Goal 3: Foster Compatibility of the Built & Natural Systems

Subgoal 3-A: Use & Manage Land in a Manner Compatible with Ecosystem Restoration

Objective 3-A.1: Designate or acquire an additional 10,000 acres of lands needed for parks, recreation, and open space to complement South Florida Ecosystem restoration through local, state, and federal programs by 2015.

Progress and Status at a Glance:

- The goal of 10,000 additional acres being acquired has been well exceeded. Allapattah Flats in Martin County, and Picayune Strand in Collier County, are two of the larger properties acquired for restoration, and are together over 70,000 acres. Additionally, many other properties were opened for public use along the Kissimmee River, the Kissimmee Chain of Lakes, the Stormwater Treatment Areas, and other areas.
- During this reporting period, the SFWMD opened four new properties in the Kissimmee River and Kissimmee Chain of Lakes areas to expand hunting and other recreational uses. Also Stormwater Treatment Area (STA) 5 was opened for regularly scheduled day use which includes trails for hiking, biking, and wildlife viewing. www.sfwmd.gov/recreation.
- One public boat ramp was on the Kissimmee River in Highlands County, was completed and opened for public use. The S-65D Boat Ramp includes a concrete boat ramp with associated dock, a shell rock parking lot, three paved ADA car spaces, a single lane road entrance/exit loop, waterless restroom facility, and solar safety lighting.

Objective 3-A.2: Increase participation by 350,000 acres in the Agricultural Land Easement Program and the Environmental Quality Incentive Program to promote compatibility between agricultural production and South Florida Ecosystem restoration by 2014.

Progress and Status at a Glance:

- U.S. Department of Agriculture (USDA) has invested over $470 million in Conservation Easement Program funds to protect almost 180,000 acres of land in Florida.
- In 2013 alone, NRCS committed $60 million in Easement Program funds to restore and protect wetlands in the Everglades Watershed. NRCS wetlands easements in the Everglades provide habitat for a variety of listed species, including the endangered Florida Panther, a species on the edge of extinction.
- During the reporting period, a total of 394,589 acres in the 16-county south Florida region were enrolled in Farm Bill conservation programs at an obligated cost of $330,738,014.

Objective 3-A.3: Increase the use of educational programs and initiatives to further public and local government understanding of the benefits of South Florida Ecosystem restoration.

Progress and Status at a Glance:

- OERI conducted seven Working Group and Science Coordination Group sponsored public workshops during the reporting period, with an average of 40 attendees at each workshop.
- Public participation is a major component of CERP. The planning process requires robust public participation to ensure stakeholder involvement, understanding, and support. For the Central Everglades Planning Project (CEPP) alone, 171 public engagements were conducted within 29 months. These forums are open to the public and advertised through CERP e-notice distribution

lists, web page updates and social media. Meeting materials are also provided online for public access. In addition to standard notification through e-notice distribution lists, web page updates and social media, public meetings and public comment periods are also announced through news release and published in the Federal Register. Meeting materials, along with meeting transcripts are provided online for public access.

- The USACE and the SFWMD continued their efforts to raise awareness about the CERP and overall restoration of the South Florida Ecosystem.
- USACE and SFWMD continue to utilize web-based communication, to help ensure that CERP and the greater Everglades ecosystem is better understood and that the public has opportunities to participate in decision-making. Recently, RECOVER has conducted grass roots level public meetings in coordination with universities to include the public in the system-wide monitoring findings reported in the 2014 System Status Report.
- A new partnership between the DOI and USACE was initiated 2013 to combine www.sfrestore.org and www.evergladesplan.org by overhauling our web presence for everglades restoration in a new webpage, www.evergladesrestoration.gov. The launch of www.evergladesrestoration.gov is expected in Fall 2014.

Objective 3-B.1: Maintain or improve existing levels of flood protection for the urban, agricultural, and natural environments.

Progress and Status at a Glance:

- The C-4 Flood Mitigation Projects include multiple individual projects to provide flood mitigation in the C-4 Basin. These include impoundments, pump stations, flood walls, and berms as well as conveyance improvements. Eight projects have been constructed.

Subgoal 3-B: Maintain or Improve Flood Protection in a Manner Compatible with Ecosystem Restoration

Objective 3-B.2: Objective 3-B.2: Rehabilitate the Herbert Hoover Dike to provide adequate levels of flood protection to the communities and lands surrounding Lake Okeechobee.

Progress and Status at a Glance:

Projects listed provide risk reduction for adjacent lands and communities around Herbert Hoover Dike. Since 2005:

- Partial Seepage Berm in Reach 1A (2008)
- Culverts IPPC-1 and IPPC-2 Removals (2010)
- Culverts FC-1 and HP-7 Replacements (2010)
- Quarry Backfill in Reach 1D (2011)
- Culvert 14 Removal (2012)
- Reach 1 Cutoff Wall (2012)
- Structures S-269 (C-11) and S-270 (C-16) Replacements (ongoing)
- Structures S-270 (C-1A) and S-280 (C-1) Replacements (ongoing)
- Structures S-276 (C-4A) and S-277 (C-3) Replacements (ongoing)
- Structures S-281 (C-5A) and S-282 (C-5) Replacements (ongoing)
- Structures S-273 (C-10) and S-275 (C-12) Replacements (ongoing)
- Structures S-268 (C-8) and S-272 (C-13) Replacements (ongoing)

2012 - 2014:

- The Major Rehabilitation Report (MRR) from 2000 divided the 143 mile embankment into eight reaches with the initial focus on Reach 1. This Reach by Reach rehabilitation approach has been replaced with a system-wide risk reduction approach as required for safety modifications to USACE dams. The supplemental MRR being produced for Reaches 2 and 3 has become a system wide Dam Safety Modification Study (DSMS) Report. (The MRR approach and approval for Reach 1 occurred prior to procedural changes implemented post-Hurricane Katrina.) The DSMS report will address the entire dike as a system and will include a risk reduction approach to implementing features based on priority and reducing risk as quickly as possible. All features planned and under construction support the goal of this report. Construction of 21.4 miles of cutoff wall was completed in 2013.
- In 2011, the USACE approved a plan to replace, abandon or remove the 32 water control structures (culverts) operated by the USACE within the HHD system. This project is being implemented as part of the risk reduction approach to the entire system. The USACE has completed removal of one culvert while twelve culvert replacements are underway. Planning and design for replacement of the next five culverts is underway.
- As part of the DSMS report effort, a seepage management pilot test is currently being constructed to demonstrate the constructability of an alternate risk reduction feature to address the embankment and foundation seepage issues. The results of this demonstration will be utilized in the DSMS for future consideration.

Subgoal 3-C: Provide Sufficient Water Resources for the Built and Natural Systems

Objective 3-C.1: Plan for regional water supply needs.

Progress and Status at a Glance:

Since 2000:

- In 2000, SFWMD published the Kissimmee Basin, Lower East Coast, Lower West Coast, and Upper East Coast Water Supply Plans. These four plans were updated in 2005-2007. The next Upper East Coast Update was completed in 2011.

- 2012 – 2014:
- The Lower West Coast (LWC) Update was completed in 2012, and the Lower East Coast (LEC) Update was completed in 2013.
- The Kissimmee Basin has been divided into the Upper Kissimmee Basin (UKB) and Lower Kissimmee Basin (LKB) planning areas. The draft LKB Plan was distributed to stakeholders, comments received, and approval is anticipated in September 2014.
- The UKB is in the Central Florida Water Initiative (CFWI) Regional Water Supply Planning (RWSP) area, which is a joint effort between South Florida, Southwest Florida, and St. Johns River water management districts. The draft CFWI RWSP was acknowledged by the Governing Board in May 2014. Work on the Solution Document in underway and is expected to be completed in the summer of 2015. The planning horizon for these updates is 2030 except for the CFWI and LKB which are 2035. The plan updates include development of goals and objectives, population and demands projections, issue identification, water source options, water supply and water resource projects, and future direction. The plans are completed in a public process under the auspices of the SFWMD's Water Resources Advisory Commission (WRAC).

Objective 3-C.2: Increase volumes of reuse on a regional basis.

Progress and Status at a Glance:

- In 2013, a total of 112 treatment facilities provided reuse within the SFWMD. These facilities reused a total of 271 million gallons per day of treated wastewater. Most of the reclaimed water (155 mgd) was used for landscape irrigation at over 127,000 residences, 203 golf courses, 238 parks, and 73 schools.

2012 – 2014:

Conservation: The SFWMD continues to implement its 2008 Comprehensive Water Conservation program and development of a year-round conservation ethic. Utility per capita water use utilized in water supply plans continues to trend downward.

Reuse: Due to uncertainties concerning ecological effects of application of reclaimed water to sensitive water bodies, such as tidal waters and coastal wetlands of the BNP, several assessments and demonstration scale projects have been conducted. The Miami-Dade Water and Sewer Department conducted the first phase of a pilot project from November 2010 to April 2011 to assess the use of highly treated reclaimed water for recharge of the Biscayne aquifer upstream of the water supply wellfield. The county also conducted pilot testing of technologies for water quality objectives related to rehydration of coastal wetlands. Miami-Dade County submitted a final report to the SFWMD, FDEP, and BNP in October 2011. The report included information on effectiveness and costs of best available technologies in achieving treatment objectives. Design and implementation of a full scale project has been deleted from Miami-Dade's long-term water facilities plan as a result of reduced water demands cost-effectiveness and the economic downturn. These efforts could be used to evaluate the role of large scale reuse in augmenting system-wide water budgets, either by providing additional water or by offsetting existing consumptive uses.

In 2008, the Florida Legislature passed a law requiring wastewater effluent discharges through ocean outfalls to cease by December 31, 2025, except as "backup discharge" to a functioning reuse system. In addition, the law requires that those utilities implement 60 percent reuse of the effluent being discharged to the ocean or about 180 million of gallons per day (mgd) by the 2025 deadline. Utilities were required to submit their implementation plan to the FDEP prior to the by July 1, 2013 deadline. To comply with the law, South Central Regional (Delray/Boynton) and Boca Raton plan to expand existing public access irrigation, Broward County North District is working on a joint project with Palm Beach County to use reclaimed water to serve existing golf courses in southern Palm Beach County and northern Broward County, the City of Hollywood plans to recharge the Floridan Aquifer and Miami-Dade Water and Sewer District plans to reuse a majority of their reclaimed water for cooling water for a Florida Power and Light Turkey Point power plant expansion as well as Floridan Aquifer recharge. A 2013 amendment to the ocean outfall law requires FDEP, the SFWMD, and the ocean outfall utilities to re-evaluate the reuse of wastewater to meet water supply needs.

Objective 3-C.3: Increase water made available through the state's Water Protection and Sustainability Program and the SFWMD Alternative Water Supply Development Program.

Progress and Status at a Glance:

Since 1997:

- District Funding was $125,930,907
- From 2006-2009, Total Approved State Funding was $67,580,700
- Total Approved Funding was $193,511,607

- Total Water Made Available is 434.08 MGD

2012 – 2014:

- Currently, over 270 mgd of reclaimed water is being reused for beneficial purposes in the SFWMD. In addition, there are 38 operational desalination facilities with a total capacity of approximately 269 mgd (all but two utilize brackish ground water as source water). The Alternative Water Supply (AWS) Program recommended that 21 projects receive funding for Fiscal Year (FY) 2012, 2013 and 2014 with a total of $8.07 million. No state funding was available in these years

Subgoal 3-D: Reduce invasive exotic species pathways originating from the built environment*

Objective 3D.1- Increase awareness of the impacts of invasive exotic species on south Florida's environment, economy, culture, and human health.

Progress and Status at a Glance:

2012 – 2014:

- 711 pets were surrendered through Pet Amnesty and the reporting hotline 1-800-I've Got1
- 580 pounds of invasive fish were caught including a new exotic fish called the Marbled-Pin Catfish (*Leiarius marmoratus)* during the Everglades Non-native Fish Roundup.
- The EEL Program hosted 2,227 citizen volunteers from July 2012 to March 2014 at 29 Volunteer Workday Events, where they learned how to identify native and remove exotic plants
- **Pet Amnesty days and the Hotline (1-800-I'veGot1)-** A total of 711 pets were surrendered through both programs, keeping them from being introduced and potentially establishing a population or adding to an existing population into the natural system.
- **Hotline Reports** During this reporting period, over 7,000 reports have been received including those from the hotline and EDDMapS, the online data reporting site.
- **Everglades Non-native Fish Roundup** In May 2014, the fifth Annual Non-Native Fish Round Up was held. There were 55 people registered across the three counties. 580 pounds of invasive fish were caught including a new exotic fish called the Marbled-Pin Catfish (*Leiarius marmoratus)*
- **EEL Volunteer Workdays The** Miami-Dade County Environmentally Endangered Lands Program hosts at least 15 volunteer workday events annually, attracting 1,000's of volunteers who remove invasive exotic species, plant trees, maintain trails, remove refuse and debris, and conduct other restoration tasks. Volunteers learn to identify native species, and remove invasive exotic species. The EEL Program hosted 2,227 citizen volunteers from July 2012 to March 2014 at 29 Volunteer Workday Events.
- Southwest CISMA planned 13 Outreach Events and approximately, 3000 people reached and approximately 300 professionals trained to identify and in some cases remove invasive exotic reptiles. They also held an Exotic Pet Amnesty Day, approximately 15-20 exotic animals surrendered and adopted out

Objective 3-D.2: Continue existing and develop new partnerships that focus on reducing pathways.

Progress and Status at a Glance:

- The Don't Pack –a-Pest program recognition increased by 23% according to repeated surveys.

** Subgoal 3-D: Reduce invasive exotic species pathways originating from the built environment was added in 2014.*