ENVIRONMENTAL ASSESSMENT

C-44 Reservoir and Stormwater Treatment Area Project

1.0 Applicant

South Florida Water Management District (SFWMD)

3301 Gun Club Road

West Palm Beach, Florida 33406

2.0 Location, project description, existing conditions:

2.1 Location

The proposed project site is located in portions of Section 36, Township 38S, Range 39E; Sections 1-5, 8-18, 21-29, 34-36, Township 39S, Range 39E; Sections 2-4, Township 40S, Range 39E; and Sections 6, 7, 18, 19, 30, 31, Township 39S, Range 40E, Martin County, Florida. The project site is located just north of the St. Lucie Canal (C-44) about half way between Lake Okeechobee and the Atlantic Ocean (Figure 1).

- Latitude: 27.08135114540
- Longitude: 80.42313883420

2.2 Existing Site Conditions

The project site is approximately 12,000 acres and includes citrus trees, drainage ditches, and unpaved access roads. Grove irrigation is facilitated by 32 onsite pump stations located on the major north-south recharge canals. Florida Power & Light easements run through the site near the center, near the western boundary, and on the southwest side, north of the exchange property.

Although the site is highly altered, historic, hydric soils underlie the groves and associated ditches and canals. These ditches and canals have been regularly maintained through mowing and herbicide treatment ensuring proper conveyance of irrigation and drainage water. The project site includes approximately 613.5 acres of jurisdictional Waters of the United States (Figure 2). Of this, 569.50 acres are in the form of man-made ditches and canals which serve as irrigation and drainage conveyances for citrus groves and 44 acres in the form of highly disturbed shrub wetlands.

The project site is located north of the C-44 Canal. The C-44 Canal discharges floodwaters from Lake Okeechobee and the C-44 Basin to the St. Lucie River (SLR) and St. Lucie Estuary (SLE) and eventually into the Indian River Lagoon (IRL). The IRL spans approximately 156 miles along Florida's central east coast. In 1991, the IRL was listed as an estuary of national significance and included in the National Estuary Program. The SLE is a major tributary at the southern end of the lagoon.

High volumes of freshwater and basin runoff eventually make way to SLE through canals constructed as part of the Central and Southern Florida (C&SF) Project. These rainy season flows cause rapid decreases in salinity in the SLE and IRL. As a consequence, muck has accumulated over the bottom of the SLE and IRL, reducing water transparency and eliminating many original estuarine communities, including seagrass and oysters.

2.3 Original Project Description

The SFWMD proposes to construct and operate the C-44 Reservoir/Stormwater Treatment Area (C-44 RSTA).

2.3.1 Construction

As proposed in the original permit application, construction of the project would impact up to 613.5 acres of Waters of the United States including 44 acres of jurisdictional wetlands through discharge of fill material associated with mechanized land clearing and construction of levees, embankments, and pumps stations. Additionally, the project includes works within a navigable water of the United States, the C-44 Canal. The project includes the following components:

- A 3,400 acre above-ground reservoir, with an average water depth of 15 ft and a capacity of 50,200 ac-ft
- A pump station with a capacity of 1,100 cubic feet per second (cfs) to pump water from the C-44 Canal into the reservoir
- A reservoir discharge structure with service spillway
- A total of 6,300 acres of STA
- Gated and ungated structures to operate the STA

2.3.2 Operation

In general, the C-44 RSTA Project will operate as follows:

- Pump water from the C-44 Canal into the reservoir via the intake canal,
- Store water in the reservoir to attenuate fresh water flows to the SLE and as a secondary benefit to allow partial treatment of the water to reduce nutrient concentrations,
- Distribute water to the STA cells on an equal load per acre basis (via the discharge structure and distribution canals) where additional treatment occurs to reduce nutrient concentrations, and
- Discharge treated water back to the C-44 Canal (via the seepage collection/discharge canal and system discharge at Easement 3).

The project operations/adaptive management strategy will be dependant upon a number of factors, including the stage in the C-44 Canal, the stage in Lake Okeechobee, the conditions at S-80, and the conditions in the St. Lucie Estuary, all of which are controlled primarily by seasonal and short-term climatic conditions. Operating criteria for the project are designed to meet the project performance measures outlined in the Project Implementation Report/Environmental Impact Statement (PIR/EIS). The goals include storage, flow attenuation, water quality improvement, and possibly meeting some of the irrigation demand of the basin. To meet the project performance goals, on average approximately 66% or more of the C-44 basin runoff will potentially be captured and treated prior to release back to the C-44 Canal. The operational criteria are designed to be able to maximize the amount of water routed through the project system to potentially maximize treatment, while regulating the discharge back to the C-44 Canal through operational rules to provide flow attenuation to the estuary.

The operational constraints are predominantly associated with the available reservoir and STA storage, the hydration of the STA cells, and the operation of S-308 and S-80 by the Corps, as minimum and maximum stages and flows are specified in Lake Okeechobee, the C-44 Canal, and at S-80 in the Lake Okeechobee Water Control Plan. In addition, as discussed above, ecological protection and saltwater management in the SLE will likely play a role in determining the amount of water that can be discharged from the project.

The C-23 diversion canal is not part of the SFWMD's proposed action; however, everything within the project has been sized such that if and when the C-23 diversion canal is constructed, the C-44 RSTA Project is capable of handling that additional flow.

2.4 Changes to the Project

Since submittal of the original application, the SFWMD added additional project features.

By email on 20 October 2006, the SFWMD proposed construction of a 300-foot tall microwave communications tower with a 20-foot antenna. The tower would be placed approximately 500 feet southeast of the main pump station at the end of the intake canal and its capacity would replace the existing Indiantown microwave tower which does not have the capacity to serve both the proposed project and the existing projects on the north shore of Lake Okeechobee. The tower would be constructed in nonjurisdictional uplands.

The SFWMD submitted a supplement to the permit application on 2 March 2007, for improvements to C-133 and C-132 Canals. The proposal included reworking the canals to provide capacity for Bar B Ranch and the area to the north. The C-132 Canal discharges into the C-133 Canal at the northeast corner of the Bar B Ranch property and finally discharges into the C-44 Canal through a concrete spillway of 30 feet in length and with a crest elevation of 17 and a capacity of approximately 500 cfs. This outlet would be located at an existing canal referred to as easement 1. The expansion of the C-133 Canal south of the southeast corner of Bar B Ranch requires an excavation approximately 40 feet east of the current canals eastern edge and would impact approximately 3.9 acres of additional wetland habitat located to the north of the project boundary. This impact acreage (3.9) recognizes fill in a secondary ditch east of the existing C-133 canal and some herbaceous wetlands along C-132 which will be filled by construction of a 40-ft wide maintenance surface.

Westerly expansion of the Running W ditch and the construction of a north-south swale for Star Farms in support of the Troup Indiantown Water Control District (TIWCD) Permanent reconfiguration (Figure 3): The applicant proposes to construct the 50-60 feet wide canal extension for providing adequate service to TIWCD. Approximately 9,560 feet of this ditch will be improved to provide consistent side slopes (3:1) and some minor realignment. Impacts to wetland and other waters of the United States will be temporary and include approximately 1.0 acre of wetland and 1.2 acres of canals.

Additionally, based on design refinement the storage capacity was confirmed at 50,600 acre feet as opposed to 50,200 acre-feet as described in the permit application (Refer to Figure 4 for C-44 Project Configuration).

2.5 Background

2.5.1 Comprehensive Everglades Restoration Plan (CERP)

The CERP included in the C&SF Restudy Report of 1999 recommended design of above ground storage reservoirs to attenuate damaging freshwater discharges to the SLE and southern IRL. The Water Resources Development Act (WRDA) of 2000 approved the CERP as a framework for modifications to the C&SF Project necessary to restore the south Florida ecosystem, and further included a specific authorization for the C-44 Basin Storage Reservoir in the southern St. Lucie Estuary drainage basin contingent on completion of a Project Implementation Report (PIR). The C-44 RSTA was rolled into the IRLS PIR along with other projects aimed at restoring the St. Lucie Estuary and Indian River Lagoon. Rather than authorize each project component individually, the IRLS PIR includes a recommendation that the C-44 RSTA be de-authorized as a separate project and authorized jointly with the other IRLS projects.

The State of Florida has developed a plan called "Acceler8" for the purpose of accelerating design and construction of a number of critical restoration projects consistent with the CERP and concurrent with the development of a Project Implementation Report but prior to one or more of the following: Administration approval, congressional committee resolution, congressional authorization, or federal construction funding. The SFWMD is the lead agency responsible for implementing Acceler8 and prioritized the C-44 RSTA Project as an Acceler8 Project in 2004.

The SFWMD's proposed Acceler8 C-44 RSTA Project is a component of the federal Indian River Lagoon South (IRL-S) CERP Project. The Corps completed a Final Integrated PIR/EIS for the IRL-S project in March 2004. The Notice of Availability (NOA) for the IRL-S Final PIR/EIS was issued in the Federal Register on 24 March 2004, and the Chief of Engineer's Report was signed on 6 August 2004. A Record of Decision for the IRL-S Project was signed by the Assistant Secretary of the Army for Civil Works on 25 January 2006, and we are currently awaiting final authorization and appropriation.

This Environmental Assessment (EA) serves to tier off of the IRL-S Final PIR/EIS, incorporated herein by reference, to provide more detailed information and analyze the effects of the SFWMD's proposed C-44 RSTA Project without the other components of the CERP IRL-S Project.

2.5.2 Permit History

On 4 January 2006, the Corps verified a Nationwide Permit number 33 (SAJ- 2005-6166) for discharging fill material associated with construction of Reservoir and STA test cells within 500 acres of the planned Reservoir footprint. These features were constructed in order to provide information to assist with design of the C-44 RSTA Project. Construction was completed in June 2006 and monitoring of the test cells and STA cells is ongoing and scheduled to end June 2007.

On 28 July 2006, the Corps verified a Nationwide Permit number 33 (SAJ-2006-4238) for temporary reconfiguration of the TIWCD's drainage system. The project includes installation of temporary and auxiliary pumps, installation of culverts and water control structures, and creation

of one new irrigation/drainage ditch resulting in 0.18 acre of fill in Waters of the United States. This work was necessary since the existing TIWCD drainage system will be impacted by the reservoir; therefore, it was necessary that the SFWMD reroute the drainage prior to undertaking construction of the reservoir. Construction of this activity is ongoing. This work was determined to have independent utility from construction of the C-44 RSTA.

The SFWMD initiated clearing and grubbing of upland portions of the site in December 2006, following completion of Section 7 consultation for the project. To date approximately 4,000 acres have been cleared, burned, and disked.

3.0 Project Purpose

The proposed project is a State of Florida Acceler8 project. The overall purpose of the State of Florida's Acceler8 initiative is to accelerate the funding, design, and construction of projects consistent with CERP in order to experience environmental benefits sooner and in a cost-effective manner avoiding inevitable increases in land, construction materials, and labor costs.

- The basic purpose of the project is to capture, attenuate, and partially treat watershed runoff from the C-44 Basin.
- The overall purpose of the C-44 Project as part of the State of Florida's Acceler8 initiative is to support specific performance measures of the IRL-S PIR/EIS, specifically with regard to regulating the timing of water delivered to and the reduction of nutrient inputs to sensitive receiving ecosystems to the St. Lucie Estuary.

4.0 Scope of Analysis

The scope of analysis includes the proposed action, alternatives considered, and the direct and indirect effects of the project.

The proposed action includes construction of a reservoir in the C-44 basin consistent with the IRL-S PIR/EIS (Figure 5). The C-44 Basin Storage Reservoir was initially authorized by Congress under Section 601(b)(2)(C) of the Water Resources Development Act (WRDA) of 2000. The Corps subsequently combined that project with others to make the IRLS Project. The Corps has completed a Final PIR/EIS; however, the applicant's proposed action is expected to occur prior to authorization and construction funding of the CERP IRLS Project by Congress.

Alternatives analyzed include the no action alternative, the proposed action, and alternatives based on the entire IRL-S system. Therefore, the alternatives were based on a combination of components (reservoirs and STA cells) at different locations and within several basins. For the specific C-44 RSTA Project, the alternatives always included a reservoir and STA component (see section 6.3.5, "Development of Multi-purpose Alternatives" of the IRL-S PIR/EIS, March 2004).

Federally listed species potentially affected by the project include endangered wood stork (*Mycteria americana*), endangered Everglade snail kite (*Rostrhamus sociabilis plumbeus*), endangered West Indian Manatee (*Trichechus manatus latirostris*), threatened Audubon's crested caracara (*Polyborus plancus audubonii*), threatened bald eagle (*Haliaeetus leucocephalus*), and threatened eastern indigo snake (*Drymarchon corais couperi*).

5.0 Statutory authority

Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act

6.0 Other Federal, State, and Local authorizations obtained or required and pending

6.1 State Permit/Certification

On 25 May 2007, the Florida Department of Environmental Protection (FDEP) issued an intent to issue a permit under the authority of the Comprehensive Everglades Restoration Plan Regulation Act (CERPRA). In addition, a National Pollution Discharge Elimination System (NPDES) Generic Permit for Stormwater Discharge from Large and Small Construction Activities will be required.

6.2 Coastal Zone Management (CZM) consistency/permit

The CERPRA permit (0254895-003-EM- to be issued on June 28, 2007) will constitute a finding of consistency with Florida's Coastal Zone Management Program, as required by Section 307 of the Coastal Zone Management Act, for the portion of the project covered by the permit. A Federal consistency determination in accordance with 15 CFR 930 Subpart C is included in Appendix E (E.2) of the Final IRL-South Project Implementation Report and EIS (March 2004).

6.3 Martin County

There is ongoing coordination with Martin County's Growth Management Department and Staff Public Project Review Team in order to comply with any local concerns to the C-44 RSTA Project.

6.4 Federal Aviation Administration (FAA)

On January 26, 2007, the FAA completed an aeronautical study and determination of no hazard to air navigation to the SFWMD for the C-44 RSTA Project.

7.0 Date of the Public Notice and summary of comments

7.1 Pre-application meeting(s) and Wetland Jurisdictional Determination

The Corps has conducted monthly permit meetings with the SFWMD, FDEP, and the federal resource agencies since November 2004, to discuss the status of all of the Acceler8 projects. These meetings have served as a forum for early discussion and exchange of information and concerns prior to application submission. The wetland jurisdictional determination was conducted on 15 July 2005.

7.2 Important Dates

The SFWMD submitted a permit application on 13 July 2006. The Corps considered the application complete on 10 August 2006. By letter dated 1 August 2006, the Corps provided an effect determination for the C-44 RSTA Project and requested concurrence from the U.S. Fish and Wildlife Service. A Regulatory public notice was circulated on 14 August 2006, and sent to all interested parties.

Throughout the National Environmental Policy Act (NEPA) evaluation for the IRL-S and throughout the SFWMD Acceler8 Basis of Design Report (BODR) Process, a number of public meetings have been held. Public meetings for the IRL-S are described in Section 9 of the PIR/EIS. Following is a list of the Acceler8 public meetings for the proposed action, i.e. the C-44 RSTA Project.

- Open House – 7 December 2005
- BODR Phase Briefings with county commissioners: 25 and 31 January and 1 February 2006
- Water Resources Advisory Council (WRAC) Issues Meeting – 14 February 2006
- WRAC Meeting – 6 April 2006
- Preliminary Design Briefings with stakeholders (environmental groups): 27 July 2006
- Preliminary Design Briefings with county commissioners: 31 July 2006 and 3 August 2006
- Test Cell Celebration Tours: 7 July 2006 and 16 September 2006
- WRAC Issues Meeting – 7 August 2006
- WRAC Meeting – 7 September 2006

7.3 Public notice comments

The Corps has reviewed all of the comments submitted in response to the circulation of the public notice for the IRLS PIR and for the C-44 Acceler8 project. The Corps has summarized comments on the Acceler8 project below:

7.3.1 U.S. Environmental Protection Agency (USEPA)

By letter dated 11 September 2006, the USEPA responded to the public notice. The USEPA requested quantification of the impacts from the FPL lines and asked if they were included in the project impacts; requested water quality data from the test cells and final design drawings; inquired about coordination with USFWS for manatee exclusion devices; requested a copy of the final copper remediation plans; inquired about construction timing for STAs versus reservoir; and asked for clarification on whether an internal dike is still proposed in the reservoir.

7.3.2 U.S. Fish and Wildlife Service (USFWS)

The USFWS provided a Biological Opinion (BO) on 14 September 2006, for the C-44 RSTA Project, for the eastern indigo snake. The BO included incidental take for 63 snakes as a result of project construction, operation, and maintenance and three terms and conditions for minimizing impacts, education of on-site personnel, and coordination.

7.3.3 National Marine Fisheries Service (NMFS)

By email on 15 September 2006, the NMFS indicated although they were unable to meet the public notice comment period, they are supportive of the project due to the significant water quality improvements anticipated in the IRL as a result of the STA and would like STAs incorporated into other Acceler8 projects.

7.3.4 State Historic Preservation Officer (SHPO)

The SHPO did not respond to the Regulatory public notice. The project area was surveyed for archeological and historical cultural resources by Corps archeologist, Grady Caulk, in 2005. No cultural resources were identified within the project area. Based on this survey in accordance with procedures established in 36 CFR 800.4(d)(1) the Corps made a determination of "no historic properties affected" for the PIR/EIS to which the SHPO concurred on 28 November 2005.

7.3.5 State and local agencies

No comments were received in response to the regulatory public notice.

7.3.6 Organizations

No comments were received in response to the regulatory public notice.

7.3.7 Individuals

No comments were received in response to the regulatory public notice.

7.3.8 Internal Coordination

The project was coordinated with the Real Estate Division, South Florida Operations Office of the Construction-Operations Division, and the IRL-S Project Delivery Team (PDT) including the Engineering Division and Everglades Restoration Division.

By memorandum dated 18 August 2006, the South Florida Operations Office advised the project would require a consent to easement, stated the SFWMD would be responsible for impacted survey monuments, questioned how the project operations impact the Lake Okeechobee Regulation Schedule Study (LORSS), questioned the responsible party for floating plants in the canal basins, and asked if the pump station would have manatee barriers and/or a trash rake.

7.4 Response to the comments

The letter received by the USEPA was provided to the SFWMD and discussed during the interagency monthly permit meetings.

7.5 Additional Coordination

By letter to the USFWS dated 3 October 2006, the Corps provided additional information to support the "not likely to adversely affect" determination for the Everglade snail kite. This letter was sent to support the Corps' decision not to request reinitiation of consultation for Everglade snail kite and did not require a response from the USFWS.

By letter dated 11 January 2007, the Corps determined construction of the communications tower may adversely affect the Everglade snail kite, wood stork, Audubon's crested caracara, and bald eagle and requested reinitiation of consultation for these species.

8.0 Alternatives

8.1 Avoidance (no action, uplands, availability of other sites)

8.1.1 Alternatives for the C-44 RSTA Project

The No Action Alternative would not allow the applicant to achieve the overall project purpose. Lands within the project footprint would likely remain as agricultural. Currently, there is insufficient storage volume in the basin to prevent harm to natural system areas during wet periods when water is directed to the SLE to maintain flood control. Without the project, nutrient-rich water from the basin would continue to be directed to the estuary reducing water clarity that in turn adversely affects submerged aquatic vegetation (SAV) which reduces the availability of bedding habitat for fishes. During the wet season, large pulses of freshwater decrease salinity, increase nutrient inflow and increase turbidity to the estuary, thereby adversely affecting seagrasses. Reduction of the health or extent of the SAV has deleterious impacts to the estuarine fish and invertebrates that utilize this habitat as a nursery area. Loss of juvenile fish and shellfish as prey for predatory fish and birds has a cumulative adverse impact through the estuarine and marine food web, as well as directly reducing commercially important fish and shellfish.

The siting criteria used to rank the alternatives for reservoirs and STAs included land use/land cover, proximity to primary canal/canal network, soil suitability, potential contributing watershed, storage capacity (area of parcel), hydrologic network distance from estuary, and average land elevation. The alternatives analysis performed in the PIR identified ten (10) different sites along the C-44 Canal for the potential locations of the C-44 Reservoir, C-44 STA East, and C-44 STA West components. The alternative analysis evaluated various combinations of these components that included three (3) different reservoir storage volumes on four (4) different acreages at three (3) different locations as well as four (4) different treatment acreages for the STAs at five (5) different locations. Specific C-44 RSTA Project alternatives included reservoir sizes ranging from 3,000 ac to 3,901 ac. East and West STA alternatives ranged from 860 ac to 3,840 ac for the East STA and 2,000 ac to 2,445 ac for the West STA. All of the alternatives for the C-44 RSTA were equal with regard to environmental effects within the project footprint (all alternatives in the PIR/EIS included siting reservoirs and STAs on lands currently in citrus, sugar cane, sod, and row crops). Additionally, the preferred placement of the STA components is immediately adjacent to the reservoirs in order to provide treatment of captured flows.

8.1.2 CERP

The C&SF Project Comprehensive Review Study (Restudy) reexamined the C&SF Project to determine the feasibility of modifying the project to restore the south Florida ecosystem and to provide for the other water-related needs of the region. Specifically, as required by the authorizing legislation, the study investigated making structural or operational modifications to the C&SF Project for improving the quality of the environment; protecting water quality in the south Florida ecosystem; improving protection of the aquifer; improving the integrity, capability,

and conservation of urban and agricultural water supplies; and, improving other water-related purposes. The Restudy recommended the CERP which identified 68 components, individually focused at the local scale, but ultimately benefiting the entire Everglades ecosystem. Since the Restudy and April 1999 "Final Integrated Feasibility Report and Programmatic Environmental Impact Statement", the SFWMD and the Federal Government have been acquiring lands needed for CERP implementation. Currently, the SFWMD owns all but approximately 2% of the total lands for the Project through land agreements within the PIR Project footprint. As depicted in the PIR, the majority of the lands for the Project were acquired from a minimum of owners, including Florida Tierra Properties, Running W, L.P., Tesoro Groves, L.P., Minton and Mondschein, GM-Citrus, Good-Minton, and Raymond properties, and Star Farms. The sole agreement for 255 acres from the TIWCD to complete the acquisitions for the Project have been accomplished in May 2007.

8.1.3 State of Florida's Acceler8 Initiative

The proposed C-44 RSTA Project is a State of Florida "Acceler8" project. On 14 October 2004, a Memorandum of Agreement (MOA) regarding acceleration of the CERP between the Executive Office of the Governor and the SFWMD was signed. Acceler8 expedites restoration of the Everglades and attainment of benefits ahead of the CERP schedule and serves as the initial foundation for other comprehensive restoration efforts to follow. Under Acceler8, the State proposes to accelerate the funding, design, and construction of planned federal projects within the CERP in order to provide environmental benefits sooner and in a cost-effective manner avoiding inevitable increases in land, construction materials, and labor costs. Acceler8 consists of eight projects (some with multiple components) that, when completed, will provide immediate environmental benefits including both water quality and water quantity benefits, flood control and water supply benefits. The MOA includes a finance plan that describes how the Acceler8 projects will be funded. The MOA constitutes the State of Florida's commitment to build the projects consistent with CERP and provides reasonable financial assurance that the projects can be built. The project is located on the site identified in the PIR and includes both reservoir and STA components identified in the preferred alternative. The configuration of these components was modified during the design phase.

8.2 Minimization

8.2.1 Wetlands

In an effort to avoid and minimize impacts to wetlands, project sites were selected in part based on existing land use and land cover. The C-44 RSTA Project was developed on intensely managed agricultural lands, specifically citrus groves. The C-44 RSTA Project site consists of approximately 12,000 acres of citrus groves fragmented by a dense network of irrigation and drainage ditches and canals located throughout the site. Avoidance of these features was not practicable. Less than 45 acres of depressional wetlands occur on site and these are highly disturbed by the surrounding citrus operation. The remaining wetlands consist of irrigation and drainage ditches and canals which intersect historic hydric soils. Water levels in these ditches are actively managed and ditches and canals are periodically maintained (cleaned out) to ensure

effective drainage or irrigation. The wetlands are of very low quality. The C-44 RSTA Project will construct a total of 6,300 ac of vegetated herbaceous wetlands in the form of six STA Cells.

8.2.2 Contaminants

The SFWMD has agreed to implement conservation measures and environmental commitments to the maximum extent practicable to further minimize risk of pesticide contamination to wading birds including: minimizing complete drydown of the Reservoir to the extent practicable in order to minimize potential remobilization of contaminants; implementing a water quality monitoring program to include assessment of contaminants of concern within the reservoir water column, sediments, and/or prey fish species; and notifying the USFWS upon observation of any wood stork or bald eagle nesting activity, or location of dead, injured, or sick individuals. Corrective Actions are completed onsite with the exception of impacted soils within cultivated areas and those lands of Star Farms which remain in operation through July 2008. The Construction Contractor will be responsible for a fill placement process to cap all impacted soils onsite either in place or within existing canals.

8.2.3 Seepage

The information available to date suggests the seepage impacts would be minimal and seepage control technology would mitigate the impacts. In order to minimize seepage impacts to adjacent lands, seepage collection canals are included in the design. The seepage collection canals will surround the reservoir on all four sides, and are designed to intercept seepage from the reservoir and direct it back to the intake canal. In order to evaluate the effectiveness of the seepage canals an analysis was performed using two computer models including, 1) SEEP/W version 6.13 by GEOSLOPE, and 2)MODFLOW (McDonald and Harbaugh, 1988). The seepage analysis results indicate that most of the flow leaving the reservoir travels vertically through low permeability clayey sand units, and then horizontally through more permeable surficial aquifer units. Most of the seepage that flows horizontally is captured by the seepage collection canals that will surround the reservoir. Only a slight water table rise (approximately one foot) is predicted within approximately 500 feet downstream of the seepage canals to the north, west, and south.

Along the western side of the intake canal, a drawdown effect may occur within the surficial aquifer during times when the canal is lower than the surrounding groundwater, typically anticipated to be in the wet season. Monitoring will be performed on the site perimeter to evaluate any potential seepage effects.

8.2.4 Adaptive Management

The Acceler8 projects will be implemented using an Adaptive Management Strategy consistent with the CERP Adaptive Management Strategy. After long-term operations and maintenance of the Project has been initiated, the Adaptive Management Plan may be further modified based on operating criteria approved by the USACE and the SFWMD resulting from CERP updates and recommendations from the Adaptive Management process as outlined in CERP Guidance Memorandum #6, *Assessment Activities for Adaptive Management.* A Project-Level Monitoring and Management Plan has been developed as a separate document to obtain data to support the adaptive management process.

8.3 Project as Proposed

The proposed project includes an above-ground reservoir, pump station, canals, stormwater treatment areas, and associated structures to capture and treat water from the C-44 Basin. The proposed project includes a 3,400-acre above ground reservoir, with an average water depth of 15 feet and a storage capacity of approximately 50,600 acre feet; a pump station with a capacity of 1,100 cubic feet per second; a reservoir discharge structure with a service spillway; and 6,300 acres of STAs in six cells. The proposed project would pump water from the C-44 Canal into the reservoir, store water in the reservoir, distribute and treat water from the reservoir in the STA cells, and pump treated water back into the C-44 Canal.

8.4 Conclusions of Alternatives Analysis

The proposed project is the least damaging practicable alternative. The C-44 RSTA Project with a storage capacity of 50,600 acre feet has the greatest capacity of all alternatives considered. The C-44 RSTA Project represents one element of the multi-purpose alternatives evaluated in the PIR. The Recommended Plan in the PIR/EIS, Alternative 6, proposed the co-location of the C-44 Reservoir, C-44 STA West and C-44 STA East on a site that was owned by a minimal number of land owners. The SFWMD's proposed C-44 RSTA Project implements these same three components on the same site identified in the Recommended Plan of the PIR. This alternative demonstrated by the Corps in the PIR/EIS to be the most cost effective, is the least environmentally damaging practicable alternative.

The SFWMD's proposed action effectively meets the project purpose of capturing, attenuating, and partially treating watershed runoff from the C-44 Basin while minimizing impacts to the existing environment.

9.0 Evaluation of the 404(b)(1) guidelines

9.1 Factual determinations

9.1.1 Physical substrate

The site is underlain by approximately 2 feet to 8 feet of fine sand to fine silty sand which is underlain by up to 10 feet of slightly clayey to clayey fine sand.

9.1.1.1 Substrate Elevation and Slope

The reservoir embankment will be constructed to a 56.6 foot elevation North American Vertical Datum (NAVD) 88 with a minimum 14–foot wide crest. Side slopes will be 3H:1V. Exterior side of the levees will be earthen, interior will be earthen covered with soil-cement. The seepage canal would be excavated to 12-foot elevation NAVD 88(14-foot depth) with a variable bottom width and side slopes of 3H:1V along all sides of the reservoir.

9.1.1.2 Sediment Type

The surficial sand/silty sand material will be used as embankment fill material. The underlying clayey sand layer will be left intact as a means to mitigate potential seepage losses.

9.1.1.3 Dredge/Fill Material Movement

Suitable material excavated from the perimeter canals will be used to construct the earthen embankments of the reservoir and STA. Any excess material or material not suitable for embankment construction would be spread throughout the interior of the reservoir. There will be no deposition of material in unconfined waters where it would be subject to movement. Erosion control measures would be used to prevent and contain any turbidity during excavation or movement of dredge materials.

9.1.1.4 Physical Effects on Benthos

Benthic organisms may be temporarily displaced or covered during construction activities. Short-term impacts to benthos are expected in seepage canals with removal of material; however, they should re-establish rapidly.

9.1.2 Water circulation, fluctuation, and salinity

Seepage analyses were performed for the embankment dam, STA, and the perimeter canal in accordance with Corps Engineering Manual EM-1110-2-1901. Seepage analyses indicate that the flow rates demonstrate that while the toe drain may be effective in preventing seepage along the outside slope of the dam, it will probably have little influence on seepage in the shallow aquifer units. The clayey sand assumed to be continuous throughout the RSTA and surrounding agricultural areas, does not prevent significant seepage into the lower, more pervious sands. However, the seepage modeling did demonstrate that insignificant water table changes would occur beyond the perimeter canal, for the baseline case. Because the perimeter canal is designed

to breach the clayey sand it acts as an effective groundwater drain reducing groundwater seepage from the RSTA complex from migrating past the perimeter canal.

9.1.2.1 Water Column Effects

The water column in the immediate vicinity of excavation within the canals is anticipated to be temporarily impacted during construction as widening activities and slopes are created. Turbidity and erosion will be controlled during and post-construction.

9.1.2.2 Current Patterns and Circulation

Construction of the reservoir, pump station, and STAs will have some affect on current circulation patterns within the C-44 Canal, however it is not anticipated the project will cause adverse impacts to the canal. Holding basin water in the C-44 Reservoir should reduce the peak flows to the St. Lucie Estuary.

9.1.2.3 Normal Water Level Fluctuations and Salinity Gradients

Surface and ground water levels would be minimally impacted in the immediate project footprint where seepage will be collected in seepage canals. Salinity gradients should improve in the affected St. Lucie Estuary as reduced fresh water flows from the C-44 basin would help stabilize salinity in these areas. Reductions in high flow events will improve the water quality by reducing nutrient loads flowing into the estuaries, thereby reducing the occurrence of algal blooms. Improvements to both salinity patterns and water quality will positively affect the St. Lucie Estuary.

9.1.3 Suspended particulate/turbidity

9.1.3.1 Expected Changes in Suspended Particulates and Turbidity Levels in the Vicinity of the Disposal Site

There may be a temporary increase in turbidity levels in the project area during dredging of canals. Turbidity will be short-term and localized and no significant adverse impacts are expected. State standards for turbidity will not be exceeded. Turbidity will be controlled during and post construction.

9.1.3.2 Effects on the Chemical and Physical Properties of the Water Column

There may be temporary impacts to the chemical and physical properties of nearby waters during construction activities. There are no acute or chronic chemical impacts anticipated as a result of construction. An environmental protection plan will be prepared by the SFWMD to address concerns regarding monitoring of equipment, maintenance and security of fuels, lubricants etc.

9.1.3.2.1 Light Penetration

Some decrease in light penetration may occur in the immediate vicinity of the construction area. This effect will be temporary, limited to the immediate area of construction, and will have no adverse impact on the environment. After construction during operation, as water stages within the reservoir rise, the potential exists for decreased light penetration especially when the

reservoir is full. This is not anticipated to cause a significant impact because water levels will continuously fluctuate.

9.1.3.2.2 Dissolved Oxygen (DO)

There may be a slight decrease in DO in the immediate construction area of the intake canal as well as the C-132 and C-133 Canals during dredging operations. DO levels are anticipated to return to normal post-dredging. During operation, DO will be monitored in accordance with the project water quality monitoring plan.

9.1.3.2.3 Toxic Metals, Organics, and Pathogens

No toxic metals, organics, or pathogens are expected to be released by the project. The project has been designed to include disposal of contaminants and a post-project monitoring plan has been developed to confirm water held and released from the reservoir and STAs is within regulatory limits.

9.1.4 Contaminant availability

As part of the land acquisition process, environmental site assessments (ESAs) were conducted on all properties within the C-44 RSTA Project area. A phase II ESA was performed to describe historical and current use of the property as well as identify areas which are considered to have recognized environmental conditions (REC). Corrective actions (CAs) began in order to mitigate and/or eliminate RECs that did not meet the established standards for the particular media (i.e. soil, groundwater, sediment, etc.). Several RECs were identified on the subject property and most CAs have been conducted at point sources. Remaining RECs, such as those within the citrus cultivated areas, will be remediated during construction. Remediation of areas of copper impacted soils (as defined by samples exceeding the USFWS 85 mg/kg limit for the Everglades snail kite) and former mix/load/burn areas will be incorporated in the grading plan.

9.1.5 Aquatic ecosystem effects

9.1.5.1 Effects on Plankton

No adverse impacts on autotrophic or heterotrophic organisms are anticipated.

9.1.5.2 Effects on Benthos

No adverse impacts to benthic organisms are anticipated.

9.1.5.3 Effects on Nekton

Mostly small forage fish may be temporarily displaced by construction and turbid water. However, no long-term adverse impacts on nekton are anticipated.

9.1.5.4 Effects on the Aquatic Food Web

No adverse impacts on aquatic organisms are anticipated. There is expected to be a relatively minor temporary effect on the aquatic food web due to construction activities.

9.1.5.5 Effects on Special Aquatic Sites

9.1.5.5.1 Hardground and Coral Reef Communities

There are no hardground or coral reef communities within the project footprint. Oysters once flourished within the SLE but with damaging pulse freshwater flows and lack of suitable substrate populations have declined. As a result of the project, high flows will be attenuated and oyster reef/recruitment should occur.

9.1.5.5.2 Sanctuaries and Refuges

There are no sanctuaries or refuges within the project footprint. The Project Site is a monoculture of managed citrus groves.

9.1.5.5.3 Wetlands

Within the project site natural communities have been converted to agricultural crops and therefore the site does not exhibit large areas of native habitat or a high degree of wetland habitat function. As proposed, construction of the project would impact a total of 617.4 acres of jurisdictional waters of the United States. Nearly all (93%) of which consist of citrus grove irrigation and drainage ditches and canals which overly historic hydric soils. As a result of the project, approximately 6,300 acres of wetlands in the form of STA would be created. The STA test cells provide a reference for the wetland function and value that will be created as a result of the project. Operational targets for the STA Cells includes a target of 1.5 ft of surface water depth. The reference sites are heavily utilized by wildlife, particularly aquatic invertebrates and fish, alligators, and wading birds; however, future changes in the operation of the STAs as treatment areas may reduce wetland function and value. The STA Cells will not be planted but will rely on natural recruitment of herbaceous species. Based on test cell data, cattail, canna lily, red ludwigia, pickerelweed, arrowhead and other species can be expected to colonize the STA Cells.

9.1.5.5.4 Mud Flats

Mud flats are present within the SLE but none would be adversely impacted by the project. Regulation of the timing of water delivered to the estuary may benefit mud flats by returning inundation patterns toward natural system targets and ameliorating rates of erosion and accretion.

9.1.5.5.5 Vegetated Shallows

Vegetated shallows are present in the IRL but have been severely reduced in the SLE. No vegetated shallows would be adversely impacted as a result of the project. As a result of attenuation of high flows from the C-44 basin, ecological conditions in the SLE and southern IRL are anticipated to improve. This would sustain a variety of species of freshwater, estuarine, and marine submerged aquatic beds that once flourished historically.

9.1.5.5.6 Riffle and Pool Complexes

There are none within the project footprint and none would be impacted by the project.

9.1.6 Proposed disposal site

The placement of fill will occur adjacent to the area from where it is excavated. Material is not expected to migrate from its location of placement.

9.1.6.1 Mixing Zone Determination

The dredged material will not cause unacceptable changes in the mixing zone water quality requirements as specified by the State of Florida's Water Quality Certification permit procedures. No adverse impacts related to depth, current velocity, direction and variability, degree of turbulence, stratification, or ambient concentrations of constituents are expected from implementation of the project.

9.1.6.2 Determination of Compliance with Applicable Water Quality Standards

Because of the inert nature of the material to be used as fill, applicable State water quality standards would not be violated.

9.1.6.3 Potential Effects on Human Use Characteristics

9.1.6.3.1 Municipal and Private Water Supplies

No municipal or private water supplies would be adversely impacted by the implementation of the project. During dry weather periods, water can be discharged into the C-44 Canal from the reservoir through the STA Cells providing needed freshwater to downstream receiving bodies. This water would be available to permitted agricultural users, enhancing their supplies. The reservoir and STA will act to recharge both the surficial and Floridian aquifers in the immediate vicinity of the reservoir.

9.1.6.3.2 Recreational and Commercial Fisheries

The reservoir is anticipated to provide recreational opportunities based on SFWMD Governing Board Policies. Recreational and commercial fisheries in the C-44 Canal would not be negatively impacted by the implementation of the project. Fisheries in the SLE and IRL should improve as ecological communities are enhanced by attenuation of flows from the basin.

9.1.6.3.3 Water Related Recreation

Water related recreation in the immediate vicinity of construction will not likely be impacted during construction activities within the canals. Impacts, if any, are expected to be a short-term impact. The 3,400 acre open water portion of the reservoir will likely provide additional recreational opportunities based on SFWMD Governing Board Policies.

9.1.6.3.4 Aesthetics

The existing environmental setting would be altered from agricultural fields with canals and pump stations to a reservoir and STA complex with canals, embankments, pump stations, and structures.

9.1.6.3.5 Parks, National and Historic Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves

No adverse impacts are anticipated. The closest park 'Timers Park' is located approximately two (2) miles west of the project, for which there are no impacts anticipated.

9.1.7 Cumulative effects

There will be no adverse cumulative impacts as a result of the placement of fill at the project site. The proposed C-44 RSTA Project is part of the State of Florida's Acceler8 Program. Anticipated future projects that may occur as a result of the proposed project include construction of the remaining suite of Acceler8 projects as set forth in the MOA which would have positive cumulative effects on the south Florida ecosystem. Additionally, construction of the other CERP components of the IRL-S Project are anticipated to occur in the near future pending Congressional appropriation and execution of a Project Cooperation Agreement.

The Acceler8 projects are designed to contribute to many of the benefits from CERP as early as possible with the remainder of the CERP projects will follow as time and resources allow.

The SFWMD's Acceler8 Program and the CERP are both anticipated to convert large areas on the upper east coast, around Lake Okeechobee, within the Everglades Agriculture Area, and in the Caloosahatchee River basin to reservoirs for increasing water storage for the overall gain and long-term benefit of the regional system. Project features of both Acceler8 and CERP will cause some adverse consequences to agricultural land uses - permanently removing tens of thousands of acres from agricultural production. These impacts may be felt locally and/or regionally as the economic base derived from agriculture is incrementally reduced relative to other sectors of the economy. The overall benefit to the regional system is expected to be far greater than the localized adverse effects. As these features occur disparately across the landscape within different hydrologic basins, and as distinct units rather than multiple features within a single subregion, they will not likely result in a significantly detrimental cumulative effect.

9.1.8 Secondary effects

There will be no adverse secondary impacts on the aquatic ecosystem as a result of the construction. The project includes an erosion control plan. Best management practices (BMPs) such as silt screens will be installed along all limits of construction. Floating turbidity barriers will be placed at numerous locations within open water features such as ditches and canals. The SFWMD, or their contractor, will be required to obtain NPDES stormwater construction permits. Impacts associated with construction traffic and equipment will be localized due to construction occurring in phases. Phasing construction will allow wildlife to utilize undisturbed portions of the site. Once constructed, the initial flooding of the reservoir will be at a rate of one-half inch per day until a depth of six inches is attained in order to minimize negative impacts to slow moving wildlife species. A monitoring plan would be implemented during and after construction to ensure no adverse impacts to water quality.

The proposed C-44 RSTA Project also provides fish and wildlife enhancement features incorporated into the design. Deepwater refugia for fish and other aquatic animals during extremely dry periods will be created by excavation of the perimeter canal and maintaining the

existing canals and ditches in the reservoir cells. The perimeter canal will include littoral areas which may be utilized as forage and nursery habitat by wading birds and aquatic fauna. Portions of the embankments of both test cells will be breached with mounds of embankments left in place providing roosting habitat for birds when the reservoir is full.

9.2 Restrictions on discharges

9.2.1 Alternatives: (See Chapter 8 of this Memorandum)

- The activity is located in a special aquatic site (wetlands, sanctuaries and refuges, mud flats, vegetated shallows, coral reefs, riffle and pool complexes).
- The activity does not need to be located in a special aquatic site to fulfill its basic purpose.
- It has been demonstrated in Chapter 8 of this Memorandum above that there are no practicable or less damaging alternatives which would satisfy the project's basic purpose.

9.2.2 Other program requirements

- The proposed activity does not violate applicable State water quality standards or Section 307 prohibitions or effluent standards.
- The proposed activity does not jeopardize the continued existence of federally listed threatened or endangered species or affects their critical habitat.
- The proposed activity does not violate the requirements of a federally designated marine sanctuary.

9.2.3 Cause or Contribute

The activity will not cause or contribute to significant degradation of waters of the United States, including adverse effects on human health, life stages of aquatic organisms, ecosystem diversity, productivity and stability; and recreational, aesthetic, and economic values.

9.2.4 Minimization of adverse effects

Appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem.

The mitigation plan includes accounting for the system-wide interdependencies and watershed benefits of the SFWMD's Acceler8 projects operated together as a system consistent with the C&SF Project as modified. The Acceler8 projects are anticipated to provide watershed functions to the south Florida ecosystem consistent with the goals and objectives of CERP. The goal of the Acceler8 program is to assist in the restoration, preservation, and protection of the south Florida ecosystem while providing for other water related needs of the region. This program of projects is being designed to accomplish this by helping to provide the quantity, quality, timing, and distribution of water necessary to achieve and sustain those essential hydrological and biological characteristics that defined the undisturbed south Florida ecosystem.

The Unified Mitigation Assessment Methodology (UMAM), Chapter 62-345 F.A.C., was used to evaluate impacts to aquatic resources including wetlands as a result of construction of the project. As shown on Table 1 below the project results in a loss of 185.5 Functional Capacity Units (FCUs). The loss will be offset by the environmental lift to aquatic resources within the south Florida ecosystem for which system-wide operation of the Acceler8 projects is anticipated to benefit. A draft preliminary mitigation ledger has been developed based on current project specific information, Acceler8 system-wide model runs, and analyses by an interagency team consisting of the Corps, SFWMD, USFWS, and USEPA. The Acceler8 mitigation ledger, compensatory mitigation plan, and model runs are described in detail in the Final Environmental Impact Statement (FEIS) for the SFWMD's proposed Acceler8 Everglades Agricultural Area (EAA) Reservoir A-1 project dated 19 May 2006, and incorporated herein by reference.

Table 1. C-44 Wetland Impact and UMAM Summary

Feature	Acreage	UMAM Score	FCU's
C-44 Canals and Ditches	569.5	0.3	170.85
C-44 Wetlands	44	0.3	13.2
C-132 Marsh	1.22	0.5	0.61
C-132 Canal	1.0	0.3	0.29
C-133 Canal	1.7	0.3	0.52
Total	617.4		185.5

Operated together as a system, the Acceler8 projects are anticipated to provide environmental benefit to the south Florida ecosystem consistent with the goals and objectives of the federal CERP. Table 2 includes preliminary UMAM numbers for ecological communities throughout the South Florida ecosystem for which the Acceler8 projects are anticipated to benefit. Specifically, the Acceler8 projects will improve water deliveries, through better timing and distributions of flows dictated by the natural system, and help maintain natural salinity balance in the estuaries. In addition, restoration through improvements in hydrology to wetland habitats will occur by reducing extreme high and low water level events, restoring sheet flow and controlling seepage. Furthermore, there will be improvements in water quality as a result of water diversions and storage in stormwater treatment areas prior to discharging into the natural system, as well as, reductions in back pumping to Lake Okeechobee and elimination of damaging regulatory releases from the lake to the Everglades.

Cumulatively, the Acceler8 projects are anticipated to improve ecological performance by moving closer to the Natural System Model depth targets for wetlands in the Water Conservation Areas and Everglades National Park. Improvements can be expected in Lake Okeechobee, the Caloosahatchee and St. Lucie Estuaries, and Picayune Strand by moving closer to hydrologic and ecological restoration targets identified by the REstoration COordination and VERification (RECOVER) program through the Monitoring and Assessment Plan (MAP). The preliminary mitigation ledger based on the Unified Mitigation Assessment Methodology (UMAM) indicates

that 6,439.58 functional units will be provided through implementation of Acceler8 and the projects' environmental lift to the nearshore habitat of Lake Okeechobee, St. Lucie Estuary, and Caloosahatchee Estuary. The Corps' evaluation of the benefits associated with the Acceler8 projects is a fluid evaluation which will continue to be updated by the interagency team as individual Acceler8 projects come on line and a final operations plan is developed. The Corps has developed a mitigation monitoring plan for the project which is consistent with the MAP developed by RECOVER.

Table 2. Draft Acceler8 Impact and Mitigation Ledger

Impacts					
Acceler8 Project	**HUC**	**Habitat**	**FCI**	**Acres**	**Debits**
EAA A-1 Reservoir	3090202	Ag Fields	-0.37	15467.48	- 5,722.97
		Canals	-0.57	149.83	- 85.40
		Wetlands	-0.43	187.63	- 80.68
C-44 RSTA	3090202	Canals	-0.30	572.20	- 171.66
		Wetlands	-0.30	44.00	-13.20
		Wetlands	-0.50	1.22	-0.61
				Total	**-6,074.52**

Benefits									
Acceler8 System-wide Benefits	**HUC**	**Existing FCI**	**Adjusted FCI**	**With-Project FCI**	**Δ**	**Temporal Lag**	**Risk Factor**	**Estimated Acres**	**Ledger Credits**
Lake Okeechobee Nearshore Habitat	3090202	0.23	0.23	0.43	0.20	1.25	2.00	50,000.00	4,000.00
St. Lucie Estuary	3090202	0.33	0.33	0.53	0.20	1.25	2.00	5,120.00	409.60
Upper Caloosahatchee Estuary	3090205	0.33	0.33	0.60	0.27	1.25	2.00	4,130.00	446.04
Mid/Lower Caloosahatchee Estuary	3090205	0.33	0.33	0.47	0.14	1.25	2.00	12,170.00	4,259.50
Water Conservation Area 1	3090202	0.57	0.57	0.70	0.13	1.25	2.00	16,000.00	832.00
Water Conservation Area 2A	3090202	0.40	0.40	0.50	0.10	1.25	2.00	105,308.45	4,212.34
Water Conservation Area 2B	3090202							28,292.00	-
Water Conservation Area 3A	3090202	0.63	0.63	0.73	0.10	1.25	2.00	481,964.68	19,278.59
Water Conservation Area 3B	3090202							98,271.54	-
Everglades National Park	3090202				0.00				-
								Total	**33,438.07**

The proposed project is not intended to fully restore the SLE. Its contribution to restoration is by attenuating damaging peak flows to the St. Lucie Estuary from the C-44 Basin. Other CERP IRL-S projects as well as other ongoing local programs are needed to achieve full restoration of the estuary.

With all of the CERP IRL-S projects on line, benefits to the SLE improve over base conditions; anticipated benefits based on modeling results are as follows:

Reduce high events (2000-3000 cfs) by 8 vs. base condition of 44 events

Reduce low events (> 300 cfs) by 4 vs. base condition of 26 events

Improve flows meeting desirable salinity envelope

Low flow events <350 cfs by 5 vs. base condition of 61 events

High flow events >2000 cfs by 9 vs. base condition of 53 events

The mitigation monitoring plan incorporates portions of the RECOVER programs MAP performance measures and restoration targets. A review of existing monitoring efforts proposed by the RECOVER team has revealed the Acceler8 system-wide benefits can be assessed using existing monitoring programs as described in the RECOVER. If RECOVER ceases to monitor any of the performance measures and restoration targets identified in the monitoring plan, it will be the responsibility of the SFWMD to fill the monitoring gaps with monitoring parameters acceptable to the Corps. Each year the Corps will receive from the SFWMD a report that evaluates the monitoring data to ensure a trend toward the restoration targets and UMAM goal scores projected on the mitigation ledger. Annual evaluation will also allow for adaptive management or corrective actions if monitoring indicates adverse environmental responses.

The monitoring plan includes adaptive management that provides early indication of potential problems and direction for corrective actions. Project monitoring will be conducted and evaluation on an annual basis in order to determine if environmental responses indicates problems or undesired trends. In such cases, the Corps and the SFWMD will re-evaluate the data and determine appropriate courses of action. This could include operational modifications, structural modifications, or alternative mitigation.

10.0 Public Interest Review

10.1 Corps analysis of comments and responses

All comments received in response to the public notice, Draft Supplemental Environmental Impact Statement (DSEIS), and Final Environmental Impact Statement (FEIS) have been considered in the following public interest review.

10.2 Public Interest Factors

All public interest factors have been reviewed. The Corps reviewed all of the public interest factors and considered the factors listed below relevant to this proposal. Both cumulative and secondary impacts on the public interest were considered.

10.2.1 Conservation

The goal of the Acceler8 program is to assist in the restoration, preservation, and protection of the South Florida ecosystem while providing for other water related needs of the region. This program of projects will be designed to provide the quantity, quality, timing, and distribution of water necessary to achieve and sustain those essential hydrological and biological characteristics to improve the South Florida ecosystem. The construction and operation of Acceler8 will be required to remain consistent with the Federal C&SF Project as modified by law and its project goals and purposes. Acceler8 serves as the initial foundation for other comprehensive restoration efforts to follow. The remaining CERP projects are anticipated to follow as time and resources allow.

10.2.2 Economics

Implementation of the proposed project will allow for a CERP component to be built ahead of the CERP schedule in a cost-effective manner avoiding inevitable increases in construction materials and labor costs. The SFWMD has implemented a small business outreach program designed to solicit the involvement of local industries in the construction and operations of the reservoir.

10.2.3 Aesthetics

The existing environmental setting would be altered from agricultural fields to a RSTA system with an approximate 31 foot high embankment. This would be a major change in the landscape from current agricultural activities. Other features including canals, water control structures, and pump stations are not unlike existing features in the area.

10.2.4 General environmental concerns

The proposed project is designed to regulate the timing of C-44 basin water delivered to the IRL and reduce nutrient inputs to sensitive receiving ecosystems such as the SLE. The direct effects of the project result in the reduction of approximately 12,000 acres of agricultural lands including 617.4 acres of wetlands within the project footprint. These lands would be converted

to an above-ground reservoir and STA cells. The function and value of the existing wetlands are reduced due to the agricultural practices. The project features will provide wetland and other aquatic function and value. Implementation of the project would improve environmental conditions in the SLE through attenuation of high flows.

10.2.5 Wetlands

Wetlands are discussed in Sections 9.1.5.5.3 and 9.2.4 above. Impacts as a result of project construct include 617.4 acres of jurisdictional wetlands. In addition, the works authorized will result in approximately 6,300 acres of STA, and 3,400 acres of deepwater refugia within the open water reservoir.

10.2.6 Historic and cultural resources

The project area was surveyed for archeological and historical cultural resources by Corps archeologist, Grady Caulk, in 2005. No cultural resources were identified within the project area. Based on this survey in accordance with procedures established in 36 CFR 800.4(d)(1) the Corps made a determination of "no historic properties affected". The Florida State Historic Preservation Officer concurred with this determination (DHR No.: 2005-10127 dated 28 November 2005).

10.2.7 Fish and wildlife values

The proposed project will improve fish and wildlife values by attenuation of high flows to the SLE.

10.2.8 Flood Hazards

The project will be built to State and Federal dam safety requirements with frequent monitoring and maintenance to ensure no flood hazards. The Corps' Engineering Division has participated in technical reviews of Acceler8 design documents for the C-44 RSTA Project to ensure compliance with federal dam safety criteria.

10.2.9 Floodplain Values

There are no 100 year floodplains across the project site.

10.2.10 Land Use

Land use will be changed from citrus grove to reservoir, STA (marsh wetland), and infrastructure such as access roads and pump stations. The reservoir and marsh wetlands will improve water quality in the water discharged back to the C-44 Canal and provide habitat for wildlife. Through the elimination of citrus grove operations, the application of related herbicides, pesticides, and fertilizers will be eliminated.

10.2.11 Recreation

The design provides for potential access points for the public at the STA Cells and Reservoir in accordance with SFWMD Governing Board policy. The intent of the Project design is to

provide the capability for public access that could accommodate a variety of nature based recreational activities. Typical activities at potential public access locations will be in accordance with SFWMD Governing Board policies.

10.2.12 Water supply

The Programmatic Regulations for the Comprehensive Everglades Restoration Plan require that the Project Operations Manual be consistent with the reservation or allocation of water for the natural system as described in the CERP PIR and reflect the operational criteria used in the identification of the appropriate quantity, timing, and distribution of water dedicated and managed for the natural system. Currently, no reservations are anticipated for the C-44 component of the IRLS Project or for the SFWMD's proposed C-44 Acceler8 Project. Operations at low reservoir stage and during drought conditions may be implemented to facilitate hydration of the STAs during these conditions. In addition, Chapter 373, Part I and Part V, of the Florida Statutes (F.S.), provisions of Sec. 373.1501 require that the SFWMD shall "provide reasonable assurances that the quantity of water available to existing legal users shall not be diminished by implementation of the CERP project components so as to adversely impact existing legal users…" Accordingly, the SFWMD's C-44 RSTA Project will not affect the existing users of water in the C-44 basin.

10.2.13 Water Quality

The dynamic Model for STAs, Version 2 (DMSTA2) was used for estimating phosphorous load reduction in the STA and Reservoir. The estimate phosphorous load reduction for the project is estimated to be an annual average of 28,000 kg/yr when both C-44 basin inflows and inflows from C-23 are included. The project will improve water quality at downstream receiving water bodies.

10.2.14 Safety

Construction of the project will be a major construction undertaking involving blasting and heavy equipment. Occupational Safety and Health Administration (OSHA) regulatory requirements apply "OSHA" safety requirements provide regulatory control. Workers at the site are required to wear safety equipment such as steel-toed shoes, hard hats, eye and ear protection devices, etc. The blasting operation will meet SFWMD standard specifications including strict set-back and safety requirements. Public access will be controlled during construction. In addition, the embankment around the reservoir will be built to the standards of the State of Florida Dam Safety Program and Federal Guidelines for Dam Safety.

10.2.15 Considerations of Property Ownership

The SFWMD has control over the Project lands through direct ownership, easements, or right of access during construction.

10.3 Public and private need for the proposed structure or work

The southern Indian River Lagoon is an estuary of national significance, recognized by the U.S. Environmental Protection Agency National Estuary Program and designated a Florida Aquatic

Preserve and Outstanding Florida Water. However, the lagoon ecosystem is suffering from poorly located and poorly timed freshwater discharges. A consequence of rapid delivery of freshwater runoff to the lagoon is the accumulation of muck over the bottom of the estuary, reducing water transparency and eliminating many original estuarine bottom communities such as seagrasses and oyster flats. The large freshwater discharges and existing muck deposits interact to stress estuary bottom communities and prevent their natural regeneration, resulting in a severely degraded ecological system (IRL-S PIR, March 2004). The C-44 RSTA Project will improve water quality and allow for better management of peak flows into the St. Lucie estuary thereby improving habitat quality in the estuary and the overall use of this resource by the public and private entities.

10.4 Practicability of using reasonable alternative locations and methods

There are no unresolved conflicts regarding use of the resource to implement a project for Everglades restoration.

10.5 Extent and permanence of the beneficial and/or detrimental

The areas within the project footprint are being taken out of agricultural production. The change is permanent. The beneficial effects associated with the project would be permanent and include the construction of a reservoir and STA Cells which will allow for improvements to water quality and better managing flows to the Indian River lagoon. These improvements are expected to result in improved habitat quality in the lagoon and improve the recreation experience.

10.6 Threatened or endangered species

In a letter dated 27 February 2002, to the Corps the USFWS concurred that implementation of the IRL-S Project would not adversely affect any federally listed species. For the C-44 RSTA Project, the Corps made an initial determination of not likely to adversely affect the wood stork, Everglade snail kite, West Indian Manatee, Audubon's crested caracara, and bald eagle. The Corps did not request reinitiation of consultation for these species since consultation had already been concluded programmatically for the CERP IRL-S Project. For the C-44 RSTA Project, the Corps made an adverse affect determination for the eastern indigo snake and requested initiation of formal consultation. On 14 September 2006, the USFWS terminated formal consultation with a BO that the project would not jeopardize the existence of the eastern indigo snake. The BO included three Reasonable and Prudent Measures for minimizing incidental take of up to 63 snakes.

Following revision of the application to include the communication tower, on 11 January 2007, the Corps requested reinitiation of consultation for the wood stork, bald eagle, snail kite, and Audubon's crested caracara. On 20 February 2007, the USFWS advised the proposed communication tower may affect but is not likely to adversely affect these species. The USFWS proposed implementation of two conservation measures for reducing potential impacts to migratory birds and federally listed species.

10.7 Essential Fish Habitat (EFH)

The Corps determined that the proposed action would not have an impact on EFH or federally managed fisheries for which the NMFS is responsible. The NMFS responded to the public notice with support for the project. As no EFH conservation recommendations have been provided and the NMFS has pledged support for the water quality benefits the project will provide to the SLE, the Corps is satisfied that the consultation procedures outlined in 50 CFR Section 600.920 of the regulation to implement the EFH provisions of the Magnuson-Stevens Act have been met.

10.8 Corps' wetland policy

The proposed wetland alteration is necessary to realize the project purpose and should result in minimal adverse environmental impacts. The benefits of the project would outweigh the minimal detrimental impacts. Therefore the project is in accordance with the Corps' wetland policy. All practicable means to avoid or minimize environmental harm from the alternative selected have been adopted.

10.9 Cumulative and secondary Impacts

There should be no adverse cumulative or secondary impacts caused by the project. This is discussed in Sections 9.1.7) and 9.1.8 above.

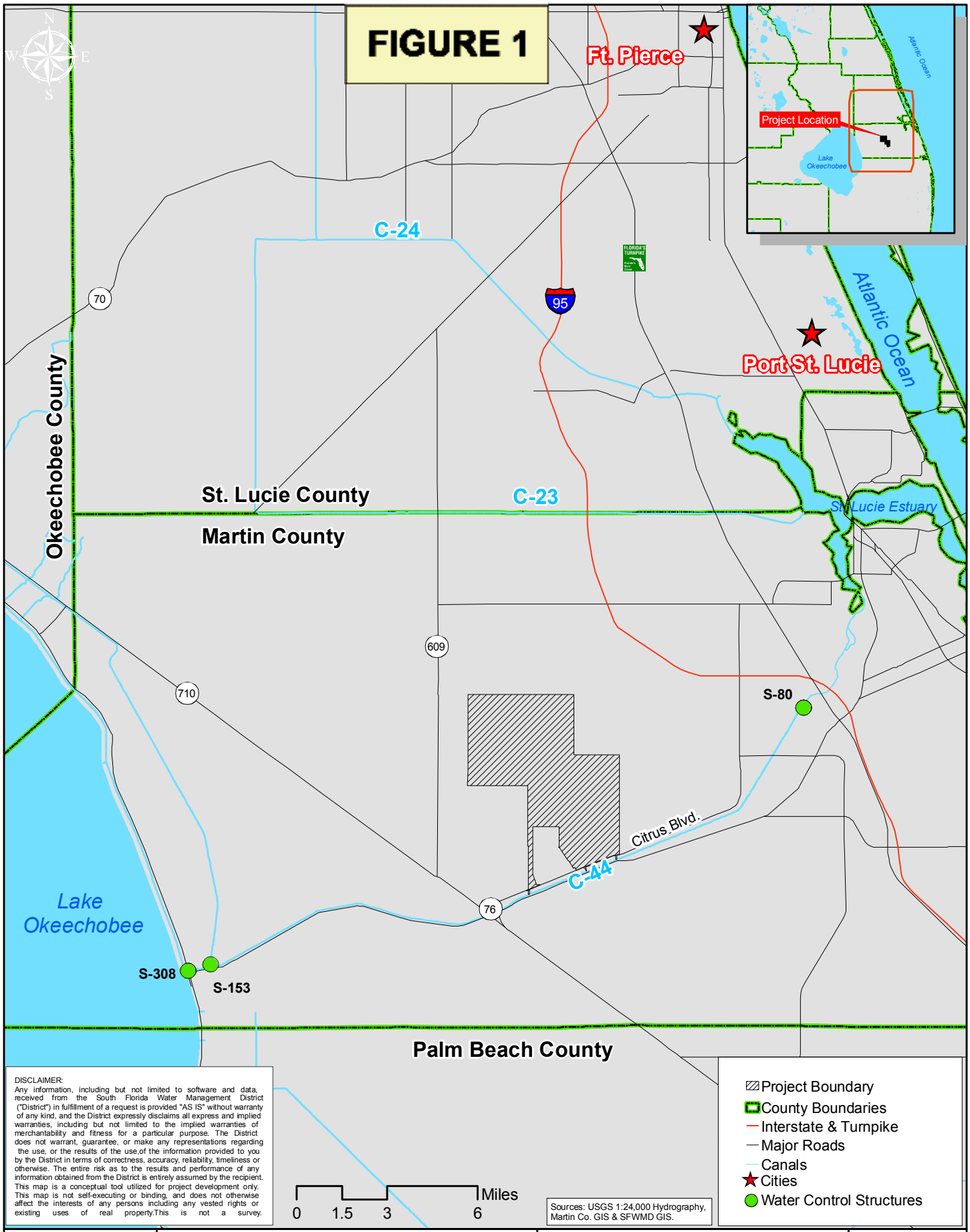
11.0 Corps' Analysis of Comments and Responses

The Corps has considered all of the comments received in response to the project.

12.0 Public Hearing Evaluation

The Corps did not receive any request for a public hearing during evaluation of the permit application.

ANNEX A



Acceler8
South Florida Water Management District
2301 Center Park West Drive, Suite # 150
West Palm Beach, FL 33409
Tel # (561) 242-5520

DRAFT

FIGURE 1

C-44 Reservoir / STA Project Location

Contract # CN040918-WO13

UPDATED 05-23-07

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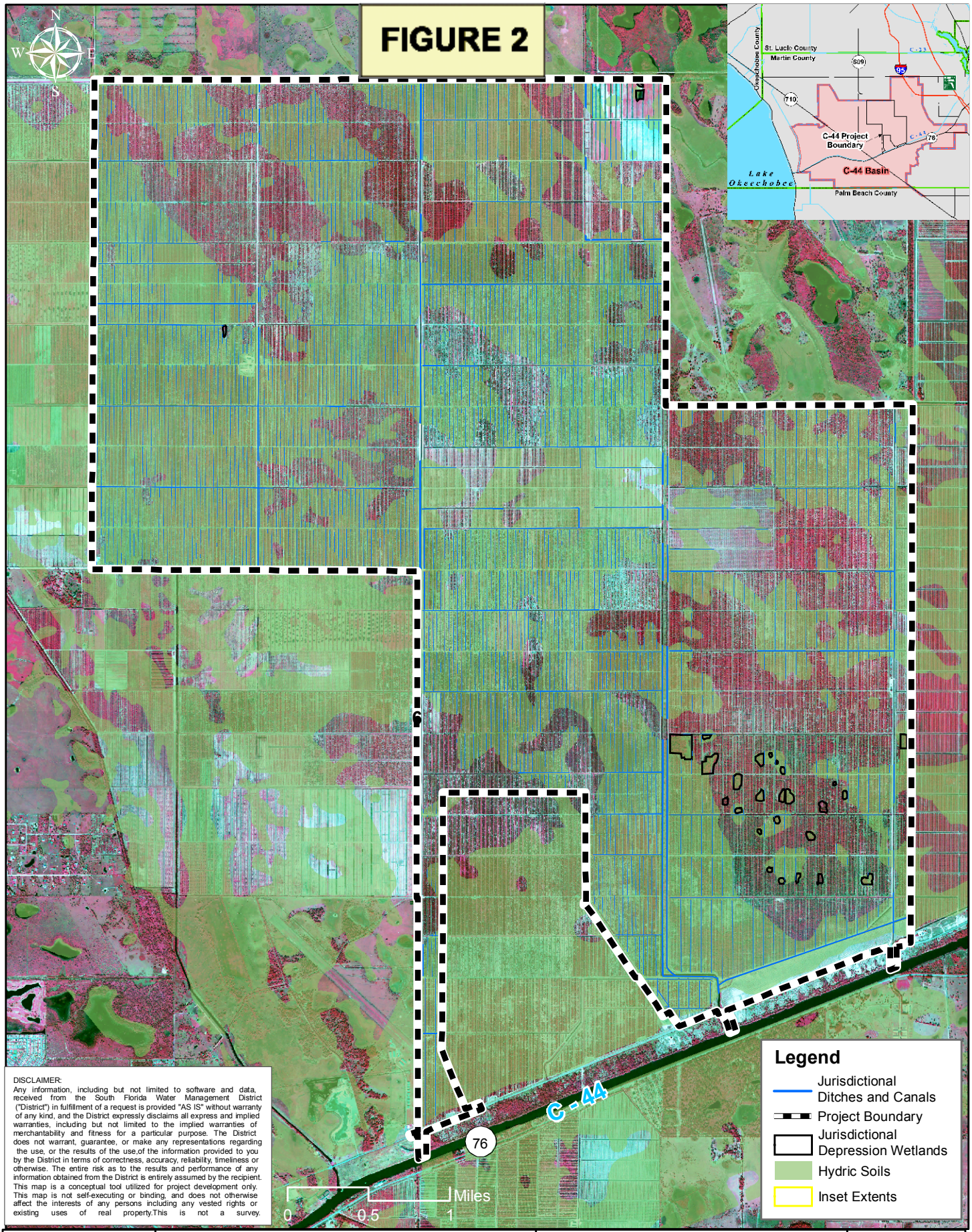


Acceler8
South Florida Water Management District
2301 Center Park West Drive, Suite # 150
West Palm Beach, FL 33409
Tel # (561) 242-5520

DRAFT

FIGURE 2
C-44 Reservoir / STA
Wetlands
Inset Index

Contract # CN040918-WO13

UPDATED
05-23-07

Location:
\\erdata1\GIS\A8_P507\map_docs\map_a_p_C44_aerials.mxd

FIGURE 3

FINAL TIWCD TEMPORARY RECONFIGURATION

COCA-COLA ROAD

CANAL I

STAR FARMS (NE)

TO SR 714

CANAL I

CANAL D

RUNNING W DITCH

2

C-44 TEST CELL SITE

TIWCD IRRIGATION CANAL EXTENSION (LINE Y)

1

CONTRACTOR STAGING AREA

SITE 5

5

RUNNING W DITCH

MINUTE MAID ROAD

TIWCD IRRIGATION CANAL

3

CANAL I (TIWCD MAIN IRRIGATION CANAL)

CONSTRUCTION ENTRANCE SIGN LOCATION, SEE NOTE 9

1 G03 G02

STAR FARMS DITCH (LINE Z)

4

CANAL D

CANAL I

BACK PUMP STATION

COUNTY ROAD 609

LEGEND

- PUMP STATION
- PRE-CONSTRUCTION DIRECTION OF FLOW
- POST-CONSTRUCTION DIRECTION OF FLOW
- IRRIGATION DISTRIBUTION TO GROVES
- EXISTING DITCH/CANAL
- PROPOSED CANAL BLOCK
- PROPOSED DITCH/CANAL
- C44 BOUNDARY
- TIWCD BOUNDARY

CANAL D

TIWCD MAIN ACCESS ROAD

CITRUS BLVD. (CR-726)

TO I-95

C-44 (ST. LUCIE CANAL)

SITE 1

6

TO OKEECHOBEE

STATE ROAD 710

CONSTRUCTION ACCESS ROUTE FOR SITE 1

INDIANTOWN

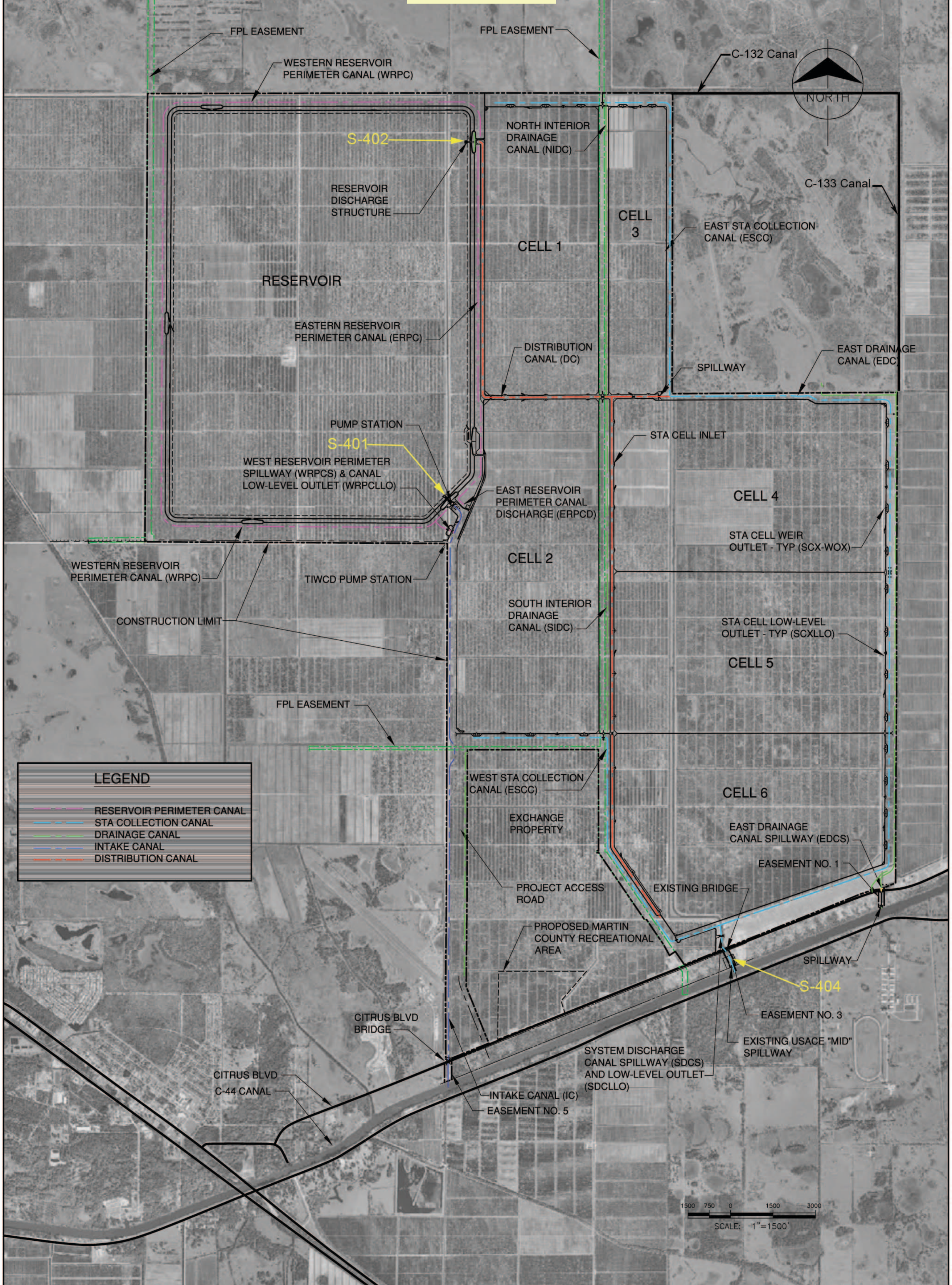
CONSTRUCTION ENTRANCE SIGN LOCATION, SEE NOTE 9

1 G03 G02

SPILLWAY ALLAPATTAH NO. 1

ACCELER8 everglades**now**.org

FIGURE 4



sfwmd.gov

ACCELER8
evergladesnow.org

HDR
HDR Engineering, Inc.
1400 Centrepark Blvd.
Suite 1000
West Palm Beach, FL 33401
CA 4213

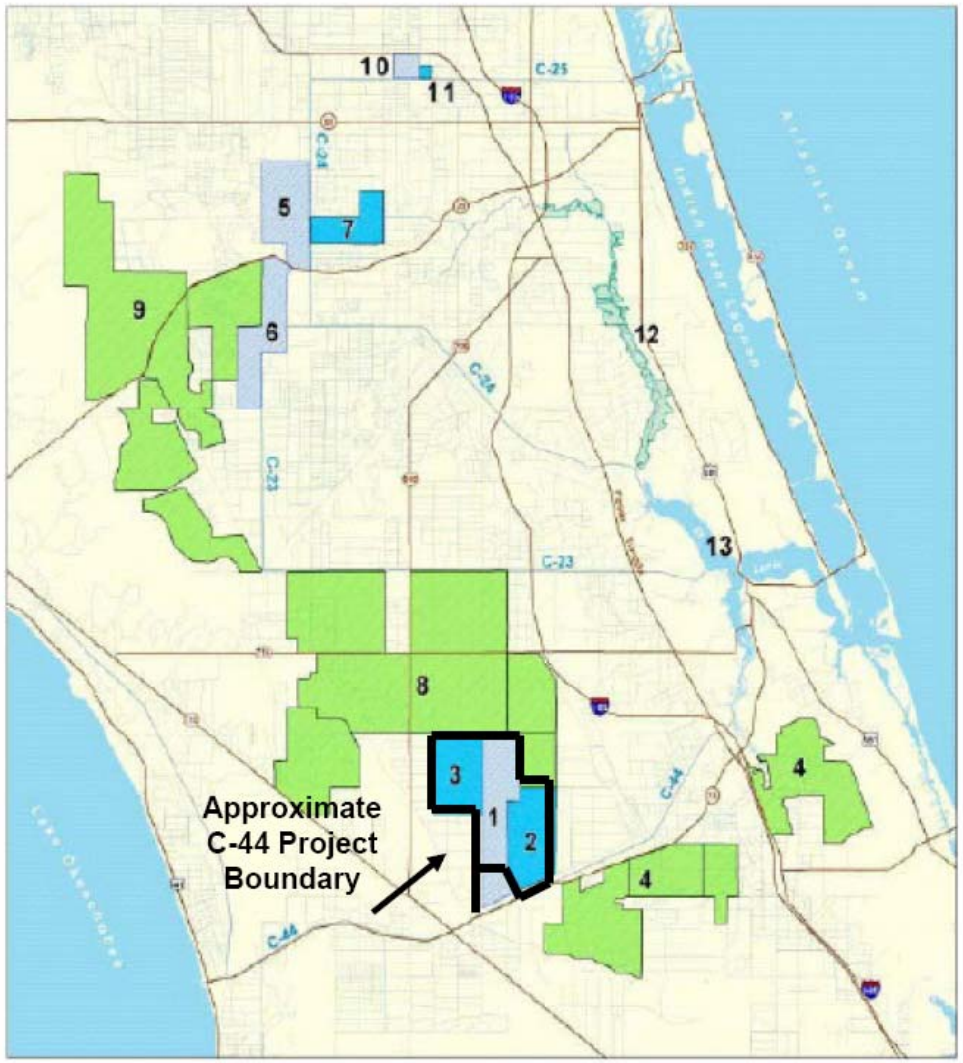
C-44 RESERVOIR/STA PROJECT

PROJECT CONFIGURATION

DATE 01/22/07

FIGURE -

FIGURE 5



C-44 Basin Components

1. C-44 Reservoir
2. C-44 Stormwater Treatment Area (East)
3. C-44 Stormwater Treatment Area (West)
4. Palmer Complex – Natural Storage and Water Quality Area

C-23/C-24 Basin Components

5. C-23/C-24 North Reservoir
6. C-23/C-24 South Reservoir
7. C-23/C-24 Stormwater Treatment Area
8. Allapattah Complex – Natural Storage and Water Quality Area
9. Cypress Creek/Trail Ridge Complex – Natural Storage and Water Quality Area

C-25, Northfork and Southfork Basin Components

10. C-25 Reservoir
11. C-25 Stormwater Treatment Area
12. Northfork Natural Floodplain Restoration
13. Muck Remediation and Artificial Habitat

- Natural Floodplain Restoration
- Natural Storage and Water Quality Area
- Reservoir
- Stormwater Treatment Areas

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SUITE 250
TAMPA, FL 33607
CA 4213

IRL-S PIR Components
with C-44 Project Location
C-44 Reservoir/STA Project
Contract# CN040918-WO03

DATE
05/25/07

FIGURE
5

ANNEX B

B ACCELER8 SYSTEM-WIDE MITIGATION MONITORING PLAN

As a result of construction and operation of the Acceler8 projects, adverse impacts to jurisdictional Waters of the United States will result in functional wetland losses based on the Uniform Mitigation Assessment Method (UMAM), Chapter 62-345 F.A.C. This section describes the system-wide Acceler8 projects mitigation monitoring plan which will compensate for the unavoidable impacts to Waters of the United States.

Mitigation monitoring for the SFWMD's Acceler8 projects includes system-level monitoring to assess the system-wide environmental benefits of the Acceler8 projects and project level monitoring where identified by the project teams. Although it is recognized that certain project features will provide some incidental ecological benefits, monitoring of these ecological features is not required since such benefits will not be used to offset compensatory mitigation requirements. The mitigation monitoring plan incorporates portions of the REstoration COordination VERification (RECOVER) programs Monitoring and Assessment Plan (MAP) performance measures and restoration targets. A review of the existing monitoring efforts proposed by the RECOVER team concludes the Acceler8 system-wide benefits can be assessed using existing monitoring programs as described in the RECOVER Monitoring and Assessment Plan (MAP), Part 1 (RECOVER, 2004).

As the Acceler8 program progresses, changes and updates to the RECOVER performance measures will be made as each project is authorized for implementation and construction and reflected in this system-wide plan. Included in this revision of the system-wide monitoring plan, is the Everglades Agricultural Area monitoring which has been authorized by a Department of the Army Permit.

B.1 ACCELER8 SYSTEM-WIDE ENVIRONMENTAL BENEFITS

The Acceler8 projects will provide system-wide benefits within the St. Lucie Estuary, the Caloosahatchee Estuary, Lake Okeechobee, and the Greater Everglades (Water Conservation Area's 1, 2 & 3). These system-wide benefits directly correspond to the performance measures developed by RECOVER for CERP evaluation. These performance measures, which will be used to determine the success of the Acceler8 projects, are described in this section and in Table B-1. For information on the methodologies, sampling sites, etc, refer to the Comprehensive Everglades Restoration Plan System-wide Performance Measures March 2006, and the Monitoring and Assessment Plan, Part 1, 2004.

B.1.1 Lake Okeechobee

Reductions in extreme lake stages, progressing towards a desirable stage envelope, and improvements to water quality, will benefit the flora and fauna communities. As a result of these improvements, enhanced ecological conditions conducive to the restoration of littoral and near shore zone habitats will affect submerged plant communities, benthic macroinvertebrates and provide improvements to the taxonomic structure of zooplankton. Table B-1 outlines a representative set of RECOVER performance measures designed to monitor the following components:

- Stage levels: Preferred stage envelope, extreme high and low stage events
- Submerged aquatic vegetation monitoring and mapping
- Benthic macroinvertebrates
- Fish condition and population structure
- Total phosphorus monitoring
- Total phosphorus load calculated using standard SFWMD nutrient load program from data at inflow structures
- TP:TN ratios based on water quality monitoring
- Chlorophyll a samples collected during water quality

B.1.2 Northern Estuaries

The Northern Estuaries are composed of the Caloosahatchee Estuary, located on the Gulf Coast, the St. Lucie and Loxahatchee Estuaries and the Indian River and Lake Worth Lagoons, located on the Atlantic Coast. All performance measures listed apply in part or in whole to each of these listed areas and are affected by CERP projects but may not necessarily be affected by Acceler8 projects.

Acceler8 projects are expected to improve conditions in the St. Lucie and Caloosahatchee estuaries. Improvements to salinity patterns by attenuating freshwater flows will reduce the frequency the estuaries experience high and low salinity extremes. Reductions in the occurrence of salinity extremes will enhance mesohaline and oligohaline conditions in near-shore estuarine environments. As a result of improved salinity regimes and water quality, conditions will improve that are conducive to enhanced productivity and decreased algal blooms. In addition, improvements are anticipated to the structural and spatial extent of submerged plant communities and the recruitment and survivorship of the eastern oyster.

Table B-1 outlines a representative set of RECOVER performance measures designed to monitor the following components:

- Salinity monitoring network
    - Includes monitoring flows
- Water Quality monitoring
    - Nutrient
    - Sediment
- Eastern Oyster monitoring
- Benthic macroinvertebrate monitoring
- Submerged Aquatic vegetation
    - Improvements to spatial and structural characteristics
- Monitoring fish communities

B.1.3 Greater Everglades

Improvements to the timing and distribution of flows will improve hydropatterns throughout the Greater Everglades. The beneficial affects are applicable system-wide and will enhance ecological conditions that trend towards restoring and sustaining the microtopography, directionality and spatial extent of the ridge and slough landscape, including tree islands, and the native vegetation community structures. Improving ecological conditions of these habitats will positively influence spatio-temporal patterns of prey production and concentration, which has been correlated to wading bird nesting success. Additional anticipated benefits in water quality are expected as a result of low TP concentrations flowing into STA 3/4 from the EAA A-1 Reservoir, thereby lowering TP concentrations flowing out of STA 3/4 and into the Everglades Protection Area. Furthermore, STA's and reservoirs in combination or as single project components will improve water quality in the receiving waters that the Acceler8 projects are located. Table

B-1 outlines a representative set of RECOVER performance measures designed to monitor the following components:

- Inundation patterns in Greater Everglades wetlands
- Extreme high and low water levels in Greater Everglades wetlands
- Landscape Patterns:
    - Freshwater and estuarine vegetation mosaics
    - Ridge and slough/tree island community sustainability
    - Total phosphorus concentrations in soil
- Wading bird nesting patterns:
    - Wading bird foraging, distribution and abundance
    - Dry and wet season aquatic fauna concentrations
    - Wading bird nesting colony location, size and timing
    - Systematic reconnaissance flights for wading bird distribution surveys
    - Annual SFWMD wading bird report
- Water Quality:
    - Flow and nutrient concentrations at inflow and outflow structures
    - Regional distribution of soil nutrients
    - Periphyton studies

Table B-1: System-wide Acceler8 Ecological Monitoring Plan Using CERP MAP Performance Measures

Performance Measure Monitoring Component	MAP Section
Lake Okeechobee	
Lake Okeechobee Stage	3.5.3.1
Lake Okeechobee Water Quality	3.4.3.1
Lake Okeechobee Macroinvertebrates	3.4.3.5
Lake Okeechobee Fish Population Density, Age, Structure and Condition	3.4.3.6
Lake Okeechobee Vegetation Mosaic	3.4.3.2
Northern Estuaries – St. Lucie and Caloosahatchee	
Northern Estuaries Salinity	3.5.3.3
Northern Estuaries Water Quality	3.3.3.1, 3.5.3.3
Northern Estuaries Oyster habitat	3.3.3.6
Northern Estuaries Benthic Macroinvertebrates	3.3.3.8
Northern Estuaries Submerged Aquatic Vegetation	3.3.3.3 - 3.3.3.5
Northern Estuaries Fish Communities	3.3.3.7
Greater Everglades	
Inundation Patterns in Greater Everglades Wetlands	3.5.3.0 – 3.5.3.3
Extreme High and Low Water Levels in Everglades Wetlands	3.5.3.0 – 3.5.3.3
Greater Everglades Wetlands Basinwide TP Loading and Flow Weighted Mean Concentrations in Inflows	3.1.3.1
Greater Everglades Wetlands Basinwide TN Loading and Flow Weighted Mean Concentrations in Inflows	3.1.3.1
Total Phosphorus Concentrations in Soil	3.1.3.2
Wetland Landscape Patterns – Freshwater and Estuarine Vegetation Mosaics	3.1.3.4
Wetland Landscape Patterns – Ridge and Slough Sustainability	3.1.3.6

B.2 ACCELER8 MITIGATION WORK SCHEDULE

The schedule for the proposed mitigation is contingent on the date that the Acceler8 projects come on line and are operational. The Acceler8 projects are all scheduled to be in operation by 2011, pending receipt of all necessary

permits. Based on a 2011 date of operation, the environmental benefits should be realized by 2020.

B.3 MONITORING REQUIREMENTS

The performance measures identified for the Acceler8 Projects and the associated monitoring components are currently in existence. The USACE has determined that the SFMWD may use the results of other monitoring efforts such as RECOVER to fulfill its obligations. If RECOVER ceases to monitor any of the performance measures identified for the project, the SFWMD will be responsible for fulfilling the monitoring requirements. The scientific and technical information generated by the MAP, provides the process for RECOVER to evaluate system performance and responses. For this project, however, the SFWMD will be responsible for evaluating and presenting the system-wide monitoring information to the USACE annually on March 1 in the *South Florida Environmental Report*. Annual evaluation will enable the USACE to determine if the project is trending towards success and achievement of the restoration targets, and the projected functional lift outlined in the mitigation ledger. Although the full benefits are not expected until 2020, annual evaluation of the monitoring information will allow the USACE to determine early on if adaptive management strategies are required to achieve success on time.

In addition to evaluating the performance and responses as described above, the South Florida Consolidated Report shall also contain a UMAM, Chapter 62-345 F.A.C., scoring, discussion, and conclusion regarding trends toward, or achievement of, the projected UMAM scores for the Lake Okeechobee nearshore habitat, Caloosahatchee Estuary, St. Lucie Estuary, and the Greater Everglades including WCA 2A, WCA 2B, WCA 3A, and WCA 3B. The annual evaluation report should also include the summary report of the previous year's monitoring results including an evaluation of performance in terms of success, a representative photograph from each monitoring station, a narrative describing problems encountered during the year including climatic events, and a discussion of remedial measures or adaptive management, if applicable. Photographs shall include date taken, direction, and station number.

B.4 ADAPTIVE MANAGEMENT

The CERP MAP employs an Adaptive Management (AM) Program to maximize restoration success by anticipating future uncertainties and responding to system responses. These uncertainties include unpredicted (inherent natural variability) and undesired responses and events in the natural system, anthropogenic influences, or from non-CERP influences. Additionally, AM recognizes natural systems are remarkably complex and

difficult to predict and that the current generation of numerical models often lack the predictive power to accurately characterize ecological responses to management actions, especially at large spatial scales. A successful adaptive management program will identify early indications of undesired impacts associated with ecological and hydrological uncertainties and provide a process allowing decision makers to effectively integrate ecosystem science and management to adjust and make improvements to ensure desired restoration goals are met.

B.5 MAINTENANCE AND RESPONSIBLE PARTY

Monitoring data and the SFWMD and USACE's professional judgment will dictate the type and frequency of maintenance activities including AM necessary to ensure the mitigation areas are trending toward success. The SFWMD is the responsible party for long-term management of the mitigation areas and attainment of success.

B.6 FORCE MAJEURE CLAUSE

The requirements of this mitigation plan shall not be enforced against the SFMWD if precluded from performing and meeting the conditions of this mitigation monitoring plan due to unusually severe weather, acts of war, acts of God, rebellion, strikes, or natural disaster, including hurricane, flood, or fire. If the unusually severe weather, acts of war, acts of God, rebellion, strikes, or natural disaster, including hurricane, flood, or fire do not preclude the SFWMD from performing the work defined in the mitigation monitoring plan, the SFWMD shall not be relieved of its obligation under this document.

B.7 REFERENCES

RECOVER. 2004. CERP Monitoring and Assessment Plan: Part 1 Monitoring and Supporting Research. Restoration Coordination and Verification Program, c/o United States Army Corps of Engineers, Jacksonville District, Jacksonville, Florida, and South Florida Water Management District, West Palm Beach, Florida.

PRELIMINARY FINDING

June, 2007

PRELIMINARY FINDING THAT A SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT TO THE CENTRAL AND SOUTHERN FLORIDA PROJECT COMPREHENSIVE EVERGLADES RESTORATION PLAN INDIAN RIVER LAGOON SOUTH PROJECT IMPLEMENTATION REPORT AND ENVIRONMENTAL IMPACT STATEMENT IS NOT NECESSARY

The South Florida Water Management District's proposed action analyzed in this Environmental Assessment includes implementation of the C-44 Reservoir and Stormwater Treatment Area (C-44 RSTA) Project. The C-44 RSTA Project is a component of the Central and Southern Florida (C&SF) Project Comprehensive Everglades Restoration Plan (CERP) Indian River Lagoon South (IRLS) Project. The U.S. Army Corps of Engineers completed a Final Integrated Project Implementation Report/Environmental Impact Statement (PIR/EIS) for the IRLS project (March 2004) which has a Chief's Report and is currently under Administrative review. The Notice of Availability for the Final PIR/EIS was posted in the Federal Register on May 7, 2004 and June 7, 2004. The Final PIR/EIS is available on the CERP website (www.evergladesplan.org).

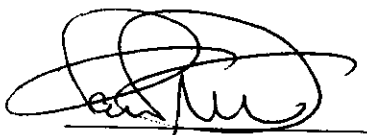
The State of Florida has developed a plan called "Acceler8" for the purpose of accelerating design and construction of a number of critical restoration projects consistent with the CERP but prior to one or more of the following: administration approval, congressional committee resolution, congressional authorization, or federal construction funding. The State anticipates the Acceler8 program will provide immediate environmental, social, and economic benefits in the South Florida region. All Acceler8 projects must be specifically authorized by Congress before becoming a part of the federal CERP. The South Florida Water Management District (SFWMD) is the state agency responsible for water resources management in south Florida and acts as the non-federal sponsor for federal water resources projects, including CERP. The SFWMD is also the lead agency for the State on implementing the Acceler8 plan.

The SFWMD's proposed C-44 RSTA Acceler8 project is the same as a component of the National Environmental Policy Act (NEPA) preferred alternative or Federal Recommended Plan, described in the IRLS PIR/EIS. This Environmental Assessment includes additional information applicable to the regulatory evaluation that was not included in the PIR/EIS. This information includes a supplemental 404(b)(1) Guidelines analysis and Public Interest Evaluation and specific details on the impacts to jurisdictional Waters of the United States and compensatory mitigation. I have analyzed the PIR/EIS and the information in this Environmental Assessment for the proposed action. I conclude that the IRLS PIR/EIS and the attached EA serve also serves as the basis for the Regulatory Division's NEPA evaluation of the SFWMD's proposed Acceler8 project and preparation of a supplemental Environmental Impact Statement is not required. Summary reasons for this conclusion are the following:

The purpose of the C-44 RSTA component of the Federal Recommended Plan identified in the PIR/EIS and the SFWMD's proposed action are consistent.

- The IRLS PIR/EIS includes an analysis of alternatives considered for the C-44 RSTA including the SFWMD's proposed action.
- The IRLS PIR/EIS includes an analysis of environmental effects of the SFWMD's proposed action.

Based on the information summarized and after consideration of public and agency comment received on the project, I find that the proposed action is adequately analyzed in the IRLS PIR/EIS and this EA and does not require preparation of a Supplemental Environmental Impact Statement.



Paul L. Grosskruger
Colonel, U.S. Army
District Commander

5 Jun 07
Date