Management Program and for retrofitting developed urban areas where stormwater pollutants are adversely affecting surface or ground waters.	**FDEP, WMDs, local governments,** FASU, FSPA, local governments, environmental groups
Explore the implementation of fees associated with certain products that contribute to the urban stormwater pollution problem (i.e., concrete, asphalt, fertilizer, pesticide, etc.) as a means of providing a dedicated revenue source to fund SWIM and stormwater retrofitting projects. ***The Legislature continues to fund SWIM through the Florida Forever program. Additional funding may be found in the Department's Ecosystem Trust fund. Additional funding for stormwater is also found in the State Revolving Fund. Lastly, the TMDL Water Quality Grant encourages municipalities to have dedicated funding, most commonly found through the use of a stormwater utility fee.***	**FDEP, WMDs, local governments,** FASU, FSPA, environmental Groups
Explore options to increase the percentage of funds from the SRF Loan Program that are available for urban stormwater projects. ***Completed.***	**FDEP, WMDs,** local governments, FASU, FSPA

ONSITE WASTEWATER NPS MANAGEMENT PROGRAM

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
GOAL 1: To continuously update, refine, and improve the effectiveness of the Onsite Wastewater NPS Management Program in reducing NPS pollution.	**LEAD:** **FDOH, FDEP** **COOPERATING:** Local governments, water management districts, FOWA (formerly FSTA), FHBA, universities
Implement the recommendations of the Governor's special study team. ***The Governor's special study team recommendations were not considered by the Legislature during this year's session.*** ***However, in the 2010 legislative session, the legislature adopted a maintenance and inspection program. See Annual Report.***	
GOAL 2: Continue to refine existing onsite wastewater regulatory programs to enhance their effectiveness in reducing NPS pollution and to streamline the process for the regulated community.	**LEAD:** **FDOH, FDEP** **COOPERATING:** FDCA, FOWA, FHBA
Implement the recommendations of the Governor's special study team. ***The Governor's special study team recommendations were not considered by the Legislature during this year's session.*** ***FDEP continued to use Section 319 funds to pay for a project that enhances FDOH staff capabilities to oversee operating permitted OSTDS's. The Carmody Program is available for county health departments and for FDOH headquarters staffs under a license to FDOH. The web-based maintenance tracking and management program is interactive. OSTDS service providers can input their repair and installation information directly into the system, thus saving health department staff and service providers' time and energy. The program continues to be used by the Polk County Health Department for tracking the state-mandated five-year pumping cycle for all OSTDS's in the Green Swamp, an ACSC that is at the headwaters for four major rivers. Training was provided by the contractor throughout the year as needed, both by phone, online tutorials, and around the state at several sites.***	
GOAL 3: Continue to refine and, where feasible, expand nonregulatory, incentive-based programs to reduce pollutant loadings from OSTDS's to surface and ground waters.	**LEAD:** **FDOH** **COOPERATING:** Local governments, FOWA, FHBA

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
Implement the recommendations of the Governor's special study team. ***The Governor's special study team recommendations were not considered by the Legislature during this year's session.*** ***Using funds generated from repair permits for onsite systems, FDOH has contracted with FOWA to operate a hands-on training center for FDOH field staff and septic tank contractors. FDOH field staff are required by law to be certified to perform field services in the onsite sewage program and require basic and continuing education. Licensed septic tank contractors require continuing education credits each year to renew their licenses. The center provides classroom training as well as hands-on workstations where onsite technology can be demonstrated.*** ***A point of sale (transfer of property) voluntary inspection program was designed to encourage more system inspections through the lending and realty institutions. Pilot projects have been implemented in some counties, but the Septic search web site is available to all counties for use. The address is www.septicsearch.com.***	
GOAL 4: To continue refining OSTDS BMPs to improve their effectiveness in preventing or reducing NPS pollution and to expand their implementation.	**LEAD:** **FDOH, FDEP** **COOPERATING:** FOWA, local governments
Implement the recommendations of the Governor's special study team. ***The Governor's special study team recommendations were not considered by the Legislature during this year's session.*** ***Since March 2002, all septic tanks used in Florida must be in compliance with more stringent manufacturing standards that include mandatory vacuum load or hydrostatic testing. The new standards will result in sounder structures less likely to leak pollutants.*** ***Performance-based treatment systems have been allowed under FDOH rules where the achievement of site-specific standards is required. Nutrient reduction has been required area-wide in the Keys where standards for nutrients, BOD, and TSS apply to permanent OSTDS's. Nitrate standards are being considered for the Wekiva River, Ichetucknee Springs, and Blue Spring (Jackson County) watersheds. Wakulla County has adopted a local ordinance to protect Wakulla Springs and other local waters. FDEP and FDOH staffs are working with local governments to ensure that proper management and maintenance follow the requirements for use of these more sophisticated units.***	**LEAD:** **FDOH, FDEP** **COOPERATING:** FOWA, local governments
Continue conducting research on the effectiveness of OSTDS's, especially innovative designs. ***FDEP's NPS Management Program staff participate on two FDOH committees overseeing ongoing research on onsite systems in Florida. State TMDL funds are being used to investigate alternative disposal means to standard drainfields with respect to nutrient reductions. Additionally, in the Keys, the utility is taking over maintenance of septic systems as a pilot program. See Annual Report***	**FDOH,** FDEP, FOWA, FHBA

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
GOAL 5: Continue to enhance and expand technical assistance and educational programs to homebuilders, local governments, and citizens by improving state, regional, and local delivery mechanisms.	**LEAD:** **FDOH, FDEP** **COOPERATING:** FOWA, FHBA
Implement the recommendations of the Governor's special study team. ***The Governor's special study team recommendations were not considered by the Legislature during this year's session.***	**FDOH**, FDEP, local governments
Prepare, print, and distribute educational materials that help citizens, builders, and users of OSTDS's to better understand how they work and what they can do to minimize the impact of these systems on Florida's aquatic resources. ***See Annual Report, which describes successful implementation of the TAPP program and other informational outreach programs.***	
GOAL 6: Continue to refine and expand monitoring programs so that they can effectively assess OSTDS impacts on surface and ground water, evaluate the effectiveness of the Onsite Wastewater NPS Management Program, and better target the delivery of program activities to priority watersheds.	**LEAD:** FDEP, WMDs, FDOH **COOPERATING:** local governments
Implement the recommendations of the Governor's special study team. ***The Governor's special study team recommendations were not considered by the Legislature during this year's session.*** ***The results of the beach monitoring program in fresh and salt waters in all counties are posted on the FDOH web site for public access (http://apps3.doh.state.fl.us/env/beach/webout/default.cfm). Additional federal funding to expand the beach sampling program has been obtained.*** ***Section 319 funds along with FDOH funds, and possibly other state funds, will be used to accomplish this goal for performance-based systems installed throughout the state. A detailed study in the Keys is in progress. The Section 319 project is in the contracting stage. The revised project will better complement the overall needs of the state at this time and will dovetail with the Keys work.*** ***FDOH has been contributing to local efforts with state funds to investigate suspected water quality pollution sources related to onsite systems use in impaired TMDL water bodies. Through the FDEP TMDL assessment and corrective actions planning phases, onsite wastewater issues are also being addressed. Interaction between FDEP staff and county health department staff is being encouraged by FDOH headquarters staff to ease the process.***	**FDOH**

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
GOAL 7: Continue to seek additional funding for implementing the OSTDS NPS Management Program and for retrofitting developed urban areas where OSTDS's are adversely affecting surface or ground waters.	**LEAD:** **FDOH, FDEP** **COOPERATING:** Local governments, FOWA, FHBA, FDCA
Implement the recommendations of the Governor's special study team. ***The Governor's special study team recommendations were not considered by the Legislature during this year's session.*** ***NPSM staff and FDOH staff continue to seek funding alternatives for the various needs arising around the state. In particular, several meetings were held with SRF Program staff to learn how different types of OSTDS's and decentralized systems projects might benefit from the SRF loans. Other meetings were held and research done to find a multitude of funding sources that may be used under various conditions.*** ***The Florida Legislature approved funds for use by the City of Jacksonville in Duval County. These funds continue previous funding through the St. Johns River Water Management District for a long-term project that helps the city and county health department staffs assess potential onsite system failure areas on a system by system basis, provide for outreach mechanisms to educate the public about the potential impacts of onsite systems on water quality, and extend sewers to the highest priority areas and properly abandon the onsite systems in these areas.*** ***Other sewering projects continue throughout the state, one of which utilizes in-kind money from enforcement penalties (Grand Lagoon septic abatement project).***	

WETLAND RESOURCE NPS MANAGEMENT PROGRAM

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
GOAL 1: To continuously update, refine, and improve the effectiveness of the Wetland Resource and ERP Programs in reducing NPS pollution.	**LEAD:** **FDEP**
Develop a plan to implement a full ERP program in northwest Florida. ***Phase II is now in effect. It provides for the comprehensive management and storage of surface waters, primarily by adding new criteria for dredging and filling in all wetlands and other surface waters, including isolated wetlands, to the stormwater rules adopted in Phase I. The new rules will essentially replace the existing dredge and fill program under Rule 62-312, F.A.C., which has been preserved by Section 373.4145, F.S., and currently does not regulate activities in isolated wetlands, with criteria similar to those that currently exist in the rest of the state.***	**FDEP**, NWFWMD
Implement a full ERP program in northwest Florida. ***See above.***	**FDEP**, NWFWMD
Develop a "Noticed General Permit" for dirt road paving to reduce sedimentation into rivers, creeks, streams, and lakes. ***FDEP adopted a "Noticed General Permit" for dirt road paving under Sections 62-341.448 and 62-312.824, F.A.C., on March 15, 2007.***	**LEAD:** **FDEP**
GOAL 2: Continue to refine existing wetland resource and ERP regulatory programs to enhance their effectiveness in reducing NPS pollution and to streamline the process for the regulated community. ***See the separate discussion on the implementation of a comprehensive ERP program in northwest Florida and initial steps to develop an updated statewide stormwater rule.*** ***The State continues to make progress on the Statewide stormwater rule. See Annual Report.***	**LEAD:** **FDEP** **COOPERATING:** WMDs, local governments
Continue the implementation of the State Programmatic General Permit with the USACOE and extend coverage of the SPGP to include northwest Florida and projects reviewed by the WMDs. ***SPGP IV was formally issued by the USACOE to FDEP in September 2006. This permit replaced SPGP III and substantially reduced the scope of activities covered by the SPGP.***	**FDEP**, WMDs, ACOE
Develop a unified ERP rule that includes statewide stormwater BMP design criteria. ***Presently being developed. See Annual Report.***	
GOAL 3: Continue refining wetland protection and restoration BMPs to improve their effectiveness in preventing or reducing NPS pollution and to expand their implementation.	**LEAD:** **FDEP** **COOPERATING:** WMDs, local governments, universities

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
Develop and implement BMPs for aquaculture activities. ***The BMP manual for aquaculture was completed in 2000, revised in 2002, and revised again in 2005. Recent revisions include those addressing BMPs for small docks.***	**FDACS, FDEP,** WMDs, industry
GOAL 4: Continue to enhance and expand technical assistance and educational programs to property owners, land developers, local governments, and citizens by improving state, regional, and local delivery mechanisms. ***FDEP has maintained and is always improving on, the online authorization program, SELF CERT®, which allows the public to certify that proposed single-family docks are exempt from permitting requirements. The program uses GIS data to allow the user to accurately define the location of a project with data layers indicating areas not covered under the SELF CERT® process or areas where more stringent criteria apply, such as OFWs and Aquatic Preserves. The public response has been positive.***	**LEAD:** **FDEP** **COOPERATING:** WMDs, local governments, universities, CES
Revise current wetland educational materials, create new educational pamphlets and posters, and distribute them. Conduct workshops to educate the regulated community and the public about the benefits of wetlands and how they can help to protect and restore them. ***FDEP's Wetland Evaluation and Delineation Section has redesigned and updated the wetland delineation field guides. It now offers 4 separate training opportunities per year for the public and state employees in the areas of Wetland Delineation, Advanced Wetland Plants, and Advanced Hydrologic Soils. This year over 500 persons have completed these courses. This represents an increase over last year's attendance of 334.***	**FDEP**, WMDs, local governments
Continue to distribute the "Homeowner's Guide to Wetlands," a guide for the general public on the importance of wetlands and how to protect them. ***Wetland publications have also been distributed throughout the state to the WMDs, state parks, FDEP's district and branch offices, environmental consulting firms, and nonprofit organizations.***	**FDEP**, WMDs, local governments
GOAL 5: Continue to refine and expand monitoring programs so that they can effectively assess wetland impacts, evaluate the effectiveness of the wetland resource program, and better target the delivery of program activities to priority watersheds. ***Enhancements of ERP have been completed to allow better tracking of private and commercial boat slips in Florida's waters. Modifications have been made to address the new coverage of SPGP IV. Proposed enhancements include the development of Stormwater and Unified Mitigation Assessment Method (UMAM) modules and new streamlined reporting options available to staff.***	**LEAD:** FDEP **COOPERATING:** Contractors
Continue to refine bioassessment methods for use in wetlands. ***The contract with UF is now complete and all supporting documents have been posted to the Bureau of Labs web site for public distribution.***	**FDEP**, WMDs, UF, local governments
Continue to refine the freshwater sediment assessment tool for use in wetlands. ***The contract to develop a freshwater sediment assessment tool is complete. The tool has been developed and is being used to assess sediments in Florida's lakes.***	**FDEP**, NOAA, universities

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
GOAL 6: Continue to seek additional funding for implementing the wetland resource program and for restoring degraded wetlands. ***A FY 2006 104(b) Wetland Regulatory Demonstration Project grant awarded to support the implementation of the St. Joe Ecosystem Management Agreement; enhance the state wetland delineation staffing; and support wetland program rule development, including northwest Florida ERP rulemaking as needed. Phase II of this grant was received for FY 2007.***	**LEAD:** **FDEP** **COOPERATING:** WMDs, local governments, universities
Implement water and lake restoration programs funded by the Florida Forever Act ***Funding under the Florida Forever Act has been cut, but $15 million was dedicated to SWIM projects in 2010. WMDs continue to restore areas based off previous allocations. See Annual Report.***	FDEP, WMDs, FWCC, local governments

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
GOAL 1: To continue to improve the effectiveness of Florida's ground water management programs in assessing, minimizing, and reducing the effects of NPS pollution on the state's ground water systems.	**LEAD:** FDEP **COOPERATING:** WMDs, FDACS, FDOH, local governments, environmental groups
Integrate the state's ground water management programs into the new rotating watershed approach and clarify the roles and responsibilities of FDEP programs and other partners. ***FDEP's Ground Water Protection Section conducts ground water assessment as part of the basin preliminary assessment, impaired waters listing and TMDL development phases of the watershed cycle.***	**FDEP,** WMDs, FDACS, FDOH, local governments, SWCDs, environmental groups, private sector, citizens
Develop and/or refine technical tools (i.e., GIS, databases, public information dissemination, models) needed to better assess the cumulative effects of watershed pollution sources on ground water resources and the interaction between ground and surface water systems. ***The Ground Water Protection Section continues to compile ground water and springs water quality data from all agency sources into one common database that can be used in assessments of ground water quality impacts to surface waters. Ground water and springs data are being used to assess ground water for potable water use and ground water baseflow for supporting aquatic life. The approach to assessing ground water for its contributions through baseflow is particularly innovative for a watershed program.*** ***The Ground Water Protection Section is working with contractors and university staff to develop tools to estimate ground water seepage and nutrient loadings into lakes, rivers, and coastal waters through the use of seepage meters and chemical and isotopic tracers. These tools are used in the development and implementation of TMDLs for impaired surface waters.***	**FDEP, WMDs,** FDACS, FDOH, local governments, SWCDs, private sector, citizens
Improve the integration of federal, state, and regional ground water planning and management programs to enhance the protection and restoration of the state's ground water resources. ***FDEP works cooperatively with Florida's WMDs in assessment and data management projects that pertain to springs and impaired surface waters.*** ***FDEP continued sampling private drinking water wells for public health issues. This joint program with FDOH identifies contaminated wells to be remediated using state funds.*** ***FDACS continues to participate with FDEP in compiling the agriculture element for the Source Water Assessment and Protection Program.***	**FDEP, WMDs** EPA, USGS, FDACS, FDOH, FDCA, local governments, SWCDs, environmental groups, private sector, citizens

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
Expand locally led conservation processes to ensure that local stakeholders are involved in setting priorities for local NPS needs, and to build local consensus for the development and implementation of watershed management plans and programs that also address ground water resources. ***The ground water program participates in Florida's Springs Initiative, which spearheads research, funds restoration projects, and supports local springs working groups. The ground water program also supports basin coordinators in watershed management basin stakeholder meetings. Ground water staff are participating with the NPS Program staff, local governments, and FDCA to develop enhanced onsite septic systems in sensitive watersheds.***	**FDEP, WMDs,** FDACS, FDOH, FDCA, local governments, SWCDs, environmental groups, private sector, citizens
Continue to partner with the WMDs, local governments, and the private sector to implement restoration projects and programs to reduce NPS loadings to Florida's ground water resources. ***FDEP's Ground Water Protection Section works cooperatively with FDACS, UF–IFAS, and the WMDs in the development and verification of agricultural BMPS to reduce nutrients in ground water. FDEP springs protection staff are working with FDCA and local governments to implement ground water protection programs that incorporate innovative ideas in septic tank design to reduce nitrate discharges, as well as development setback around springs and sinkholes with direct connections to the aquifer.***	FDEP, WMDs, EPA, USGS, FDACS, FDOH, FDCA, local governments, SWCDs, environmental groups, private sector, citizens

NPS MANAGEMENT MONITORING/ASSESSMENT PROGRAM

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
GOAL 1: To continuously update, refine, and improve the effectiveness of the state's monitoring programs to better assess NPS pollution and the effectiveness of Florida's NPS Management Program.	WMDs, local governments, universities, private sector
Improve the integration of the newly developed bioassessment tools into statewide monitoring and assessment programs. ***Bioassessment tools are being used monitoring of point sources and in the determination of impaired waters. The Impaired Surface Waters Rule (IWR) (Rule 62-303, F.A.C., Identification of Impaired Surface Waters) relies heavily on bioassessment tools. The SCI is now integrated into FDEP's surface water status and trends monitoring networks.***	**FDEP** WMDs, local governments, universities, private sector
Continue to provide dedicated technical support staff to the statewide bioassessment program to both implement sampling programs and manage the flow of statewide data collection, data analysis, and reporting to program managers and the public. ***Ongoing continuously as part of base program implementation.***	**FDEP** WMDs, local governments, universities, private sector
Continue to provide funding for travel to EPA-sponsored national meetings to ensure consistency with EPA/national guidelines for developing biocriteria in all waterbody types and for integrating biocriteria into statewide monitoring programs. ***Staff members continue serving on EPA/national work groups.***	**FDEP**
Continue to expand implementation and monitor the use of bioassessment tools in water resource programs. ***Bioassessment tools are being heavily relied on for the determination of impaired surface waters in Florida under the IWR (Rule 62-303, F.A.C.). They continue to be used in monitoring of point sources and are integrated into FDEP's surface water status and trends monitoring networks.***	**FDEP** WMDs, local governments, universities, private sector
Continue to support the QA/QC aspects of the statewide bioassessment program, including the development of taxonomic identification keys for biological assemblages, and dedicated staff for this critical program element. ***Ongoing continuously as part of base program implementation. A round-robin taxonomic identification program, habitat certification program, and district audit program are ongoing. See Annual Report.***	**FDEP, WMDs, local governments, universities, private sector**
GOAL 2: Continue to refine current NPS monitoring and assessment methods and programs to enhance their effectiveness in assessing NPS pollution and the effectiveness of management programs and projects.	WMDs, local governments, universities, private sector
Conduct sampling of sediments from freshwater ecosystems to expand the use of the sediment assessment tools to these systems. ***The freshwater sediment tool is now integrated into the surface water status and trends monitoring networks as of January 2004.***	**FDEP** WMDs, local governments, universities, private sector

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
Expand sampling efforts in streams to improve the resolution of the SCI across gradients of human disturbance and develop regional numeric biocriteria. ***The SCI and BioRecon have been recalibrated along an HDG and the new tools have been integrated into FDEP's QA rule and became effective in 2004. Thresholds of impairment and excellence were determined in 2007.***	**FDEP** WMDs, local governments, universities, private sector
Expand the bioassessment program in streams and lakes to include algal assemblage. ***Contracting to develop algal index for streams and lakes.***	**FDEP** **WMDs, local governments, universities, private sector**
Continue to use bioassessment tools to assess the effectiveness of BMPs. ***Bioassessments are done continuously as part of base program implementation.***	**FDEP** WMDs, FDACS, local governments, universities, private sector
Expand biological sampling efforts in lakes to further test the new lake classification scheme and develop a rapid bioassessment approach. ***The Lake Vegetation Index was created in 2005 and validated again in 2007. Thresholds of impairment and excellence were set by Biological Condition Gradient workshop in 2007.***	**FDEP** WMDs, local governments, universities, private sector
Provide funding for and continue to support the effort to develop lake nutrient criteria using biological endpoints. ***Contracting with TetraTech to refine the relationships between biological communities and concentrations of nutrients.***	**FDEP** WMDs, local governments, universities, private sector
Expand biological sampling efforts in wetland systems to further test wetland regions, refine methods, develop indices of biological integrity, and calibrate tools. ***See Annual Report for activities in FY 2010.***	**FDEP** WMDs, local governments, universities, private sector
Coordinate wetland tool development process with other wetland program areas such as jurisdictional evaluation, dredge and fill, and mitigation. ***Ongoing as part of base program implementation.***	**FDEP** WMDs, local governments, universities, private sector
Expand estuarine and marine biological sampling to continue developing bioassessment approaches for these systems. ***Ongoing as part of base program implementation with funding from 104(b)(3) grants.***	**FDEP** WMDs, local governments, universities, private sector
GOAL 3: Continue to enhance and expand technical assistance and educational programs to inform Floridians about assessing NPS pollution and management programs.	WMDs, local governments, universities, private sector
Continue partnerships with public educational facilities such as the Odyssey Science Center to foster public awareness and education about NPS pollution. ***Ongoing as part of base program implementation.***	**FDEP** WMDs, local governments, universities, private sector

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
Develop and distribute materials and curricula to inform the public about NPS pollution in general and biological assessment methodologies to assess NPS pollution. ***Ongoing as part of base program implementation.***	**FDEP** WMDs, local governments, universities, private sector
Support periodic conferences and workshops to inform the public about NPS pollution assessment and monitoring. ***Ongoing as part of base program implementation..***	**FDEP** WMDs, local governments, universities, private sector
Continue to provide a high-quality web site for disseminating information about NPS pollution and FDEP's bioassessment program with linkages to federal, other state, and local agencies. ***Ongoing as part of base program implementation.***	**FDEP** WMDs, local governments, universities, private sector
GOAL 4: Continue to seek additional funding for implementing the NPS monitoring and assessment program.	WMDs, local governments, universities, private sector
Continue to seek additional financial support for the statewide bioassessment program. ***Applied for and received EPA Section 319 funds for the continuation of Bioassessment work. The State provides significant funding for its continuation as well.***	**FDEP** WMDs, local governments, universities, private sector

NPS MANAGEMENT PUBLIC EDUCATION PROGRAM

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
GOAL 1: To continuously update, refine, and improve the effectiveness of the state's public education programs to better educate Floridians about NPS pollution and Florida's NPS Management Program.	WMDs, local governments, universities, private sector
Continue to partner with other agencies and the private sector to expand and improve public education programs on NPS pollution. ***Education and outreach continued in the GI:BMP and Sediment and Erosion Control Trainings. Additionally, numerous publications were published this year in the GIBMP, FYN, FFL, and septic programs. See Annual Report.***	Local governments, universities, private sector
GOAL 2: Continue to refine current NPS education programs to enhance their effectiveness in educating Floridians about NPS pollution and Florida's NPS Management Program.	WMDs, local governments, universities, private sector
Continue to create new partnerships with public educational facilities such as the Odyssey Science Center to foster public awareness and education about NPS pollution. ***FDEP staff provide training for teachers and teachers-to-be throughout the year by request. NPS staff assist with training in general ways, but specifically assist by showing off the EnviroScape models or loaning them to the FDEP Office of Environmental Education staff to show off . The Office of Environmental education staff also put on demonstrations with the models at their Learning in Florida's Environment (LIFE) field-based environmental-science education programs across the state. The availability of staff to provide in-school demonstrations or to loan out the models is also advertised. Staff go to schools and other venues around the state regularly to educate students about NPS pollution. All FDEP and WMDs have at least one EnviroScape model for demonstration purposes. FDEP staff purchased additional models with Section 319 funds for aquatic preserves and state parks where NPS education is key. Replacement parts also were purchased for current FDEPmodel users.***	Local governments, universities, private sector
Continue to revise, reprint, and distribute current educational materials. ***NPS materials continue to be distributed, with numerous requests being generated by the section's resource list on its web page (http://www.dep.state.fl.us/water/nonpoint).*** ***Several EPA brochures and "give-away" items were reprinted for continued distribution.*** ***Educational Materials presented and published are described in the Annual Report.***	Local governments, universities, private sector
GOAL 3: Continue to enhance and expand technical assistance and educational programs to inform Floridians about assessing NPS pollution and management programs.	

GOALS AND ACTIVITIES	IMPLEMENTING ENTITIES
Develop and distribute materials and curricula to inform the public about NPS pollution and how they can help to abate it. ***Florida-friendly Model Ordinance language for the protection of water quality and quantity in lawns and landscapes has been developed and placed on the program's web site. See Annual Report for the list of GIBMP awards this year.*** ***The four EnviroScape models housed in FDEP's NPS Management Section continued to be used extensively to teach about NPS and other sources of pollution.*** ***Additional outreach activities can be found in the Annual Report.***	WMDs, local governments, universities, private sector