South Florida Water Management District

STORMWATER TREATMENT AREA 2

Pollution Prevention Plan

UPDATE

February 2006

Submitted in accordance with the Everglades Forever Act, §373.4592, Fla. Stat., and the State of Florida's National Pollutant Discharge Elimination System Program, §403.0885, Fla. Stat.

CERTIFICATION

I hereby certify, as a Professional Engineer in the State of Florida, that the information in this Pollution Prevention Plan was assembled under my direct personal charge. This report is not intended or represented to be suitable for reuse without specific verification or adaptation by the Engineer. This certification is made in accordance with the provisions of the Laws and Rules of the Florida Board of Professional Engineers under Chapter 61G15-29, Florida Administrative Code.

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Gary F. Goforth, P.E. Florida P.E. # 35525

Date: _____
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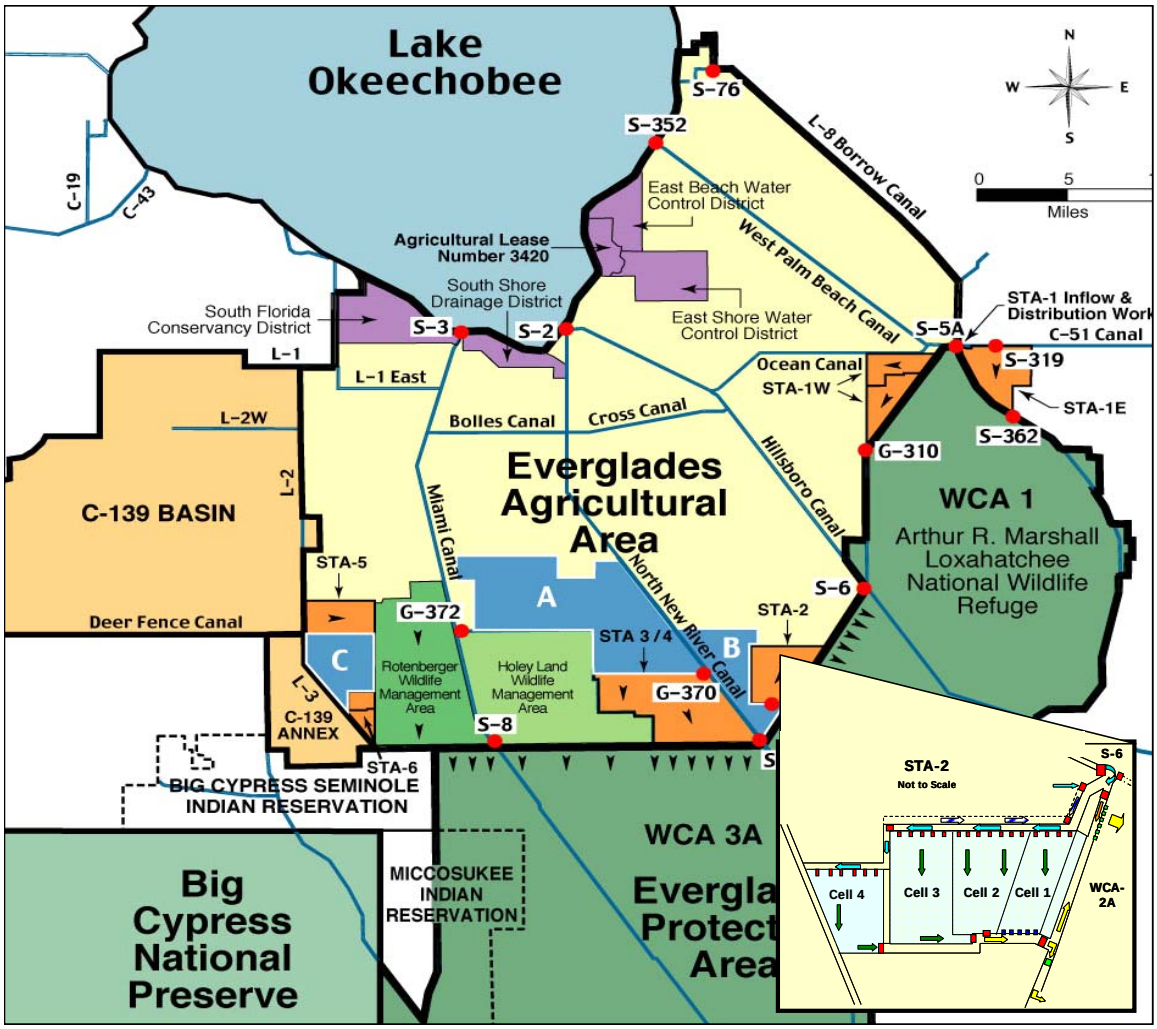
I. BACKGROUND

The South Florida Water Management District (District), in accordance with the 1994 Everglades Forever Act (EFA), §373.4592, Fla. Stat., and an agreement with the federal government, is implementing the Everglades Construction Project (ECP) in an effort to restore the quality of the water entering the Everglades Protection Area (EPA). The ECP consists of the construction of a number of treatment marshes, which will use natural physical, chemical, and biological processes to remove excess nutrients, including total phosphorus (TP), from stormwater runoff and other sources prior to discharge into the EPA. Stormwater Treatment Area-2 (STA-2) is one of the six treatment marshes being constructed as part of the ECP, is situated on and surrounding the Browns Farm Wildlife Management Area, and is the subject of this Pollution Prevention Plan (PPP). The original STA-2 consisted of 6,430 acres of effective treatment area and began operation in 2000, and was the subject of the May 2000 PPP. A 2,015-acre expansion of the STA is presently under construction and is scheduled to begin start-up operation by December 31, 2006. The additional treatment area will be the 4th cell of STA-2 and operated in parallel with the existing three cells. This updated PPP incorporates this expanded treatment area. This and other treatment area expansions are described in the *Everglades Protection Area Tributary Basins Long-Term Plan for Achieving Water Quality Goals* (Long-Term Plan) (SFWMD 2003 & 2004). As part of the adaptive implementation process envisioned by the Long-Term Plan, it was anticipated that further refinements to the recommended water quality improvement measures would be made at the earliest achievable dates as more scientific and engineering information was obtained. One of the key assumptions during the development of the Long-Term Plan was that Compartments B and C (see Figure 1) would be under consideration for use as part of the Everglades Agricultural Area (EAA) Storage Reservoir Project, a component of the Comprehensive Everglades Restoration Plan (CERP), through FY 2010 and for this reason should not be considered for other Everglades restoration uses until FY 2011. Subsequent to completion of the Long-Term Plan, conceptual level analyses indicated that all of the EAA Storage Reservoir Project's CERP water storage goals could be achieved on Compartment A, and that Compartments B and C would not be needed to meet the storage objectives of the EAA Storage Reservoir CERP Project. In light of the recent availability of the land in Compartments B and C, STA-2 is being expanded with a new Cell 4 to assist in maximizing the treatment effectiveness of the STAs in improving water quality entering the EPA.

It is also proposed to construct additional treatment areas on the remaining acreage of Compartments B and C to further assist in maximizing the effectiveness of the STAs in improving water quality entering the EPA. A regional feasibility study was recently conducted by the District to determine the optimal configuration and operation of the additional treatment areas on the remaining acreage of Compartments B and C. The feasibility study evaluated alternatives for the optimal balance of flows and phosphorus loads to the STAs in order to optimize treatment performance, and included cost estimates, schedules and performance projections. A selection of the preferred alternative is anticipated in early 2006.

Figure 1. Regional Overview



II. MISSION STATEMENT

The District recognizes that stormwater runoff from the Everglades Agricultural Area (EAA) within the S-6/S-2 Basin and other sources contain excessive levels of phosphorus. The District also recognizes the need to improve the timing, distribution and volume of inflow (collectively referred to as hydropattern) along the currently overdrained northwest portion of Water Conservation Area 2A (WCA 2A). In addition, localized water quality problems in Lake Okeechobee associated with discharges from special drainage districts adjacent to the Lake can be reduced by diverting a portion of these discharges for treatment in STA-2. Therefore the District is dedicated to implementing the expanded STA-2 in order to reduce levels of phosphorus, improve the hydropattern in the northern EPA, and on a secondary level, to assist in reducing water quality problems in Lake Okeechobee, to the maximum extent practicable.

III. PURPOSE

This PPP provides a summary of normal operations for STA-2, and describes factors which may impact those operations. STA-2 shall be operated in accordance with this document to achieve the design objectives of the ECP for phosphorus and reduce adverse water quality impacts in the EPA.

This PPP is based upon information from (a) the Conceptual Design Document for the Everglades Protection Project, dated February 15, 1994, (b) the April 1995 General Design Memorandum for Stormwater Treatment Area No. 2 and WCA-2A Hydropattern Restoration, (c) Brown and Caldwell January 1996 General Design Report, (d) Brown and Caldwell May 1997 Final Design, Stormwater Treatment Area 2 and WCA-2A Hydropattern Restoration (e) Rule 40E-63 of the Florida Administrative Code, (f) the STA optimization research plan, (RAM 5), (g) operational experience from the existing STAs summarized in the annual South Florida Environmental Reports and its predecessor the Everglades Consolidated Reports, (h) Everglades Protection Area Tributary Basins Long-Term Plan for Achieving Water Quality Goals, (i) November 2004 Revisions to Pre-2006 Strategies, ECP Basins, (j) STA-2 Cell 4 Expansion Project Basis Of Design Report, (k) September 2005 Design Package 3 90% Design Report, (l) Hydraulic Modeling Technical Memorandum for STA 2 Cell 4 Expansion, (m) October 2005 Hydraulic Modeling Of The Internal Works, and (n) October 2005 Everglades Agricultural Area Regional Feasibility Study. By operating in accordance with these documents, the objectives of the ECP for phosphorus will be achieved, in accordance with the EFA, §373.4592(9)(e) and (9)(h), Fla. Stat.

STA-2 is a dynamic system, subject to variation in rainfall, hydraulic and nutrient loading, inflow water quality and interior vegetative conditions. As a result, this PPP is only intended to provide an understanding of the range of conditions under which the STA-2 system has been designed and will be operated. This document is NOT intended to reflect absolute limitations upon operation of STA-2; instead, system operation will at all times require District operating personnel to exercise their best professional judgment based upon existing regional and on-site conditions and data available at the time. The specific operating criteria for each structure will be described in the STA-2 *Operational Plan*.

While this document characterizes the operational expectations for STA-2, it also recognizes that operation may fluctuate outside of these predefined ranges. For example, extreme storm events could result in flows within the STA which exceed the system's hydraulic and treatment capacity. As a result, the PPP describes measures that will be taken by operators in order to minimize any adverse impacts that could occur within and downstream of the STA under those circumstances.

IV. OBJECTIVES

In accordance with the 1994 Conceptual Design for the Everglades Protection Project, the Long-Term Plan, and subsequent design documents, the primary objectives of the STA-2 include the following:

A. REDUCE PHOSPHORUS LEVELS TO ACHIEVE COMPLIANCE WITH WATER QUALITY STANDARDS

In combination with the implementation of the EAA Best Management Practice (BMPs) Program, STA-2 is designed to reduce the long-term, annual flow weighted average concentration of TP in discharges from the EAA and other sources below the interim goal of 50 parts per billion (ppb). As part of the adaptive management process of the Everglades Protection Area Tributary Basins Long-Term Plan for Achieving Water Quality Goals (Long-Term Plan), the contributions from these areas were updated during the conduct of the EAA Regional Feasibility Study (see Table 1).

Table 1. Estimated Inflows to STA-2 from EAA Regional Feasibility Study.

	Estimated Average Inflow, WY1966-2000		
Source	**Volume**	**TP Load**	**TP Conc.**
	AF/yr	**kg/yr**	**ppb**
S-2/S-6 Basin	226,654	27,015	97
ESWCD/Closter Farms	29,818	4,588	125
S-5A Basin	59,342	11,260	154
Seepage from WCA-2A	27,500	509	15
Lake Okeechobee	461	48	84
Total Inflow	343,775	43,420	102
Assumed Bypass	461	48	84
Inflow to be treated	343,314	43,372	102

B. SUPPLY BMP MAKE-UP WATER

STA-2 will be operated to the maximum extent practical to offset reductions in volumetric discharges to the EPA resulting from the implementation of the EAA BMP Program. Replacement water will be provided from Lake Okeechobee and distributed to the STAs. However, actual volumes sent to each STA cannot be quantified in advance since the quantities depend on temporal and spatial variables: the annual reduction in discharge due to BMP implementation, available treatment capacity in each STA, and water conditions in the downstream water conservation areas.

C. HYDROPATTERN RESTORATION

STA-2 will be operated to the maximum extent practical to improve the quality, timing and distribution of water entering the northwest portion of WCA-2A. Treated water will be distributed across the boundary between WCA-2A and the EAA to re-establish sheet flow to the region, a characteristic that was drastically altered with the completion of the Central and Southern Flood Control Project. This will be accomplished in two phases. Initially, treated water from STA-2 will be directed across 3 miles of the northern boundary and across approximately 1.5 miles of the southern boundary of WCA 2A. Adjacent areas within WCA 2A are already impacted with elevated levels of nutrients. After long-term water quality solutions are in place, it is anticipated that new discharge structures will be constructed to allow a uniform distribution of treated water along the entire northwest boundary of WCA 2A between the S-6 and S-7 pump stations. This construction is anticipated in the Long-Term Plan to commence in WY2010.

D. REDUCE LOCALIZED WATER QUALITY PROBLEMS IN LAKE OKEECHOBEE

STA-2 will be operated to the maximum extent practical to provide water quality treatment for diversions from the East Shore Water Control District (ESWCD) and from Closter Farms. Prior to completion of the diversion works, these areas discharged into Lake Okeechobee. The contributions from the ESWCD and from Closter Farms were updated in the EAA Regional Feasibility Study to 29,818 acre-feet per year and 4,588 kg/yr at an average TP concentration of 125 ppb. As these inflow projections are further updated through the permit process, this PPP will be revised.

V. ACTION PLAN

The District intends to meet the design objectives of the STA-2 project to comply with the EFA by operating within the normal operational guidelines established in subsection **V.A.**, below. However, the STA-2 Project and the ECP were not designed to operate under all possible conditions. For example, extreme storm events could create conditions that would necessitate the District to divert some flows from the STA-2 treatment system in order to prevent damage to the structural and vegetative integrity and prevent upstream flooding. Accordingly, subsection **V.B.** describes circumstances requiring deviation from those normal operational guidelines. The specific operating criteria for each structure will be described in the *STA-2 Operational Plan*. Subsection **V.C.** describes operations during the interim period of STA-2 associated with the start-up of Cell 4. Finally, subsection **V.D.** provides information on the District's research program described in the Long-Term Plan and directed at improving the treatment efficiency of the STAs.

A. STA-2 NORMAL OPERATIONAL GUIDELINES

As stated in section **IV.A.** above, STA-2, together with the EAA BMPs, was designed to achieve a long-term annual average flow-weighted TP outflow concentration below 50

ppb. This design was based on the S-2/S-6 drainage basin flows, estimates of diversions from the S-5A basin, diversions from the East Shore Water Control District from Closter Farms, average annual discharge values, long-term flow-weighted mean TP concentrations and analytical methodologies presented in the Long-Term Plan. That objective is expected to be reached by operating the system in accordance with the following guidelines:

1. *Anticipated Rainfall Ranges (upper and lower limits)*

It is expected that the project shall operate in a normal operating mode when the EAA basin annual rainfall values, as defined in Rule 40E-63, F.A.C., are within the range of 31.9 inches to 85.6 inches. These values are based on the minimum and maximum EAA basin annual rainfall values for the 1965-95 period used in the Long-Term Plan.

2. STA Source Inflow Variations

The average annual inflow volume into STA-2 was estimated during the development of the EAA Regional Feasibility Study was 343,300 acre-feet. However, during normal operations, annual inflow volumes and associated TP loads into STA-2 are expected to fluctuate in response to variations in upstream rainfall and runoff. The minimum and maximum annual average flows for the WY1966-2000 simulated period were 222,726 ac-ft and 536,437 ac-ft, respectively. This represents a variation of –35% to +56% of the average flow.

3. Phosphorus Load Variations

The average annual inflow TP load to STA-2 was estimated during the development of the EAA Regional Feasibility Study to be approximately 43,300 kg. During normal project operations this load value is expected to fluctuate with variations in inflow volumes. The minimum and maximum annual TP loads for the 1965-1995 simulated period of record were 27,207 kg and 71,135 kg respectively. This represents a variation of –37% to +64% of the average load.

4. Inflow Capacity

The total design inflow to STA-2 is 3,370 cfs. Pump Station S-6 is the primary inflow control structure for STA-2 (2,925 cfs) with G-328 contributing an additional 445 cfs. During normal project operations, these structures will be operated to allow for inflow up to the inflow design capacity of 3,370 cfs.

5. Outflow Capacity

G-335 pump station is the primary outflow structure for the project. During normal project operations, this structure will be operated to provide a maximum outflow capacity of 3,040 cfs. Hydrodynamic attenuation of flows through STA-2 results in a project

outflow capacity of G-335 which is less than the total project inflow capacity of 3,370 cfs. Water budget analysis performed for a 30-year period of record (1965-95) indicated that during only one event did the outflow capacity exceed the capacity of G-335, which might have resulted in the diversion of 835 acre-feet of water to WCA-2A. This diverted volume over that 30-year period is less than 0.02% of the total flows anticipated to pass through STA-2. There was no bypass simulated during the 1979-1988 Base Period.

6. Anticipated BMP Performance

The EAA BMP regulatory program requires a minimum 25% TP load reduction from baseline historical EAA discharge loads, adjusted for hydrologic variability. This regulatory program, along with STA-2, when operating in a normal operational mode, is expected to result in a reduction of the long-term flow-weighted annual average TP concentration in STA-2 discharges to well below 50 ppb.

7. Anticipated Vegetative Conditions

During normal project operation, after the start-up and stabilization phases of operation, the District shall manage interior water levels to maintain marsh vegetation within the treatment system in a mature and productive condition. Native emergent macrophyte species is found within Cells 1 and 2. Cells 3 and 4 will be maintained at a depth that supports submerged aquatic vegetation (SAV). The percentages of cattail, SAV and other vegetative coverage will fluctuate in response to variations in climatic, biological and inflow water quality and quantity conditions.

8. Operating Levels

Subject to water availability, the minimum target operating level for STA-2 during normal project operation is 0.5 feet above average ground elevation. The maximum depth for STA-2 during normal project operations is 4.5 feet above average ground elevation. The optimal long-term target operating range for STA-2 during normal project operations is between 1.25 feet and 1.5 feet above average ground elevation.

NOTE: The perimeter (exterior) levees have been designed and constructed to provide adequate freeboard to maintain levee structural integrity and to withstand the effects of severe rainfall events, wind setup and wave action.

9. Preventive Maintenance

Preventive maintenance of STA-2 project features may be required on a routine basis to avert severe property damage, maintain upstream flood protection and ensure continued functionality and efficiency of the conveyance and treatment systems. During preventive maintenance, individual treatment cells may be temporarily taken off-line and/or water levels within treatment cells may be adjusted through operations of various project structures. To minimize the impacts to operation during times of preventive maintenance,

the District shall lower stages to minimal levels and/or take treatment cells off-line independently, for as short a period of time necessary to complete maintenance activities. Specific maintenance activities will include:

a. Water Control Structure Maintenance

In order to ensure operational readiness, the STA-2 discharge pump station G-335 will require periodic maintenance operation, because failure to operate these pumps could lead to premature breakdown. Based on these mechanical requirements, the District will periodically operate the STA-2 pump station for approximately 2 to 4 hours per month, as necessary, to fulfill manufacturer's requirements and maintain the pumps' mechanical integrity. The District shall operate the STA-2 outflow pump station accordingly for startup and maintenance purposes. All maintenance discharges will be reported in accordance with the monitoring requirements of the STA-2 permit.

The District shall also maintain other project water control structures to ensure that culverts and risers are conveying prescribed volumes and that gated weirs are functioning properly. Similarly, the District shall service pump stations routinely to ensure that pumps are functioning properly and not leaking contaminants into upstream or downstream waters.

b. Levee and Canal Maintenance

The District shall maintain all above ground dikes, levees and water control structures to best ensure continued structural integrity and functionality. Activities shall include maintenance of cover vegetation through regular mowing and/or appropriate use of herbicides. Levees and dikes will also be inspected regularly in response to factors such as rapid changes in flow rates, high water stages, normal wear and tear, or any other factor which could cause levee destabilization. Water control structures shall be maintained and operated regularly to insure proper they are proper working order. Project canals will be maintained via periodic dredging, as needed to restore water conveyance and depths to design criteria.

c. Vegetative Maintenance

The District shall control invasive and/or exotic plant species through periodic use of approved herbicides and/or fire both inside the treatment system and along the project perimeter. Vegetative maintenance shall also include physical removal of excess vegetation at inflow, outflow and interior locations to ensure adequate conveyance.

B. DEVIATION FROM NORMAL OPERATIONAL GUIDELINES

Under some circumstances, operation of STA-2 may deviate from normal operation guidelines. Under those circumstances, including those defined below, the District shall take measures to minimize any adverse impacts, and shall take measures to avoid

continued deviations from the normal operation of the STA-2 project. During these deviations from normal operation guidelines, every consideration shall be given to minimizing impacts upstream, within and downstream of the treatment area.

1. Excessive Rainfall or Flooding Conditions

When waters at the interior of the treatment cells or inflow canal reach critical depths (identified below) due to excessive rainfall or flooding conditions, or when an oncoming storm event is expected to cause waters to approach or exceed these depths, the District may divert some of the additional inflows through the G-339 diversion structure. Accordingly, the District may divert water from flowing into the STA-2 treatment cells when any of the four factors listed below occur, creating unavoidable conditions that could cause loss of life, personal injury, or severe property damage. The District shall keep records of all diversions, including the date, flow, duration, and conditions warranting the diversion. Those records will be included in the annual report submitted to the Department.

a. Maximum Stage Elevations

When water levels at interior structures within STA-2 approach or exceed depths of 4.5 feet, the District may divert some of the additional inflows through the G-339 diversion structure.

b. Threats to Structural Integrity

When water levels or rates of inflows threaten the structural integrity of the interior and exterior project levees, the District may divert some of the additional inflows through the G-339 diversion structure.

c. Threats to Vegetative Survival and Treatment Efficiency

When stage elevations of waters, rates of inflows, or the duration of sustained inundation create conditions threatening the survival of marsh vegetation and the treatment efficiency of the project, the District may divert some of the additional inflows through the G-339 diversion structure.

d. Exceeding Inflow Capacity

When the rates of inflows from the S-6 and G-345 structures approach the treatment cells' available inflow capacity, or when discharges through the G-335 pump station approach the maximum available capacity, the District may divert some of the additional inflows through the G-339 diversion structure.

2. *Emergency Discharges*

The District shall discharge water from STA-2 in accordance with Section 373, F.S., including when water conditions within STA-2 may damage existing marsh vegetation. The District shall notify the Department within 48 hours of such an occurrence. Such notification shall contain information regarding the circumstances related to the discharge, as well as a projection regarding the anticipated duration of the discharge. In the event any such discharge extends beyond the period specified in the original notification, the District shall notify the Department within 48 hours of the continuation of the discharge, and such notice shall contain additional information regarding the circumstances causing the need for the discharge.

3. Drought Conditions

In order to preserve the continued viability of the marsh vegetation within STA-2 treatment cells, the District shall maintain a minimal static water level of 0.5 feet above average interior ground elevation, to the maximum extent practicable. During periods of drought, seepage return and supplemental irrigation (when supplemental water is available) may be utilized independently or concurrently at the District's discretion to hydrate treatment cells. The District's ability to maintain this minimum water elevation is determined primarily by the availability of water from rainfall within the project and the upstream watershed.

4. *Vegetative Conditions*

Deviation from normal operation may be caused or necessitated by vegetative conditions as follows:

a. Failure to Achieve Design Performance Criteria

In the event that STA-2 fails to achieve specified performance criteria, and vegetative composition is suspected to be a potential factor, the District shall modify STA-2 operations as necessary in order to respond to undesirable vegetative conditions. Thereafter, operational changes may be made based upon a drop in system performance or new information is obtained as a result of the District's STA optimization research program described in the Long-Term Plan.

b. Vegetative Management

Vegetation consists predominantly of extant marsh species (e.g., sawgrass and cattail) in Cells 1 and 2, and submerged aquatic vegetation and periphyton communities in Cell 3. The dominant vegetation in Cell 4 is anticipated to consist of submerged aquatic vegetation. During the start-up period of Cell 4, water levels will be maintained to encourage growth of desirable vegetation until the new treatment area achieves a net improvement for phosphorus, mercury and methylmercury. After commencing flow-

through operation, in the event that the STA-2 project fails to achieve specified performance criteria, and if vegetative composition is suspected to be a potential factor, an appropriate vegetative coverage map or photograph shall be prepared for comparison with baseline vegetative conditions.

C. INTERIM OPERATIONS (CELL 4 START-UP)

After construction of Cell 4, STA-2 will undergo a period of interim operations associated with the establishment of target vegetation in Cell 4. This interim period is anticipated to last from 6-18 months.

1. *Operations During the Start-Up Period for Cell 4.*

Cells 1 through 3 of STA-2 are presently in full flow-through operation. It is anticipated that Cell 4 will begin start-up operations on or before December 31, 2006. During start-up operations, water levels will be managed in Cell 4 to encourage the growth of SAV. A net improvement in phosphorus and mercury species in Cell 4 is to be documented to DEP prior to authorization of flow-through operations. Until that time, Cells 1-3 will be operated to capture and treat all STA-2 inflows.

2. *Comparison of Interim Operation to Long-term Operation*

Inflows to STA-2 during the interim period are not anticipated to vary significantly from the inflows anticipated after the interim period and prior to complete build-out of Compartment B. However, once Cell 4 begins flow-through operation, the hydraulic and nutrient load to the three existing treatment cells should decrease by an average approaching 33%.

3. Mitigating Increases in Phosphorus Loads or Concentrations During the Interim Period

Once Cell 4 begins flow-through operations, STA-2 outflow TP concentrations are anticipated to decrease. During the interim period, average annual outflow TP concentrations are not anticipated to exceed the interim target of 50 ppb, hence, no mitigation is necessary.

4. Conclusions

After construction of Cell 4, STA-2 will undergo a period of interim operations associated with the establishment of target vegetation in Cell 4. This interim period is anticipated to last from 6-18 months. During the interim period, average annual outflow TP concentrations are not anticipated to exceed the interim target of 50 ppb, hence, no mitigation is necessary.

D. STA OPTIMIZATION

The EFA, Section 373.4592(4)(d)3., Fla. Stat., requires the District to conduct research on optimizing the treatment performance of the STAs, recognizing that additional reductions in TP outflow concentrations, beyond the interim goal of 50 ppb, may be beneficial to the EPA. In accordance with this requirement, the Long-Term Plan includes research activities designed to enhance STA performance. Based upon the results of these and other research efforts, the operation of STA-2 will be periodically adjusted to optimize treatment efficiency of the project, in accordance with the EFA, §373.4592(9)(j)3., Fla. Stat.

VI. COMMITMENT TO WATER QUALITY IMPROVEMENT

A. COMPLIANCE WITH WATER QUALITY STANDARDS

The District is committed to the implementation of its responsibilities pursuant to the EFA, §373.4592, Fla. Stat., and its agreements with the federal government. Water quality conditions both upstream and downstream of the STA-2 project will be monitored through a series of programs, including the BMP permit programs required by Rule 40E-63, F.A.C., the permits for this project, and the Long-Term Plan. While this project is directed toward compliance with interim water quality goals, the District is implementing vegetation and operational measures designed to achieve compliance with all water quality standards by December 31, 2006. Currently, the District has submitted a permit application, required by section 373.4592(10), Fla Stat., which includes the *Long Term Plan for Achieving Water Quality Goals for the EPA.* In 2003 and again in 2004, the District transmitted to the Department strategies to achieve compliance with state water quality standards, including phosphorus, by December 31, 2006. In addition to the Cell 4 expansion, the District is moving forward with the implementation of additional treatment area within the entirety of the Compartment B and the construction of the EAA Storage Reservoir (see Figure 1). Revisions to STA-2 operations will occur as these components are implemented, and this PPP will be revised as appropriate.

B. EMERGENCY SUSPENSION AND RESCHEDULING OF SAMPLING

Under hurricane, tropical storm warnings, or other extreme weather conditions, the District's normal water quality sampling schedule may be suspended and rescheduled, as necessary. The District shall notify the Department's Southeast District and the Water Quality Standards and Special Projects Program section at the addresses and telephone numbers listed in the STA-2 permit, of any anticipated sampling suspension or rescheduling associated with hurricanes, tropical storms, or other extreme weather events that may require deviation from the normal sampling schedule. The District shall resume the normal sampling schedule as soon as possible. Within 14 days following the cessation of emergency conditions, the District shall notify the Department of when normal sampling is expected to resume.

VII. POLLUTION PREVENTION TEAM

Numerous District personnel will be responsible for the management of this project during the operational phase of the project including; Chip Merriam and Terrie Bates of Water Resources Management, Dean Powell, Jamie Serino, Jana Newman, and Tracey Piccone of the Watershed Management Department, John Mitnik of the Comprehensive Everglades Restoration Program, Linda Lindstrom and Linda Crean of the Environmental Resources Assessment Department, Bob Howard, Ron Mierau, George Hwa, Karen Estock, Craig Wilson, Susan Sylvester, Tom Kosier and Christy Combs of the Operation & Maintenance Department and Kirk Burns of the Office of Counsel. The permit administrator for this project is Ron Bearzotti of the Comprehensive Everglades Restoration Program who can be reached at (561) 682-6291.

VIII. BASELINE CONDITIONS

Documents evaluating baseline water quality conditions for the EPA, ENR and the Refuge have been previously completed and submitted to the Department, including: *Water Quality Criteria in the Everglades Protection Area*, SFWMD (Bechtel, Krupa, Hill, Xue), May 1996 and *the Everglades Nutrient Removal Project Annual Monitoring Report*, SFWMD, 1995, 1996, 1997 and 1998, and *the Everglades Annual Reports* (SFWMD 1999, 2000, 2001, 2002, 2003, 2004), Basin-Specific Feasibility Study, and Long-Term Plan (2003 and 2004).