Attachment I-
Conformed STA NPDES and EFA Permits

STATE OF FLORIDA
INDUSTRIAL WASTEWATER FACILITY PERMIT

PERMITTEE:

South Florida Water Management District
3301 Gun Club Road
West Palm Beach, FL 33406

PERMIT NUMBER: FL0304549
PA FILE NUMBER: FL0304549-001-IW7A
ISSUANCE DATE: August 30, 2005
EXPIRATION DATE: August 30, 2010

RESPONSIBLE AUTHORITY:

Ms. Carol Ann Wehle
Executive Director

FACILITY:

Stormwater Treatment Area 1E (STA-1E Project)
Palm Beach County

Latitude: 26° 36' 44" N Longitude: 80° 18' 6" W

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.) and applicable rules of the Florida Administrative Code (F.A.C.), and constitutes authorization to discharge to waters of the state under the National Pollutant Discharge Elimination System (NPDES). ~~This permit is accompanied by Administrative Order AO 009-AV.~~ The above named permittee is hereby authorized to construct and operate the facilities required by this permit ~~shown on the application and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:~~

PROJECT DESCRIPTION:

The project is to construct, operate and maintain Stormwater Treatment Area 1E (STA-1E), the STA-1 Inflow and Distribution Works (STA-1 Inflow Basin), which includes the G-311, G-300, G-301, G-302, and S-5AS control structures, Inflow Pumping Station S-319, Inflow Pumping Station S-361, Gated Spillway G-311, STA-1E Works, Outflow Pumping Station S-362, C-51 Basin Divide Structure S-155A, and C-51 Canal Improvements, collectively known as STA-1E. STA-1E is part of the Everglades Construction Project (ECP) construction, operation, and maintenance of which is required by the Everglades Forever Act (EFA) (Section 373.4592, F.S.).

STA-1E is located immediately east of the Arthur R. Marshall Loxahatchee National Wildlife Refuge (Refuge) and the STA-1 Inflow and Distribution Works (STA-1 Inflow Basin). STA-1E consists of three parallel treatment paths (flow ways) with eight treatment cells flowing from north to south. This created wetland marsh system will provide an effective treatment area of 5,132 acres. STA-1E is designed to treat approximately 165,000 acre feet of runoff annually. This ~~stormwater~~ non-process wastewater is currently being discharged untreated easterly to the Lake Worth Lagoon or westerly to the Refuge via the S-5AE structure. Operation of STA-1E involves maintaining water levels within the STA to optimize the efficiency of the treatment area as defined by performance of removing the pollutants, particularly total phosphorus, for which the treatment wetland was designed, and providing regional flood control and water supply.

The treatment cells are designed to have an operational depth of between 6 inches and 4.5 feet to encourage colonization by and continued viability of wetland plants and maximize ~~(to the greatest extent possible utilizing~~

~~available technology)~~ uptake of total phosphorus from the ~~storm~~ wastewater passing through the cells. Long-term storage of the phosphorus is expected to be provided by peat accretion in STA-1E.

STA-1E is operationally related to the STA-1 Inflow and Distribution Works (STA-1 Inflow Basin). The STA-1 Inflow Basin is designed to allow the ~~diversion~~ bypass and redirection of inflows between STA-1E and STA-1W, in order to utilize both of the STAs in the treatment of runoff from the C-51 West and S-5A Basins, prior to discharge into the Refuge. ~~Diversion~~ Bypass occurs when water from the STA-1 Inflow Basin is directed untreated into the Refuge through the G-300 or G-301 Structures. Redirection occurs when water is redirected from STA-1E to STA-1W for treatment. It is hydrologically possible for the STA-1 Inflow Basin to also accept runoff from the L-8 Basin, Okeechobee regulatory releases, and the East Beach Water Control District although STA-1E is not expected to regularly accept water from these sources. Diverted water from the distribution cells can also be released back through the S-319 Pump Station by gravity to the C-51 West Canal. The current design and operation contemplates that redirection of flows from STA-1W to STA-1E will only occur whenever the discharge from Pumping Station S-5A exceeds the hydraulic capacity of STA-1W or when other contributing factors warrant such redirection in order to optimize system performance. Runoff from the C-51 West Basin could be directed to STA-1W through the G-311 Structure; however, the present design of STA-1E is such that no redirection should be necessary as a result of hydraulic limitations in STA-1E. STA-1W and STA-1E are hydraulically connected and interrelated, but STA-1W is not included in this permit.

EFFLUENT DISPOSAL:

This permit authorizes the new discharge of treated ~~stormwater~~ non-process wastewater from a 6,505 acre constructed wetland marsh system (STA-1E Project) to the L-40 Canal, which is the perimeter canal along the East side of the Refuge. ~~Stormwater~~ Non-process wastewater from the Permittee's C-51 canal system that would normally be routed untreated easterly to the Lake Worth Lagoon or westerly to the Refuge via the S-5AE structure will now be diverted into STA-1E. Water may also be directed into STA-1E from the S-5A basin via the STA-1 Inflow Basin and subsequently through the G-311 spillway. ~~Stormwater~~ Non-process wastewater runoff from these basins that is currently flowing untreated will, upon completion of the STA, be diverted into the constructed wetland for treatment utilizing natural, passive, physical, and biological processes for nutrient removal and water quality improvement. Treated water from STA-1E will be discharged into the Discharge Outlet Canal, upstream of the S-362 pump station, from the S-372 A-E, S-369 A-D, and S-365 A-B structures and subsequently will be pumped to the L-40 Borrow Canal, located along the east side of the Refuge, by means of the S-362 pump station. All of the surface waters and wetlands to be impacted by the construction of the project are Class III Waters.

Surface Water Discharge:

A new discharge to L-40 (Class III Fresh waters), D-001. The S-362 outfall point of discharge is located approximately at latitude 26° 37' 32.611" N, longitude 80° 19' 04.292" W.

IN ACCORDANCE WITH: The limitations, monitoring requirements and other conditions as set forth in Part I through Part VIII on pages 3 through 18 of this permit.

I. Effluent Limitations and Monitoring Requirements

A. Surface Water Discharges

1. During the period beginning upon ~~placing the system into operation~~ the permit effective date and lasting through the expiration date of this permit, the permittee is authorized to discharge ~~stormwater~~ non-process wastewater from Outfall D-001. Such discharge shall be limited and monitored by the permittee as specified below:

PERMITTEE:

South Florida Water Management District
3301 Gun Club Road
West Palm Beach, FL 33406

PERMIT NUMBER: FL0304549

Issuance date: August 30, 2005
Expiration date: August 30, 2010

	Discharge Limitations				Monitoring Requirements		
Parameters (units)	**Daily Minimum**	**Daily Maximum**	~~**Annual Average**~~ **Other**		**Monitoring Frequency**	**Sample Type**	**Sample Point**
Phosphorus, Total (as P) (ppb)	--	--	Not to exceed 10 as a geometric mean (GM) annual average in more than two consecutive years*	18 as a flow-weighted mean (FWM) annual average*	Weekly	GM – based on grab samples collected when discharge occurs FWM - 7-day flow proportioned composite	EFF-1
			See I.A.5				
Phosphorus, Total (as P) (ppb)	--	--	Report **		Weekly	7-day flow proportioned composite	SWU-001, SWU-002, and SWU-003
Oxygen, Dissolved (DO) (MG/L)	See I.A.6				Weekly	Meter	EFF-1
Oxygen, Dissolved (DO) (MG/L)	Report				Weekly	Meter	SWU-001, SWU-002, & SWU-003
Flow (CFS)	--	Report	Report		Continuous	Recorder	EFF-1 & SWU-001
pH (SU)	6.0	8.5	--		Weekly	Meter	EFF-1

* All EFF TP monitoring results ~~for this parameter~~ shall be reported as separate weekly values without rounding to whole numbers. The results shall also be reported as FWM annual averages that are calculated based on the FWM of the weekly values. The results shall also be reported as GM annual averages that are calculated based on all sample point weekly values collected when discharge occurs in the previous 12 months. All FWM and GM annual averages shall be reported to the nearest whole number (i.e., 10.5 ppb shall be reported as 11 ppb; 10.49 ppb shall be reported as 10 ppb). ~~No violations for the annual average limit will be deemed to have occurred until data have been compiled for the first 12 months after the issuance date of the permit. The "annual average" effluent limitation is a rolling average equal to the flow-weighted arithmetic mean of the effluent samples collected during consecutive reporting periods which comprise one year. For parameters that are measured at least once per month, the annual average shall be computed at the end of each month and is equal to the arithmetic mean of the monthly average of that month and of each of the previous eleven months. No violations for the annual average limit will be deemed to have occurred until data have been compiled for the first 12 months after the issuance date of the permit. For the first 11 months after issuance of this permit, the monitoring results for this parameter shall be recorded on the DMR as MNR. Starting with the 12th month and lasting until the expiration of this permit, the monitoring results for this parameter shall be recorded on the DMR as a 12-month moving flow-weighted average.~~

** All SWU TP monitoring results shall be reported as separate weekly values without rounding to whole numbers. All results shall also be reported as monthly averages and as FWM annual averages. The monthly averages and FWM annual averages shall be calculated based on the FWM of the weekly values and shall be reported to the nearest whole number (i.e., 10.5 ppb shall be reported as 11 ppb; 10.49 ppb shall be reported as 10 ppb).

2. Effluent samples shall be taken at the monitoring site locations listed in permit condition I.A.1 and as described below:

Sample Point	**Description of Monitoring Location**
EFF-1	Sampling location for Outfall D-001 at the S-362 structure
SWU-001	Upstream background sampling location at the G-311 Pump Station when operating as inflow

Sample Point	Description of Monitoring Location
SWU-002	Upstream background sampling location at the S-319 Pump Station.
SWU-003	Upstream background sampling location at the S-361 Pump Station.

3. There shall be no discharge of floating solids or visible foam in other than trace amounts. This provision shall not be interpreted to prevent discharges of constituents normally found in or resulting from marsh wetland systems.

4. The discharge shall not cause a visible sheen on the receiving water. This provision shall not be interpreted to prevent discharges of constituents normally found in or resulting from marsh wetland systems.

5. The discharge shall not cause phosphorus concentrations in the receiving waters to be altered so as to cause or contribute to an imbalance in natural populations of aquatic flora or fauna. The discharge shall not cause phosphorus concentrations in the receiving waters to exceed the criteria in Rule 62-302.540(4)(a). ~~A 10 part per billion (ppb) default numeric phosphorus criterion went into effect December 31, 2003 and was approved by the U.S. EPA on January 24, 2005. Pursuant to Section 373.4592(4)(e)2 of the EFA, the Department adopted a 10 parts per billion (ppb) numeric criterion for phosphorus in the Everglades Protection Area, which was approved by the U.S. EPA on January 24th, 2005. The criterion was revised and adopted on June 3rd, 2005, and the revised rule was approved by the U.S. EPA on July 27, 2005. The permittee may not be able to immediately comply with this condition and therefore, this permit is issued pursuant to Subsection 403.088(2)(e) F.S. and is consistent with the EFA.~~ Beginning at the end of April after the permit effective date and at the end of each April thereafter, the permittee shall report the FWM annual average using data it collected for the prior 12 months. Beginning at the end of April after the permit effective date and at the end of each April thereafter, the permittee shall report the GM annual average using data it collected for each of the prior 3 years.

6. In the year following any two consecutive years where the TP GM annual average exceeds 10 ppb, the permittee shall report quarterly the GM of all monthly TP values for that year. If that mean exceeds 10 ppb, the permittee shall provide a report to both FDEP and USEPA by the fifteenth of the month following the quarterly report of its evaluation of why that mean is as high as it is and the specific steps it is taking to ensure that the TP GM for that year will not exceed 10 ppb.

For the TP FWM WQBEL, the permittee shall report quarterly the average of all monthly FWMs for that year. If that average exceeds 18 ppb, the permittee shall provide a report to both FDEP and USEPA by the fifteenth of the month following the quarterly report of its evaluation of why that average is as high as it is and the specific steps it is taking to ensure that the TP FWM annual average for that year will not exceed 18 ppb.

7. If the facility does not meet the FWM WQBEL in any year, the permittee shall report the annual load of TP discharged by the STA into the Everglades that is in excess of the WQBEL load (based on 18 ppb). If the facility does not meet the GM WQBEL in any year, the permittee shall separately report the annual load of TP discharged by the STA into the Everglades that is in excess of the WQBEL load (based on 10 ppb) for that year and the previous two years.

8. Compliance with the discharge limitations for dissolved oxygen is in accordance with the requirements set forth in a Site Specific Alternative Criteria (SSAC) as adopted by Secretarial Order on January 26th, 2004, and herein incorporated by reference as Exhibit B.

9. TP samples taken in accordance with Section I.A.1 and submitted monthly as part of the Discharge Monitoring Report (DMR) shall be analyzed to provide an assessment in the Annual Report required in Part I.E.9 as to whether the facility is operating within or outside the operational envelope. The assessment shall be based on annual inflow

volumes and phosphorus loads and shall compare flows and loads to the corresponding average values contained in the operational envelope described in Exhibit A (Goforth et al, 2007). If the annual inflow volumes or phosphorus loads exceed the corresponding average values of the operational envelope during an annual compliance period, the District shall conduct a review of potential causes and include this review in the annual report. Departmental concurrence shall be obtained prior to initiating Lake Okeechobee regulatory or water supply releases that would result in an exceedance of the maximum levels of flow or phosphorus load contained in the operational envelope.

B. Underground Injection Control Systems

1. This section is not applicable to this facility.

C. Land Application Systems

1. This section is not applicable to this facility.

D. Other Methods of Disposal or Recycling

1. There shall be no discharge of industrial wastewater from this facility to ground or surface waters, except as authorized by this permit.

E. Other Limitations and Monitoring and Reporting Requirements

1. The sample collection, analytical test methods and method detection limits (MDLs) applicable to this permit shall be in accordance with Rule 62-4.246, Chapters 62-160 and 62-601, F.A.C., and 40 CFR 136, as appropriate. A list of Department analytical methods, and corresponding MDLs and PQLs (practical quantification limits), which is titled "Florida Department of Environmental Protection Table as Required By Rule 62-4.246(4) Testing Methods for Discharges to Surface Water" dated June 21, 1996, is available from the Department on request. The MDLs and PQLs as described in this list shall constitute the minimum acceptable MDL/PQL values and the Department shall not accept results for which the laboratory's MDLs or PQLs are greater than those described above unless alternate MDLs and/or PQLs have been specifically approved by the Department for this permit. Any method included in this list or as mandated in 40 CFR Part 136 may be used for reporting as long as it meets the following requirements:

   a. The laboratory's reported MDL and PQL values for the particular method must be equal or less than the corresponding method values specified in the Department's approved MDL and PQL list;

   b. The laboratory reported PQL for the specific parameter is less than or equal to the permit limit or the applicable water quality criteria~~, if any,~~ stated in Chapter 62-302, F.A.C. Parameters that are listed as "report only" in the permit shall use methods that provide a PQL, which is equal to or less than the applicable water quality criteria stated in 62-302 FAC; and

   c. If the PQLs for all methods in the list (E.1 above) are above the stated permit limit or applicable water quality criteria for that parameter, then the method with the lowest stated PQL shall be used with a U or I qualifier code, as applicable.

      Where the analytical results are not detected (below method detection) the laboratory shall report the laboratory MDL. Values between the laboratory MDL and PQL shall be reported per 62-160, F.A.C. reporting requirements. The permittee shall report the actual laboratory MDL and/or PQL values for the analyses that were performed following the instructions on the applicable discharge monitoring report. Approval of alternate laboratory MDLs or PQLs are not necessary if the laboratory reported MDLs and PQLs are less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. However, where necessary, the permittee may request approval for alternative

methods or for alternative MDLs and PQLs for any approved analytical method, in accordance with the criteria of Rules 62-160.330, F.A.C.

2. Parameters which must be monitored as a result of a surface water discharge shall be analyzed using a sufficiently sensitive method in accordance with 40 CFR Part 136. Field measurement methods for pH and dissolved oxygen shall be in accordance with relevant sections in DEP SOP 001/01, 2/1/2004.

3. Herbicide use is authorized for maintenance purposes if the use is in accordance with labeled instructions and any applicable State permit. Discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream, which ultimately may be released to waters of the State, is prohibited unless specifically authorized by this permit and documented in the administrative record.

   The permittee shall notify the Department in writing no later than three (3) months prior to instituting use of any chemical used in any portion of the treatment system which is not already authorized by this permit and may be toxic to aquatic life. The Department shall review the above information to determine if a permit revision is necessary. Such notification shall include:

   a. Name of chemical
   b. Frequencies of use
   c. Quantities to be used

4. Monitoring requirements under this permit are effective on the first day of the second month following permit issuance. Until such time, the permittee shall continue to monitor and report in accordance with previously effective permit requirements, if any. During the period of operation authorized by this permit, the permittee shall complete and submit to the Department on a monthly basis Discharge Monitoring Reports (DMRs), form 62-620.910(10), as attached to this permit. The permittee shall make copies of the attached DMR form(s) and shall submit the completed DMR form(s) to the Department by the twenty-eighth (28^{th}) of the third month following the month of sampling at the address specified below:

   Florida Department of Environmental Protection
   Wastewater Compliance Evaluation Section, Mail Station 3551
   Twin Towers Office Building
   2600 Blair Stone Road
   Tallahassee, Florida 32399-2400

   If no discharge occurs during the reporting period, sampling requirements of this permit do not apply. The DMR form(s) shall be submitted as specified above with the statement "No Discharge" written thereon.

5. Unless specified otherwise in this permit, all reports and notifications required by this permit, including twenty-four hour notifications, shall be submitted to or reported to the Southeast District Office at the address specified below:

   Florida Department of Environmental Protection
   Southeast District Office
   400 N. Congress Avenue
   West Palm Beach, FL 33416-5425

   Phone Number – (561) 681-6600
   FAX Number* – (561) 681-6755

   AND

Florida Department of Environmental Protection
Division of Water Resource Management
Water Quality Standards & Special Projects Program
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Phone Number – (850) 245-8424
Fax Number* – (850) 412-0653

*All FAX copies shall be followed by original copies.

6. All reports and other information shall be signed in accordance with requirements of Rule 62-620.305, F.A.C.

7. The permittee shall provide safe access points for obtaining representative samples which are required by this permit.

8. Upon demonstration that a specific parameter(s) is consistently shown to be undetected in the effluent, the permittee may request a modification to the monitoring program as appropriate. A minimum of one year of data, for those parameters being sampled quarterly or more frequently, will be required prior to the Department approving any modification to the monitoring program. The Department may approve a reduction of the monitoring frequency or waive the monitoring requirement for parameters which are consistently shown to be undetected in the effluent.

9. The permittee shall submit an Annual Report demonstrating compliance with the conditions of this permit and according to the schedule in Section VI. The Annual Report shall provide details regarding the status of implementation of the requirements of this permit. Specifically, the report will include details regarding:

a. Implementation of the WQBEL and activities required by this permit and affecting flows and loads to STA-1E;

b. Source control implementation and optimization;

c. STA design modifications affecting implementation of the WQBEL and activities required by this permit;

d. Improvements, enhancements, and strategies that have been initiated and/or completed within the previous year;

e. Any delays in the implementation of the requirements of this permit, the duration of the delays, the reason(s) for the delays, and the expected timeframe for their resolution;

f. Whether revisions and/or additions to the requirements of this permit are recommended;

g. The implementation status of STA Recovery Plans;

h. For any noncompliance with permit conditions, an evaluation of the cause(s) and implementation of remedial measures;

i. Whether the facility was operated within or outside of the operational envelope; and

j. For each downstream transect station, a compilation of the water quality, sediment, and vegetation monitoring data collected, as appropriate, and an assessment of whether the cumulative impact remained unchanged, improved, or worsened from the previous year/monitoring.

10. The District shall notify the Department within 24 hours of any unanticipated bypasses of flow through the G-300 or G-301 Diversion Structures. The District shall notify the Department as soon as practicable in advance of anticipated bypasses, with the exception of routine maintenance. The submitted notification shall include a description of the circumstances related to the bypass and a projection of the anticipated duration of the bypass. All bypasses occurring through either the G-300 or the G-301 Structure shall be monitored for the parameters listed in the table below. As soon as practicable after cessation of all bypasses, the District shall submit a summary of the data collected from the table below, and identify the duration of the bypasses. Bypasses shall be limited to the shortest time possible and are not allowed solely to achieve the WQBEL. Bypasses are subject to and must meet the requirements of Items VIII.20, 21, and 22 of this permit.

Parameter	Units	Sample Type	Frequency
Total Phosphorus	mg/l	Grab	Weekly
Flow	CFS	Calculated	Daily Average

11. The permittee shall report with the monthly DMR if operation of facilities is impacted by or constrained due to requirements under the Endangered Species Act or Migratory Bird Treaty Act. The report should include the species involved, an estimate of the number of individuals involved, actions taken to avoid deleterious impacts on the endangered species, the affect those actions had on compliance with any condition of this permit, and an estimate of when facility operation will no longer be impacted or constrained.

II. Industrial Sludge Management Requirements

1. This section not applicable to this facility.

III. Ground Water Monitoring Requirements

1. This section is not applicable to this facility.

IV. Other Land Application Requirements

1. This section is not applicable to this facility.

V. Operation and Maintenance Requirements

A. Operation of Treatment and Disposal Facilities

1. The permittee shall ensure that the operation of this facility is as described in the application and supporting documents.

2. The operation of the pollution control facilities described in this permit shall be under the supervision of a person who is qualified by formal training and/or practical experience in the field of water pollution control.

B. Record keeping Requirements:

1. The permittee shall maintain the following records at the SFWMD headquarters office at the address specified above and make them available for inspection:

   a. Records of all compliance monitoring information shall be maintained for at least three years after the conclusion of this permit cycle. These records shall include field and laboratory records as identified in 62-160.240 and 62-160.340, F.A.C., including all calibration and maintenance records for continuous monitoring instrumentation, and, if applicable, a copy or copies of the laboratory certification(s) showing the certification number(s) of the laboratory;

   b. Copies of all reports, other than those required in items 1. and 6. of this section, required by the permit for at least three years from the date the report was prepared, unless otherwise specified by Department rule;

   c. Records of all data, including reports and documents used to complete the application for the permit for at least three years from the date the application was filed, unless otherwise specified by Department rule;

   d. A copy of the current permit;

   e. A copy of any required record drawings;

   f. Copies of the logs and schedules showing project operations and maintenance for three years from the date on the logs or schedule.

VI. Schedules

1. ~~An Operations Plan shall be developed and submitted by the permittee to the Department no later than three months after issuance of the permit~~. Upon completion of and compliance with the requirements specified herein, the permittee shall submit to the Department an updated Operations Plan for STA-1E. Until the updated Operations Plan is submitted by the permittee and approved by the Department, the previously existing Operations Plan shall remain in effect.

2. ~~In accordance with sections 403.088(2)(e) and (f), F.S., a compliance schedule for this facility is contained in Part II.3-5 of Administrative Order AO-009-EV which is hereby incorporated by reference~~. The Annual Report shall be received by the Department no later than March 1 of each year following the effective date of this permit. Each Annual Report shall present the information for the previous water year, from May 1 to April 30. Upon approval by the Department, the District may modify the Annual Report submission date to coincide with multiple reporting requirements and time periods needed for data acquisition and analysis.

~~3. The November 16, 2004 Long-Term Plan contains detailed schedules of improvements and enhancements scheduled to take place prior to December 31, 2006.~~

~~4. If the permittee will not be able comply with condition I.A.5 above, they will be required to have a relief mechanism in place by December 31, 2006.~~

3. A revised Pollution Prevention Plan (PPP) shall be prepared and implemented in accordance with the following schedule:

	Action Item	Scheduled Completion Date
1	Develop and Implement revised Pollution Prevention Plan	As needed upon completion of and compliance with the requirements of this permit
2.	Submittal of revised Pollution Prevention Plan if additional enhancements are implemented	Changes that warrant modifications to the current PPP + 90 days

VII. Other Specific Conditions

A. Specific Conditions Applicable to All Permits

~~1. The following documents (design documents), not attached hereto, but retained on file with the Department, are made a part hereof:~~
~~a. 1994 Conceptual Design Document for the Everglades Protection Project;~~

~~b. The June 13, 2000 Stormwater Treatment Area No 1 East Period of Record Dry-Out Analysis;~~

~~c. The October, 1999 C-51 & STA-1 East Design Documentation Report;~~

~~d. The January, 1999 Design Documentation Report, Canal 51 and Stormwater Treatment Area 1 East;~~

~~e. The May, 2000 Addendum To Design Documentation Report Stormwater Treatment Area 1 East;~~

~~f. The September 26, 2003 Stormwater Treatment Area, C-51 Improvements Construction and Solicitation Specifications;~~

~~g. The February, 1999 C-51 West End Flood Control Project Final Environmental Impact Statement; and,~~

~~h. The November 16, 2004 Everglades Protection Area Tributary Basins Long Term Plan for Achieving Water Quality Goals.~~

2. Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.) F.S., applicable portions of reports to be submitted under this permit, shall be signed and sealed by the professional(s) who prepared them.

3. This permit satisfies Wastewater program permitting requirements only. The Department and the permittee acknowledge the issuance of the other permits related to the STA-1E Project. Additional related permits include FDEP Permit No. 0178018, which authorizes temporary dewatering activities for the construction of facilities within the STA-1E, STA-1W, STA-2, STA-3/4, and STA-5 Hydropattern Restoration Projects, and FDEP Permit No. 0195030 (EFA permit). This permit is supplemental to these permits and does not supersede any of these permits.

B. Specific Conditions Related to Construction

1. Within thirty days of completion of construction, the permittee shall submit to the Department a completed "Certification of Completion of Construction" (DEP Form 62-620.910(12)) signed and sealed by the engineer of record or other engineer registered in the state of Florida. For purposes of this permit, completion of construction shall mean completion and closure of the construction contract for this project.

2. Record drawings shall be prepared and made available in accordance with Rule 62-620.410(6), F.A.C., and the Department of Environmental Protection Guide to Wastewater Permitting ~~within six months of placing the facilities into flow through operation~~.

C. Duty to Reapply

1. The permittee shall submit an application to renew this permit at least 180 days before the expiration date of this permit.

2. The permittee shall apply for renewal of this permit on the appropriate form listed in Rule 62-620.910, F.A.C., and in the manner established in Chapter 62-620, F.A.C., and the Department of Environmental Protection Guide to Wastewater Permitting including submittal of the appropriate processing fee set forth in Rule 62-4.050, F.A.C.

3. An application filed in accordance with subsections 1. and 2. of this part shall be considered timely and sufficient. When an application for renewal of a permit is timely and sufficient, the existing permit shall not expire until the Department has taken final action on the application for renewal or until the last day for seeking judicial review of the agency order or a later date fixed by order of the reviewing court.

4. The late submittal of a renewal application shall be considered timely and sufficient for the purpose of extending the effectiveness of the expiring permit only if it is submitted and made complete before the expiration date.

D. Specific Conditions Related to Pollution Prevention Plan

1. The document entitled "Stormwater Treatment Area 1E Pollution Prevention Plan" dated October 25, 2004, is hereby incorporated by reference and made a part of this permit as Exhibit A.

2. The STA-1E Project shall be operated in accordance with the Pollution Prevention Plan (PPP).

   If the permitted facilities are demonstrated to not be achieving compliance with the requirements of this permit, the permittee shall modify the PPP or the Operations Plan as appropriate.

E. Reopener Clause

1. The permit shall be revised, or alternatively, revoked and reissued in accordance with the provisions contained in Rules 62-620.325 and 62-620.345 F.A.C., if applicable, or to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2) and 307(a)(2) of the Clean Water Act (the Act), as amended, if the effluent standards, limitations, or water quality standards so issued or approved:

   a. Contains different conditions or is otherwise more stringent than any condition in the permit/or;

   b. Controls any pollutant not addressed in the permit.

   The permit as revised or reissued under this paragraph shall contain any other requirements then applicable.

2. The permit may be reopened to adjust effluent limitations or monitoring requirements should future Water Quality Based Effluent Limitation determinations, water quality studies, DEP approved changes in water quality standards, or other information show a need for a different limitation or monitoring requirement.

3. The Department may develop a Total Maximum Daily Load (TMDL) during the life of the permit. Once a TMDL has been established and adopted by rule, the Department shall revise this permit to incorporate the final findings of the TMDL consistent with the requirements of Section 403.067, F.S.

F. Transect Monitoring

The permittee shall conduct water quality, soil, and vegetation monitoring as specified below at a series of sites located along a transect downstream of the STA-1E discharge site to characterize the effects of the STA-1E discharge on adjacent marsh areas of the Refuge. The table below identifies five sampling sites. The monitoring site closest to the discharge point (LOX-135) is located in the rim canal and will be used to evaluate changes in water quality occurring between the discharge point and the actual marsh. Of the remaining four marsh sites, LOXA-136 and LOXA-137 are located in areas currently identified as impacted (i.e., sediment TP concentration greater than 500 mg/kg), with the final two sites located in areas currently identified as unimpacted. Upon demonstration that an additional sampling site or removal of an existing sampling site is warranted, the permittee may request a modification to the monitoring program as appropriate. The Department and USEPA shall review and approve such requests on a case by case basis. Any alteration in the monitoring program approved by the Department and USEPA shall occur in the form of a modification to this permit.

All water quality, soil, and vegetation samples will be collected and reported for the parameters and at the frequency specified in the SFWMD's January 20, 2010 'Project WCA-2A Monitoring Plan for STA-2 and Compartment B Build-Out Downstream Monitoring Plan'.

Table STA-1E Transect Sampling Sites.

Station	Latitude	Longitude	Impacted/Unimpacted
LOXA-135	26.623355	-80.316123	Rim Canal
LOXA-136	26.618793	-80.318667	Impacted
LOXA-137	26.615103	-80.321703	Impacted
LOXA-138	26.606817	-80.326665	Unimpacted
LOXA-139	26.593325	-80.337154	Unimpacted

G. **Implementation of Source Control Programs.**

1. **Implementation.** The permittee shall continue to implement source control programs in each of the contributing basins in accordance with Chapter 40E-63, F.A.C. and other applicable programs. Basins that do not presently include source control programs shall be monitored to determine if such programs are necessary in the event that phosphorus loads to the facility from these basins limit the facility or facilities progress towards achieving the WQBEL

2. **Performance.** On an annual basis, the permittee shall evaluate the performance of source controls in the contributing basins and include the findings in the annual report required in Part I.E.9. The report shall include phosphorus loads from the basins and shall describe trends and compare current loads to those determined necessary to achieve the WQBEL.

3. **Improvements.** If the WQBEL is not achieved and if the assumed inflow concentration used to develop the Amended Determination remedy is exceeded, the permittee shall submit, as part of the annual reporting requirements in Part I.E.9, a report explaining the cause(s) for the excess concentration and, if applicable, schedules and strategies for source control improvements necessary to achieve the WQBEL.

VIII. General Conditions

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit are binding and enforceable pursuant to Chapter 403, F.S. Any permit noncompliance constitutes a violation of Chapter 403, F.S., and is grounds for enforcement action, permit termination, permit revocation and reissuance, or permit revision. *[62-620.610(1), F.A.C.]*

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications or conditions of this permit constitutes grounds for revocation and enforcement action by the Department. *[62-620.610(2), F.A.C.]*

3. As provided in Subsection 403.087(6), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor authorize any infringements of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit or authorization that may be required for other aspects of the total project which are not addressed in this permit. *[62-620.610(3), F.A.C.]*

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title. *[62-620.610(4), F.A.C.]*

5. This permit does not relieve the permittee from liability and penalties for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted source; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department. The permittee shall take all reasonable steps to minimize or prevent any discharge, reuse of reclaimed water, or residuals use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. *[62-620.610(5), F.A.C.]*

6. If the permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee shall apply for and obtain a new permit. *[62-620.610(6), F.A.C.]*

7. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control, and related appurtenances, that are installed and used by the permittee to achieve compliance with the conditions of this permit. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to maintain or achieve compliance with the conditions of the permit. *[62-620.610(7), F.A.C.]*

8. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit revision, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. *[62-620.610(8), F.A.C.]*

9. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, including an authorized representative of the Department and authorized EPA personnel, when applicable, upon presentation of credentials or other documents as may be required by law, and at reasonable times, depending upon the nature of the concern being investigated, to

a. Enter upon the permittee's premises where a regulated facility, system, or activity is located or conducted, or where records shall be kept under the conditions of this permit;

b. Have access to and copy any records that shall be kept under the conditions of this permit;

c. Inspect the facilities, equipment, practices, or operations regulated or required under this permit; and

d. Sample or monitor any substances or parameters at any location necessary to assure compliance with this permit or Department rules.
[62-620.610(9), F.A.C.]

10. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data, and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except as such use is proscribed by Section 403.111, F.S., or Rule 62-620.302, F.A.C. Such evidence shall only be used to the extent that it is consistent with the Florida Rules of Civil Procedure and applicable evidentiary rules. *[62-620.610(10), F.A.C.]*

11. When requested by the Department, the permittee shall within a reasonable time provide any information required by law which is needed to determine whether there is cause for revising, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also provide to the Department upon request copies of records required by this permit to be kept. If the permittee becomes aware of relevant facts that were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be promptly submitted or corrections promptly reported to the Department. *[62-620.610(11), F.A.C.]*

12. Unless specifically stated otherwise in Department rules, the permittee, in accepting this permit, agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard. *[62-620.610(12), F.A.C.]* However, this section cannot be used as a basis to extend the time to comply with the permit's total phosphorus WQBEL or to obtain a mixing zone to meet the total phosphorus water quality criterion.

13..The permittee, in accepting this permit, agrees to pay the applicable regulatory program and surveillance fee in accordance with Rule 62-4.052, F.A.C. *[62-620.610(13), F.A.C.]*

14. This permit is transferable only upon Department approval in accordance with Rule 62-620.340, F.A.C. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department. *[62-620.610(14), F.A.C.]*

15. The permittee shall give the Department written notice at least 60 days before inactivation or abandonment of a wastewater facility and shall specify what steps will be taken to safeguard public health and safety during and following inactivation or abandonment. *[62-620.610(15), F.A.C.]*

16. The permittee shall apply for a revision to the Department permit in accordance with Rule 62-620.300, F.A.C., and the Department of Environmental Protection Guide to Wastewater Permitting at least 90 days before construction of any planned substantial modifications to the permitted facility is to commence or with Rule 62-620.325(2), F.A.C., for minor modifications to the permitted facility. A revised permit shall be obtained before construction begins except as provided in Rule 62-620.300, F.A.C. *[62-620.610(16), F.A.C.]*

17. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The permittee shall be responsible for any and all damages which may result from the changes and may be subject to enforcement action by the Department for penalties or revocation of this permit. The notice shall include the following information:

    a. A description of the anticipated noncompliance;

    b. The period of the anticipated noncompliance, including dates and times; and

    c. Steps being taken to prevent future occurrence of the noncompliance.
    [62-620.610(17), F.A.C.]

18. Sampling and monitoring data shall be collected and analyzed in accordance with Rule 62-4.246, Chapters 62-160 and 62-601, F.A.C., and 40 CFR 136, as appropriate.

    a. Monitoring results shall be reported at the intervals specified elsewhere in this permit and shall be reported on a Discharge Monitoring Report (DMR), DEP Form 62-620.910(10).

    b. If the permittee monitors any contaminate more frequently than required by the permit, using Department approved test procedures, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

    c. Calculations for all limitations which require averaging of measurements shall use an arithmetic mean unless otherwise specified in this permit.

    d. Any laboratory test required by this permit shall be performed by a laboratory that has been certified by the Department of Health (DOH) under Chapter 64E-1, F.A.C., where such certification is required by Rule 62-160.300(4), F.A.C. The laboratory must be certified for any specific method and analyte combination that is used to comply with this permit. For domestic wastewater facilities, the on-site test procedures specified in Rule 62-160.300(4), F.A.C., shall be performed by a laboratory certified test for those parameters or under the direction of an operator certified under Chapter 62-602, F.A.C.

    e. Fields activities including on-site tests and sample collection, whether performed by a laboratory or a certified operator, must follow the applicable procedures described in DEP-SOP-001/01 (February 2004). Alternate field procedures and laboratory methods may be used where they have been approved according to the requirements of Rules 62-160.220, 62-160.330, and 62-160.600, F.A.C.
    [62-620.610(18), F.A.C.]

19. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule detailed elsewhere in this permit shall be submitted no later than 14 days following each schedule date. *[62-620.610(19), F.A.C.]*

20. The permittee shall report to the Department any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain: a description of the noncompliance and its cause; the period of noncompliance including exact dates and time, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

a. The following shall be included as information which must be reported within 24 hours under this condition:

1. Any unanticipated bypass which causes any reclaimed water or effluent to exceed any permit limitation or results in an unpermitted discharge,

2. Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit,

3. Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit for such notice, and

4. Any unauthorized discharge to surface or ground waters.

b. Oral reports as required by this subsection shall be provided as follows:

1. For unauthorized releases or spills of untreated or treated wastewater reported pursuant to subparagraph a.4 that are in excess of 1,000 gallons per incident, or where information indicates that public health or the environment will be endangered, oral reports shall be provided to the Department by calling the STATE WARNING POINT TOLL FREE NUMBER (800) 320-0519, as soon as practical, but no later than 24 hours from the time the permittee becomes aware of the discharge. The permittee, to the extent known, shall provide the following information to the State Warning Point:

(a) Name, address, and telephone number of person reporting;

(b) Name, address, and telephone number of permittee or responsible person for the discharge;

(c) Date and time of the discharge and status of discharge (ongoing or ceased);

(d) Characteristics of the wastewater spilled or released (untreated or treated, industrial or domestic wastewater);

(e) Estimated amount of the discharge;

(f) Location or address of the discharge;

(g) Source and cause of the discharge;

(h) Whether the discharge was contained on-site, and cleanup actions taken to date;

(i) Description of area affected by the discharge, including name of water body affected, if any; and

(j) Other persons or agencies contacted.

2. Oral reports, not otherwise required to be provided pursuant to subparagraph b.1 above, shall be provided to Department's Southeast District Office within 24 hours from the time the permittee becomes aware of the circumstances.

c. If the oral report has been received within 24 hours, the noncompliance has been corrected, and the noncompliance did not endanger health or the environment, the Department's Southeast District Office shall waive the written report.

[62-620.610(20), F.A.C.]

21. The permittee shall report all instances of noncompliance not reported under Conditions VIII. 18 and 19 of this permit at the time monitoring reports are submitted. This report shall contain the same information required by Condition VIII. 20. of this permit. *[62-620.610(21), F.A.C.]*

22. Bypass Provisions. The term "bypass" shall mean the intentional diversion of waste streams from any portion of the treatment works.

a. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless the permittee affirmatively demonstrates that:

1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and

3. The permittee submitted notices as required under Condition VIII.22.b. of this permit.

b. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least 10 days before the date of the bypass. The permittee shall submit notice of an unanticipated bypass within 24 hours of learning about the bypass as required in Condition VIII.20. of this permit. A notice shall include a description of the bypass and its cause; the period of the bypass, including exact dates and times; if the bypass has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.

c. The Department shall approve an anticipated bypass, after considering its adverse effect, if the permittee demonstrates that it will meet the three conditions listed in Condition VIII.22 a. (1) through (3) of this permit.

d. A permittee may allow any bypass to occur which does not cause reclaimed water or effluent limitations to be exceeded if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of Condition VIII.22.a. through c. of this permit.
[62-620.610(22), F.A.C.]

23. Upset Provisions

a. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that the permittee can identify the cause(s) of the upset;

2. The permitted facility was at the time being properly operated;

3. The permittee submitted notice of the upset as required in Condition VIII.20. of this permit; and

4. The permittee complied with any remedial measures required under Condition VIII.5. of this permit.

b. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

c. Before an enforcement proceeding is instituted, no representation made during the Department review of a claim that noncompliance was caused by an upset is final agency action subject to judicial review.
[62-620.610(23), F.A.C.]

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

_____
Jerry Brooks
Deputy Division Director
Water Resource Management

DATE: _____

Department of
Environmental Protection
Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

STATE OF FLORIDA
Permit to Discharge Treated Water

PERMITTEE:

South Florida Water Management District
3301 Gun Club Road
West Palm Beach, FL 33406

NPDES PERMIT NUMBER: FL0177962-001 Minor Non-POTW

ISSUANCE DATE: May 11, 1999

EXPIRATION DATE: May 10, 2004

RESPONSIBLE AUTHORITY:
Mr. Mike Slayton
Deputy Executive Director

FACILITY:
Stormwater Treatment Area (STA) 1 West
Project (STA-1W Project)
Palm Beach County

LATITUDE: 26° 33' 15″ N **LONGITUDE:** 80" 26' 09″ W

This permit is issued under the provisions of Chapter 403, Florida Statutes, and applicable rules of the Florida Administrative Code and constitutes authorization to discharge to waters of the state under the National Pollutant Discharge Elimination System (NPDES). The above named permittee is hereby authorized to construct and operate the facilities required by this permit ~~shown on the application and other documents attached here to or on file with the Department and made a part hereof~~ and specifically described as follows:

PROJECT DESCRIPTION:

The project is to construct, operate, and maintain Stormwater Treatment Area 1 West (STA-lW), STA 1 Inflow and Distribution Works (STA-1 I&D), the G-310 Pump Station, and modifications to the existing Everglades Nutrient Removal (ENR) Project, which together will be known as the STA-1W Project. STA-1W Project is part of the Everglades Construction Project (ECP), construction, operation and maintenance of which is required by the Everglades Forever Act (EFA) (Section 373.4592, Florida Statutes).

EFFLUENT DISPOSAL:

This permit authorizes the new discharge of treated waters from a 6,670 acre constructed wetland marsh system (STA-1W Project) to the L-7 Canal (within the Arthur R Marshall Loxahatchee National Wildlife Refuge -- herein referred to as the Refuge), via the G-310 and G-251 pump stations. Waters treated in the wetland marsh are pumped, via the S-5A pump station, from jurisdictional water of the East Beach Water Control District, from the S-5A, L-8, and C-51 West Basins and the Lake Okeechobee regulatory releases. The L-7 Canal is a Class III Fresh water and an Outstanding Florida Water (OFW).

SURFACE WATER DISCHARGES AUTHORIZED:

A new discharge to the L-7 Canal (Class III Fresh waters), outfall serial number D-001, via the G-310 pump station. The G-310 pump station outfall point of discharge is located approximately at latitude 26° 33' 15" N, longitude 80° 26' 09" W.

A discharge to the L-7 Canal (Class III Fresh waters), outfall serial number D-002, via the G-251 pump station. The G-251 pump station outfall point of discharge is located approximately at latitude 26° 35' 59" N, longitude 80° 26' 24˝ W.

IN ACCORDANCE WITH: The 1imitations, monitoring requirements and other conditions as set forth in Part I through Part VIII on pages 1 through 15 of this permit.

I. Effluent Limitations and Monitoring Requirement

A. Surface Water Discharges

1. During the period beginning upon ~~placing the system into operation~~ the permit effective date and lasting through the expiration date of this permit, the permittee is authorized to discharge from Outfalls D-OO1 and D-002, non-process wastewater ~~treated water~~. Such discharge shall limited and monitored by the permittee as specified below:

	Discharge Limitations				Monitoring Requirements		
Parameters (units)	**Daily Minimum**	**Daily Maximum**	**~~Annual Average~~ Other**		**Monitoring Frequency**	**Sample Type**	**Sample Point**
Phosphorus, Total (as P) (ppb)	--	--	Not to exceed 10 as a geometric mean (GM) annual average in more than two consecutive years*	18 as a flow-weighted mean (FWM) annual average*	Weekly	GM – based on grab samples collected when discharge occurs FWM - 7-day flow proportioned composite	EFF-1
			(See I.A.5)				
Phosphorus, Total (~~mg/L~~ ppb as P)	--	--	Report **		Weekly	7-day flow proportioned composite	SWU-1
Oxygen, Dissolved (DO) (MG/L)	5.0	--	--		Weekly	Meter	EFF-1&EFF-2
Oxygen, Dissolved (DO) (MG/L)	Report	--	--		Weekly	Meter	SWU-1
Flow (CFS)	--	Report	Report		Continuous	Recorder	EFF-1&EFF-2
pH (SU)	6.0	8.5	--		Weekly	Meter	EFF-1&EFF-2

* All EFF TP monitoring results ~~for this parameter~~ shall be reported as separate weekly values without rounding to whole numbers. The results shall also be reported as FWM annual averages that are calculated based on the FWM of the weekly values. The results shall also be reported as GM annual averages that are calculated based on all sample point weekly values collected when discharge occurs in the previous 12 months. All FWM and GM annual averages shall be reported to the nearest whole number (i.e., 10.5 ppb shall be reported as 11 ppb; 10.49 ppb shall be reported as 10 ppb). ~~No violations for the annual average limit will be deemed to have occurred until data have been compiled for the first 12 months after the issuance date of the permit. For the first 11 months after issuance of this permit, the monitoring results for this parameter shall be recorded on the DMR as NODI=9. Starting with the 12th month and lasting until the expiration of this permit, the monitoring results for this parameter shall be recorded on the DMR as a 12-month moving flow-weighted average.~~

** All SWU TP monitoring results shall be reported as separate weekly values without rounding to whole numbers. All results shall also be reported as monthly averages and as FWM annual averages. The monthly averages and FWM annual averages shall be calculated based on the FWM of the weekly values and shall be reported to the nearest whole number (i.e., 10.5 ppb shall be reported as 11 ppb; 10.49 ppb shall be reported as 10 ppb).

2. Effluent samples shall be taken at the monitoring site location listed in permit condition I.A.I and as described below:

Sample Point	**Description of Monitoring Location**
EFF-1	Sampling location for Outfall D-001 at the G-310 pump station.

Sample Point	Description of Monitoring Location
EFF-2	Sampling location for the Outfall D-002 at the G-251 pump station.
SWU-1	Upstream background sampling location at the S-5A pump station.

3. There shall be no discharge of floating solids or visible foam in other than trace amounts. This provision shall not be interpreted to prevent discharges of constituents normally found in or resulting from marsh wetland systems.

4. The discharge shall not cause a visible sheen on the receiving water. This provision shall not be interpreted to prevent discharges of constituents normally found in or resulting from marsh wetland systems.

5. The discharge shall not cause phosphorus concentrations in the receiving waters to exceed the criteria in Rule 62-302.540(4)(a), F.A.C. The discharge shall not cause phosphorus concentrations in the receiving waters to be altered so as to cause or contribute to an imbalance in natural populations of aquatic flora or fauna~~. The permittee may not be able to immediately comply with this condition and therefore, this permit is issued pursuant to section 403.088(2) (e) of the Florida Statutes and is consistent with the Everglades Forever Act (EFA), §373.4592, Fla. Stat. By operation of the EFA, a numeric effluent limit for phosphorous shall be derived in accordance with state policy as contained in the EFA, § 373.4592 (4) (e), Fla. Stat, which provides that if the Department does not adopt by rule a revised phosphorus water quality criterion by no later than December 31, 2003, the numeric criterion for phosphorus shall be 10 parts per billion (ppb) in the Everglades Protection Area. Upon adoption of a revised criterion or the default criterion becoming effective, and upon approval by EPA, an effluent limitation shall be established for this permit, in a manner consistent with the EPA, the federal Consent Decree in USA v. SFWMD, Case No. 88-1886-CIV-HOEVELER, as may be modified, and other applicable state and federal laws and that recognizes the relationship between waters discharged to, and the resulting water quality in the Everglades Protection Area. If an effluent limitation is established for this permit based upon the default criterion, that effluent limitation will be replaced with a new effluent limit based on the approved numeric interpretation of the narrative phosphorous criterion once rulemaking for the phosphorous criterion and an appropriate effluent limitation is promulgated under the requirements of the EF A and the Consent Decree. The new effluent limit will be based on the numeric phosphorous criterion, the associated implementation strategy, and the relationship between waters discharged to, and the resulting water quality in, the Everglades Protection Area in a manner consistent with the EFA, the federal Consent Decree in USA v. SFWMD, Case No. 88-1886-CIV-HOEVELER, as may be modified, and other applicable state and federal laws. Persons whose substantial interests are affected by modification of this permit to include a new effluent limitation for phosphorus will be afforded a point of entry under Chapter 120, Florida Statutes.~~ Beginning at the end of April after the permit effective date and at the end of each April thereafter, the permittee shall report the FWM annual average using data it collected for the prior 12 months. Beginning at the end of April after the permit effective date and at the end of each April thereafter, the permittee shall report the GM annual average using data it collected for each of the prior 3 years.

6. In the year following any two consecutive years where the TP GM annual average exceeds 10 ppb, the permittee shall report quarterly the GM of all monthly TP values for that year. If that mean exceeds 10 ppb, the permittee shall provide a report to both FDEP and USEPA by the fifteenth of the month following the quarterly report of its evaluation of why that mean is as high as it is and the specific steps it is taking to ensure that the TP GM for that year will not exceed 10 ppb.

For the TP FWM WQBEL, the permittee shall report quarterly the average of all monthly FWMs for that year. If that average exceeds 18 ppb, the permittee shall provide a report to both FDEP and USEPA by the fifteenth of the month following the quarterly report of its evaluation of why that average is as high as it is and the specific steps it is taking to ensure that the TP FWM annual average for that year will not exceed 18 ppb.

7. If the facility does not meet the FWM WQBEL in any year, the permittee shall report the annual load of TP discharged by the STA into the Everglades that is in excess of the WQBEL load (based on 18 ppb). If the facility does not meet the GM WQBEL in any year, the permittee shall separately report the annual load of TP discharged by the STA into the Everglades that is in excess of the WQBEL load (based on 10 ppb) for that year and the previous two years.

8. TP samples taken in accordance with Section I.A.1 and submitted monthly as part of the Discharge Monitoring Report (DMR) shall be analyzed to provide an assessment in the Annual Report required in Part I.C.7 as to whether the facility is operating within or outside the operational envelope. The assessment shall be based on annual inflow volumes and phosphorus loads and shall compare flows and loads to the corresponding average values contained in the operational envelope described in Exhibit A (Goforth et al, 2007). If the annual inflow volumes or phosphorus loads exceed the corresponding average values of the operational envelope during an annual compliance period, the District shall conduct a review of potential causes and include this review in the annual report. Departmental concurrence shall be obtained prior to initiating Lake Okeechobee regulatory or water supply releases that would result in an exceedance of the maximum levels of flow or phosphorus load contained in the operational envelope.

B. Other Methods of Disposal or Recycling

1. There shall be no discharge from this facility to surface waters, except as authorized by this permit.

C. Other Limitations and Monitoring and Reporting Requirements

1. During the period of operation authorized by this permit, the permittee shall complete and submit to the Department on a monthly basis Discharge Monitoring Report(s) (DMR), Form 62-620.910(10), as attached to this permit. The permittee shall make copies of the attached DMR form(s) and shall submit the completed DMR form(s) to the Department by the twenty-eighth (28th) of the third month following the month of sampling at the address specified below:

Florida Department of Environmental Protection
Wastewater Program Management Section
Twin Towers Office Building
2600 Blair Slone Road, Mail Station 3551
Tallahassee, Florida 32399-2400

If no discharge occurs during the reporting period, sampling requirements of this permit do not apply. The DMR form(s) shall be submitted as specified above with the statement "No Discharge" written thereon. If, during the term of this permit, the facility ceases operation, the Department shall be notified immediately upon cessation of discharge. Such notification shall be in writing.

2. Unless specified otherwise in this permit, all reports and notifications required by this permit, including twenty-four hour notifications, shall be submitted to or reported to, as appropriate, the Southeast District Office of the Department and to the Department's Division of Water Facilities, Everglades Technical Support Section at the addresses specified below:

Florida Department of Environmental Protection
Southeast District Office
100 North Congress Avenue
West Palm Beach, FL 33401
Phone Number - (561) 681-6600
FAX Number' - (561) 681-6755

AND

Florida Department of Environmental Protection
Division of Water Facilities
Everglades Technical Support Section
2600 Blair Stone Road, MS 3560
Tallahassee, Florida, 32399-2400
Phone Number - (850) 921-5213
Fax Number' - (850) 488-4358

(ALL FAX copies shall be followed by original copies.)

3. The permittee shall provide safe access points for obtaining representative samples which are required by this permit

4. The permittee shall ensure that all laboratory analytical data submitted to the department as required by this permit is from a laboratory which has a currently valid and Department-approved Comprehensive Quality Assurance Plan (ComQAP) [or a ComQAP pending approval] for all parameters being reported as required by Chapter 62-160, Florida Administrative Code.

5. Upon demonstration that specific parameter(s) is consistently shown to be undetected in the effluent, the permittee may request a modification to the monitoring program as appropriate. A minimum of two years of data, for those parameters being sampled quarterly or more frequently, will be required prior to the Department approving any modification to the monitoring program. The Department may approve a reduction of the monitoring frequency or waive the monitoring requirement for parameters which consistently are shown to be undetected in the effluent.

6. The District shall notify the Department within 24 hours of any unanticipated bypasses of flow through the G-300 or G-301 Diversion Structures. The District shall notify the Department as soon as practicable in advance of anticipated bypasses, with the exception of routine maintenance. The submitted notification shall include a description of the circumstances related to the bypass and a projection of the anticipated duration of the bypass. All bypasses occurring through either the G-300 or the G-301 Structure shall be monitored for the parameters listed in the table below. As soon as practicable after cessation of all bypasses, the District shall submit a summary of the data collected from the table below and identify the duration of the bypasses. Bypasses shall be limited to the shortest time possible and are not allowed to solely achieve the WQBEL. Bypasses are subject to and must meet the requirements of Items VIII.T, U, and V of this permit.

Parameter	**Units**	**Sample Type**	**Frequency**
Total Phosphorus	mg/l	Grab	Weekly
Flow	CFS	Calculated	Daily Average

7. The permittee shall submit an Annual Report demonstrating compliance with the conditions of this permit and according to the schedule in Section VI. The Annual Report shall provide details regarding the status of implementation of the requirements of this permit. Specifically, the report will include details regarding:

a. Implementation of the WQBEL and activities required by this permit and affecting flows and loads to STA-1W;

b. Source control implementation and optimization;

c. STA design modifications affecting implementation of the WQBEL and activities required by this permit;

d. Improvements, enhancements, and strategies that have been initiated and/or completed within the previous year;

e. Any delays in the implementation of the requirements of this permit, the duration of the delays, the reason(s) for the delays, and the expected timeframe for their resolution;

f. Whether revisions and/or additions to the requirements of this permit are recommended;

g. The implementation status of STA Recovery Plans;

h. For any noncompliance with permit conditions, an evaluation of the cause(s) and implementation of remedial measures;

i. Whether the facility was operated within or outside of the operational envelope; and

j. For each downstream transect station, a compilation of the water quality, sediment, and vegetation monitoring data collected, as appropriate, and an assessment of whether the cumulative impact remained unchanged, improved, or worsened from the previous year/monitoring.

8. The permittee shall report with the monthly DMR if operation of facilities is impacted by or constrained due to requirements under the Endangered Species Act or Migratory Bird Treaty Act. The report should include the species involved, an estimate of the number of individuals involved, actions taken to avoid deleterious impacts on the endangered species, the affect those actions had on compliance with any condition of this permit, and an estimate of when facility operation will no longer be impacted or constrained.

II. Industrial Sludge Management Requirements

1. This section not applicable to this facility.

III. Ground Water Monitoring Requirements

1. This section is not applicable to this facility.

IV. Other Land Application Requirements

1. This section is not applicable to this facility.

V. Operation and Maintenance Requirements

A. Operation of Treatment and Disposal Facilities

1. The permittee shall ensure that the operation of this facility is as described in the application and supporting documents.

2. The operation of the pollution control facilities described in this permit shall be under the supervision of a person who is qualified by formal training and/or practical experience in the field of water pollution control.

B. Record keeping Requirements:

The permittee shall maintain the following records at the SFWMD headquarters office at the address specified above and make them available for inspection:

1. Records of all compliance monitoring information, including all calibration and maintenance records for continuous monitoring instrumentation including if applicable, a copy of the laboratory certification showing the certification number of the laboratory, for at least three years from the date the sample or measurement was taken;

2. Copies of all reports, other than those required in items 1. and 6. of this section, required by the permit for at least three years from the date the report was prepared, unless otherwise specified by Department rule;

3. Records of all data, including reports and documents used to complete the application for the permit for at least three years from the date the application was filed, unless otherwise specified by Department rule;

4. A copy of the current permit;

5. A copy of any required record drawings;

6. Copies of the logs and schedules showing project operations and maintenance for three years from the date on the logs or schedule.

VI. Schedules

1. Upon completion of and compliance with the requirements specified herein, the permittee shall submit to the Department an updated Operations Plan for STA-1W. Until the updated Operations Plan is submitted by the permittee and approved by the Department, the previously existing Operations Plan shall remain in effect~~. An operational plan shall be developed and implemented by the permittee no later than September 1999.~~

2. The Annual Report shall be received by the Department no later than March 1 of each year following the effective date of this permit. Each Annual Report shall present the information for the previous water year, from May 1 to April 30. Upon approval by the Department, the District may modify the Annual Report submission date to coincide with multiple reporting requirements and time periods needed for data acquisition and analysis.

3. A revised Pollution Prevention Plan (PPP) shall be prepared and implemented in accordance with the following schedule:

Action Item		Scheduled Completion Date
1	Develop and Implement revised Pollution Prevention Plan	As needed upon completion of the requirements of this permit
2.	Submittal of revised Pollution Prevention Plan if additional enhancements are implemented	Changes that warrant modifications to the current PPP + 90 days

VII. Other Specific Conditions

A. Specific Conditions Applicable to All Permits

1. The following documents, not attached hereto, but retained on file with the Department, are made a part hereof:

a. 1994 Conceptual Design Document for the Everglades Protection Project;

b. Detailed Design Report for Stormwater Treatment Area 1 West, dated June 5, 1996;

c. Supplement to the Detailed Design Report by Hutcheon Engineers, dated October 30, 1996;

d. Final Design Report for Storm Water Treatment Area 1 West in flow and Distribution Works by Stanley Consultants Inc., dated September 29, 1996; and

e. Final Design Report for Pumping Station G-310 and G-335 by Brown Caldwell, dated January 1997.

2. Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.) Florida Statutes. applicable portions of reports to be submitted under this permit, shall be signed and sealed by the professional(s) who prepared them.

3. This permit satisfies Wastewater program permitting requirements only. The Department and the permittee acknowledge the issuance of other permits related to the STA-1W Project. Portions of the STA-1W Project were permitted as the Everglades Nutrient Removal (ENR) Project, in accordance with the Marjorie Stoneman Douglas Act (FDEP Permit No. 502232569) and in accordance with federal law (NPDES Permit No. FL0043885). This STA-1W permit, upon issuance, shall supersede the former NPDES ENR Project permit. Additional related permits include FDEP Permit No. 0125539, which authorizes temporary dewatering activities to construct the STAs and associated works, and, the U.S. Army Corps of Engineers 404 Permit No.

199404532, however, this permit does not supersede either of these two permits.

B. Specific Conditions Related to Construction

1. Within thirty days of completion of the construction contract for this project, the permittee shall submit to the Department a completed "Certification of Completion of Construction" (DEP Form 62-620.910(12)) signed and sealed by the engineer of record. For purposes of this permit, completion of construction shall mean completion and closure of the construction contract for this project.

2. Record drawings shall be prepared and made available in accordance with Rule 62-620.410(6), F.A.C., and the Department of Environmental Protection Guide to Wastewater Permitting within six months of placing the facilities into operation.

C. Duty to Reapply

1. The permittee shall submit an application to renew this permit at least 180 days before the expiration date of this permit.

2. The permittee shall apply for renewal of this permit on the appropriate form listed in Rule 62-620.910, FAC., and in the manner established in Chapter 62-620, FAC., and the Department of Environmental Protection Guide to Wastewater Permitting including submittal of the appropriate processing fee set forth in Rule 62-4.050, F.A.C.

3. An application filed in accordance with subsections 1. and 2. of this part shall be considered timely and sufficient. When an application for renewal of a permit is timely and sufficient, the existing permit shall not expire until the Department has taken final action on the application for renewal or until the last day for seeking judicial review of the agency order or a later date fixed by order of the reviewing court.

4. The late submittal of a renewal application shall be considered timely and sufficient for the purpose of extending the effectiveness of the expiring permit only if it is submitted and made complete before the expiration date.

D. Specific Conditions Related to Pollution Prevention Plan

1. The document entitled "Stormwater Treatment Area lW Pollution Prevention Plan," dated March 12, 1999, is hereby incorporated by reference and made a part of this permit as Exhibit A.

2. The STA-1W Project shall be operated in accordance with the Pollution Prevention Plan (PPP).

If the permitted facilities are demonstrated to be not achieving compliance with the requirements of this permit, the permittee shall modify the PPP or the operational plan as appropriate.

E. Reopener Clause

~~This permit currently contains the narrative water quality standard for nutrients. In accordance with Section 373.4592(4)(e) or the Everglades Forever Act (EFA), by December 31, 2001, the Florida Department of Environmental Protection shall file a notice of rule making in the Florida Administrative Weekly to establish a phosphorus criterion in the Everglades Protection Area. By operation of the EFA, if the Department does not adopt by rule a revised phosphorus water quality criterion by December 31, 2003, the numeric criterion for phosphorus shall be the default of 10 ppb in the Everglades Protection Area. In either case, the numeric phosphorus criterion and implementation methodology must be submitted to EPA for approval. The USEPA shall review the water quality data that the state develops pursuant to the EFA, Section 373.4592(4)(e)l., Fla. Stat., and the interpreted numeric phosphorus criterion approved by the Florida Environmental Regulation Commission in accordance with the EFA, Section 373.4592(-4)(e)2., Fla. Stat., and shall approve the criterion provided it adequately protects the designated uses of the Everglades Protection Area, and complies with the Clean Water Act and implementing regulations. The same standard of review will apply to this criterion that applies to all other proposed State water quality standards.~~

Within 90 days of approval by EPA of the adopted numeric criterion or 10 ppb default criterion, a new effluent limitation shall be established for this permit. This new effluent limitation, which becomes effective on December 31, 2006, will be based on the numeric phosphorus criterion and associated implementation strategy, in a manner consistent with the EFA, the Federal Consent Decree in USA v. SFWMD, Case No. 88-1886-CIV· HOEVELER, as may be modified, and other applicable state and federal laws and that recognizes the relationship between waters discharged to, and the resulting water quality in the Everglades Protection Area. Persons whose substantial interests are affected by modification of this permit to include a new effluent limitation for phosphorus will be afforded a point of entry under Chapter 120, Florida Statutes.

By no later than December 31, 2003, the permittee shall submit a permit modification, including plans, cost estimates, and schedules for implementation, designed to achieve or maintain compliance with the phosphorus criterion and, if necessary, all other water quality standards in all parts of the Everglades Protection Area by no later than December 31,2006.

~~In the event that the state of Florida revises the dissolved oxygen criterion, or establishes a site specific a1ternative criterion (SSAC) or other moderating provision for dissolved oxygen in the Everglades Protection Area., the numeric effluent limitation for dissolved oxygen contained in this permit shall be revised.~~

1. The permit shall be revised, or alternatively, revoked and reissued in accordance with the provisions contained in Rules 62-620.325 and 62-620.345 F.A.C., if applicable, or to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2) and 307(a)(2) of the Clean Water Act (the Act), as amended, if the effluent standards, limitations, or water quality standards so issued or approved:

a. Contains different conditions or is otherwise more stringent than any condition in the permit/or;

b. Controls any pollutant not addressed in the permit.

The permit as revised or reissued under this paragraph shall contain any other requirements then applicable.

2. The permit may be reopened to adjust effluent limitations or monitoring requirements should future Water Quality Based Effluent Limitation determinations, water quality studies, DEP approved changes in water quality standards, or other information show a need for a different limitation or monitoring requirement.

3. The Department may develop a Total Maximum Daily Load (TMDL) during the life of the permit. Once a TMDL has been established and adopted by rule, the Department shall revise this permit to incorporate the final findings of the TMDL consistent with the requirements of Section 403.067, F.S.

F. Transect Monitoring

The permittee shall conduct monitoring at a series of sites located along two transects downstream of the STA-1W discharge site to characterize the effects of the STA-1W discharge on adjacent marsh areas of the Refuge. The first table below identifies seven (7) sampling sites located along a transect originating at the Rim Canal adjacent to the STA-1W discharge point and extending to the southeast toward the center of the Refuge into an unimpacted portion of the marsh. The second table below identifies five (5) sampling sites located along a transect originating at the Rim Canal downstream of the STA-1W discharge point and extending to the southeast toward the center of the Refuge into an unimpacted portion of the marsh. Upon demonstration that an additional sampling site or removal of an existing sampling site is warranted, the permittee may request a modification to the monitoring program as appropriate. The Department and USEPA shall review and approve such requests on a case by case basis. Any alteration in the monitoring program approved by the Department and USEPA shall occur in the form of a modification to this permit.

For the first transect, monitoring site LOXA104 is located in the Rim Canal and will be used to evaluate changes in water quality occurring between the Rim Canal and the actual marsh. Of the remaining six sites, four are located in areas currently identified as impacted (i.e., sediment TP concentration greater than 500 mg/kg), with the final two sites located in areas currently identified as unimpacted. For the second transect, monitoring site Z-0 is located in the Rim Canal and will be used to evaluate changes in water quality occurring between the Rim Canal and the actual marsh. Of the remaining four sites, three are located in areas currently identified as impacted (i.e., sediment TP concentration greater than 500 mg/kg), with the final site located in an area currently identified as unimpacted.

All water quality, soil, and vegetation samples will be collected and reported for the parameters and at the frequency specified in the SFWMD's January 20, 2010 'Project WCA-2A Monitoring Plan for STA-2 and Compartment B Build-Out Downstream Monitoring Plan'.

STA-1W Transect Sampling Sites.

Station	Latitude	Longitude	Impacted/Unimpacted
LOXA-104	26.597982	-80.440045	Rim Canal
LOXA-104.5	26.594111	-80.439111	Impacted
LOXA-105	26.591899	-80.436094	Impacted
LOXA-106	26.592206	-80.431281	Impacted
LOXA-107	26.587390	-80.421445	Impacted
LOX-107U	26.581200	-80.412000	Unimpacted
LOXA-108	26.577960	-80.405853	Unimpacted

G. **Implementation of Source Control Programs.**

1. **Implementation.** The permittee shall continue to implement source control programs in each of the contributing basins in accordance with Chapter 40E-63, F.A.C. and other applicable programs. Basins that do not presently include source control programs shall be monitored to determine if such programs are necessary in the event that phosphorus loads to the facility from these basins limit the facility or facilities progress towards achieving the WQBEL

2. **Performance.** On an annual basis, the permittee shall evaluate the performance of source controls in the contributing basins and include the findings in the annual report required in Part I.C.7. The report shall include phosphorus loads from the basins and shall describe trends and compare current loads to those determined necessary to achieve the WQBEL.

3. **Improvements.** If the WQBEL is not achieved and if the assumed inflow concentration used to develop the Amended Determination remedy is exceeded, the permittee shall submit, as part of the annual reporting requirements in Part I.C.7, a report explaining the cause(s) for the excess concentration and, if applicable, schedules and strategies for source control improvements necessary to achieve the WQBEL.

VIII. General Conditions

A. Enforcement. The terms, conditions, requirements, limitations and restrictions set forth in this permit are binding and enforceable pursuant to Chapter 403, F.S. Any permit noncompliance constitutes a violation of Chapter 403, F.S., and is grounds for enforcement action, permit termination, permit revocation and reissuance, or permit revision. *[62-620.610(1), F.A.C.]*

B. Scope of permit. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications or conditions of this permit constitutes grounds for revocation and enforcement action by the Department. *[62-620.610(2), F.A.C.]*

C. Limitations of rights. As provided in Subsection 403.087(6), F.S., and Chapter 373,F.S.,the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor authorize any infringements of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit or authorization that may be required for other aspects of the total project which are not addressed in this permit. *[62-620.610(3), F.A.C.]*

D. Limitations upon title. This permit conveys no title to land or water, does not constitute state recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title. *[62-620.610(4), F.A.C.]*

E. Liability. This permit does not relieve the permittee from liability and penalties for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted source; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department. The permittee shall take all reasonable steps to minimize or prevent any discharge, reuse of reclaimed water, or residuals use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. *[62-620.610(5), F.A.C.]*

F. Continuing permitted activities. If the permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee shall apply for and obtain a new permit. *[62-620.610(6), F.A.C.]*

G. Operation and maintenance responsibilities. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control, and related appurtenances, that are installed and used by the permittee to achieve compliance with the conditions of this permit. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to maintain or achieve compliance with the conditions of the permit. *[62-620.610(7), F.A.C.]*

H. Permit changes and duration. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit revision, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. *[62-620.610(8), F.A.C.]*

I. Access and inspections. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, including an authorized representative of the Department and authorized EPA personnel, when applicable, upon presentation of credentials or other documents as may be required by law, and at reasonable times, depending upon the nature of the concern being investigated, to

1.Enter upon the permittee's premises where a regulated facility, system, or activity is located or conducted, or where records shall be kept under the conditions of this permit;

2. Have access to and copy any records that shall be kept under the conditions of this permit;

3.Inspect the facilities, equipment, practices, or operations regulated or required under this permit; and

4.Sample or monitor any substances or parameters at any location necessary to assure compliance with this permit or Department rules. *[62-620.610(9), F.A.C.]*

J. Evidence. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data, and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except as such use is proscribed by Section 403.111, F.S., or Rule 62-620.302, F.A.C. Such evidence shall only be used to the extent that it is consistent with the Florida Rules of Civil Procedure and applicable evidentiary rules. *[62-620.610(10), F.A.C.]*

K. Additional information. When requested by the Department, the permittee shall within a reasonable time provide any information required by law which is needed to determine whether there is cause for revising, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also provide to the Department upon request copies of records required by this permit to be kept. If the permittee becomes aware of relevant facts that were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be promptly submitted or corrections promptly reported to the Department. *[62-620.610(11), F.A.C.]*

L. Changes in law. Unless specifically stated otherwise in Department rules, the permittee, in accepting this permit, agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. ~~A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard.~~ *[62-620.610(12), F.A.C.]* **However, this section cannot be used as a basis to extend the time to comply with the the permit's total phosphorus WQBELs or to obtain a mixing zone to meet the total phosphorus water quality criterion.**

M. Fees. The permittee, in accepting this permit, agrees to pay the applicable regulatory program and surveillance fee in accordance with Rule 62-4.052, F.A.C. *[62-620.610(13), F.A.C.]*

N. Transferability. This permit is transferable only upon Department approval in accordance with Rule 62-620.340, F.A.C. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department. *[62-620.610(14), F.A.C.]*

O. Notice of inactivation or abandonment. The permittee shall give the Department written notice at least 60 days before inactivation or abandonment of a wastewater facility and shall specify what steps will be taken to safeguard public health and safety during and following inactivation or abandonment. *[62-620.610(15), F.A.C.]*

P. Permit revision for modifications. The permittee shall apply for a revision to the Department permit in accordance with Rule 62-620.300 and the Department of Environmental Protection Guide to Wastewater Permitting at least 90 days before construction of any planned substantial modifications to the permitted facility is to commence or with Rule 62-620.325(2), F.A.C., for minor modifications to the permitted facility. A revised permit shall be obtained before construction begins except as provided in Rule 62-620.300, F.A.C. *[62-620.610(16), F.A.C.]*

Q. Noncompliance due to facility changes. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The permittee shall be responsible for any and all damages which may result from the changes and may be subject to enforcement action by the Department for penalties or revocation of this permit. The notice shall include the following information:

1.A description of the anticipated noncompliance;

2.The period of the anticipated noncompliance, including dates and times; and

3.Steps being taken to prevent future occurrence of the noncompliance.
[62-620.610(17), F.A.C.]

R. Sampling and monitoring data. Sampling and monitoring data shall be collected and analyzed in accordance with Rule 62-4.246, Chapters 62-160 and 62-601, F.A.C., and 40 CFR 136, as appropriate.

1.Monitoring results shall be reported at the intervals specified elsewhere in this permit and shall be reported on a Discharge Monitoring Report (DMR), DEP Form 62-620.910(10).

2.If the permittee monitors any contaminate more frequently than required by the permit, using Department approved test procedures, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

3.Calculations for all limitations which require averaging of measurements shall use an arithmetic mean unless otherwise specified in this permit.

4.Any laboratory test required by this permit shall be performed by a laboratory that has been certified by the Department of Health and Rehabilitative Services (DHRS) under Chapter 10D41, F.A.C., to perform the test. In domestic wastewater facilities, the on-site tests for dissolved oxygen, pH, and total chlorine residual shall be performed by a laboratory certified test for those parameters or under the direction of an operator certified under Chapter 61E12-41, F.A.C.

5. Under Chapter 62-160, F.A.C., sample collection shall be performed by following he protocols outlined in "DER Standard Operating Procedures for Laboratory Operations and Sample Collection Activities" (DER-QA-001/92). Alternatively, sample collection may be performed by an organization who has an approved Comprehensive Quality Assurance Plan (ComQAP)on file with the department. The compQAP shall be approved for collection of samples from the required matrices and for the required tests. *[62-620.610(18), F.A.C.]*

S. Reporting noncompliance. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule detailed elsewhere in this permit shall be submitted no later than 14 days following each schedule date. *[62-620.610(19), F.A.C.]*

T. Noncompliance endangering environment. The permittee shall report to the Department any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain: a description of the noncompliance and its cause; the period of noncompliance including exact dates and time, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

1. The following shall be included as information which must be reported within 24 hours under this condition:

    a. Any unanticipated bypass which causes any reclaimed water or effluent to exceed any permit limitation or results in an unpermitted discharge,

    b. Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit,

    c. Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit for such notice, and

    d. Any unauthorized discharge to surface or ground waters.

2. If the oral report has been received within 24 hours, the noncompliance has been corrected, and the noncompliance did not endanger health or the environment, the Department's Southeast District Office shall waive the written report. *[62-620.610(20), F.A.C.]*

U. Other noncompliance. The permittee shall report all instances of noncompliance not reported under Conditions VIII. 18 and 19 of this permit at the time monitoring reports are submitted. This report shall contain the same information required by Condition VIII. 20. of this permit. *[62-620.610(21), F.A.C.]*

V. Bypass Provisions.

1. The term "bypass" shall mean the intentional diversion of waste streams from a portion of the treatment works. ~~The term "bypass" does not include waters diverted around the entire STA-1W Project. Because of the hydrologic relationship between STA-1W and the Loxahatchee national Wildlife Refuge, "bypass" is not expected to occur at this facility.~~

7. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless the permittee affirmatively demonstrates that:

   a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

   b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and

   c. The permittee submitted notices as required under Condition VIII.V.3. of this permit.

8. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least 10 days before the date of the bypass. The permittee shall submit notice of an unanticipated bypass within 24 hours of learning about the bypass as required in Condition VIII.T of this permit. A notice shall include a description of the bypass and its cause; the period of the bypass, including exact dates and times; if the bypass has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.

9. The Department shall approve an anticipated bypass, after considering its adverse effect, if the permittee demonstrates that it will meet the three conditions listed in Condition VIII V.2. a through c of this permit.

10. A permittee may allow any bypass to occur which does not cause reclaimed water or effluent limitations to be exceeded if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of Condition VIII.V.2. a. through c. of this permit.*[62-620.610(22), F.A.C.]*

W. Upset Provisions

1. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:

   a. An upset occurred and that the permittee can identify the cause(s) of the upset;

b. The permitted facility was at the time being properly operated;

c. The permittee submitted notice of the upset as required in Condition VIII.T and T. of this permit; and

d. The permittee complied with any remedial measures required under Condition VIII.E. and T. of this permit.

2. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

3. Before an enforcement proceeding is instituted, no representation made during the Department review of a claim that noncompliance was caused by an upset is final agency action subject to judicial review. *[62-620.610(23), F.A.C.]*

Executed in Tallahassee, Florida

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

_____

David B. Struhs
Secretary

DATE: May 11, 1999

STATE OF FLORIDA
INDUSTRIAL WASTEWATER FACILITY PERMIT

PERMITTEE:
South Florida Water Management District

3301 Gun Club Road
West Palm Beach, FL. 33406

PERMIT NUMBER: FL0177946
PA FILE NO.: FL0177946-003-IW7A (MINOR)
ISSUANCE DATE: September 4, 2007
EXPIRATION DATE: September 4, 2012

RESPONSIBLE AUTHORITY:

Ms. Carol Ann Wehle
Executive Director

FACILITY:

Stormwater Treatment Area 2 (STA-2)

Palm Beach County

Latitude: 26° 22' 42" N Longitude: 80° 30' 30" W

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.) and applicable rules of the Florida Administrative Code (F.A.C.) and constitutes authorization to discharge to waters of the State under the National Pollutant Discharge Elimination System (NPDES). ~~This permit is accompanied by an Administrative Order (Order), AO-010-EV, pursuant to Subsections 403.088 (2)(e) and (f), F.S. Compliance with AO-010-EV is a specific requirement of this permit.~~ The above named permittee is hereby authorized to construct and operate the facilities required by this permit ~~shown on the application and other documents attached hereto or on file with the Department and made a part hereof~~.

PROJECT DESCRIPTION:

This permit authorizes the continued construction, operation and maintenance of Stormwater Treatment Area (STA) 2. Initial construction and operation of this facility was previously authorized and completed under Florida Department of Environmental Protection (Department) National Pollution Discharge Elimination Program (NPDES) Permit No.: FL0177946-001-IW7A and Everglades Forever Act (EFA) Permit No. 0126704-001. STA-2 is a part of the Everglades Construction Project (ECP), construction, operation, and maintenance of which is required by the EFA, Section 373.4592, F.S. The STA-2 project (Figure 1) consists of the S-5A Basin Runoff Diversion Works, the S-6 Diversion Works, the STA-2 Supply Canal Works, the STA-2 Inflow Works, the STA-2 Interior Works, the STA-2 Discharge Works, the G-335 Pump Station, and the Water Conservation Area 2A (WCA 2A) Hydropattern Restoration Works, as more particularly described in the Fact Sheet. In addition to existing operation and maintenance activities, this permit also authorizes construction, operation, and maintenance of additional ~~features approved by the Department under the Everglades Protection Area Tributary Basins Long-Term Plan for Achieving Water Quality Goals (Long-Term Plan) and subsequent revisions, as defined in the Everglades Forever Act (EFA) Section 373.4592, Florida Statutes (F.S.)~~ requirements specified herein. ~~The Long-Term Plan includes structural, vegetative and operational enhancements for STA-2 to improve hydraulic distribution and phosphorus removal performance.~~ STA-2 is a Stormwater Management System (SMS) as defined in Subsection 373.403(10), F.S., and therefore is not subject to state surface water quality standards within STA-2 pursuant to Subsection 373.4142, F.S.

EFFLUENT DISPOSAL:

This permit authorizes the discharge of treated ~~stormwater~~ nonprocess wastewater from an 8,330 acres constructed wetland system (STA-2) to Water Conservation Area 2A (WCA-2A) Hydropattern Restoration

Works. Treated water from STA-2 will be discharged into the L-6 Borrow Canal from the G-335 Outflow Pumping Stations. Once discharged into the L-6 Borrow Canal, the treated water is released into the WCA-2A through the Hydropattern Restoration Works. All of the surface waters and wetlands located within WCA-2A are Class III Fresh waters.

Surface Water Discharge:

An existing discharge to the L-6 Borrow Canal (Class III Fresh waters), monitoring group D-001 (G-335), is located approximately at latitude 26° 22' 42" N, longitude 80° 30' 30" W.

IN ACCORDANCE WITH:

The limitations, monitoring requirements, and other conditions as set forth in Part I through Part VIII on pages 3 through 14 of this permit.

I. Effluent Limitations and Monitoring Requirements

A. Surface Water Discharges

1. During the period beginning on the permit effective date and lasting through the expiration date of this permit, the permittee is authorized to discharge ~~stormwater~~ non-process wastewater from Outfall D-001. Such discharge shall be limited and monitored by the permittee as specified below.

	Discharge Limitations				Monitoring Requirements		
Parameters (units)	**Daily Minimum**	**Daily Maximum**	~~**Annual Average**~~ **Other**		**Monitoring Frequency**	**Sample Type**	**Sample Point**
Phosphorus, Total (as P) (ppb)	--	--	Not to exceed 10 as a geometric mean (GM) annual average in more than two consecutive years*	18 as a flow-weighted mean (FWM) annual average*	Weekly	GM – based on grab samples collected when discharge occurs FWM - 7-day flow proportioned composite	EFF-1
			See I.A.5				
Phosphorus, Total (as P) (ppb)	--	--	Report~~1~~**		Weekly	7-day flow proportioned composite	INT-1, INT-2
			See I.A.6.				
Oxygen, Dissolved (DO), (mg/L)	See I.A.7				Weekly	Grab (Meter)	EFF-1
Oxygen, Dissolved (DO), (mg/L)	Report				Weekly	Grab (Meter)	INT-1, INT-2
Flow (cfs)	--	Report	Report See I.A.6		Continuous	Recorder	EFF-1, INT-1, INT-2
pH (SU)	6.0	8.5	--		Weekly	Grab (Meter)	EFF-1

~~1~~* All EFF TP monitoring results ~~for this parameter~~ shall be reported as separate weekly values without rounding to whole numbers. The results shall also be reported as FWM annual averages that are calculated based on the FWM of the weekly values. The results shall also be reported as GM ~~monthly average and as an~~ annual averages that are calculated based on all sample point weekly values collected when discharge occurs in the previous 12 months. All FWM and GM annual averages shall be reported to the nearest whole number (i.e., 10.5 ppb shall be reported as 11 ppb; 10.49 ppb shall be reported as 10 ppb). ~~The "monthly average" is a flow-weighted mean of the weekly effluent samples. The "annual average" shall be computed for each water year (May-April) and is equal to the flow-weighted mean concentration for the water year.~~

** All SWU TP monitoring results shall be reported as separate weekly values without rounding to whole numbers. All results shall also be reported as monthly averages and as FWM annual averages. The monthly averages and FWM annual averages shall be calculated based on the FWM of the weekly values and shall be reported to the nearest whole number (i.e., 10.5 ppb shall be reported as 11 ppb; 10.49 ppb shall be reported as 10 ppb).

~~2 The 10 ppb effluent limit represents the phosphorus criterion set forth in Rule 62-302.540(4)(a), F.A.C. and is consistent with Section 301(b)(1)(C) of the CWA. A water quality based effluent limitation (WQBEL) for phosphorus will be established in accordance with Rule 62-650 F.A.C. and Section 373.4592 Florida Statutes by December 31, 2010 and will be a major permit modification. It is recognized that the ultimate WQBEL to be developed may be higher than a flow-weighted mean of 10 ppb. The antibacksliding provisions of the CWA and NPDES regulations do not apply to an effluent limitation with a delayed compliance date, until the date of compliance. In this case, restrictions on backsliding would not apply to the 10 ppb permit effluent limit until the established WQBEL takes effect at the end of the compliance schedule.~~

2. Effluent samples shall be taken at the monitoring site locations listed in permit condition I.A.1 and as described below:

Sample Point	**Description of Monitoring Location**
EFF-1	Sampling location for Outfall D-001 at the G-335 Pump Station
INT-1	Inflow monitoring location at the G-328 Pump Station
INT-2	Inflow monitoring location at the S-6 Pump Station

3. There shall be no discharge of floating solids or visible foam in other than trace amounts. This provision shall not be interpreted to prevent discharges of constituents normally found in or resulting from marsh wetland systems.

4. The discharge shall not cause a visible sheen on the receiving water. This provision shall not be interpreted to prevent discharges of constituents normally found in or resulting from marsh wetland systems.

5. The discharge shall not cause phosphorus concentrations in the receiving waters to be altered so as to cause or contribute to an imbalance in natural populations of aquatic flora or fauna. The discharge shall not cause phosphorus concentrations in the receiving waters to exceed the criteria in Rule 62-302.540(4)(a), F.A.C.~~, except as authorized in the accompanying Order AO-010-EV which is hereby incorporated by reference~~. Beginning at the end of April after the permit effective date and at the end of each April thereafter, the permittee shall report the FWM annual average using data it collected for the prior 12 months. Beginning at the end of April after the permit effective date and at the end of each April thereafter, the permittee shall report the GM annual average using data it collected for each of the prior 3 years.

6. In the year following any two consecutive years where the TP GM annual average exceeds 10 ppb, the permittee shall report quarterly the GM of all monthly TP values for that year. If that mean exceeds 10 ppb, the permittee shall provide a report to both FDEP and USEPA by the fifteenth of the month following the quarterly report of its evaluation of why that mean is as high as it is and the specific steps it is taking to ensure that the TP GM for that year will not exceed 10 ppb.

For the TP FWM WQBEL, the permittee shall report quarterly the average of all monthly FWMs for that year. If that average exceeds 18 ppb, the permittee shall provide a report to both FDEP and USEPA by the fifteenth of the month following the quarterly report of its evaluation of why that average is as high as it is and the specific steps it is taking to ensure that the TP FWM annual average for that year will not exceed 18 ppb.

7. If the facility does not meet the FWM WQBEL in any year, the permittee shall report the annual load of TP discharged by the STA into the Everglades that is in excess of the WQBEL load (based on 18 ppb). If the facility does not meet the GM WQBEL in any year, the permittee shall separately report the annual load of TP discharged by the STA into the Everglades that is in excess of the WQBEL load (based on 10 ppb) for that year and the previous two years.

8. TP samples taken in accordance with Section I.A.1 and submitted monthly as part of the Discharge Monitoring Report (DMR) shall be analyzed to provide an annual assessment in the Annual Report required in Part I.E.7 as to whether the facility is operating within or outside the operational envelope. The

assessment shall be based on annual inflow volumes and phosphorus loads and shall compare flows and loads to the corresponding average values contained in the operational envelope described in Exhibit A (Goforth et al, 2007). If the annual inflow volumes or phosphorus loads exceed the corresponding average values of the operational envelope during an annual compliance period, the District shall conduct a review of potential causes and include this review in the annual report. Departmental concurrence shall be obtained prior to initiating Lake Okeechobee regulatory or water supply releases that would result in an exceedance of the maximum levels of flow or phosphorus load contained in the operational envelope.

9. The dissolved oxygen parameter shall meet the requirements set forth in the Everglades Marsh Dissolved Oxygen Site Specific Alternative Criteria (DO SSAC, Exhibit B). Compliance with the DO SSAC shall be evaluated annually using a statistical analysis to compare dissolved oxygen levels within facility discharges to predicted model values. The specific methods for determining compliance are set forth in the DO SSAC which was adopted by Secretarial Order on January 26, 2004, and approved by the U.S. Environmental Protection Agency as a revision to the State of Florida's water quality standards on June 16, 2004.

B. Underground Injection Control Systems

1. This section is not applicable to this facility.

C. Land Application Systems

1. This section is not applicable to this facility.

D. Other Methods of Disposal or Recycling

1. There shall be no discharge of industrial wastewater from this facility to ground or surface waters, except as authorized by this permit.

E. Other Limitations and Monitoring and Reporting Requirements

1. The sample collection, analytical test methods and method detection limits (MDLs) applicable to this permit shall be in accordance with Rule 62-4.246, Chapters 62-160 and 62-601, F.A.C., and 40 CFR 136, as appropriate. The list of Department established analytical methods and corresponding MDLs and PQLs (practical quantification limits), which is titled *"Florida Department of Environmental Protection Table as Required By Rule 62-4.246(4) Testing Methods for Discharges to Surface Water"* dated April 25, 2006, is available from the Department at http://www.dep.state.fl.us/labs/guidance/index.htm. The MDLs and PQLs as described in this list shall constitute the minimum acceptable MDL/PQL values and the Department shall not accept results for which the laboratory's MDLs or PQLs are greater than those described above unless alternate MDLs and/or PQLs have been specifically approved by the Department for this permit. Any method included in the list may be used for reporting as long as it meets the following requirements:

    a. The laboratory's reported MDL and PQL values for the particular method must be equal or less than the corresponding method values specified in the Department's approved MDL and PQL list;

    b. The laboratory reported MDL for the specific parameter is less than or equal to the permit limit or the applicable water quality criteria, ~~if any,~~ stated in Chapter 62-302, F.A.C. Parameters that are listed as "report only" in the permit shall use methods that provide a PQL, which is equal to or less than the applicable water quality criteria stated in 62-302 F.A.C.; and

    c. If the MDLs for all methods available in the approved list are above the stated permit limit or applicable water quality criteria for that parameter, then the method with the lowest stated MDL shall be used.

Where the analytical results are below method detection or practical quantification limits, the permittee shall report the actual laboratory MDL and/or PQL values for the analyses that were performed following the instructions on the applicable discharge monitoring report.

Where necessary, the permittee may request approval of alternate methods or for alternative MDLs and PQLs for any approved analytical method. Approval of alternate laboratory MDLs or PQLs is not necessary if the laboratory reported MDLs and PQLs are less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Approval of an analytical method not included in the above referenced list is not necessary if the analytical method is in accordance with 40 CFR 136

2. Parameters which must be monitored as a result of a surface water discharge shall be analyzed using a sufficiently sensitive method in accordance with 40 CFR Part 136. Field measurement methods for pH and dissolved oxygen shall be in accordance with relevant sections in DEP SOP 001/01, 2/1/2004.

3. Herbicide use is authorized for maintenance purposes if the use is in accordance with the labeled instructions and any applicable State permit. Discharge of any product registered under the Federal Insecticide, Fungicide and Rodenticide Act to any waste stream, which ultimately may be released to waters of the State, is prohibited unless specifically authorized by this permit and documented in the administrative record.

The permittee shall notify the Department in writing at the address listed in Condition I.E.6 no later than three months prior to instituting use of any chemical in any portion of the treatment system which is not already authorized by this permit and may be toxic to aquatic life. The Department shall review the above information to determine if a permit revision is necessary. Such notification shall include:

a. Name of chemical;
b. Chemical manufacturer;
c. Frequency of use; and,
d. Quantities to be used.

4. ~~Diversion~~Bypass, as described in the Fact Sheet, may occur during the operation of STA-2. The District shall notify the Department within 48 hours of any unanticipated ~~diversions~~ bypasses of flow through the G-338 and/or G-339 gated structures and the District shall notify the Department as soon as practicable in advance of anticipated ~~diversions~~ bypasses, with the exception of routine maintenance and irrigation withdrawals through G-328. The submitted notification shall include a description of the circumstances related to the ~~diversion~~ bypass and a projection of the anticipated duration of the bypass ~~diversion~~. All ~~diversions~~ bypasses occurring through the G-338 and G-339 structures shall be monitored for the parameters listed in the table below. As soon as practicable after cessation of all bypasses ~~diversions~~, the District shall submit a summary of the data collected from the table below and identify the duration of the bypasses ~~diversions~~. Bypasses shall be limited to the shortest time possible and are not allowed solely to achieve the WQBEL. Bypasses are subject to and must meet the requirements of Items VIII.20, 21, and 22 of this permit.

Parameter/ Station	Units	Sample Type	Frequency
Total Phosphorus collected at S-6 Pump Station	mg/l	Grab	Weekly
Flow at G-338 and/ or G-339 structures	CFS	Calculated	Daily Average

5. Monitoring requirements under this permit are effective on the first day of the second month following permit issuance. Until such time, the permittee shall continue to monitor and report in accordance with previously effective permit requirements, if any. During the period of operation authorized by this permit, the permittee shall complete and submit Discharge Monitoring Reports (DMRs) in accordance with the frequencies specified by the REPORT type below and indicated on the DMR forms. Monitoring results for each monitoring period shall be submitted in accordance with the associated DMR due dates to the address specified below.

REPORT Type On DMR	**Monitoring Period**	**DMR Due Date**
Monthly[1]	first day of month – last day of month	28th day of the third month following the month of sampling
Annual	May – April	28th day of July

Florida Department of Environmental Protection
Wastewater Compliance Evaluation Section, Mail Station 3551
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

6. Unless specified otherwise in this permit, all reports and notifications required by this permit, including twenty-four hour notifications shall be submitted to or reported to the Department's Tallahassee Office and the Southeast District Office at the address specified below:

Florida Department of Environmental Protection
Division of Water Resource Management
Water Quality Standards & Special Projects Program
2600 Blair Stone Road
Tallahassee, FL 32399-2400
Phone Number - (850) 245-8422
Fax Number* - (850) 412-0658

AND

Florida Department of Environmental Protection
Southeast District Office
400 N. Congress Avenue
West Palm Beach, FL 33416-5425
Phone Number - (561) 681-6600
Fax Number* - (561) 681-6755

*All FAX copies shall be followed by original copies.

7. The permittee shall submit an Annual Report (the South Florida Environmental Report) demonstrating compliance with the terms of this permit and according to the schedule as set forth in Section VI.1. The Annual Report shall provide details regarding the status of implementation of the requirements of ~~improvements, enhancements, and strategies identified in~~ this permit. Specifically, the report shall include details regarding:

[1] DMRs shall be submitted for each required monitoring period including months of no discharge.

a. Implementation of the WQBEL and activities required by this permit and affecting flows and loads to STA-2;

b. source control implementation and optimization;

c. STA design modifications affecting implementation of the WQBEL and activities required by this permit;

d. improvements, enhancements, and strategies that have been initiated and/or completed within the previous year;

e. any delays in the implementation of the requirements of this permit, ~~improvements, enhancements, or strategies, and~~ the duration of the delays, the reason(s) for the delays, and the expected timeframe for their resolution;

f. the implementation status of STA Recovery Plans ~~operational status of the STA~~ ;

g. whether revisions and/or additions to the requirements of this permit ~~improvements, enhancements, and strategies~~ are recommended ~~whether the facility is achieving the effluent limitations set forth in the TBEL and/or~~ ;

h. For any noncompliance with permit conditions, an evaluation of the cause(s) and implementation of remedial measures;

i. For each downstream transect station, a compilation of the water quality, sediment, and vegetation monitoring data collected, as appropriate, and an assessment of whether the cumulative impact remained unchanged, improved, or worsened from the previous year/monitoring;

j. An assessment of the inflow volumes and phosphorus loads during the year relative to the anticipated operational envelope contained in the Technical Support Document for the STA-2; and

k. Whether the facility was operated within or outside of the operational envelope.

All reports and other information shall be signed in accordance with requirements of Rule 62-620.305, F.A.C.

8. The permittee shall provide safe access points for obtaining representative samples which are required by this permit.

9. Upon demonstration that a specific parameter(s) is consistently shown to be undetected in the effluent, the permittee may request a modification to the monitoring program as appropriate. A minimum of one year of data, for those parameters being sampled quarterly or more frequently, shall be required prior to the Department approving any modification to the monitoring program. The Department may approve a reduction of the monitoring frequency or waive the monitoring requirement for parameters which are consistently shown to be undetected in the effluent.

10. The permittee shall report with the monthly DMR if operation of facilities is impacted by or constrained due to requirements under the Endangered Species Act or Migratory Bird Treaty Act. The report should include the species involved, an estimate of the number of individuals involved, actions taken to avoid deleterious impacts on the endangered species, the affect those actions had on compliance with any condition of this permit, and an estimate of when facility operation will no longer be impacted or constrained.

II. Industrial Sludge Management Requirements

1. This section is not applicable to this facility.

III. Ground Water Monitoring Requirements

1. This section is not applicable to this facility.

IV. Other Land Application Requirements

This section is not applicable to this facility.

V. Operation and Maintenance Requirements

A. Operation of Treatment Facilities

1. The permittee shall ensure that the operation of this facility is as described in the application and supporting documents.

2. The operation of the pollution control facilities described in this permit shall be under the supervision of a person who is qualified by formal training and/or practical experience in the field of water pollution control.

3. Activities such as ongoing maintenance may have adverse impacts on STA performance. In addition, major events may compromise the structural integrity or performance of the STA or section(s) of the STA. Such activities or events will be subject to the planned changes, bypass, and/or upset provisions set forth in Section VIII Paragraphs 17, 22, and 23.

B. Record keeping Requirements:

1. The permittee shall maintain the following records at the South Florida Water Management District's (District) headquarters office and make them available for inspection:

   a. Records of all compliance monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, including, if applicable, a copy of the laboratory certification showing the certification number of the laboratory, for at least three years from the date the sample or measurement was taken;

   b. Copies of all reports, other than those required in items a. and f. of this section, required by the permit for at least three years from the date the report was prepared, unless otherwise specified by Department rule;

   c. Records of all data, including reports and documents used to complete the application for the permit for at least three years from the date the application was filed, unless otherwise specified by Department rule;

   d. A copy of the current permit;

   e. A copy of any required record drawings;

   e. Copies of the logs and schedules showing plant operations and equipment maintenance for three years from the date on the logs or schedule.

VI. Schedules

1. The Annual Report shall be received by the Department no later than March 1 of each year following the effective date of ~~issuance of~~ this permit. Each Annual Report shall present the information for the previous water year, from May 1 to April 30. Upon approval by the Department, the District may

modify the Annual Report submission date to coincide with multiple reporting requirements and time periods needed for data acquisition and analysis.

2. A revised Pollution Prevention Plan (PPP) shall be prepared and implemented in accordance with the following schedule:

	Action Item	Scheduled Completion Date
1	Develop and Implement revised Pollution Prevention Plan	~~Completion of scheduled Long-Term Plan enhancements to STA-2~~ As needed upon completion of and compliance with the requirements of this permit
2.	Submittal of revised Pollution Prevention Plan if additional enhancements are implemented	Changes that warrant modifications to the current PPP + 90 days

3. Upon completion of and compliance with the requirements specified herein, the permittee shall submit to the Department an updated Operations Plan for STA-2. Until the updated Operations Plan is submitted by the permittee and approved by the Department, the previously existing Operations Plan shall remain in effect.

VII. Other Specific Conditions

A. Specific Conditions Applicable to All Permits

1. Drawings, plans, documents or specifications submitted by the permittee, not attached hereto, but retained on file with the Department, are made a part hereof.

2. Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.) F.S., applicable portions of reports to be submitted under this permit, shall be signed and sealed by the professional(s) who prepared them.

3. This permit satisfies the Industrial Wastewater Program permitting requirements only and does not authorize operation of this facility prior to obtaining any other permits required by local, state or federal agencies.

B. Specific Conditions Related to Construction

1. Within 30 days of completion of construction, the permittee shall submit to the Department a completed "Certification of Completion of Construction" (DEP Form 62-620.910(12)) signed and sealed by the engineer of record or other engineer registered in the state of Florida.

2. Record drawings shall be prepared and made available in accordance with Rule 62-620.410(6), F.A.C., and the *Department of Environmental Protection Guide to Wastewater Permitting* within six months of placing the facilities into operation.

C. Duty to Reapply

1. The permittee shall apply for renewal of this permit at least 180 days before the expiration date of the permit using the appropriate forms listed in Rule 62-620.910, F.A.C., including submittal of the appropriate processing fee set forth in Rule 62-4.050, F.A.C.

D. Specific Conditions Related to the Pollution Prevention Plan

1. A revised PPP shall be prepared, submitted to the Department for review and approval, and implemented in accordance with the schedule set forth in Section VI.1~~2~~.

2. The STA-2 Project shall be operated in accordance with the existing PPP (Exhibit C) until such time as a revised PPP is approved by the Department. If the permitted facilities are demonstrated not to be achieving compliance with the requirements of this permit, the permittee shall submit a modified PPP for Department review and approval as appropriate.

E. Re-opener Clause

1. The permit shall be revised, or alternatively, revoked and reissued in accordance with the provisions contained in Rules 62-620.325 and 62-620.345 F.A.C., if applicable, or to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2) and 307(a)(2) of the Clean Water Act (the Act), as amended, if the effluent standards, limitations, or water quality standards so issued or approved:

   a. Contains different conditions or is otherwise more stringent than any condition in the permit; or,

   b. Controls any pollutant not addressed in this permit.

   The permit as revised or reissued under this paragraph shall contain any other requirements of the Act then applicable.

2. The permit may be reopened to adjust effluent limitations or monitoring requirements should future water quality based effluent limitation (WQBEL) determinations, water quality studies, Department approved changes in water quality standards, or other information show a need for a different limitation or monitoring requirement.

3. The Department may develop a Total Maximum Daily Load (TMDL) during the life of the permit. Once a TMDL has been established and adopted by rule, the Department may revise this permit to incorporate the final findings of the TMDL, in accordance with Section 403.067, F.S.

F. Transect Monitoring

The permittee shall conduct monthly monitoring for Total Phosphorus at a series of sites located along three transects downstream of the STA-2 discharge to characterize the effects of the STA-2 discharge on adjacent marsh areas of WCA-2. The table below identifies 14 sampling sites. Of the 14 sites, nine are located in areas currently identified as impacted (i.e., sediment TP concentration greater than 500 mg/kg) and five sites located in areas currently identified as unimpacted. Upon demonstration that an additional sampling site or removal of an existing sampling site is warranted, the permittee may request a modification to the monitoring program as appropriate. The Department and USEPA shall review and approve such requests on a case by case basis. Any alteration in the monitoring program approved by the Department and USEPA shall occur in the form of a modification to this permit.

All water quality, soil, and vegetation samples will be collected and reported for the parameters and at the frequency specified in the SFWMD's January 20, 2010 'Project WCA-2A Monitoring Plan for STA-2 and Compartment B Build-Out Downstream Monitoring Plan'.

Table: Transect Monitoring Locations

Transect 1			
SITE	**LAT_DEC**	**LONG_DEC**	**Category**
2AN.25	26 27 14.34	80 27 23.34	Impacted
2AN1	26 26 50.46	80 27 22.08	Impacted
2AN2	26 26 20.28	80 27 14.47	Impacted
2AN4	26 25 21.48	80 27 01.38	Impacted
2AN5*	26 24 49.54	80 26 52.69	Unimpacted
2AN6*	26 24 18.12	80 26 44.08	Unimpacted
2AC0.25	26 25 34.68	80 28 30.90	Impacted
2AC2	26 24 43.39	80 28 16.97	Impacted
2AC4	26 23 42.54	80 28 05.10	Unimpacted
2AC5*	26 23 9.50	80 28 0.97	Unimpacted
Transect 2			
SITE	**LAT_DEC**	**LONG_DEC**	**Category**
2AFS.25	26 20 44.77	80 31 36.59	Impacted
2AFS1	26 20 38.46	80 31 10.320	Impacted
2AFS3	26 20 15.84	80 30 01.62	Impacted
CA 29	26 19 49.28	80 28 42.13	Unimpacted

* *Station coordinates are approximate; exact coordinates to be determined*

G. **Implementation of Source Control Programs.**

1. **Implementation.** The permittee shall continue to implement source control programs in each of the contributing basins in accordance with Chapter 40E-63, F.A.C. and other applicable programs. Basins that do not presently include source control programs shall be monitored to determine if such programs are necessary in the event that phosphorus loads to the facility from these basins limit the facility or facilities progress towards achieving the WQBEL

2. **Performance.** On an annual basis, the permittee shall evaluate the performance of source controls in the contributing basins and include the findings in the annual report required in Item I.E.7. The report shall include phosphorus loads from the basins and shall describe trends and compare current loads to those determined necessary to achieve the WQBEL.

3. **Improvements.** If the WQBEL is not achieved and if the assumed inflow concentration used to develop the Amended Determination remedy is exceeded, the permittee shall submit, as part of the annual reporting requirements in Item I.E.7, a report explaining the cause(s) for the excess concentration and, if applicable, schedules and strategies for source control improvements necessary to achieve the WQBEL.

VIII. General Conditions

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit are binding and enforceable pursuant to Chapter 403, F.S. Any permit non-compliance constitutes a violation of Chapter 403, F.S., and is grounds for enforcement action, permit termination, permit revocation and reissuance, or permit revision. *[62-620.610(1), F.A.C.]*

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications or conditions of this permit constitutes grounds for revocation and enforcement action by the Department. *[62-620.610(2), F.A.C.]*

3. As provided in Subsection 403.087(7), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor authorize any infringements of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit or authorization that may be required for other aspects of the total project, which are not addressed in this permit. *[62-620.610(3), F.A.C.]*

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title. *[62-620.610(4), F.A.C.]*

5. This permit does not relieve the permittee from liability and penalties for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted source; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department. The permittee shall take all reasonable steps to minimize or prevent any discharge, reuse of reclaimed water, or residuals use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. *[62-620.610(5), F.A.C.]*

6. If the permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee shall apply for and obtain a new permit. *[62-620.610(6), F.A.C.]*

7. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control, and related appurtenances, that are installed and used by the permittee to achieve compliance with the conditions of this permit. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to maintain or achieve compliance with the conditions of the permit. *[62-620.610(7), F.A.C.]*

8. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit revision, revocation and reissuance, or termination, or a notification of planned changes or anticipated non-compliance does not stay any permit condition. *[62-620.610(8), F.A.C.]*

9. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, including an authorized representative of the Department and authorized U.S. Environmental Protection Agency (EPA) personnel, when applicable, upon presentation of credentials or other documents as may be required by law, and at reasonable times, depending upon the nature of the concern being investigated, to:

a. Enter upon the permittee's premises where a regulated facility, system, or activity is located or conducted, or where records shall be kept under the conditions of this permit;
b. Have access to and copy any records that shall be kept under the conditions of this permit;
c. Inspect the facilities, equipment, practices, or operations regulated or required under this permit; and
d. Sample or monitor any substances or parameters at any location necessary to assure compliance with this permit or Department rules.

[62-620.610(9), F.A.C.]

10. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data, and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except as such use is proscribed by Section 403.111, Florida Statutes, or Rule 62-620.302, F.A.C. Such evidence shall only be used to the extent that it is consistent with the Florida Rules of Civil Procedure and applicable evidentiary rules. *[62-620.610(10), F.A.C.]*

11. When requested by the Department, the permittee shall within a reasonable time provide any information required by law, which is needed to determine whether there is cause for revising, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also provide to the Department upon request copies of records required by this permit to be kept. If the permittee becomes aware of relevant facts that were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be promptly submitted or corrections promptly reported to the Department. *[62-620.610(11), F.A.C.]*

12. Unless specifically stated otherwise in Department rules, the permittee, in accepting this permit, agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard. *[62-620.610(12), F.A.C.]* However, this section cannot be used as a basis to extend the time to comply with the permit's total phosphorus WQBELs or to obtain a mixing zone to meet the total phosphorus water quality criterion.

13. The permittee, in accepting this permit, agrees to pay the applicable regulatory program and surveillance fee in accordance with Rule 62-4.052, F.A.C. *[62-620.610(13), F.A.C.]*

14. This permit is transferable only upon Department approval in accordance with Rule 62-620.340, F.A.C. The permittee shall be liable for any non-compliance of the permitted activity until the Department approves the transfer. *[62-620.610(14), F.A.C.]*

15. The permittee shall give the Department written notice at least 60 days before inactivation or abandonment of a wastewater facility and shall specify what steps will be taken to safeguard public health and safety during and following inactivation or abandonment. *[62-620.610(15), F.A.C.]*

16. The permittee shall apply for a revision to the Department permit in accordance with Rule 62-620.300, F.A.C., and the Department of Environmental Protection Guide to Wastewater Permitting at least 90 days before construction of any planned substantial modifications to the permitted facility is to commence or with Rule 62-620.325(2), F.A.C., for minor modifications to the permitted facility. A revised permit shall be obtained before construction begins except as provided in Rule 62-620.300, F.A.C. *[62-620.610(16), F.A.C.]*

17. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in non-compliance with permit requirements. The permittee shall be responsible for any and all damages which may result from the changes and may be subject to enforcement action by the Department for penalties or revocation of this permit. The notice shall include the following information:

    a. A description of the anticipated non-compliance;
    b. The period of the anticipated non-compliance, including dates and times; and
    c. Steps being taken to prevent future occurrence of the non-compliance. *[62-620.610(17), F.A.C.]*

18. Sampling and monitoring data shall be collected and analyzed in accordance with Rule 62-4.246, Chapters 62-160 and 62-601, F.A.C., and 40 CFR 136, as appropriate.
    a. Monitoring results shall be reported at the intervals specified elsewhere in this permit and shall be reported on a Discharge Monitoring Report (DMR), DEP Form 62-620.910(10), or as specified elsewhere in the permit.
    b. If the permittee monitors any contaminate more frequently than required by the permit, using Department approved test procedures, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
    c. Calculations for all limitations which require averaging of measurements shall use an arithmetic mean unless otherwise specified in this permit.
    d. Except as specifically provide in Rule 62-160.300, F.A.C., any laboratory test required by this permit shall be performed by a laboratory that has been certified by the Department of Health Environmental Laboratory Certification Program (DOH ELCP). Such certification shall be for the matrix, test method and analyte(s) being measured to comply with this permit. For domestic wastewater facilities, testing for parameters listed in Rule 62-160.300(4), F.A.C., shall be conducted under the direction of a certified operator.
    e. Fields activities including on-site tests and sample collection shall follow the applicable standard procedures described in DEP-SOP-001/01 adopted by reference in Chapter 62-160, F.A.C.
    f. Alternate field procedures and laboratory methods may be used where they have been approved in accordance with Rules 62-160.220 and 62-160.330, F.A.C. *[62-620.610(18), F.A.C.]*

19. Reports of compliance or non-compliance with, or any progress reports on, interim and final requirements contained in any compliance schedule detailed elsewhere in this permit shall be submitted no later than 14 days following each schedule date. *[62-620.610(19), F.A.C.]*

20. The permittee shall report to the Department's Tallahassee Office and the Southeast District Office any non-compliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain: a description of the non-compliance and its cause; the period of non-compliance including exact dates and time, and if the non-compliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the non-compliance.

    a. The following shall be included as information which must be reported within 24 hours under this condition:
        (1) Any unanticipated bypass which causes any reclaimed water or effluent to exceed any permit limitation or results in an unpermitted discharge,
        (2) Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit,
        (3) Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit for such notice, and
        (4) Any unauthorized discharge to surface or ground waters.

b. Oral reports as required by this subsection shall be provided as follows:

(1) For unauthorized releases or spills of untreated or treated wastewater reported pursuant to subparagraph a.(4) that are in excess of 1,000 gallons per incident, or where information indicates that public health or the environment will be endangered, oral reports shall be provided to the Department by calling the STATE WARNING POINT TOLL FREE NUMBER (800) 320-0519, as soon as practical, but no later than 24 hours from the time the permittee becomes aware of the discharge. The permittee, to the extent known, shall provide the following information to the State Warning Point:

(a) Name, address, and telephone number of person reporting;

(b) Name, address, and telephone number of permittee or responsible person for the discharge;

(c) Date and time of the discharge and status of discharge (ongoing or ceased);

(d) Characteristics of the wastewater spilled or released (untreated or treated, industrial or domestic wastewater);

(e) Estimated amount of the discharge;

(f) Location or address of the discharge;

(g) Source and cause of the discharge;

(h) Whether the discharge was contained on-site, and cleanup actions taken to date;

(i) Description of area affected by the discharge, including name of water body affected, if any; and

(j) Other persons or agencies contacted.

(2) Oral reports, not otherwise required to be provided pursuant to subparagraph b(1) above, shall be provided to Department's Southeast District Office within 24 hours from the time the permittee becomes aware of the circumstances.

c. If the oral report has been received within 24 hours, the non-compliance has been corrected, and the non-compliance did not endanger health or the environment, the Department's Southeast District Office shall waive the written report. *[62-620.610(20), F.A.C.]*

21. The permittee shall report all instances of non-compliance not reported under Conditions VIII. 17., 18., 19. and 20. of this permit at the time monitoring reports are submitted. This report shall contain the same information required by Condition VIII. 20. of this permit. *[62-620.610(21), F.A.C.]*

22. Bypass Provisions. The term "bypass" shall mean the intentional diversion of waste streams from any portion of the treatment works.

a. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless the permittee affirmatively demonstrates that:

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and

(3) The permittee submitted notices as required under Condition VIII.22.b. of this permit.

b. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least 10 days before the date of the bypass. The permittee shall submit notice of an unanticipated bypass within 24 hours of learning about the bypass as required in Condition VIII.20. of this permit. A notice shall include a description of the bypass and its cause; the period of the bypass, including exact dates and times; if the bypass has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.

c. The Department shall approve an anticipated bypass, after considering its adverse effect, if the permittee demonstrates that it will meet the three conditions listed in Condition VIII.22 a. (1) through (3) of this permit.

d. A permittee may allow any bypass to occur which does not cause reclaimed water or effluent limitations to be exceeded if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of Condition VIII.22.a. through c. of this permit. *[62-620.610(22), F.A.C.]*

23. Upset Provisions.
    a. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:
        (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
        (2) The permitted facility was at the time being properly operated;
        (3) The permittee submitted notice of the upset as required in Condition VIII.20. of this permit; and
        (4) The permittee complied with any remedial measures required under Condition VIII.5. of this permit.
    b. In any enforcement proceeding, the burden of proof for establishing occurrence of an upset rests with the permittee.
    c. Before an enforcement proceeding is instituted, no representation made during the Department review of a claim that non-compliance was caused by an upset is final agency action subject to judicial review. *[62-620.610(23), F.A.C.]*

DONE AND ORDERED on this 4th day of September, 2007 in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

_____
Michael W. Sole
Secretary

MS/jb/jh

FILING AND ACKNOWLEDGMENT

FILED, on this date, under Section 120.52, F.S., with the designated deputy clerk, receipt of which is hereby acknowledged.

_____
Clerk Date

PARTIES REQUESTING NOTICE:

Miccosukee Tribe of Indians of Florida, c/o Dexter Lehtinen, Esq.
Miccosukee Tribe of Indians of Florida, c/o Kelly Brooks, Esq.
United States Sugar Corporation, c/o Bubba Wade
Seminole Tribe of Indians of Florida, c/o Stephen A. Walker, Esq.
Sugar Cane Growers Cooperative, Roth Farms, Inc., and Wedgeworth Farms, Inc.,

c/o William H. Green, Esq.
Keith Saxe, Esq., U. S. Department of Justice
Michael Stevens, U.S. Department of the Interior (fax)
Jeffrey J. Ward, Sugar Cane Growers Cooperative
Philip S. Parsons, Landers & Parsons
Helen Hickman, Brown & Caldwell
Tom MacVicar, MacVicar, Frederico, & Lamb
Charles Lee, Florida Audubon Society
Samuel B. Reiner, II, Esq., Lehtinen O' Donnell, Vargas & Reiner, P.A.
Michelle W. Smith, Esq., Earl, Blank, Cavanaugh & Stotts

COPIES FURNISHED TO:

Sharon Fauver, U.S. Fish and Wildlife Service
Susan Teel, U.S. Fish and Wildlife Service
Jeff Bielling, FL. Dept. of Community Affairs
Linda McCarthy, FL. Dept. of Agriculture
Charles Oravetz, Nat. Marine Fisheries Service
Don Klima, U.S. Advisory Council on Historic Preservation
John Childe, Friends of the Everglades
David Reiner, Friends of the Everglades
Col. Paul Grosskruger, USACOE, Jacksonville
Dennis Duke, USACOE, Jacksonville
Peter Bestrukschko, USACOE, Jacksonville
Eric Bush, USACOE, Jacksonville
Richard Harvey, USEPA, West Palm Beach
Philip Mancusi-Ungaro, Esq., USEPA, Atlanta
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Mike Waldon, Loxahatchee National Wildlife Refuge
Matt Harwell, Loxahatchee National Wildlife Refuge
Mike Zimmerman, Everglades National Park
Ken Haddad, Florida Fish and Wildlife Conservation Commission
Joe Walsh, Florida Fish and Wildlife Conservation Commission, Vero Beach

ADDITIONAL COPIES FURNISHED TO:

Eric Eikenberg, Governor's Office
Carol Wehle, SFWMD, West Palm Beach
Chip Merriam, SFWMD, West Palm Beach
Sheryl Wood, SFWMD, West Palm Beach
Terrie Bates, SFWMD, West Palm Beach
Ernie Barnett, SFWMD, West Palm Beach
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Guy Germain, SFWMD, West Palm Beach
Joseph Jean-Jacques, SFWMD, West Palm Beach
Kevin Nicholas, SFWMD, West Palm Beach
Nicole Howard, SFWMD, West Palm Beach
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Tom Atkeson, FDEP, Tallahassee
William Kennedy, FDEP, West Palm Beach
Inger Hansen, FDEP, West Palm Beach

STATE OF FLORIDA
INDUSTRIAL WASTEWATER FACILITY PERMIT

PERMITTEE:

South Florida Water Management District
3301 Gun Club Road
West Palm Beach, FL 33406

PERMIT NUMBER: FL0300195
PA FILE NUMBER: FL0300195-001-IW1N
ISSUANCE DATE: January 9, 2004
EXPIRATION DATE: January 9, 2009

RESPONSIBLE AUTHORITY:

Sharon Trost
Deputy Director, Operations Control,
Engineering, and Vegetative Management
Department

FACILITY:

Stormwater Treatment Area 3/4 (STA-3/4 Project)
Palm Beach and Broward Counties

Latitude: 26° 20' 12" N Longitude: 80° 32' 10" W

This permit is issued under the provisions of Chapter 403, Florida Statutes, and applicable rules of the Florida Administrative Code and constitutes authorization to discharge to waters of the state under the National Pollutant Discharge Elimination System. The above named permittee is hereby authorized to construct and operate the facilities required by this permit ~~shown on the application and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows~~:

PROJECT DESCRIPTION:

The project is to construct, operate, and maintain Stormwater Treatment Area 3/4 (STA-3/4), the Diversion Structures, Project Inflow Pump Stations, Project Supply Canal, Interior Works, STA-3/4 Discharge Canals, STA-3/4 Seepage Collection System, and US 27 New Bridges, collectively known as the STA-3/4 Project. Together these components (also referred to as Associated Works) will be known as the STA-3/4 Project. The STA-3/4 Project is part of the Everglades Construction Project (ECP), construction, operation, and maintenance of which is required by the Everglades Forever Act (EFA) (Section 373.4592, Florida Statutes).

STA-3/4 is located immediately east of and adjacent to Holey Land Wildlife Management Area, west of the North New River Canal, and immediately north of and adjacent to WCA-3A. STA-3/4 consists of three parallel treatment paths flowing from north to south that will provide an effective treatment area of 16,544 acres. STA-3/4 is designed to treat an average of approximately 645,222 acre-feet of runoff annually. These ~~stormwaters~~ non-process wastewaters are currently being discharged untreated primarily to Water Conservation Areas 2A and 3 via the S-7 and S-8 pump stations.

The treatment cells are designed to have an operational depth of between 6 inches and 4.5 feet to encourage colonization and continued viability by wetland plans and maximize (to the greatest extent possible utilizing available technology) uptake and removal of phosphorus from the ~~stormwater~~ non-process wastewater passing through the cells. Long-term storage of the phosphorus is expected to be provided by peat accretion in STA-3/4. The treated ~~stormwater~~ non-process wastewater will then be discharged from STA 3/4 to the L-5 Borrow Canal from the G-376 A-F, G-379 A-E and G-381 A-F structures, and subsequently will be pumped to the North New River Canal by means of existing pump stations S-7, to the Miami Canal by existing pump station S-8 and to western WCA-3A by pump station G-404. Treated water from STA 3/4, once discharged into the L-5 Canal can also be released to WCA-3A via structure S-150 when water levels in the canal are higher than the downstream water level in WCA-3A.

EFFLUENT DISPOSAL:

This permit authorizes the new discharge of treated ~~stormwater~~ non-process wastewater from a 16,544 acre constructed wetland marsh system (STA-3/4 Project) to WCA-2A and WCA-3A. Treated water from STA 3/4 will be discharged into the L-5 Borrow Canal from the G-376 A-F, G-379 A-E and G-381 A-F structures, and subsequently will be pumped to the North New River Canal by means of existing pump stations S-7, to the Miami Canal by existing pump station S-8 and to western WCA-3A by pump station G -404. Treated water from STA 3/4, once discharged into the L-5 Canal can also be released to WCA-3A via structure S-150 when water levels in the canal are higher than the downstream water level in WCA-3A. Waste~~Storm~~water treated in the wetland marsh system are pumped, via the G-370 and G-372 inflow pump stations, from the North New River and Miami Canals. Presently, untreated runoff from the S-7/S-2 and S-8/S-3 basins drains into these canals to be routed to the water conservation areas. ~~Stormwater~~ Non-process wastewater runoff from these basins that is currently flowing untreated will, upon completion of the STA, be diverted into the constructed wetland for treatment utilizing natural, passive physical and biological processes for nutrient removal and water quality improvement. All of the surface waters and wetlands to be impacted by the construction of the project are Class III Waters.

Surface Water Discharge:

A new discharge to L-5 Canal (Class III Fresh waters), D-001, via the G-376 A-F structures. The G-376B outfall point of discharge (D-001) is located approximately at latitude 26° 20’ 08” N, longitude 80° 33’ 21” W.

A new discharge to L-5 Canal (Class III Fresh waters), D-002, via the G-376 A-F structures. The G-376E outfall point of discharge (D-002) is located approximately at latitude 26° 20’ 06” N, longitude 80° 34’ 42” W.

A new discharge to the L-5 canal (Class III Fresh waters), D-003, via the G-379 A-E structures. The G-379B outfall point of discharge (D-003) is located approximately at latitude 26° 20’ 07” N, longitude 80° 36’ 26” W.

A new discharge to the L-5 canal (Class III Fresh waters), D-004, via the G-379 A-E structures. The G-379D outfall point of discharge (D-004) is located approximately at latitude 26° 20’ 23” N, longitude 80° 37’ 25” W.

A new discharge to the L-5 canal (Class III Fresh waters), D-005, via the G-381 A-F structures. The G-381B structure, outfall point of discharge (D-005) is located approximately at latitude 26° 21’ 35” N, longitude 80° 38’ 55” W.

A new discharge to the L-5 canal (Class III Fresh waters), D-006, via the G-381 A-F structures. The G-381E structure, outfall point of discharge (D-006) is located approximately at latitude 26° 21’ 48” N, longitude 80° 40’ 24” W.

PERMITTEE: PERMIT NUMBER: FL0300195

South Florida Water Management District
3301 Gun Club Road
West Palm Beach, FL 33406

Issuance date: January 9, 2004
Expiration date: January 9, 2009

IN ACCORDANCE WITH: The limitations, monitoring requirements and other conditions as set forth in Part I through Part VIII on pages 3 through 195 of this permit.

I. Effluent Limitations and Monitoring Requirements

A. Surface Water Discharges

1. During the period beginning upon ~~placing the system into operation~~ the permit effective date and lasting through the expiration date of this permit, the permittee is authorized to discharge non process wastewater from Outfalls D-001, D-002, D-003, D-004, D-005, and D-006. Such discharge shall be limited and monitored by the permittee as specified below:

	Discharge Limitations				Monitoring Requirements		
Parameters (units)	**Daily Minimum**	**Daily Maximum**	~~**Annual Average**~~ **Other**		**Monitoring Frequency**	**Sample Type**	**Sample Point**
Phosphorus, Total (as P) (ppb) ~~**(MG/L)**~~	--	--	~~Report~~ Not to exceed 10 as a geometric mean (GM) annual average in more than two consecutive years*	18 as a flow-weighted mean (FWM) annual average*	Weekly	GM – based on grab samples collected when discharge occurs FWM - 7-day flow proportioned composite	EFF-1, EFF-2, EFF-3, EFF-4, EFF-5, and EFF-6
			(See I.A.5~~7~~.)				
Phosphorus, Total (as P) (ppb) ~~**(MG/L)**~~	--	--	Report **		Weekly	7-day flow proportioned composite	SWU-001 & SWU-002
Oxygen, Dissolved (DO) (MG/L)	5.0	--	--		Weekly	Meter	EFF-1, EFF-2, EFF-3, EFF-4, EFF-5, and EFF-6
Oxygen, Dissolved (DO) (MG/L)	Report	--	--		Weekly	Meter	SWU-001 & SWU-002
Flow (CFS)	--	Report	Report		Continuous	Recorder	EFF-1, EFF-2, EFF-3, EFF-4, EFF-5, and EFF-6
pH (SU)	6.0	8.5	--		Weekly	Meter	EFF-1, EFF-2, EFF-3, EFF-4, EFF-5, and EFF-6

* All EFF TP monitoring results ~~for this parameter~~ shall be reported as separate weekly values without rounding to whole numbers. The results shall also be reported as FWM annual averages that are calculated based on the FWM of the weekly values. The results shall also be reported as

GM ~~12 month moving flow-weighted~~ annual averages that are calculated based on all sample point weekly values collected when discharge occurs in the previous 12 months. All FWM and GM annual averages shall be reported to the nearest whole number (i.e., 10.5 ppb shall be reported as 11 ppb; 10.49 ppb shall be reported as 10 ppb). ~~No violations for the annual average limit will be deemed to have occurred until data have been compiled for the first 12 months after the issuance date of the permit. For the first 11 months after issuance of this permit, the monitoring results for this parameter shall be recorded on the DMR as NODI=9. Starting with the 12th month and lasting until the expiration of this permit, the monitoring results for this parameter shall be recorded on the DMR as a 12-month moving flow-weighted average.~~

** All SWU TP monitoring results shall be reported as separate weekly values without rounding to whole numbers. All results shall also be reported as monthly averages and as FWM annual averages. The monthly averages and FWM annual averages shall be calculated based on the FWM of the weekly values and shall be reported to the nearest whole number (i.e., 10.5 ppb shall be reported as 11 ppb; 10.49 ppb shall be reported as 10 ppb).

2. Effluent samples shall be taken at the monitoring site locations listed in permit condition I.A.1 and as described below:

Sample Point	Description of Monitoring Location
EFF-1	Sampling location for Outfall D-001 at the G-376B structure
EFF-2	Sampling location for Outfall D-002 at the G-376E structure
EFF-3	Sampling location for Outfall D-003 at the G-379B structure
EFF-4	Sampling location for Outfall D-004 at the G-379D structure
EFF-5	Sampling location for Outfall D-005 at the G-381B structure
EFF-6	Sampling location for Outfall D-006 at the G-381E structure
SWU-001	Upstream background sampling location at the G-370 Pump Station.
SWU-002	Upstream background sampling location at the G-372 Pump Station.

3. There shall be no discharge of floating solids or visible foam in other than trace amounts. This provision shall not be interpreted to prevent discharges of constituents normally found in or resulting from marsh wetland systems.

4. The discharge shall not cause a visible sheen on the receiving water. This provision shall not be interpreted to prevent the discharge of constituents normally found in or resulting from marsh wetland systems.

5. The discharge shall not cause phosphorus concentrations in the receiving waters to exceed the criteria in Rule 62-302.540(4)(a), F.A.C The discharge shall not cause phosphorus concentrations in the receiving waters to be altered so as to cause or contribute to an imbalance in natural populations of aquatic flora or fauna. ~~The permittee may not be able to immediately comply with this condition and therefore, this permit is issued pursuant to Subsection 403.088(2)(e) of the Florida Statutes and is consistent with the Everglades Forever Act (EFA), §373.4592, Fla. Stat. By operation of the EFA, a numeric effluent limit for phosphorus shall be derived in accordance with state policy as contained in the EFA, § 373.4592(4)(e), Fla. Stat., which provides that if the Department does not adopt by rule a revised phosphorus water quality criterion by no later than December 31, 2003, the numeric criterion for phosphorus shall be 10 parts per billion (ppb) in the Everglades Protection Area. Upon adoption of a revised criterion or the default criterion becoming effective, and upon approval by EPA, an effluent limitation shall be established for this permit, in a manner consistent with the EFA, the federal Consent Decree in USA v. SFWMD, Case No. 88-1886-CIV-HOEVELER, as may be modified, and other applicable state and federal laws and that recognizes the relationship between waters discharged to, and the resulting water quality in the~~

~~Everglades Protection Area. If an effluent limitation is established for this permit based upon the default criterion, that effluent limitation will be replaced with a new effluent limit based on the approved phosphorus numeric interpretation of the narrative phosphorus criterion once rulemaking for the phosphorus criterion and an appropriate effluent limitation is promulgated under the requirements of the EFA and the Consent Decree. The new effluent limit will be based on the numeric phosphorus criterion, the associated implementation strategy, and the relationship between waters discharged to, and the resulting water quality in, the Everglades Protection Area in a manner consistent with the EFA, the federal Consent Decree in USA v. SFWMD, Case No. 88-1886-CIV-HOEVELER, as may be modified, and other applicable state and federal laws. Persons whose substantial interests are affected by modification of this permit to include a new effluent limitation for phosphorus will be afforded a point of entry under Chapter 120, Florida~~ Statutes. Beginning at the end of April after the permit effective date and at the end of each April thereafter, the permittee shall report the FWM annual average using data it collected for the prior 12 months. Beginning at the end of April after the permit effective date and at the end of each April thereafter, the permittee shall report the GM annual average using data it collected for each of the prior 3 years.

6. In the year following any two consecutive years where the TP GM annual average exceeds 10 ppb, the permittee shall report quarterly the GM of all monthly TP values for that year. If that mean exceeds 10 ppb, the permittee shall provide a report to both FDEP and USEPA by the fifteenth of the month following the quarterly report of its evaluation of why that mean is as high as it is and the specific steps it is taking to ensure that the TP GM for that year will not exceed 10 ppb.

For the TP FWM WQBEL, the permittee shall report quarterly the average of all monthly FWMs for that year. If that average exceeds 18 ppb, the permittee shall provide a report to both FDEP and USEPA by the fifteenth of the month following the quarterly report of its evaluation of why that average is as high as it is and the specific steps it is taking to ensure that the TP FWM annual average for that year will not exceed 18 ppb.

7. If the facility does not meet the FWM WQBEL in any year, the permittee shall report the annual load of TP discharged by the STA into the Everglades that is in excess of the WQBEL load (based on 18 ppb). If the facility does not meet the GM WQBEL in any year, the permittee shall separately report the annual load of TP discharged by the STA into the Everglades that is in excess of the WQBEL load (based on 10 ppb) for that year and the previous two years.

8. TP samples taken in accordance with Section I.A.1 and submitted monthly as part of the Discharge Monitoring Report (DMR) shall be analyzed to provide an assessment in the Annual Report required in Part I.E.8 as to whether the facility is operating within or outside the operational envelope. The assessment shall be based on annual inflow volumes and phosphorus loads and shall compare flows and loads to the corresponding average values contained in the operational envelope described in Exhibit A (Goforth et al, 2007). If the annual inflow volumes or phosphorus loads exceed the corresponding average values of the operational envelope during an annual compliance period, the District shall conduct a review of potential causes and include this review in the annual report. Departmental concurrence shall be obtained prior to initiating Lake Okeechobee regulatory or water supply releases that would result in an exceedance of the maximum levels of flow or phosphorus load contained in the operational envelope.

B. Underground Injection Control Systems

1. This section is not applicable to this facility.

C. Land Application Systems

1. This section is not applicable to this facility.

D. Other Methods of Disposal or Recycling

1. There shall be no discharge of industrial wastewater from this facility to ground or surface waters, except as authorized by this permit.

E. Other Limitations and Monitoring and Reporting Requirements

1. The sample collection, analytical test methods and method detection limits (MDLs) applicable to this permit shall be in accordance with Rule 62-4.246, Chapters 62-160 and 62-601, F.A.C., and 40 CFR 136, as appropriate. The list of Department established analytical methods, and corresponding MDLs (method detection limits) and PQLs (practical quantification limits), which is titled "Florida Department of Environmental Protection Table as Required By Rule 62-4.246(4) Testing Methods for Discharges to Surface Water" dated June 21, 1996, is available from the Department on request. The MDLs and PQLs as described in this list shall constitute the minimum acceptable MDL/PQL values and the Department shall not accept results for which the laboratory's MDLs or PQLs are greater than those described above unless alternate MDLs and/or PQLs have been specifically approved by the Department for this permit. Any method included in the list may be used for reporting as long as it meets the following requirements:

   a. The laboratory's reported MDL and PQL values for the particular method must be equal or less than the corresponding method values specified in the Department's approved MDL and PQL list;

   b. The laboratory reported PQL for the specific parameter is less than or equal to the permit limit or the applicable water quality criteria~~, if any,~~ stated in Chapter 62-302, F.A.C. Parameters that are listed as "report only" in the permit shall use methods that provide a PQL, which is equal to or less than the applicable water quality criteria stated in 62-302 FAC; and

   c. If the PQLs for all methods available in the approved list are above the stated permit limit or applicable water quality criteria for that parameter, then the method with the lowest stated PQL shall be used with a U or I qualifier code, as applicable.

   Where the analytical results are below method detection or practical quantification limits, the permittee shall report the actual laboratory MDL and/or PQL values for the analyses that were performed following the instructions on the applicable discharge monitoring report. Approval of alternate laboratory MDLs or PQLs are not necessary if the laboratory reported MDLs and PQLs are less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. However, where necessary, the permittee may request approval for alternative methods or for alternative MDLs and PQLs for any approved analytical method, in accordance with the criteria of Rules 62-160.520 and 62-160.530, F.A.C.

2. Monitoring requirements under this permit are effective on the first day of the second month following permit issuance. Until such time, the permittee shall continue to monitor and report in accordance with previously effective permit requirements, if any. During the period of operation authorized by this permit, the permittee shall complete and submit to the Department on a monthly basis Discharge Monitoring Reports (DMRs), Form 62-620.910(10), as attached to this permit. The permittee shall make copies of the attached DMR form(s) and shall submit the completed DMR form(s) to the Department by the twenty-eighth (28^{th}) of the third month following the month of sampling at the address specified below:

   Florida Department of Environmental Protection
   Wastewater Compliance Evaluation Section, Mail Station 3551
   Twin Towers Office Building
   2600 Blair Stone Road
   Tallahassee, Florida 32399-2400

If no discharge occurs during the reporting period, sampling requirements of this permit do not apply. The DMR form(s) shall be submitted as specified above with the statement "No Discharge" written thereon. If, during the term of this permit, the facility ceases operation, the Department shall be notified immediately upon cessation of operation. Such notification shall be in writing.

3. Unless specified otherwise in this permit, all reports and notifications required by this permit, including twenty-four hour notifications, shall be submitted to or reported to the Southeast District Office of the Department and to the Department's Division of Water Resource Management, Water Quality Standards and Special Projects Program at the address specified below:

Florida Department of Environmental Protection
Southeast District Office
100 North Congress Avenue
West Palm Beach, FL 33401

Phone Number- (561) 681-6600
Fax Number * - (561) 681-6755

AND

Florida Department of Environmental Protection
Division of Water Resource Management
Water Quality Standards and Special Projects Program
2600 Blairstone Road, MS 3560
Tallahassee, FL 32399-2400

Phone Number- (850) 425-8417
Fax Number * - (850) 412-0653

(*All FAX copies shall be followed by original copies.)

4. All reports and other information shall be signed in accordance with requirements of Rule 62-620.305, F.A.C. *[62-620.305, 10-23-00]*.

5. The permittee shall provide safe access points for obtaining representative samples which are required by this permit.

6. If there is no discharge from the facility on a day scheduled for sampling, the sample shall be collected on the day of the next discharge.

7. Upon demonstration that a specific parameter(s) is consistently shown to be undetected in the effluent, the permittee may request a modification to the monitoring program as appropriate. A minimum of one year of data, for those parameters being sampled quarterly or more frequently, will be required prior to the Department approving any modification to the monitoring program. The Department may approve a reduction of the monitoring frequency or waive the monitoring requirement for parameters which consistently shown to be undetected in the effluent.

8. The permittee shall submit an Annual Report (the South Florida Environmental Report) demonstrating compliance with the terms of this permit and according to the schedule as set forth in Section VI.2. The Annual Report shall provide details regarding the status of implementation of the requirements of this permit. Specifically, the report shall include details regarding:

a. Implementation of the WQBEL and activities required by this permit and affecting flows and loads to STA-3/4;

b. source control implementation and optimization;

c. STA design modifications affecting implementation of the WQBEL and activities required by this permit;

d. improvements, enhancements, and strategies that have been initiated and/or completed within the previous year;

e. any delays in the implementation of the requirements of this permit, the duration of the delays, the reason(s) for the delays, and the expected timeframe for their resolution;

f. the implementation status of STA Recovery Plans;

g. whether revisions and/or additions to the requirements of this permit are recommended; ~~and~~

h. ~~implementation of remedial measures in the event of non-compliance with permit conditions~~ For any noncompliance with permit conditions, an evaluation of the cause(s) and implementation of remedial measures; and

i. whether the facility was operated within or outside of the operational envelope.

9. Bypass, as described in the Fact Sheet, may occur during the operation of STA-3/4. The District shall notify the Department within 48 hours subsequent to any unanticipated bypasses of flow through the G-371 and G-373 Diversion Structures and the District shall notify the Department as soon as practicable in advance of anticipated bypasses, with the exception of routine maintenance activities. The submitted notification shall include a description of the circumstances related to the bypass and a projection of the anticipated duration of the bypass. All bypasses occurring through the G-371 and G-373 Diversion Structures shall be monitored for the parameters listed in the table below. As soon as practicable after cessation of all bypasses, the District shall submit a summary of the data collected from the table below, and identify the duration of the bypasses. Bypasses shall be limited to the shortest time possible and are not allowed solely to achieve the WQBEL. Bypasses are subject to and must meet the requirements of Items VIII.20, 21, and 22 of this permit.

Table 2. Required Monitoring for All Bypasses

Parameter	Units	Sample Type	Frequency
Total Phosphorus at the G-371 and G-373 structures	mg/l	Grab	Weekly if flowing
Flow G-371 and/or G-373 structures	CFS	Calculated	Daily Average

10. The permittee shall report with the monthly DMR if operation of facilities is impacted by or constrained due to requirements under the Endangered Species Act or Migratory Bird Treaty Act. The report should include the species involved, an estimate of the number of individuals involved, actions taken to avoid deleterious impacts on the endangered species, the affect those actions had on compliance with any condition of this permit, and an estimate of when facility operation will no longer be impacted or constrained.

II. Industrial Sludge Management Requirements

1. This section not applicable to this facility.

III. Ground Water Monitoring Requirements

1. This section is not applicable to this facility.

IV. Other Land Application Requirements

1. This section is not applicable to this facility.

V. Operation and Maintenance Requirements

A. Operation of Treatment and Disposal Facilities

1. The permittee shall ensure that the operation of this facility is as described in the application and supporting documents.

2. The operation of the pollution control facilities described in this permit shall be under the supervision of a person who is qualified by formal training and/or practical experience in the field of water pollution control.

3. Activities such as ongoing maintenance may have short-term adverse impacts on STA performance. In addition, major events may compromise the structural integrity or performance of the STA or section(s) of the STA. Such activities or events shall be subject to the planned changes, bypass, and/or upset provisions set forth in Section VIII Paragraphs 17, 22 and 23.

B. Record keeping Requirements:

1. The permittee shall maintain the following records at the South Florida Water Management District headquarters office at the address specified above and make them available for inspection:

   a. Records of all compliance monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, including, if applicable, a copy of the laboratory certification showing the certification number of the laboratory, for at least three years from the date the sample or measurement was taken;

   b. Copies of all reports, other than those required in items a. and f. of this section, required by the permit for at least three years from the date the report was prepared, unless otherwise specified by Department rule;

   c. Records of all data, including reports and documents used to complete the application for the permit for at least three years from the date the application was filed, unless otherwise specified by Department rule;

   d. A copy of the current permit;

e. A copy of any required record drawings;

f. Copies of the logs and schedules showing plant operations and equipment maintenance for three years from the date on the logs or schedule.

2. Records of all compliance monitoring information, including all calibration and maintenance records for continuous monitoring instrumentation, including, if applicable, a copy of the laboratory certification showing the certification number of the laboratory, for at least three years from the date the sample or measurement was taken;

3. Copies of all reports, other than those required in items 1. and 6. of this section, required by the permit for at least three years from the date the report was prepared, unless otherwise specified by Department rule;

4. Records of all data, including reports and documents used to complete the application for the permit for at least three years from the date the application was filed, unless otherwise specified by Department rule;

5. A copy of the current permit;

6. A copy of any required record drawings;

7. Copies of the logs and schedules showing project operations and maintenance for three years from the date on the logs or schedule.

VI. Schedules

1. ~~An Operations Plan shall be developed and submitted by the permittee to the Department no later than six months after issuance of the permit.~~ Upon completion of and compliance with the requirements specified herein, the permittee shall submit to the Department an updated Operations Plan for STA-3/4. Until the updated Operations Plan is submitted by the permittee and approved by the Department, the previously existing Operations Plan shall remain in effect.

2. The Annual Report shall be received by the Department no later than March 1st of each year following the effective date of the permit. Each Annual Report shall present the information for the previous water year, from May 1st to April 30th. Upon approval by the Department, the District may modify the Annual Report submission date to coincide with multiple reporting requirements and time periods needed for data acquisition and analysis.

3. A revised Pollution Prevention Plan (PPP) shall be prepared and implemented in accordance with the following schedule:

	Action Item	Scheduled Completion Date
1	Develop and Implement revised Pollution Prevention Plan	As needed upon completion of and compliance with the requirements of this permit
2.	Submittal of revised Pollution Prevention Plan if additional enhancements are implemented	Changes that warrant modifications to the current PPP + 90 days

VII. Other Specific Conditions

A. Specific Conditions Applicable to All Permits

1. The following documents (design documents), not attached hereto, but retained on file with the Department, are made a part hereof:

   a. 1994 Conceptual Design Document for the Everglades Protection Project;

   b. The April 1996, General Design Memorandum for STA-3/4;

   c. The June 2000, Plan Formulation Document;

   d. The August 2000, Plan Implementation Document; and,

   e. The October 2000, Design Criteria Document.

2. Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.) Florida Statutes, applicable portions of reports to be submitted under this permit, shall be signed and sealed by the professional(s) who prepared them.

3. This permit satisfies Wastewater program permitting requirements only. The Department and the permittee acknowledge the issuance of other permits related to the STA-3/4 Project. Additional related permits include FDEP Permit No. 0178018, which authorizes temporary dewatering activities for the construction of facilities within the STA-3/4 and STA-2 Hydropattern Restoration Projects, FDEP Permit No. 0192895 (EFA permit), and the U.S. Army Corps of Engineers 404 Permit No. 199404532. This permit is supplemental to these permits and does not supersede any of these permits.

B. Specific Conditions Related to Construction

1. Within thirty days of completion of construction contract, the permittee shall submit to the Department a completed “Certification of Completion of Construction” (DEP Form 62-620.910(12)) signed and sealed by the engineer of record or other engineer registered in the state of Florida. For purposes of this permit, completion of construction shall mean completion and closure of the construction contract for this project.

2. Record drawings shall be prepared and made available in accordance with Rule 62-620.410(6), F.A.C., and the Department of Environmental Protection Guide to Wastewater Permitting within six months of placing the facilities into flow-through operation.

C. Duty to Reapply

1. The permittee shall submit an application to renew this permit at least 180 days before the expiration date of this permit.

2. The permittee shall apply for renewal of this permit on the appropriate form listed in Rule 62-620.910, F.A.C., and in the manner established in Chapter 62-620, F.A.C., and the Department of Environmental Protection Guide to Wastewater Permitting including submittal of the appropriate processing fee set forth in Rule 62-4.050, F.A.C.

3. An application filed in accordance with subsections 1. and 2. of this part shall be considered timely and sufficient. When an application for renewal of a permit is timely and sufficient, the existing permit shall not expire until the Department has taken final action on the application for renewal or until the last day for seeking judicial review of the agency order or a later date fixed by order of the reviewing court.

4. The late submittal of a renewal application shall be considered timely and sufficient for the purpose of extending the effectiveness of the expiring permit only if it is submitted and made complete before the expiration date.

D. Specific Conditions Related to Pollution Prevention Plan

1. ~~The document entitled "Stormwater Treatment Area 3/4 Pollution Prevention Plan" dated May 13, 2002, is hereby incorporated by reference and made a part of this permit as Exhibit A.~~ A revised Pollution Prevention Plan (PPP shall be prepared, submitted to the Department for review and approval, and implemented in accordance with the schedule set forth in Section VI.3.

2. STA-3/4 shall be operated in accordance with the existing PPP until such time as a revised PPP is approved by the Department. If the permitted facilities are demonstrated not to be achieving compliance with the requirements of this permit, the permittee shall submit a modified PPP for Department review and approval as appropriate.

~~1.~~

~~2. The STA-3/4 Project shall be operated in accordance with the Pollution Prevention Plan (PPP).~~

~~If the permitted facilities are demonstrated to be not achieving compliance with the requirements of this permit, the permittee shall modify the PPP or the Operations Plan as appropriate.~~

E. Reopener Clause

~~This permit currently contains the narrative water quality standard for nutrients. In accordance with Subsection 373.4592(4)(e) of the Everglades Forever Act (EFA), the Florida Department of Environmental Protection filed a notice of rulemaking in the Florida Administrative Weekly to establish a phosphorus criterion in the Everglades Protection Area. By operation of the EFA, if the Department does not adopt by rule a revised phosphorus water quality criterion by December 31, 2003, the numeric criterion for phosphorus shall be the default of 10 ppb in the Everglades Protection Area. In either case, the numeric phosphorus criterion and implementation methodology must be submitted to EPA for approval. The USEPA shall review the water quality data that the state develops pursuant to the EFA, Subsection 373.4592(4)(e)1., Fla.Stat., and the interpreted numeric phosphorus criterion approved by the Florida Environmental Regulation Commission in accordance with the EFA, Subsection 373.4592(4)(e)2., Fla.Stat., and shall approve the criterion provided it adequately protects the designated uses of the Everglades Protection Area, and complies with the Clean Water Act and implementing regulations. The same standard of review will apply to this criterion that applies to all other proposed state water quality standards.~~

Within 90 days of approval by EPA of the adopted numeric criterion or 10 ppb default criterion, a new effluent limitation shall be established for this permit. This new effluent limitation, which becomes effective on December 31, 2006, will be based on the numeric phosphorus criterion and associated implementation strategy, in a manner consistent with the EFA, the Federal Consent Decree in USA v. SFWMD, Case No. 88-1886-CIV-HOEVELER, as may be modified, and other applicable state and federal laws and that recognizes the relationship between waters discharged to, and the resulting water quality in the Everglades Protection Area. Persons whose substantial interests are affected by modification of this permit to include a new effluent limitation for phosphorus will be afforded a point of entry under Chapter 120, Florida Statutes.

Pursuant to Subsection (10)(a) of the EFA, the District shall submit to the Department a permit modification to incorporate proposed changes to the Everglades Construction Project and this permit by December 31, 2003. These changes shall be designed to achieve compliance with the phosphorus criterion and the other state water quality standards by December 31, 2006.

~~In the event that the state of Florida revises the dissolved oxygen criterion, or establishes a site specific alternative criterion (SSAC) or other moderating provision for dissolved oxygen in the Everglades Protection Area, the numeric effluent limitation for dissolved oxygen contained in this permit shall be revised.~~

F. Reopener Clause

1. The permit shall be revised, or alternatively, revoked and reissued in accordance with the provisions contained in Rules 62-620.325 and 62-620.345, F.A.C., if applicable, or to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act (the Act), as amended, if the effluent standards, limitations, or water quality standards so issued or approved:

   a. Contains different conditions or is otherwise more stringent than any condition in the permit; or,

   b. Controls any pollutant not addressed in this permit.

   The permit as revised or reissued under this paragraph shall contain any other requirements of the Act then applicable.

2. The permit may be reopened to adjust effluent limitations or monitoring requirements should future water quality based effluent limitation (WQBEL) determinations, water quality studies, Department approved changes in water quality standards, or other information show a need for a different limitation or monitoring requirement.

3. The Department may develop a Total Maximum Daily Load (TMDL) during the life of the permit. Once a TMDL has been established and adopted by rule, the Department shall revise this permit to incorporate the final findings of the TMDL, in accordance with Section 403.067, F.S.

G. Hydropattern Restoration

This permit does not authorize the hydropattern restoration of WCA-3A. Once the performance of STA-3/4 ~~has been optimized and long-term water quality solutions for S-7/S-2 and S-8/S-3 basins have been implemented~~ attains the WQBEL, it is anticipated that discharges from STA-3/4 ~~will be diverted directly into WCA-3A~~ could be directed southward directly across the L-5 canal and levee into WCA-3A to assist in hydropattern restoration in accordance with Subsection (4)(b) of the EFA. Future WCA-3A hydropattern restoration plans will be coordinated with CERP implementation. Implementation of hydropattern restoration in WCA-3A associated with STA-3/4 will require review and approval by the Department and USEPA in the form of a modification to this permit. If hydropattern restoration proceeds, monitoring will be required along a transect in WCA3A downstream of the STA 3/4 discharge. The purpose of this monitoring will be to document the effect of the discharge on the downstream EPA marsh and changes in downstream water quality and cumulative phosphorus impacts. Transect monitoring will begin one year prior to the commencement of hydropatterm restoration discharges in order to document baseline conditions.

~~The modification will require downstream monitoring which must be implemented sufficiently in advance to establish a scientifically defensible baseline and may include transect monitoring, if appropriate. The monitoring plan should be submitted to the Department for review and approval prior to the commencement of monitoring.~~

H. **Implementation of Source Control Programs.**

1. **Implementation.** The permittee shall continue to implement source control programs in each of the contributing basins in accordance with Chapter 40E-63, F.A.C. and other applicable programs. Basins that do not presently include source control programs shall be monitored to determine if such programs are necessary in the event that phosphorus loads to the facility from these basins limit the facility or facilities progress towards achieving the WQBEL

2. **Performance.** On an annual basis, the permittee shall evaluate the performance of source controls in the contributing basins and include the findings in the annual report required in Item I.E.8. The report shall include phosphorus loads from the basins and shall describe trends and compare current loads to those determined necessary to achieve the WQBEL.

3. **Improvements.** If the WQBEL is not achieved and if the assumed inflow concentration used to develop the Amended Determination remedy is exceeded, the permittee shall submit, as part of the annual reporting requirements in Item I.E.8, a report explaining the cause(s) for the excess concentration and, if applicable, schedules and strategies for source control improvements necessary to achieve the WQBEL.

VIII. General Conditions

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit are binding and enforceable pursuant to Chapter 403, Florida Statutes. Any permit noncompliance constitutes a violation of Chapter 403, Florida Statutes, and is grounds for enforcement action, permit termination, permit revocation and reissuance, or permit revision. *[62-620.610(1), F.A.C]*

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviations from the approved drawings, exhibits, specifications or conditions of this permit constitute grounds for revocation and enforcement action by the Department. *[62-620.610(2), F.A.C.]*

3. As provided in Subsection 403.087(6), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor authorize any infringements of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit or authorization that may be required for other aspects of the total project which are not addressed in this permit. *[62-620.610(3), F.A.C.]*

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title. *[62-620.610(4), F.A.C.]*

5. This permit does not relieve the permittee from liability and penalties for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted source; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department. The permittee shall take all reasonable steps to minimize or prevent any discharge, reuse of reclaimed water, or residuals use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. *[62-620.610(5), F.A.C.]*

6. If the permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee shall apply for and obtain a new permit. *[62-620.610(6), F.A.C.]*

7. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control, and related appurtenances, that are installed and used by the permittee to achieve compliance with the conditions of this permit. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to maintain or achieve compliance with the conditions of the permit. *[62-620.610(7), F.A.C.]*

8. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit revision, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. *[62-620.610(8), F.A.C.]*

9. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, including an authorized representative of the Department and authorized EPA personnel, when applicable, upon presentation of credentials or other documents as may be required by law, and at reasonable times, depending upon the nature of the concern being investigated, to

    a. Enter upon the permittee's premises where a regulated facility, system, or activity is located or conducted, or where records shall be kept under the conditions of this permit;

    b. Have access to and copy any records that shall be kept under the conditions of this permit;

    c. Inspect the facilities, equipment, practices, or operations regulated or required under this permit; and

    d. Sample or monitor any substances or parameters at any location necessary to assure compliance with this permit or Department rules.

    [62-620.610(9), F.A.C.]

10. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data, and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except as such use is proscribed by Section 403.111, Florida Statutes, or Rule 62-620.302, F.A.C. Such evidence shall only be used to the extent that it is consistent with the Florida Rules of Civil Procedure and applicable evidentiary rules. [62-*620.610(10), F.A.C.]*

11. When requested by the Department, the permittee shall within a reasonable time provide any information required by law which is needed to determine whether there is cause for revising, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also provide to the Department upon request copies of records required by this permit to be kept. If the permittee becomes aware of relevant facts that were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be promptly submitted or corrections promptly reported to the Department. *[62-620.610(11), F.A.C.]*

12. Unless specifically stated otherwise in Department rules, the permittee, in accepting this permit, agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing

zone for the new or amended standard. *[62-620.610(12), F.A.C.]* However, this section cannot be used as a basis to extend the time to comply with the permit's total phosphorus WQBELs or to obtain a mixing zone to meet the total phosphorus water quality criterion.

13. The permittee, in accepting this permit, agrees to pay the applicable regulatory program and surveillance fee in accordance with Rule 62-4.052, F.A.C. *[62-620.610(13), F.A.C.]*

14. This permit is transferable only upon Department approval in accordance with Rule 62-620.340, F.A.C. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department. *[62-620.610(14), F.A.C.]*

15. The permittee shall give the Department written notice at least 60 days before inactivation or abandonment of a wastewater facility and shall specify what steps will be taken to safeguard public health and safety during and following inactivation or abandonment. *[62-620.610(15), F.A.C.]*

16. The permittee shall apply for a revision to the Department permit in accordance with Rules 62-620.300 and the Department of Environmental Protection Guide to Wastewater Permitting at least 90 days before construction of any planned substantial modifications to the permitted facility is to commence or with Rule 62-620.325(2) for minor modifications to the permitted facility. A revised permit shall be obtained before construction begins except as provided in Rule 62-620.300, F.A.C. *[62-620.610(16), F.A.C.]*

17. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The permittee shall be responsible for any and all damages which may result from the changes and may be subject to enforcement action by the Department for penalties or revocation of this permit. The notice shall include the following information:

    a. A description of the anticipated noncompliance;

    b. The period of the anticipated noncompliance, including dates and times; and

    c. Steps being taken to prevent future occurrence of the noncompliance.

    [62-620.610(17), F.A.C.]

18. Sampling and monitoring data shall be collected and analyzed in accordance with Rule 62-4.246, Chapter 62-160 and 62-601, F.A.C. and 40CFR 136, as appropriate.

    a. Monitoring results shall be reported at the intervals specified elsewhere in this permit and shall be reported on a Discharge Monitoring Report (DMR), DEP Form 62-620.910(10).

    b. If the permittee monitors any contaminant more frequently than required by the permit, using Department approved test procedures, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

    c. Calculations for all limitations, which require averaging of measurements shall use an arithmetic mean unless otherwise specified in this permit.

    d. Any laboratory test required by this permit shall be performed by a laboratory that has been certified by the Department of Health (DOH) under Chapter 64E-1, F.A.C., where such certification is required by Rule 62-160.300, F.A.C. The laboratory must be certified for any specific method and analyte combination that is used to comply with this permit. For domestic wastewater facilities, the on-site test procedures specified in

Rule 62-160.300(4), F.A.C., shall be performed by a laboratory certified test for those parameters or under the direction of an operator certified under Chapter 62-602, F.A.C.

e. Field activities including on-site tests and sample collection, whether performed by a laboratory or a certified operator, must follow the applicable procedures described in DEP-SOP-001/01 (January 2002). Alternate field procedures and laboratory methods may be used where they have been approved according to the requirements of Rules 62-160.220, 62-160.330, and 62-160.600, F.A.C.

19. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule detailed elsewhere in this permit shall be submitted no later than 14 days following each schedule date. *[62-620.610(19), F.A.C.]*

20. The permittee shall report to the Department any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and time, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

a. The following shall be included as information which must be reported within 24 hours under this condition:

1. Any unanticipated bypass which causes any reclaimed water or effluent to exceed any permit limitation or results in an unpermitted discharge,

2. Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit,

3. Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit for such notice, and

4. Any unauthorized discharge to surface or ground waters.

b. Oral reports as required by this subsection shall be provided as follows:

1. For unauthorized releases or spills of untreated or treated wastewater reported pursuant to subparagraph a.4 that are in excess of 1,000 gallons per incident, or where information indicates that public health or the environment will be endangered, oral reports shall be provided to the Department by calling the STATE WARNING POINT TOLL FREE NUMBER (800) 320-0519, as soon as practical, but no later than 24 hours from the time the permittee becomes aware of the discharge. The permittee, to the extent known, shall provide the following information to the State Warning Point:

(a) Name, address, and telephone number of person reporting;

(b) Name, address, and telephone number of permittee or responsible person for the discharge;

(c) Date and time of the discharge and status of discharge (ongoing or ceased);

(d) Characteristics of the wastewater spilled or released (untreated or treated, industrial or domestic wastewater);

(e) Estimated amount of the discharge;

(f) Location or address of the discharge;

(g) Source and cause of the discharge;

(h) Whether the discharge was contained on-site, and cleanup actions taken to date;

(i) Description of area affected by the discharge, including name of water body affected, if any; and

(j) Other persons or agencies contacted.

2. Oral reports, not otherwise required to be provided pursuant to subparagraph b.1 above, shall be provided to Department within 24 hours from the time the permittee becomes aware of the discharge.

c. If the oral report has been received within 24 hours, the noncompliance has been corrected, and the noncompliance did not endanger health or the environment, the Department shall waive the written report.

[62-620.610(20), F.A.C.]

21. The permittee shall report all instances of noncompliance not reported under Conditions VIII.18 and 19 of this permit at the time monitoring reports are submitted. This report shall contain the same information required by Condition VIII.20 of this permit. *[62-620.610(21), F.A.C.]*

22. Bypass Provisions:

a. The term "bypass" shall mean the intentional diversion of waste streams from any portion of the treatment works. ~~The term "bypass" does not include waters diverted around the entire STA-3/4 project via the G-371 and G-373 structures, to prevent damage to the facility (usually caused by flooding) or for water resource needs such as the prevention of adverse impacts to public and/or environmental health as described in Condition b. below.~~

b. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless the permittee affirmatively demonstrates that:

1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and

3. The permittee submitted notices as required under Condition VIII.22.b of this permit.

c. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least 10 days before the date of the bypass. The permittee shall submit notice of an unanticipated bypass within 24 hours of learning about the bypass as required in Condition VIII.20 of this permit. A notice shall include a description of the bypass and its cause; the period of the bypass, including exact dates and times; if the bypass has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.

c. The Department shall approve an anticipated bypass, after considering its adverse effect, if the permittee demonstrates that it will meet the three conditions listed in Condition VIII.22 a.(1) through (3) of this permit.

d. A permittee may allow any bypass to occur which does not cause reclaimed water or effluent limitations to be exceeded if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of Condition VIII.22.a through c. of this permit.

[62-620.610(22), F.A.C.]

23. Upset Provisions:

a. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that the permittee can identify the cause(s) of the upset;

2. The permitted facility was at the time being properly operated;

3. The permittee submitted notice of the upset as required in Condition VIII.20 of this permit; and

4. The permittee complied with any remedial measures required under Condition VIII.5 of this permit.

b. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

c. Before an enforcement proceeding is instituted, no representation made during the Department review of a claim that noncompliance was caused by an upset is final agency action subject to judicial review.

[62-620.610(23), F.A.C.]

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

_____
Jerry Brooks
Deputy Division Director
Water Resource Management

DATE: _____

STATE OF FLORIDA
INDUSTRIAL WASTEWATER FACILITY PERMIT

PERMITTEE:
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, FL 33406

PERMIT NUMBER: FL0177954
PA FILE NO.: FL0177954-003-IW7A
ISSUANCE DATE: September 4, 2007
EXPIRATION DATE: September 4, 2012

RESPONSIBLE AUTHORITY:
Ms. Carol Ann Wehle
Executive Director

FACILITY:
Stormwater Treatment Area 5
(STA-5)
Hendry and Palm Beach Counties

Latitude: 26°26'4.00"N Longitude: 80°56'50.03"W

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.) and applicable rules of the Florida Administrative Code (F.A.C.) and constitutes authorization to discharge to waters of the State under the National Pollutant Discharge Elimination System (NPDES). ~~This permit is accompanied by an Administrative Order (Order), AO 011 EV, pursuant to Subsections 403.088 (2)(e) and (f), F.S. Compliance with AO 011 EV is a specific requirement of this permit.~~ The above named permittee is hereby authorized to construct and operate the facilities required by this permit ~~shown on the application and other documents attached hereto or on file with the Department and made a part hereof~~.

PROJECT DESCRIPTION:

This permit authorizes the continued construction, operation and maintenance of Stormwater Treatment Area (STA) 5. Initial construction and operation of this facility was previously authorized and completed under Florida Department of Environmental Protection (Department) National Pollution Discharge Elimination Program (NPDES) Permit No.: FL0177954-001-IW7A and Everglades Forever Act (EFA) Permit No. 0131842-001. STA-5 is a part of the Everglades Construction Project (ECP), construction, operation, and maintenance of which is required by the EFA, Section 373.4592, F.S. The STA-5 project (Figure 1) consists of the STA-5 Inflow Structures, STA-5 Interior Treatment Works, STA-5 Outflow Structures, STA-5 Discharge Canal and Associated Bridge, STA-5 Seepage Collection and Return Systems, STA-5 Water Supply Pump Stations, G-406 Structure, G-409 Pump Station, G-357 Structure, G-404 Pump Station, Southern L-4 Levee Gap, Deer Fence Canal Bridge and Deer Fence Road, Rotenberger Hydropattern Restoration, and STA-5 Outlet Canal. In addition to existing operation and maintenance activities, this permit also authorizes construction, operation, and maintenance of additional ~~features approved by the Department under the Everglades Protection Area Tributary Basins Long-Term Plan for Achieving Water Quality Goals (Long-Term Plan), as defined in the Everglades Forever Act (EFA) Section 373.4592, F.S. The Long-Term Plan includes structural, vegetative and operational enhancements for STA-5 to improve hydraulic distribution and phosphorus removal performance~~ requirements specified herein. STA-5 is a Stormwater Management System (SMS) as defined in Subsection 373.403(10), F.S., and therefore is not subject to state surface water quality standards within STA-5 pursuant to Section 373.4142, F.S.

EFFLUENT DISPOSAL:

This permit authorizes the discharge of treated ~~stormwater~~ non-process wastewater from a 6,670 acre constructed wetland system (STA-5) to either the Miami Canal, via the STA-5 Outlet Canal, or to the

Rotenberger Wildlife Management Area (WMA), via the G-410 Pump Station. Treated water from STA-5 will be discharged into the STA-5 Discharge Canal from the G-344A-F Outflow Structures. Once treated water has reached the Discharge Canal, it is directed either to the Miami Canal (via the STA-5 Outlet Canal) or to the Rotenberger Wildlife Management Area (WMA) via the G-410 Pump Station. The G-410 pump station allows a portion of the STA-5 discharges to be routed to the Rotenberger WMA and ultimately to the Miami Canal via Rotenberger discharge structures G-402A-D. Discharges to the Rotenberger WMA are for the purpose of hydrologic restoration of the approximate 29,000-acre WMA. The majority of the STA-5 discharges are directed to the Miami Canal via the STA-5 Outlet Canal. Wetlands and surface waters located within the receiving water bodies (Rotenberger WMA and the Miami Canal) are Class III waters; and the Rotenberger WMA is an Outstanding Florida Water, pursuant to Rule 62-302.700(9)(f)48, F.A.C.

Surface Water Discharge:

An existing discharge to the Miami Canal (Class III Fresh waters), the monitoring group D-001(G-344A) is located approximately at latitude 26° 27’ 30” N, longitude 80° 53’ 01” W.

An existing discharge to the Miami Canal (Class III Fresh waters), the monitoring group D-002(G-344B) is located approximately at latitude 26° 27’ 04” N, longitude 80° 53’ 01” W.

An existing discharge to the Miami Canal (Class III Fresh waters), the monitoring group D-003 (G-344C) is located approximately at latitude 26° 26’ 34” N, longitude 80° 53’ 01” W.

An existing discharge to the Miami Canal (Class III Fresh waters), the monitoring group D-004 (G-344D) is located approximately at latitude 26° 26’ 11” N, longitude 80° 53’ 01” W.

An existing discharge to the Miami Canal (Class III Fresh waters), the monitoring group D-005 (G-344E) is located approximately at latitude 26° 25’ 46” N, longitude 80° 53’ 01” W.

An existing discharge to the Miami Canal (Class III Fresh waters), the monitoring group D-006 (G-344F) is located approximately at latitude 26° 25’ 20” N, longitude 80° 53’ 01” W.

IN ACCORDANCE WITH:

The limitations, monitoring requirements and other conditions as set forth in Part I through Part VIII on pages 3 through 17 of this permit.

I. Effluent Limitations and Monitoring Requirements

A. Surface Water Discharges

1. During the period beginning on the ~~issuance~~ permit effective date and lasting through the expiration date of this permit, the permittee is authorized to discharge ~~stormwater~~ non-process wastewater from Outfall D-001, D-002, D-003, D-004, D-005, and D-006. Such discharge shall be limited and monitored by the permittee as specified below.

Parameters (units)	Daily Minimum	Daily Maximum	~~Annual Average~~ Other			Discharge Limitations	Monitoring Requirements
Phosphorus, Total (as P) (ppb)	--	--	Not to exceed 10 as a geometric mean (GM) annual average in more than two consecutive years*	18 as a flow-weighted mean (FWM) annual average*	Weekly	GM – based on grab samples collected when discharge occurs FWM - 7-day flow proportioned composite	EFF-1 through EFF-6
			See I.A.5				
Phosphorus, Total (as P) (ppb)	--	--	Report** ~~See I.A.6~~		Weekly	7-day flow proportioned composite	INT-1 through INT-6
Oxygen, Dissolved (DO), (mg/L)	See I.A.7				Weekly	Grab (Meter)	EFF-1 through EFF-6
Oxygen, Dissolved (DO), (mg/L)	Report				Weekly	Grab (Meter)	INT-1 through INT-6
Flow (CFS)	--	Report	Report See I.A.6		Continuous	Recorder	EFF-1 through EFF-6. INT-1 through INT-6
pH (SU)	6.0	8.5	--		Weekly	Grab (Meter)	EFF-1 through EFF-6

*~~1~~ All EFF TP monitoring results ~~for this parameter~~ shall be reported as separate weekly values without rounding to whole numbers. The results shall also be reported as FWM annual averages that are calculated based on the FWM of the weekly values. The results shall also be reported as GM ~~monthly average and as an~~ annual averages that are calculated based on all sample point weekly values collected when discharge occurs in the previous 12 months. All FWM and GM annual averages shall be reported to the nearest whole number (i.e., 10.5 ppb shall be reported as 11 ppb; 10.49 ppb shall be reported as 10 ppb). ~~The "monthly average" is a flow-weighted mean of the weekly effluent samples. The "annual average" shall be computed for each water year (May-April) and is equal to the flow-weighted mean concentration for the water year.~~

** All SWU TP monitoring results shall be reported as separate weekly values without rounding to whole numbers. All results shall also be reported as monthly averages and as FWM annual averages. The monthly averages and FWM annual averages shall be calculated based on the FWM of the weekly values and shall be reported to the nearest whole number (i.e., 10.5 ppb shall be reported as 11 ppb; 10.49 ppb shall be reported as 10 ppb).

~~[2] The 10 ppb effluent limit represents the phosphorus criterion set forth in Rule 62-302.540(4)(a), F.A.C. and is consistent with Section 301(b)(1)(C) of the CWA. A water quality based effluent limitation (WQBEL) for phosphorus will be established in accordance with Rule 62-650 F.A.C. and Section 373.4592 Florida Statutes by December 31, 2010 and will be a major permit modification. It is recognized that the ultimate WQBEL to be developed may be higher than a flow weighted mean of 10 ppb. The antibacksliding provisions of the CWA and NPDES regulations do not apply to an effluent limitation with a delayed compliance date, until the date of compliance. In this case, restrictions on backsliding would not apply to the 10 ppb permit effluent limit until the established WQBEL takes effect at the end of the compliance schedule.~~

2. Effluent samples shall be taken at the monitoring site locations listed in permit condition I.A.1 and as described below:

Sample Point	**Description of Monitoring Location**[1]
EFF-1	Sampling location for Outfall D-001 at the G- 344A Structure
EFF-2	Sampling location for Outfall D-002 at the G- 344B Structure
EFF-3	Sampling location for Outfall D-003 at the G- 344C Structure
EFF-4	Sampling location for Outfall D-004 at the G- 344D Structure
EFF-5	Sampling location for Outfall D-005 at the G- 344E Structure
EFF-6	Sampling location for Outfall D-006 at the G- 344F Structure
INT-1	Inflow monitoring location at the G-342A Structure
INT-2	Inflow monitoring location at the G-342B Structure
INT-3	Inflow monitoring location at the G-342C Structure
INT-4	Inflow monitoring location at the G-342D Structure
INT-5	Inflow monitoring location at the G-342E Structure
INT-6	Inflow monitoring location at the G-342F Structure

3. There shall be no discharge of floating solids or visible foam in other than trace amounts. This provision shall not be interpreted to prevent discharges of constituents normally found in or resulting from marsh wetland systems.

4. The discharge shall not cause a visible sheen on the receiving water. This provision shall not be interpreted to prevent discharges of constituents normally found in or resulting from marsh wetland systems.

5. The discharge shall not cause phosphorus concentrations in the receiving waters to be altered so as to cause or contribute to an imbalance in natural populations of aquatic flora or fauna. The discharge shall not cause phosphorus concentrations in the receiving waters to exceed the criteria in Rule 62-302.540(4)(a), F.A.C.~~, except as authorized in the accompanying Order (AO-012-EV) which is hereby incorporated by reference~~. Beginning at the end of April after the permit effective date and at the end of each April thereafter, the permittee shall report the FWM annual average using data it collected for the prior 12 months. Beginning at the end of April after the permit effective date and at the end of each April

[1] Subject to adequate justification, the permittee may request a reduction in the number of effluent monitoring stations.

thereafter, the permittee shall report the GM annual average using data it collected for each of the prior 3 years.

6. In the year following any two consecutive years where the TP GM annual average exceeds 10 ppb, the permittee shall report quarterly the GM of all monthly TP values for that year. If that mean exceeds 10 ppb, the permittee shall provide a report to both FDEP and USEPA by the fifteenth of the month following the quarterly report of its evaluation of why that mean is as high as it is and the specific steps it is taking to ensure that the TP GM for that year will not exceed 10 ppb.

For the TP FWM WQBEL, the permittee shall report quarterly the average of all monthly FWMs for that year. If that average exceeds 18 ppb, the permittee shall provide a report to both FDEP and USEPA by the fifteenth of the month following the quarterly report of its evaluation of why that average is as high as it is and the specific steps it is taking to ensure that the TP FWM annual average for that year will not exceed 18 ppb.

7. If the facility does not meet the FWM WQBEL in any year, the permittee shall report the annual load of TP discharged by the STA into the Everglades that is in excess of the WQBEL load (based on 18 ppb). If the facility does not meet the GM WQBEL in any year, the permittee shall separately report the annual load of TP discharged by the STA into the Everglades that is in excess of the WQBEL load (based on 10 ppb) for that year and the previous two years.

Beginning 12 months from the permit effective date and at the end of each April thereafter, the permittee shall report both the FWM and GM annual average using data it collected for the prior 12 months.

8. Samples taken in accordance with Section I.A.1 and submitted monthly as part of the Discharge Monitoring Report (DMR) shall be analyzed to provide an ~~annual~~ assessment in the Annual Report as to whether the facility is operating within or outside the operational envelope. The assessment shall be based on annual inflow volumes and phosphorus loads and shall compare flows and loads to the corresponding average values contained in the operational envelope described in Exhibit A (Goforth et al, 2007). If the annual inflow volumes or phosphorus loads exceed the corresponding average values of the operational envelope during an annual compliance period, the District shall conduct a review of potential causes and include this review in the annual report. Departmental concurrence shall be obtained prior to initiating Lake Okeechobee regulatory or water supply releases that would result in an exceedance of the maximum levels of flow or phosphorus load contained in the operational envelope.

9. The dissolved oxygen parameter shall meet the requirements set forth in the Everglades Marsh Dissolved Oxygen Site Specific Alternative Criteria (DO SSAC, Exhibit B). Compliance with the DO SSAC shall be evaluated annually using a statistical analysis to compare dissolved oxygen levels within facility discharges to predicted model values. The specific methods for determining compliance are set forth in the DO SSAC which was adopted by Secretarial Order on January 26, 2004, and approved by the U.S. Environmental Protection Agency as a revision to the State of Florida's water quality standards on June 16, 2004.

B. Underground Injection Control Systems

1. This section is not applicable to this facility.

C. Land Application Systems

1. This section is not applicable to this facility.

D. Other Methods of Disposal or Recycling

1. There shall be no discharge of industrial wastewater from this facility to ground or surface waters, except as authorized by this permit.

E. Other Limitations and Monitoring and Reporting Requirements

1. The sample collection, analytical test methods and method detection limits (MDLs) applicable to this permit shall be in accordance with Rule 62-4.246, Chapters 62-160 and 62-601, F.A.C., and 40 CFR 136, as appropriate. The list of Department established analytical methods and corresponding MDLs and PQLs (practical quantification limits), which is titled "*Florida Department of Environmental Protection Table as Required By Rule 62-4.246(4) Testing Methods for Discharges to Surface Water*" dated April 25, 2006, is available from the Department at http://www.dep.state.fl.us/labs/guidance/index.htm. The MDLs and PQLs as described in this list shall constitute the minimum acceptable MDL/PQL values and the Department shall not accept results for which the laboratory's MDLs or PQLs are greater than those described above unless alternate MDLs and/or PQLs have been specifically approved by the Department for this permit. Any method included in the list may be used for reporting as long as it meets the following requirements:

   a. The laboratory's reported MDL and PQL values for the particular method must be equal or less than the corresponding method values specified in the Department's approved MDL and PQL list;

   b. The laboratory reported MDL for the specific parameter is less than or equal to the permit limit or the applicable water quality criteria, ~~if any~~, stated in Chapter 62-302, F.A.C. Parameters that are listed as "report only" in the permit shall use methods that provide a PQL, which is equal to or less than the applicable water quality criteria stated in 62-302 F.A.C.; and

   c. If the MDLs for all methods available in the approved list are above the stated permit limit or applicable water quality criteria for that parameter, then the method with the lowest stated MDL shall be used.

      Where the analytical results are below method detection or practical quantification limits, the permittee shall report the actual laboratory MDL and/or PQL values for the analyses that were performed following the instructions on the applicable discharge monitoring report.

      Where necessary, the permittee may request approval of alternate methods or for alternative MDLs and PQLs for any approved analytical method. Approval of alternate laboratory MDLs or PQLs is not necessary if the laboratory reported MDLs and PQLs are less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Approval of an analytical method not included in the above referenced list is not necessary if the analytical method is in accordance with 40 CFR 136.

2. Parameters which must be monitored as a result of a surface water discharge shall be analyzed using a sufficiently sensitive method in accordance with 40 CFR Part 136. Field measurement methods for pH and dissolved oxygen shall be in accordance with relevant sections in DEP SOP 001/01, 2/1/2004.

3. Herbicide use is authorized for maintenance purposes if the use is in accordance with the labeled instructions and any applicable State permit. Discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream, which ultimately may be released to waters of the State, is prohibited unless specifically authorized by this permit and documented in the administrative record.

   The permittee shall notify the Department in writing at the address listed in Condition I.E.5 no later than three months prior to instituting use of any chemical in any portion of the treatment system which is not already authorized by this permit and may be toxic to aquatic life. The Department shall review the above information to determine if a permit revision is necessary. Such notification shall include:

   a. Name of chemical;

   b. Chemical manufacturer;

c. Frequency of use; and
d. Quantities to be used.

4. The District shall notify the Department within 24 hours of any unanticipated ~~diversions~~ bypasses of flow through the G-407 gated structure. Notifications of ~~diversions~~ bypasses through this structure shall be made pursuant to the requirements of the STA-6 NPDES permit. Bypasses shall be limited to the shortest time possible and are not allowed solely to achieve the WQBEL. Bypasses are subject to and must meet the requirements of Items VIII.20, 21, and 22 of this permit.

5. Monitoring requirements under this permit are effective on the first day of the second month following permit issuance. Until such time, the permittee shall continue to monitor and report in accordance with previously effective permit requirements, if any. During the period of operation authorized by this permit, the permittee shall complete and submit Discharge Monitoring Reports (DMRs) in accordance with the frequencies specified by the REPORT type below and indicated on the DMR forms. Monitoring results for each monitoring period shall be submitted in accordance with the associated DMR due dates to the address specified below.

REPORT Type on DMR	Monitoring Period	DMR Due Date
Monthly[2]	first day of month – last day of month	28th day of the third month following the month of sampling
Annual	May-April	28th day of July

Florida Department of Environmental Protection
Wastewater Compliance Evaluation Section, Mail Station 3551
Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

6. Unless specified otherwise in this permit, all reports and notifications required by this permit, including twenty-four hour notifications, shall be submitted to or reported to the Department's Tallahassee Office and the Southeast District Office at the addresses specified below:

Florida Department of Environmental Protection
Division of Water Resource Management
Water Quality Standards & Special Projects Program
2600 Blair Stone Road
Tallahassee, FL 32399-2400
Phone Number - (850) 245-8416
Fax Number* - (850) 412-0681

AND

Florida Department of Environmental Protection
Southeast District Office
400 N. Congress Avenue
West Palm Beach, FL 33416-5425
Phone Number - (561) 681-6600
Fax Number* - (561) 681-6755

*All FAX copies shall be followed by original copies.

[2] DMRs shall be submitted for each required monitoring period including months of no discharge.

7. The permittee shall submit an Annual Report (the South Florida Environmental Report) demonstrating compliance with the terms of this permit and according to the schedule as set forth in Section VI.1. The Annual Report shall provide details regarding the status of implementation of the requirements of ~~improvements, enhancements, and strategies identified in~~ this permit. Specifically, the report shall include details regarding:

    a. Implementation of the WQBEL ~~projects~~ and activities required by this permit and affecting flows and loads to STA-5;

    b. source control implementation and optimization;

    c. STA design modifications affecting implementation of the WQBEL and activities required by this permit;

    d. improvements, enhancements, and strategies that have been initiated and/or completed within the previous year;

    e. any delays in the implementation of the requirements of this permit, ~~improvements, enhancements, or strategies, and~~ the duration of the delays, the reason(s) for the delays, and the expected timeframe for their resolution;

    f. operational status of the STA – whether it is in start-up or routine operations;

    g. ~~whether the facility is achieving the effluent limitations set forth in the TBEL and/or~~ the implementation status of STA Recovery Plans;

    h. whether revisions and/or additions to the requirements of this permit ~~improvements, enhancements, and strategies~~ are recommended;

    i. For any noncompliance with permit conditions, an evaluation of the cause(s) and implementation of remedial measures; ~~implementation of remedial measures in the event of non-compliance with permit conditions;~~ and

    j. An assessment of the inflow volumes and phosphorus loads during the year relative to the ~~anticipated~~ operational envelope contained in the Technical Support Document for the STA-5 and whether the facility was operated within or outside of the operational envelope.

8. All reports and other information shall be signed in accordance with requirements of Rule 62-620.305, F.A.C.

9. The permittee shall provide safe access points for obtaining representative samples which are required by this permit.

10. Upon demonstration that a specific parameter(s) is consistently shown to be undetected in the effluent, the permittee shall request a modification to the monitoring program as appropriate. A minimum of one year of data, for those parameters being sampled quarterly or more frequently, shall be required prior to the Department approving any modification to the monitoring program. The Department may approve a reduction of the monitoring frequency or waive the monitoring requirement for parameters which are consistently shown to be undetected in the effluent.

11. The permittee shall report with the monthly DMR if operation of facilities is impacted by or constrained due to requirements under the Endangered Species Act or Migratory Bird Treaty Act. The report should include the species involved, an estimate of the number of individuals involved, actions taken to avoid deleterious impacts on the endangered species, the affect those actions had on compliance with any condition of this permit, and an estimate of when facility operation will no longer be impacted or constrained.

II. Industrial Sludge Management Requirements

1. This section is not applicable to this facility.

III. Ground Water Monitoring Requirements

1. This section is not applicable to this facility.

IV. Other Land Application Requirements

1. This section is not applicable to this facility.

V. Operation and Maintenance Requirements

A. Operation of Treatment Facilities

1. The permittee shall ensure that the operation of this facility is as described in the application and supporting documents.

2. The operation of the pollution control facilities described in this permit shall be under the supervision of a person who is qualified by formal training and/or practical experience in the field of water pollution control.

3. Activities such as ongoing maintenance may have adverse impacts on STA performance. In addition, major events may compromise the structural integrity or performance of the STA or section(s) of the STA. Such activities or events will be subject to the planned changes, bypass, and/or upset provisions set forth in Section VIII Paragraphs 17, 22, and 23.

B. Record Keeping Requirements:

1. The permittee shall maintain the following records at the South Florida Water Management District's (District) headquarters and make them available for inspection:

   a. Records of all compliance monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, including, if applicable, a copy of the laboratory certification showing the certification number of the laboratory, for at least three years from the date the sample or measurement was taken;

   b. Copies of all reports, other than those required in items a. and f. of this section, required by the permit for at least three years from the date the report was prepared, unless otherwise specified by Department rule;

   c. Records of all data, including reports and documents used to complete the application for the permit for at least three years from the date the application was filed, unless otherwise specified by Department rule;

   d. A copy of the current permit;

e. A copy of any required record drawings;

f. Copies of the logs and schedules showing plant operations and equipment maintenance for three years from the date on the logs or schedule.

VI. Schedules

1. The Annual Report shall be received by the Department no later than March 1 of each year following the effective date ~~of issuance~~ of this permit. Each Annual Report shall present the information for the previous water year, from May 1 to April 30. Upon approval by the Department, the District may modify the Annual Report submission date to coincide with multiple reporting requirements and time periods needed for data acquisition and analysis.

2. A revised Pollution Prevention Plan (PPP) shall be prepared and implemented in accordance with the following schedule:

	Action Item	Scheduled Completion Date
1	Develop and Implement revised Pollution Prevention Plan	~~Completion of scheduled Long-Term Plan enhancements to STA-5~~ As needed upon completion of and compliance with the requirements of this permit
2.	Submittal of revised Pollution Prevention Plan if additional enhancements are implemented	Changes that warrant modifications to the current PPP + 90 days

3. Upon completion of and compliance with the requirements specified herein, the permittee shall submit to the Department an updated Operations Plan for STA-5. Until the updated Operations Plan is submitted by the permittee and approved by the Department, the previously existing Operations Plan shall remain in effect.

VII. Other Specific Conditions

A. Specific Conditions Applicable to All Permits

1. Drawings, plans, documents or specifications submitted by the permittee, not attached hereto, but retained on file with the Department, are made a part hereof.

2. Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.) F.S., applicable portions of reports to be submitted under this permit, shall be signed and sealed by the professional(s) who prepared them.

3. This permit satisfies the Industrial Wastewater Program permitting requirements only and does not authorize operation of this facility prior to obtaining any other permits required by local, state or federal agencies.

B. Specific Conditions Related to Construction

1. Within 30 days of completion of construction, the permittee shall submit to the Department a completed "Certification of Completion of Construction" (DEP Form 62-620.910(12)) signed and sealed by the engineer of record or other engineer registered in the state of Florida.

2. Record drawings shall be prepared and made available in accordance with Rule 62-620.410(6), F.A.C., and the *Department of Environmental Protection Guide to Wastewater Permitting* within six months of placing the facilities into operation .

C. Duty to Reapply

1. The permittee shall apply for renewal of this permit at least 180 days before the expiration date of this permit using the appropriate forms listed in Rule 62-620.910, F.A.C., including submittal of the appropriate processing fee set forth in Rule 62-4.050, F.A.C.

D. Specific Conditions Related to the Pollution Prevention Plan

1. A revised PPP shall be prepared, submitted to the Department for review and approval, and implemented in accordance with the schedule set forth in Section VI.2.

2. The STA-5 Project shall be operated in accordance with the existing PPP (Exhibit C) until such time as a revised PPP is approved by the Department. If the permitted facilities are demonstrated not to be achieving compliance with the requirements of this permit, the permittee shall submit a modified PPP for Department review and approval as appropriate.

E. Re-opener Clause

1. The permit shall be revised, or alternatively, revoked and reissued in accordance with the provisions contained in Rules 62-620.325 and 62-620.345 F.A.C., if applicable, or to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2) and 307(a)(2) of the Clean Water Act (the Act), as amended, if the effluent standard, limitation, or water quality standard so issued or approved:

   a. Contains different conditions or is otherwise more stringent than any condition in the permit/or;

   b. Controls any pollutant not addressed in this permit.

   The permit as revised or reissued under this paragraph shall contain any other requirements of the Act then applicable.

2. The permit may be reopened to adjust effluent limitations or monitoring requirements should future water quality based effluent limitation (WQBEL) determinations, water quality studies, Department approved changes in water quality standards, or other information show a need for a different limitation or monitoring requirement.

3. The Department may develop a Total Maximum Daily Load (TMDL) during the life of the permit. Once a TMDL has been established and adopted by rule, the Department may revise this permit to incorporate the final findings of the TMDL, in accordance with Section 403.067, F.S.

F. Implementation of Source Control Programs.

1. **Implementation.** The permittee shall continue to implement source control programs in each of the contributing basins in accordance with Chapter 40E-63, F.A.C. and other applicable programs. Basins that do not presently include source control programs shall be monitored to determine if such programs are necessary in the event that phosphorus loads to the facility from these basins limit the facility or facilities progress towards achieving the WQBEL

2. **Performance.** On an annual basis, the permittee shall evaluate the performance of source controls in the contributing basins and include the findings in the annual report required in Item I.E.7. The report shall include phosphorus loads from the basins and shall describe trends and compare current loads to those determined necessary to achieve the WQBEL.

3. **Improvements.** If the WQBEL is not achieved and if the assumed inflow concentration used to develop the Amended Determination remedy is exceeded, the permittee shall submit, as part of the annual reporting requirements in Item I.E.7, a report explaining the cause(s) for the excess concentration and, if applicable, schedules and strategies for source control improvements necessary to achieve the WQBEL.

VIII. General Conditions

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit are binding and enforceable pursuant to Chapter 403, F.S. Any permit noncompliance constitutes a violation of Chapter 403, F.S., and is grounds for enforcement action, permit termination, permit revocation and reissuance, or permit revision. *[62-620.610(1), F.A.C.]*

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications or conditions of this permit constitutes grounds for revocation and enforcement action by the Department. *[62-620.610(2), F.A.C.]*

3. As provided in Subsection 403.087(7), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor authorize any infringements of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit or authorization that may be required for other aspects of the total project which are not addressed in this permit. *[62-620.610(3), F.A.C.]*

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title. *[62-620.610(4), F.A.C.]*

5. This permit does not relieve the permittee from liability and penalties for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted source; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department. The permittee shall take all reasonable steps to minimize or prevent any discharge, reuse of reclaimed water, or residuals use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. *[62-620.610(5), F.A.C.]*

6. If the permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee shall apply for and obtain a new permit. *[62-620.610(6), F.A.C.]*

7. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control, and related appurtenances, that are installed and used by the permittee to achieve compliance with the conditions of this permit. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to maintain or achieve compliance with the conditions of the permit. *[62-620.610(7), F.A.C.]*

8. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit revision, revocation and re-issuance, or termination, or a notification of

planned changes or anticipated noncompliance does not stay any permit condition. *[62-620.610(8), F.A.C.]*

9. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, including an authorized representative of the Department and authorized U.S. Environmental Protection Agency (EPA) personnel, when applicable, upon presentation of credentials or other documents as may be required by law, and at reasonable times, depending upon the nature of the concern being investigated, to
   a. Enter upon the permittee's premises where a regulated facility, system, or activity is located or conducted, or where records shall be kept under the conditions of this permit;
   b. Have access to and copy any records that shall be kept under the conditions of this permit;
   c. Inspect the facilities, equipment, practices, or operations regulated or required under this permit; and
   d. Sample or monitor any substances or parameters at any location necessary to assure compliance with this permit or Department rules.

   [62-620.610(9), F.A.C.]

10. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data, and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except as such use is proscribed by Section 403.111, Florida Statutes, or Rule 62-620.302, F.A.C. Such evidence shall only be used to the extent that it is consistent with the Florida Rules of Civil Procedure and applicable evidentiary rules. *[62-620.610(10), F.A.C.]*

11. When requested by the Department, the permittee shall within a reasonable time provide any information required by law, which is needed to determine whether there is cause for revising, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also provide to the Department upon request copies of records required by this permit to be kept. If the permittee becomes aware of relevant facts that were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be promptly submitted or corrections promptly reported to the Department. *[62-620.610(11), F.A.C.]*

12. Unless specifically stated otherwise in Department rules, the permittee, in accepting this permit, agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard. *[62-620.610(12), F.A.C.]* However, this section cannot be used as a basis to extend the time to comply with the permit's total phosphorus WQBELs or to obtain a mixing zone to meet the total phosphorus water quality criterion.

13. The permittee, in accepting this permit, agrees to pay the applicable regulatory program and surveillance fee in accordance with Rule 62-4.052, F.A.C. *[62-620.610(13), F.A.C.]*

14. This permit is transferable only upon Department approval in accordance with Rule 62-620.340, F.A.C. The permittee shall be liable for any noncompliance of the permitted activity until the Department approves the transfer. *[62-620.610(14), F.A.C.]*

15. The permittee shall give the Department written notice at least 60 days before inactivation or abandonment of a wastewater facility and shall specify what steps will be taken to safeguard public health and safety during and following inactivation or abandonment. *[62-620.610(15), F.A.C.]*

16. The permittee shall apply for a revision to the Department permit in accordance with Rule 62-620.300, F.A.C., and the Department of Environmental Protection Guide to Wastewater Permitting at least 90 days before construction of any planned substantial modifications to the permitted facility is to commence or with Rule 62-620.325(2), F.A.C., for minor modifications to the permitted facility. A revised permit shall be obtained before construction begins except as provided in Rule 62-620.300, F.A.C. *[62-620.610(16), F.A.C.]*

17. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The permittee shall be responsible for any and all damages which may result from the changes and may be subject to enforcement action by the Department for penalties or revocation of this permit. The notice shall include the following information:

    a. A description of the anticipated noncompliance;
    b. The period of the anticipated noncompliance, including dates and times; and
    c. Steps being taken to prevent future occurrence of the noncompliance. *[62-620.610(17), F.A.C.]*

18. Sampling and monitoring data shall be collected and analyzed in accordance with Rule 62-4.246, Chapters 62-160 and 62-601, F.A.C., and 40 CFR 136, as appropriate.
    a. Monitoring results shall be reported at the intervals specified elsewhere in this permit and shall be reported on a Discharge Monitoring Report (DMR), DEP Form 62-620.910(10), or as specified elsewhere in the permit.
    b. If the permittee monitors any contaminate more frequently than required by the permit, using Department approved test procedures, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
    c. Calculations for all limitations which require averaging of measurements shall use an arithmetic mean unless otherwise specified in this permit. {DAC comment: We should double-check to be sure that anywhere we intend to use a geomean we are specifically stating so (see comments to Table I.A.1 footnotes)}
    d. Except as specifically provided in Rule 62-160.300, F.A.C., any laboratory test required by this permit shall be performed by a laboratory that has been certified by the Department of Health Environmental Laboratory Certification Program (DOH ELCP). Such certification shall be for the matrix, test method and analyte(s) being measured to comply with this permit. For domestic wastewater facilities, testing for parameters listed in Rule 62-160.300(4), F.A.C., shall be conducted under the direction of a certified operator.
    e. Field activities including on-site tests and sample collection shall follow the applicable standard operating procedures described in DEP-SOP-001/01 adopted by reference in Chapter 62-160, F.A.C.
    f. Alternate field procedures and laboratory methods may be used where they have been approved in accordance with Rules 62-160.220 and 62-160.330, F.A.C.*[62-620.610(18), F.A.C.]*

19. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule detailed elsewhere in this permit shall be submitted no later than 14 days following each schedule date. *[62-620.610(19), F.A.C.]*

20. The permittee shall report to the Department's Tallahassee Office and the Southeast District Office any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain: a description of the noncompliance and its cause; the period of noncompliance including exact dates and time, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
    a. The following shall be included as information which must be reported within 24 hours under this condition:

(1) Any unanticipated bypass which causes any reclaimed water or effluent to exceed any permit limitation or results in an unpermitted discharge,
(2) Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit,
(3) Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit for such notice, and
(4) Any unauthorized discharge to surface or ground waters.

b. Oral reports as required by this subsection shall be provided as follows:
(1) For unauthorized releases or spills of untreated or treated wastewater reported pursuant to subparagraph a.(4) that are in excess of 1,000 gallons per incident, or where information indicates that public health or the environment will be endangered, oral reports shall be provided to the Department by calling the STATE WARNING POINT TOLL FREE NUMBER (800) 320-0519, as soon as practical, but no later than 24 hours from the time the permittee becomes aware of the discharge. The permittee, to the extent known, shall provide the following information to the State Warning Point:
(a) Name, address, and telephone number of person reporting;
(b) Name, address, and telephone number of permittee or responsible person for the discharge;
(c) Date and time of the discharge and status of discharge (ongoing or ceased);
(d) Characteristics of the wastewater spilled or released (untreated or treated, industrial or domestic wastewater);
(e) Estimated amount of the discharge;
(f) Location or address of the discharge;
(g) Source and cause of the discharge;
(h) Whether the discharge was contained on-site, and cleanup actions taken to date;
(i) Description of area affected by the discharge, including name of water body affected, if any; and
(j) Other persons or agencies contacted.
(2) Oral reports, not otherwise required to be provided pursuant to subparagraph b.(1) above, shall be provided to Department's Southeast District Office within 24 hours from the time the permittee becomes aware of the circumstances.
c. If the oral report has been received within 24 hours, the noncompliance has been corrected, and the noncompliance did not endanger health or the environment, the Department's Southeast District Office shall waive the written report. *[62-620.610(20), F.A.C.]*

21. The permittee shall report all instances of noncompliance not reported under Conditions VIII.17, 18, 19, and 20 of this permit at the time monitoring reports are submitted. This report shall contain the same information required by Condition VIII.20. of this permit. *[62-620.610(21), F.A.C.]*

22. Bypass Provisions. The term "bypass" shall mean the intentional diversion of waste streams from any portion of the treatment works.
a. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless the permittee affirmatively demonstrates that:
(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and
(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
(3) The permittee submitted notices as required under Condition VIII.22.b. of this permit.
b. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least 10 days before the date of the bypass. The permittee shall submit notice of an unanticipated bypass within 24 hours of learning about the bypass as required in

Condition VIII.20. of this permit. A notice shall include a description of the bypass and its cause; the period of the bypass, including exact dates and times; if the bypass has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.

c. The Department shall approve an anticipated bypass, after considering its adverse effect, if the permittee demonstrates that it will meet the three conditions listed in Condition VIII.22 a.(1) through (3) of this permit.

d. A permittee may allow any bypass to occur which does not cause reclaimed water or effluent limitations to be exceeded if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of Condition VIII.22.a. through c. of this permit. *[62-620.610(22), F.A.C.]*

23. Upset Provisions

a. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:
   (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
   (2) The permitted facility was at the time being properly operated;
   (3) The permittee submitted notice of the upset as required in Condition VIII.20. of this permit; and
   (4) The permittee complied with any remedial measures required under Condition VIII.5. of this permit.

b. In any enforcement proceeding, the burden of proof for establishing the occurrence of an upset rests with the permittee.

c. Before an enforcement proceeding is instituted, no representation made during the Department review of a claim that noncompliance was caused by an upset is final agency action subject to judicial review. *[62-620.610(23), F.A.C.]*

DONE AND ORDERED on this 4th day of September, 2007 in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

_____

Michael W. Sole
Secretary

MS/jb/jh

FILING AND ACKNOWLEDGMENT

FILED, on this date, under Section 120.52, F.S., with the designated deputy clerk, receipt of which is hereby acknowledged.

_____

Clerk Date

PARTIES REQUESTING NOTICE:

Miccosukee Tribe of Indians of Florida, c/o Dexter Lehtinen, Esq.
Miccosukee Tribe of Indians of Florida, c/o Kelly Brooks, Esq.
United States Sugar Corporation, c/o Bubba Wade
Seminole Tribe of Indians of Florida, c/o Stephen A. Walker, Esq.
Sugar Cane Growers Cooperative, Roth Farms, Inc., and Wedgeworth Farms, Inc., c/o William H. Green, Esq.
Keith Saxe, Esq., U. S. Department of Justice
Michael Stevens, U.S. Department of the Interior (fax)
Jeffrey J. Ward, Sugar Cane Growers Cooperative
Philip S. Parsons, Landers & Parsons
Helen Hickman, Brown & Caldwell
Tom MacVicar, MacVicar, Frederico, & Lamb
Charles Lee, Florida Audubon Society
Samuel B. Reiner, II, Esq., Lehtinen O' Donnell, Vargas & Reiner, P.A.
Michelle W. Smith, Esq., Earl, Blank, Cavanaugh & Stotts

COPIES FURNISHED TO:

Sharon Fauver, U.S. Fish and Wildlife Service
Susan Teel, U.S. Fish and Wildlife Service
Jeff Bielling, FL. Dept. of Community Affairs
Linda McCarthy, FL. Dept. of Agriculture
Charles Oravetz, Nat. Marine Fisheries Service
Don Klima, U.S. Advisory Council on Historic Preservation
John Childe, Friends of the Everglades
David Reiner, Friends of the Everglades
Col. Paul Grosskruger, USACOE, Jacksonville
Dennis Duke, USACOE, Jacksonville
Peter Bestrukschko, USACOE, Jacksonville
Eric Bush, USACOE, Jacksonville
Richard Harvey, USEPA, West Palm Beach
Philip Mancusi-Ungaro, Esq., USEPA, Atlanta
Roosevelt Childress, USEPA, Atlanta
Marshall Hyatt, USEPA Atlanta
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Eric Hughes, USEPA, Jacksonville
Janet Bussell, The Everglades Foundation
Mike Waldon, Loxahatchee National Wildlife Refuge
Matt Harwell, Loxahatchee National Wildlife Refuge
Mike Zimmerman, Everglades National Park
Ken Haddad, Florida Fish and Wildlife Conservation Commission
Joe Walsh, Florida Fish and Wildlife Conservation Commission, Vero Beach

ADDITIONAL COPIES FURNISHED TO:

Eric Eikenberg, Governor's Office
Carol Wehle, SFWMD, West Palm Beach
Chip Merriam, SFWMD, West Palm Beach
Sheryl Wood, SFWMD, West Palm Beach
Terrie Bates, SFWMD, West Palm Beach
Ernie Barnett, SFWMD, West Palm Beach
Linda Lindstrom, SFWMD, West Palm Beach

Dean Powell, SFWMD, West Palm Beach
Sean Sculley, SFWMD, West Palm Beach
Susan Sylvester, SFWMD, West Palm Beach
Deb Drum, SFWMD, West Palm Beach
Gary Goforth, Gary Goforth, Inc., Stuart
Tracey Piccone, SFWMD, West Palm Beach
Tom Kosier, SFWMD, West Palm Beach
Jim Galloway, SFWMD, West Palm Beach
Ron Bearzotti, SFWMD, West Palm Beach
Kirk Burns, Esq., SFWMD, West Palm Beach
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Maria Clemente, SFWMD, West Palm Beach
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Kathy Pietro, SFWMD, West Palm Beach
Juliann LaRock, SFWMD, West Palm Beach
Linda Crean, SFWMD, West Palm Beach
Joe Albers, SFWMD, West Palm Beach
Hongying Zhao, SFWMD, West Palm Beach
Guy Germain, SFWMD, West Palm Beach
Joseph Jean-Jacques, SFWMD, West Palm Beach
Kevin Nicholas, SFWMD, West Palm Beach
Nicole Howard, SFWMD, West Palm Beach
Greg Knecht, FDEP, Tallahassee
John Outland, FDEP, Tallahassee
Frank Nearhoof, FDEP, Tallahassee
Shelley Yaun, FDEP, Tallahassee
Ernie Marks, FDEP, Tallahassee
Kenny Hayman, Esq., FDEP, Tallahassee
David Crowley, Esq., FDEP, Tallahassee
Tom Atkeson, FDEP, Tallahassee
William Kennedy, FDEP, West Palm Beach
Inger Hansen, FDEP, West Palm Beach

STATE OF FLORIDA
INDUSTRIAL WASTEWATER FACILITY PERMIT

PERMITTEE:
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, FL. 33406

PERMIT NUMBER: FL0473804-001
PA FILE NO.: FL0473804-001-IW7A
ISSUANCE DATE: September 4, 2007
EXPIRATION DATE: September 4, 2012

RESPONSIBLE AUTHORITY:

Ms. Carol Ann Wehle
Executive Director

FACILITY:

Stormwater Treatment 6
(STA-6)
Hendry and Palm Beach Counties

Latitude: 26° 22' 41" N Longitude: 80° 52' 54" W

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.) and applicable rules of the Florida Administrative Code (F.A.C.) and constitutes authorization to discharge to waters of the State under the National Pollutant Discharge Elimination System (NPDES). ~~This permit is accompanied by an Administrative Order (Order), AO 012 EV, pursuant to Subsections 403.088 (2)(e) and (f), F.S. Compliance with AO 012 EV is a specific requirement of this permit.~~ The above named permittee is hereby authorized to construct and operate the facilities required by this permit ~~shown on the application and other documents attached hereto or on file with the Department and made a part hereof~~.

PROJECT DESCRIPTION:

This permit authorizes the continued operation and maintenance of Stormwater Treatment Area (STA) 6. STA-6 is a part of the Everglades Construction Project (ECP), construction, operation, and maintenance of which is required by the Everglades Forever Act (EFA), Section 373.4592, F.S. The STA-6 Project (Figure 1) consists of the STA-6 Inflow Structures, STA-6 Interior Works, STA-6 Outflow Structures, STA-6 Discharge Canal, STA-6 Discharge Canal Relocation, Levee Bridge, Structure Removal, G-407 Diversion Structure, and STA-6 Inflow Works Modification. STA-6 is a Stormwater Management System (SMS) as defined in Subsection 373.403(10), F.S., and therefore is not subject to state surface water quality standards within STA-6 pursuant to Subsection 373.4142, F.S.

EFFLUENT DISPOSAL:

This permit authorizes the discharge of treated ~~stormwater~~ non-process wastewater from a 2,270 acres constructed wetland system (STA-6) to Water Conservation Area 3 (WCA-3A). Treated water from STA-6 will be discharged into the L-3 Borrow Canal from the G352A-C, G354A-C, and G393A-C Outflow Structures. Once discharged into the L-3 Borrow Canal, the treated water is released into the WCA-3A. All of the surface waters and wetlands located within the receiving water body, WCA-3A, are Class III Fresh waters.

Surface Water Discharge:

An existing discharge to the L-3 Borrow Canal (Class III Fresh waters), monitoring group D-001 (G-352B) is located approximately at Latitude: 26° 22' 15" N Longitude: 80° 52' 53" W

An existing discharge to the L-3 Borrow Canal (Class III Fresh waters), monitoring group D-002 (G-354C) is located approximately at Latitude: 26° 21' 00" N, Longitude: 80° 52' 85" W

An existing discharge to the L-3 Borrow Canal (Class III Fresh waters), monitoring group D-003 (G-393B) is located approximately at Latitude: 26° 20' 19" N, Longitude: 80° 52' 93" W

IN ACCORDANCE WITH:

The limitations, monitoring requirements and other conditions as set forth in Part I through Part VIII on pages 3 through 14 of this permit.

I. Effluent Limitations and Monitoring Requirements

A. Surface Water Discharges

1. During the period beginning upon the ~~issuance~~ permit effective date and lasting through the expiration date of this permit, the permittee is authorized to discharge ~~stormwater~~ nonprocess wastewater from Outfall D-001 through D-003. Such discharge shall be limited and monitored by the permittee as specified below.

	Discharge Limitations				Monitoring Requirements		
Parameters (units)	**Daily Minimum**	**Daily Maximum**	~~**Annual Average**~~ **Other**		**Monitoring Frequency**	**Sample Type**	**Sample Point**
Phosphorus, Total (as P) (ppb)	--	--	Not to exceed 10 as a geometric mean (GM) annual average in more than two consecutive years ~~*1~~	18 as a flow-weighted mean (FWM) annual average*	Weekly	GM – based on grab samples collected when discharge occurs FWM - 7-day flow proportioned composite	EFF-1, 2, 3 and 4
			See I.A.5~~2~~				
Phosphorus, Total (as P) (ppb)	--	--	~~See I.A.6~~ Report~~1~~**		Weekly	7-day flow proportioned composite	INT 1, 2
Oxygen, Dissolved (DO) (mg/l)	See I.A.7				Weekly	Meter	EFF-1, 2, 3 and 4
Oxygen, Dissolved (DO) (mg/l)	Report				Weekly	Meter	INT-1, 2,
Flow (cfs)	--	Report	See I.A.6 Report		Continuous	Recorder	EFF-1, 2, 3 and 4 INT-1, 2
pH (SU)	6.0	8.5	--		Weekly	Grab (Meter)	EFF-1, 2, 3 and 4

2. Effluent samples shall be taken at the monitoring site locations listed in permit condition I.A.1 and as described below:

Sample Point	**Description of Monitoring Location**
EFF-1	Sampling location for Outfall D-001 at the G-352B structure

*~~1~~ All EFF TP monitoring results ~~for this parameter~~ shall be reported as separate weekly values without rounding to whole numbers. The results shall also be reported as FWM annual averages that are calculated based on the FWM of the weekly values. The results shall also be reported as GM ~~monthly average and as an~~ annual averages that are calculated based on all sample point weekly values collected when discharge occurs in the previous 12 months. All FWM and GM annual averages shall be reported to the nearest whole number (i.e., 10.5 ppb shall be reported as 11 ppb; 10.49 ppb shall be reported as 10 ppb). ~~The "monthly average" is a flow-weighted mean of the weekly effluent samples. The "annual average" shall be computed for each water year (May-April) and is equal to the flow-weighted mean concentration for the water year.~~

** All SWU TP monitoring results shall be reported as separate weekly values without rounding to whole numbers. All results shall also be reported as monthly averages and as FWM annual averages. The monthly averages and FWM annual averages shall be calculated based on the FWM of the weekly values and shall be reported to the nearest whole number (i.e., 10.5 ppb shall be reported as 11 ppb; 10.49 ppb shall be reported as 10 ppb).

~~2 The 10 ppb effluent limit represents the phosphorus criterion set forth in Rule 62-302.540(4)(a), F.A.C. and is consistent with Section 301(b)(1)(C) of the CWA. A water quality based effluent limitation (WQBEL) for phosphorus will be established in accordance with Rule 62-650 F.A.C. and Section 373.4592 Florida Statutes by December 31, 2010 and will be a major permit modification. It is recognized that the ultimate WQBEL to be developed may be higher than a flow weighted mean of 10 ppb. The antibacksliding provisions of the CWA and NPDES regulations do not apply to an effluent limitation with a delayed compliance date, until the date of compliance. In this case, restrictions on backsliding would not apply to the 10 ppb permit effluent limit until the established WQBEL takes effect at the end of the compliance schedule.~~

EFF-2	Sampling location for Outfall D-002 at the G-354C structure
EFF-3	Sampling location for Outfall D-003 at the G-393B structure
INT-1	Inflow monitoring location at the G-396B Structure
INT-2	Inflow monitoring location at the G-353B Structure

3. There shall be no discharge of floating solids or visible foam in other than trace amounts. This provision shall not be interpreted to prevent discharges of constituents normally found in or resulting from marsh wetland systems.

4. The discharge shall not cause a visible sheen on the receiving water. This provision shall not be interpreted to prevent discharges of constituents normally found in or resulting from marsh wetland systems.

5. The discharge shall not cause phosphorus concentrations in the receiving waters to be altered so as to cause or contribute to an imbalance in natural populations of aquatic flora or fauna. The discharge shall not cause phosphorus concentrations in the receiving waters to exceed the criteria in Rule 62-302.540(4)(a), F.A.C~~., except as authorized in the accompanying Order AO 012 EV which is hereby incorporated by reference~~. Beginning at the end of April after the permit effective date and at the end of each April thereafter, the permittee shall report the FWM annual average using data it collected for the prior 12 months. Beginning at the end of April after the permit effective date and at the end of each April thereafter, the permittee shall report the GM annual average using data it collected for each of the prior 3 years.

6. In the year following any two consecutive years where the TP GM annual average exceeds 10 ppb, the permittee shall report quarterly the GM of all monthly TP values for that year. If that mean exceeds 10 ppb, the permittee shall provide a report to both FDEP and USEPA by the fifteenth of the month following the quarterly report of its evaluation of why that mean is as high as it is and the specific steps it is taking to ensure that the TP GM for that year will not exceed 10 ppb.

For the TP FWM WQBEL, the permittee shall report quarterly the average of all monthly FWMs for that year. If that average exceeds 18 ppb, the permittee shall provide a report to both FDEP and USEPA by the fifteenth of the month following the quarterly report of its evaluation of why that average is as high as it is and the specific steps it is taking to ensure that the TP FWM annual average for that year will not exceed 18 ppb.

7. If the facility does not meet the FWM WQBEL in any year, the permittee shall report the annual load of TP discharged by the STA into the Everglades that is in excess of the WQBEL load (based on 18 ppb). If the facility does not meet the GM WQBEL in any year, the permittee shall separately report the annual load of TP discharged by the STA into the Everglades that is in excess of the WQBEL load (based on 10 ppb) for that year and the previous two years.

8. Samples taken in accordance with Section I.A.1 and submitted monthly as part of the Discharge Monitoring Report (DMR) shall be analyzed to provide an ~~annual~~ assessment in the Annual Report as to whether the facility is operating within or outside the operational envelope. The assessment shall be based on annual inflow volumes and phosphorus loads and shall compare flows and loads to the corresponding average values contained in the operational envelope described in Exhibit A (Goforth et al, 2007). If the annual inflow volumes or phosphorus loads exceed the corresponding average values of the operational envelope during an annual compliance period, the District shall conduct a review of potential causes and include this review in the annual report. Departmental concurrence shall be obtained prior to initiating Lake Okeechobee regulatory or water supply releases that would result in an exceedance of the maximum

levels of flow or phosphorus load contained in the operational envelope.

9. The dissolved oxygen parameter shall meet the requirements set forth in the Everglades Marsh Dissolved Oxygen Site Specific Alternative Criteria (DO SSAC, Exhibit B). Compliance with the DO SSAC shall be evaluated annually using a statistical analysis to compare dissolved oxygen levels within facility discharges to predicted model values. The specific methods for determining compliance are set forth in the DO SSAC which was adopted by Secretarial Order on January 26, 2004, and approved by the U.S. Environmental Protection Agency as a revision to the State of Florida's water quality standards on June 16, 2004.

B. Underground Injection Control Systems

1. This section is not applicable to this facility.

C. Land Application Systems

1. This section is not applicable to this facility.

D. Other Methods of Disposal or Recycling

1. There shall be no discharge of industrial wastewater from this facility to ground or surface waters, except as authorized by this permit.

E. Other Limitations and Monitoring and Reporting Requirements

1. The sample collection, analytical test methods and method detection limits (MDLs) applicable to this permit shall be in accordance with Rule 62-4.246, Chapters 62-160 and 62-601, F.A.C., and 40 CFR 136, as appropriate. The list of Department established analytical methods and corresponding MDLs and PQLs (practical quantification limits), which is titled "*Florida Department of Environmental Protection Table as Required By Rule 62-4.246(4) Testing Methods for Discharges to Surface Water"* dated April 25, 2006, is available from the Department at http://www.dep.state.fl.us/labs/guidance/index.htm. The MDLs and PQLs as described in this list shall constitute the minimum acceptable MDL/PQL values and the Department shall not accept results for which the laboratory's MDLs or PQLs are greater than those described above unless alternate MDLs and/or PQLs have been specifically approved by the Department for this permit. Any method included in the list may be used for reporting as long as it meets the following requirements:

   a. The laboratory's reported MDL and PQL values for the particular method must be equal or less than the corresponding method values specified in the Department's approved MDL and PQL list;

   b. The laboratory reported MDL for the specific parameter is less than or equal to the permit limit or the applicable water quality criteria~~, if any~~ stated in Chapter 62-302, F.A.C. Parameters that are listed as "report only" in the permit shall use methods that provide a PQL, which is equal to or less than the applicable water quality criteria stated in 62-302 F.A.C.; and

   c. If the MDLs for all methods available in the approved list are above the stated permit limit or applicable water quality criteria for that parameter, then the method with the lowest stated MDL shall be used.

      Where the analytical results are below method detection or practical quantification limits, the permittee shall report the actual laboratory MDL and/or PQL values for the analyses that were performed following the instructions on the applicable discharge monitoring report.

      Where necessary, the permittee may request approval of alternate methods or for alternative MDLs and PQLs for any approved analytical method. Approval of alternate laboratory MDLs or PQLs is not necessary if the laboratory reported MDLs and PQLs are less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C.

Approval of an analytical method not included in the above referenced list is not necessary if the analytical method is in accordance with 40 CFR 136

2. Parameters which must be monitored as a result of a surface water discharge shall be analyzed using a sufficiently sensitive method in accordance with 40 CFR Part 136. Field measurement methods for pH and dissolved oxygen shall be in accordance with relevant sections in DEP SOP 001/01, 2/1/2004.

3. Herbicide use is authorized for maintenance purposes if the use is in accordance with the labeled instructions and any applicable State permit. Discharge of any product registered under the Federal Insecticide, Fungicide and Rodenticide Act to any waste stream, which ultimately may be released to waters of the State, is prohibited unless specifically authorized by this permit and documented in the administrative record.

   The permittee shall notify the Department in writing at the address listed in Condition I.E.5 no later than three (3) months prior to instituting use of any chemical in any portion of the treatment system which is not already authorized by this permit and may be toxic to aquatic life. The Department shall review the above information to determine if a permit revision is necessary. Such notification shall include:

   a. Name of chemical;
   b. Chemical manufacturer;
   c. Frequency of use;
   d. Quantities to be used;

4. The District shall notify the Department within 24 hours of any unanticipated ~~diversions~~ bypasses of flow through the G-407 Diversion Structure. The District shall notify the Department as soon as practicable in advance of anticipated bypasses ~~diversions~~, with the exception of routine maintenance. The submitted notification shall include a description of the circumstances related to the ~~diversion~~ bypass and a projection of the anticipated duration of the bypass ~~diversion~~. All ~~diversions~~ bypasses occurring through the G-407 structure shall be monitored for the parameters listed in the table below. As soon as practicable after cessation of all bypasses ~~diversions~~, the District shall submit a summary of the data collected from the table below, and identify the duration of the bypasses ~~diversions~~. Bypasses shall be limited to the shortest time possible and are not allowed solely to achieve the WQBEL. Bypasses are subject to and must meet the requirements of Items VIII.20, 21, and 22 of this permit.

Parameter	Units	Sample Type	Frequency
Total Phosphorus	mg/l	Grab	Weekly
Flow	CFS	Calculated	Daily Average

5. Monitoring requirements under this permit are effective on the first day of the second month following permit issuance. Until such time, the permittee shall continue to monitor and report in accordance with previously effective permit requirements, if any. During the period of operation authorized by this permit, the permittee shall complete and submit Discharge Monitoring Reports (DMRs) in accordance with the frequencies specified by the REPORT type below and indicated on the DMR forms. Monitoring results for each monitoring period shall be submitted in accordance with the associated DMR due dates to the address specified below.

REPORT Type On DMR	Monitoring Period	DMR Due Date
Monthly[3]	first day of month – last day of month	28th day of the third month following the month of sampling
Annual	May – April	28th day of July

Florida Department of Environmental Protection
Wastewater Compliance Evaluation Section, Mail Station 3551
Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

6. Unless specified otherwise in this permit, all reports and notifications required by this permit, including twenty-four hour notifications, shall be submitted to or reported to the Department's Tallahassee Office and the Southeast District Office at the address specified below:

Florida Department of Environmental Protection
Division of Water Resource Management
Water Quality Standards & Special Projects Program
2600 Blair Stone Road, MS 3560
Tallahassee, Florida 32399-2400
Phone Number – (850) 245-8416
Fax Number* - (850) 412-0681

AND

Florida Department of Environmental Protection
Southeast District Office
400 N. Congress Avenue
West Palm Beach, Florida 33416-5425
Phone Number – (561) 681-6600
Fax Number* - (561) 681-6755

*All FAX copies shall be followed by original copies.

7. The permittee shall submit an Annual Report (the South Florida Environmental Report) demonstrating compliance with the terms of this permit and according to the schedule as set forth in Section VI.1. The Annual Report shall provide ~~a compliance evaluation of the STA-6 project and~~ details regarding the status of implementation of the requirements of ~~improvements, enhancements, and strategies identified in~~ this permit. Specifically, the report shall include details regarding:

   a. Implementation of ~~projects~~ the WQBEL and activities required by this permit and affecting flows and loads to STA-6;

   b. source control implementation and optimization;

   c. STA design modifications affecting implementation of the WQBEL and activities required by this permit;

   d. improvements, enhancements, and strategies that have been initiated and/or completed within the

[3] DMRs shall be submitted for each required monitoring period including months of no discharge

previous year;

e. any delays in the requirements of this permit, ~~implementation of the improvements, enhancements, or strategies and~~ the duration of the delays, the reason(s) for the delays, and the expected timeframe for their resolution;

f. operational status of the STA – whether it was in start-up or routine operations;

g. ~~whether the facility is achieving the effluent limitations set forth in the TBEL and/ or~~ the implementation status of STA Recovery Plans;

h. whether revisions and/or additions to the requirements of this permit ~~improvements, enhancements, and strategies~~ are recommended;

i. For any noncompliance with permit conditions, an evaluation of the cause(s) and implementation of remedial measures ~~implementation of remedial measures in the event of non-compliance with permit conditions~~; and

j. An assessment of the inflow volumes and phosphorus loads during the year relative to the ~~anticipated~~ operational envelope contained in the Technical Support Document for the STA-6 and whether the facility was operated within or outside of the operational envelope.

8. All reports and other information shall be signed in accordance with requirements of Rule 62-620.305, F.A.C.

9. The permittee shall provide safe access points for obtaining representative samples which are required by this permit.

Upon demonstration that a specific parameter(s) is consistently shown to be undetected in the effluent, the permittee shall request a modification to the monitoring program as appropriate. A minimum of one year of data, for those parameters being sampled quarterly or more frequently, shall be required prior to the Department approving any modification to the monitoring program. The Department may approve a reduction of the monitoring frequency or waive the monitoring requirement for parameters which are consistently shown to be undetected in the effluent.

10. The permittee shall report with the monthly DMR if operation of facilities is impacted by or constrained due to requirements under the Endangered Species Act or Migratory Bird Treaty Act. The report should include the species involved, an estimate of the number of individuals involved, actions taken to avoid deleterious impacts on the endangered species, the affect those actions had on compliance with any condition of this permit, and an estimate of when facility operation will no longer be impacted or constrained.

II. Industrial Sludge Management Requirements

1. This section is not applicable to this facility.

III. Ground Water Monitoring Requirements

1. This section is not applicable to this facility.

IV. Other Land Application Requirements

1. This section is not applicable to this facility.

V. Operation and Maintenance Requirements

A. Operation of Treatment Facilities

1. The permittee shall ensure that the operation of this facility is as described in the application and supporting documents.

2. The operation of the pollution control facilities described in this permit shall be under the supervision of a person who is qualified by formal training and/or practical experience in the field of water pollution control.

3. Activities such as ongoing maintenance may have adverse impacts on STA performance. In addition, major events may compromise the structural integrity or performance of the STA or section(s) of the STA. Such activities or events shall be subject to the planned changes, bypass, and/or upset provisions set forth in Section VIII Paragraphs 17, 22 and 23.

B. Record Keeping Requirements

1. The permittee shall maintain the following records at the South Florida Water Management District's (District) headquarters and make them available for inspection:

   a. Records of all compliance monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, including, if applicable, a copy of the laboratory certification showing the certification number of the laboratory, for at least three years from the date the sample or measurement was taken;

   b. Copies of all reports, other than those required in items a. and f. of this section, required by the permit for at least three years from the date the report was prepared, unless otherwise specified by Department rule;

   c. Records of all data, including reports and documents used to complete the application for the permit for at least three years from the date the application was filed, unless otherwise specified by Department rule;

   d. A copy of the current permit;

   e. A copy of any required record drawings;

   f. Copies of the logs and schedules showing plant operations and equipment maintenance for three years from the date on the logs or schedule.

VI. Schedules

1. The Annual Report shall be received by the Department no later than March 1 of each year following the effective date ~~of issuance~~ of this permit. Each Annual Report shall present the information for the previous water year, from May 1 to April 30. Upon approval by the Department, the District may modify the Annual Report submission date to coincide with multiple reporting requirements and time periods needed for data acquisition and analysis.

2. A revised Pollution Prevention Plan (PPP) shall be prepared and implemented in accordance with the following schedule:

	Action Item	Scheduled Completion Date
1	Develop and implement revised Pollution Prevention Plan	~~Completion of scheduled Long Term Plan enhancements to STA-6~~ As needed upon completion of and compliance with the requirements of this permit
2.	Submittal of revised Pollution Prevention Plan if additional enhancements are implemented	Changes that warrant modifications to the current PPP + 90 days

3. Upon completion of and compliance with the requirements specified herein, the permittee shall submit to the Department an updated Operations Plan for STA-6. Until the updated Operations Plan is submitted by the permittee and approved by the Department, the previously existing Operations Plan shall remain in effect.

VII. Other Specific Conditions

A. Specific Conditions Applicable to All Permits

1. Drawings, plans, documents or specifications submitted by the permittee, not attached hereto, but retained on file with the Department, are made a part hereof.

2. Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.) F.S., applicable portions of reports to be submitted under this permit shall be signed and sealed by the professional(s) who prepared them.

3. This permit satisfies the Industrial Wastewater Program permitting requirements only and does not authorize operation of this facility prior to obtaining any other permits required by local, state or federal agencies.

B. Specific Conditions Related to Construction

1. Within 30 days of completion of construction, the permittee shall submit to the Department a completed "Certification of Completion of Construction" (DEP Form 62-620.910(12)) signed and sealed by the engineer of record or other engineer registered in the state of Florida.

2. Record drawings shall be prepared and made available in accordance with Rule 62-620.410(6), F.A.C., and the Department of Environmental Protection Guide to Wastewater Permitting within six months of placing the facilities into operation.

C. Duty to Reapply

1. The permittee shall apply for renewal of this permit at least 180 days before the expiration date of the permit using the appropriate forms listed in Rule 62-620.910, F.A.C., including submittal of the appropriate processing fee set forth in Rule 62-4.050, F.A.C.

D. Specific Conditions Related to the Pollution Prevention Plan

1. A revised Pollution Prevention Plan (PPP) shall be prepared, submitted to the Department for review and approval, and implemented in accordance with the schedule set forth in Section VI.2.

2. The STA-6 Project shall be operated in accordance with the existing PPP (Exhibit C) until such time as a revised PPP is approved by the Department. If the permitted facilities are demonstrated not to be

achieving compliance with the requirements of this permit, the permittee shall submit a modified PPP for Department review and approval as appropriate.

E. Reopener Clause

1. The permit shall be revised, or alternatively, revoked and reissued in accordance with the provisions contained in Rules 62-620.325 and 62-620.345, F.A.C., if applicable, or to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act (the Act), as amended, if the effluent standard, limitation, or water quality standard so issued or approved:

   a. Contains different conditions or is otherwise more stringent than any condition in the permit; or,

   b. Controls any pollutant not addressed in this permit.

   The permit as revised or reissued under this paragraph shall contain any other requirements of the Act then applicable.

2. The permit may be reopened to adjust effluent limitations or monitoring requirements should future water quality based effluent limitation (WQBEL) determinations, water quality studies, Department approved changes in water quality standards, or other information show a need for a different limitation or monitoring requirement.

3. The Department may develop a Total Maximum Daily Load (TMDL) during the life of the permit. Once a TMDL has been established and adopted by rule, the Department may revise this permit to incorporate the final findings of the TMDL, in accordance with Section 403.067, F.S.

F. Implementation of Source Control Programs.

1. **Implementation.** The permittee shall continue to implement source control programs in each of the contributing basins in accordance with Chapter 40E-63, F.A.C. and other applicable programs. Basins that do not presently include source control programs shall be monitored to determine if such programs are necessary in the event that phosphorus loads to the facility from these basins limit the facility or facilities progress towards achieving the WQBEL

2. **Performance.** On an annual basis, the permittee shall evaluate the performance of source controls in the contributing basins and include the findings in the annual report required in Item I.E.7. The report shall include phosphorus loads from the basins and shall describe trends and compare current loads to those determined necessary to achieve the WQBEL.

3. **Improvements.** If the WQBEL is not achieved and if the assumed inflow concentration used to develop the Amended Determination remedy is exceeded, the permittee shall submit, as part of the annual reporting requirements in Item I.E.7, a report explaining the cause(s) for the excess loads and, if applicable, schedules and strategies for source control improvements necessary to achieve the WQBEL.

VIII. General Conditions

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit are binding and enforceable pursuant to Chapter 403, F.S. Any permit noncompliance constitutes a violation of Chapter 403, F.S., and is grounds for enforcement action, permit termination, permit revocation and reissuance, or permit revision. *[62-620.610(1), F.A.C.]*

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications or conditions of this permit constitutes grounds for revocation and enforcement action by the Department. *[62-620.610(2), F.A.C.]*

3. As provided in Subsection 403.087(7), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor authorize any infringements of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit or authorization that may be required for other aspects of the total project which are not addressed in this permit. *[62-620.610(3), F.A.C.]*

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title. *[62-620.610(4), F.A.C.]*

5. This permit does not relieve the permittee from liability and penalties for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted source; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department. The permittee shall take all reasonable steps to minimize or prevent any discharge, reuse of reclaimed water, or residuals use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. *[62-620.610(5), F.A.C.]*

6. If the permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee shall apply for and obtain a new permit. *[62-620.610(6), F.A.C.]*

7. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control, and related appurtenances, that are installed and used by the permittee to achieve compliance with the conditions of this permit. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to maintain or achieve compliance with the conditions of the permit. *[62-620.610(7), F.A.C.]*

8. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit revision, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. *[62-620.610(8), F.A.C.]*

9. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, including an authorized representative of the Department and authorized U.S. Environmental Protection Agency (EPA) personnel, when applicable, upon presentation of credentials or other documents as may be required by law, and at reasonable times, depending upon the nature of the concern being investigated, to
    a. Enter upon the permittee's premises where a regulated facility, system, or activity is located or conducted, or where records shall be kept under the conditions of this permit;
    b. Have access to and copy any records that shall be kept under the conditions of this permit;
    c. Inspect the facilities, equipment, practices, or operations regulated or required under this permit; and
    d. Sample or monitor any substances or parameters at any location necessary to assure compliance with this permit or Department rules.

    [62-620.610(9), F.A.C.]

10. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data, and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except as such

use is proscribed by Section 403.111, Florida Statutes, or Rule 62-620.302, F.A.C. Such evidence shall only be used to the extent that it is consistent with the Florida Rules of Civil Procedure and applicable evidentiary rules. *[62-620.610(10), F.A.C.]*

11. When requested by the Department, the permittee shall within a reasonable time provide any information required by law which is needed to determine whether there is cause for revising, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also provide to the Department upon request copies of records required by this permit to be kept. If the permittee becomes aware of relevant facts that were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be promptly submitted or corrections promptly reported to the Department. *[62-620.610(11), F.A.C.]*
12. Unless specifically stated otherwise in Department rules, the permittee, in accepting this permit, agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard. *[62-620.610(12), F.A.C.]* However, this section cannot be used as a basis to extend the time to comply with the permit's total phosphorus WQBELs or to obtain a mixing zone to meet the total phosphorus water quality criterion.

13. The permittee, in accepting this permit, agrees to pay the applicable regulatory program and surveillance fee in accordance with Rule 62-4.052, F.A.C. *[62-620.610(13), F.A.C.]*

14. This permit is transferable only upon Department approval in accordance with Rule 62-620.340, F.A.C. The permittee shall be liable for any noncompliance of the permitted activity until the Department approves the transfer. *[62-620.610(14), F.A.C.]*

15. The permittee shall give the Department written notice at least 60 days before inactivation or abandonment of a wastewater facility and shall specify what steps will be taken to safeguard public health and safety during and following inactivation or abandonment. *[62-620.610(15), F.A.C.]*

16. The permittee shall apply for a revision to the Department permit in accordance with Rule 62-620.300, F.A.C., and the Department of Environmental Protection Guide to Wastewater Permitting at least 90 days before construction of any planned substantial modifications to the permitted facility is to commence or with Rule 62-620.325(2), F.A.C., for minor modifications to the permitted facility. A revised permit shall be obtained before construction begins except as provided in Rule 62-620.300, F.A.C. *[62-620.610(16), F.A.C.]*

17. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The permittee shall be responsible for any and all damages which may result from the changes and may be subject to enforcement action by the Department for penalties or revocation of this permit. The notice shall include the following information:
    a. A description of the anticipated noncompliance;
    b. The period of the anticipated noncompliance, including dates and times; and
    c. Steps being taken to prevent future occurrence of the noncompliance.

    [62-620.610(17), F.A.C.]

18. Sampling and monitoring data shall be collected and analyzed in accordance with Rule 62-4.246, Chapters 62-160 and 62-601, F.A.C., and 40 CFR 136, as appropriate.
    a. Monitoring results shall be reported at the intervals specified elsewhere in this permit and shall be reported on a Discharge Monitoring Report (DMR), DEP Form 62-620.910(10), or as specified elsewhere in the permit.

b. If the permittee monitors any contaminate more frequently than required by the permit, using Department approved test procedures, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
c. Calculations for all limitations which require averaging of measurements shall use an arithmetic mean unless otherwise specified in this permit.
d. Except as specifically provided in Rule 62-160.300, F.A.C., any laboratory test required by this permit shall be performed by a laboratory that has been certified by the Department of Health Environmental Laboratory Certification Program (DOH ELCP). Such certification shall be for the matrix, test method and analyte(s) being measured to comply with this permit. For domestic wastewater facilities, testing for parameters listed in Rule 62-160.300(4), F.A.C., shall be conducted under the direction of a certified operator.
e. Field activities including on-site tests and sample collection shall follow the applicable standard procedures described in DEP-SOP-001/01 adopted by reference in Chapter 62-160, F.A.C.
f. Alternate field procedures and laboratory methods may be used where they have been approved in accordance with Rules 62-160.220 and 62-160.330, F.A.C.
[62-620.610(18), F.A.C.]

19. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule detailed elsewhere in this permit shall be submitted no later than 14 days following each schedule date. *[62-620.610(19), F.A.C.]*

20. The permittee shall report to the Department's Tallahassee Office and the Southeast District Office any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain: a description of the noncompliance and its cause; the period of noncompliance including exact dates and time, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
    a. The following shall be included as information which must be reported within 24 hours under this condition:
        (1) Any unanticipated bypass which causes any reclaimed water or effluent to exceed any permit limitation or results in an unpermitted discharge,
        (2) Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit,
        (3) Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit for such notice, and
        (4) Any unauthorized discharge to surface or ground waters.
    b. Oral reports as required by this subsection shall be provided as follows:
        (1) For unauthorized releases or spills of untreated or treated wastewater reported pursuant to subparagraph a.(4) that are in excess of 1,000 gallons per incident, or where information indicates that public health or the environment will be endangered, oral reports shall be provided to the Department by calling the STATE WARNING POINT TOLL FREE NUMBER (800) 320-0519, as soon as practical, but no later than 24 hours from the time the permittee becomes aware of the discharge. The permittee, to the extent known, shall provide the following information to the State Warning Point:
            (a) Name, address, and telephone number of person reporting;
            (b) Name, address, and telephone number of permittee or responsible person for the discharge;
            (c) Date and time of the discharge and status of discharge (ongoing or ceased);
            (d) Characteristics of the wastewater spilled or released (untreated or treated, industrial or domestic wastewater);
            (e) Estimated amount of the discharge;
            (f) Location or address of the discharge;
            (g) Source and cause of the discharge;

(h) Whether the discharge was contained on-site, and cleanup actions taken to date;
(i) Description of area affected by the discharge, including name of water body affected, if any; and
(j) Other persons or agencies contacted.

(2) Oral reports, not otherwise required to be provided pursuant to subparagraph b.(1) above, shall be provided to Department's Southeast District Office within 24 hours from the time the permittee becomes aware of the circumstances.

c. If the oral report has been received within 24 hours, the noncompliance has been corrected, and the noncompliance did not endanger health or the environment, the Department's Southeast District Office shall waive the written report.

[62-620.610(20), F.A.C.]

21. The permittee shall report all instances of noncompliance not reported under Conditions VIII. 17, 18, 19, and 20 of this permit at the time monitoring reports are submitted. This report shall contain the same information required by Condition VIII.20. of this permit. *[62-620.610(21), F.A.C.]*

22. Bypass Provisions. The term "bypass" shall mean the intentional diversion of waste streams from any portion of the treatment works.

a. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless the permittee affirmatively demonstrates that:
(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and
(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
(3) The permittee submitted notices as required under Condition VIII.22.b. of this permit.

b. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least 10 days before the date of the bypass. The permittee shall submit notice of an unanticipated bypass within 24 hours of learning about the bypass as required in Condition VIII.20. of this permit. A notice shall include a description of the bypass and its cause; the period of the bypass, including exact dates and times; if the bypass has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.

c. The Department shall approve an anticipated bypass, after considering its adverse effect, if the permittee demonstrates that it will meet the three conditions listed in Condition VIII.22 a.(1) through (3) of this permit.

d. A permittee may allow any bypass to occur which does not cause reclaimed water or effluent limitations to be exceeded if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of Condition VIII.22.a. through c. of this permit.
[62-620.610(22), F.A.C.]

23. Upset Provisions

a. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:
(1) An upset occurred and that the permittee can identify the cause(s) of the upset;
(2) The permitted facility was at the time being properly operated;
(3) The permittee submitted notice of the upset as required in Condition VIII.20. of this permit; and
(4) The permittee complied with any remedial measures required under Condition VIII.5. of this permit.

b. In any enforcement proceeding, the burden of proof for establishing the occurrence of an upset rests with the permittee.

c. Before an enforcement proceeding is instituted, no representation made during the Department review of a claim that noncompliance was caused by an upset is final agency action subject to judicial review.
[62-620.610(23), F.A.C.]

DONE AND ORDERED on this 4th day of September, 2007 in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

_____
Michael W. Sole
Secretary

MS/jb/jh

FILING AND ACKNOWLEDGMENT

FILED, on this date, under Section 120.52, F.S., with the designated deputy clerk, receipt of which is hereby acknowledged.

_____
Clerk Date

PARTIES REQUESTING NOTICE:

Miccosukee Tribe of Indians of Florida, c/o Dexter Lehtinen, Esq.
Miccosukee Tribe of Indians of Florida, c/o Kelly Brooks, Esq.
United States Sugar Corporation, c/o Bubba Wade
Seminole Tribe of Indians of Florida, c/o Stephen A. Walker, Esq.
Sugar Cane Growers Cooperative, Roth Farms, Inc., and Wedgeworth Farms, Inc.,
c/o William H. Green, Esq.
Keith Saxe, Esq., U. S. Department of Justice
Michael Stevens, U.S. Department of the Interior (fax)
Jeffrey J. Ward, Sugar Cane Growers Cooperative
Philip S. Parsons, Landers & Parsons
Helen Hickman, Brown & Caldwell
Tom MacVicar, MacVicar, Frederico, & Lamb
Charles Lee, Florida Audubon Society
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COPIES FURNISHED TO:

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Susan Teel, U.S. Fish and Wildlife Service
Jeff Bielling, FL. Dept. of Community Affairs
Linda McCarthy, FL. Dept. of Agriculture
Charles Oravetz, Nat. Marine Fisheries Service
Don Klima, U.S. Advisory Council on Historic Preservation
John Childe, Friends of the Everglades
David Reiner, Friends of the Everglades
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Ken Haddad, Florida Fish and Wildlife Conservation Commission
Joe Walsh, Florida Fish and Wildlife Conservation Commission, Vero Beach

ADDITIONAL COPIES FURNISHED TO:

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Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

Type of Permit:	Everglades Forever Act Permit
Project:	Stormwater Treatment Area 1 West (STA-1W) & Stormwater Treatment Area 1 East (STA-1E)
County:	Palm Beach
Permit No.:	0279499-001-EM
Applicant:	South Florida Water Management District (District)
Applicant Address:	3301 Gun Club Road P. O. Box 24680 West Palm Beach, Florida 33416-4680
Authorization:	The Everglades Forever Act (EFA), Section 373.4592, Florida Statutes (F.S.); Sections 403.088 and 403.151, F.S.
Application Received:	December 23, 2003
Issuance Date:	November 16, 2007
Expiration Date:	November 15, 2012

This permit is issued in accordance with the Everglades Forever Act, Section 373.4592, Florida Statutes (F.S.)., authorizing operation and maintenance activities for the Stormwater Treatment Area 1 West (STA-1W) and Stormwater Treatment Area 1 East (STA-1E) Projects. Pursuant to Sections 403.088 and 403.151, F.S. this permit also contains ~~orders for~~ specific additional monitoring, reporting, and ~~construction~~ activities ~~designed~~ to achieve compliance with water quality standards and the WQBEL specified herein~~, as well as a schedule for implementing such requirements.~~ The above named permittee is hereby authorized to conduct the activities necessary to meet the requirements of this permit ~~described on the application, associated drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof~~. ~~The District has submitted an application for the use of moderating provisions pursuant to Rule 62.302.540 (6). It is anticipated the Department will act on the District's application for a moderating provision prior to the expiration of this permit. The issuance of this permit does not constitute agency action on or prejudice the adoption or denial of a moderating provision. This permit may be modified upon adoption of a moderating provision. In the event that a moderating provision is adopted, alterations to this permit shall be addressed through a permit modification.~~ The activities authorized by this permit must be conducted in conformance with all the provisions of this permit. Failure to comply with all the permit's conditions and documents referenced herein shall constitute grounds for revocation of the permit and appropriate enforcement action.

PROJECT DESCRIPTION:

This permit authorizes the continued operation and maintenance of STA-1W and STA-1E. STA-1W and STA-1E are a part of the Everglades Construction Project (ECP), construction, operation, and maintenance of which is required by the Everglades Forever Act (EFA), Section 373.4592, F.S. The STA-1W project (See Figure 1) consists of the S-5A Pump Station, the STA-1 Inflow Basin, the G-302 inflow structure, the STA-1W Interior Treatment Works, and the G-251 and G-310 Outflow Pump Stations. The STA-1E project (See Figure 2) consists of the STA-1E Inflow Pump Stations S-319 and S-361, Gated Spillway G-311, STA-1E Interior Treatment Works, C-51 Basin Divide Structure S-155A, C-51 Canal Improvements and STA-1E Outflow Pump Station S-362.

Initial construction of these facilities was previously authorized and completed under Florida Department of Environmental Protection (Department) Permit No. 0226317-001, FL0177962-001-IW7A, 0195030-001 and FL0304549-002-IW7A. ~~At the present time, structural, operational and vegetation enhancements are underway in accordance with the October 2003 Everglades Protection Area Tributary Basins Long Term Plan for Achieving Water Quality Goals and subsequent revisions (Long Term Plan, See Exhibit A), which are designed to optimize~~

~~performance as needed to achieve the phosphorus water quality standard. Construction of these enhancements is scheduled to be completed in accordance with Specific Condition 17 of this permit. A Periphyton based Stormwater Treatment Area (PSTA) demonstration project is also being operated by the U.S. Army Corps of Engineers (Corps) in Cell 2 of the Eastern Flow-way of STA-1E. Additional enhancements to STA-1W and STA-1E may occur as part of the adaptive implementation process required by the Long-Term Plan.~~ STA-1W and STA-1E are stormwater management systems (SMS) as defined in Subsection 373.403(10), F.S., and therefore are not subject to state surface water quality standards within STA-1W and STA-1E, pursuant to Section 373.4142, F.S.

Operation and maintenance activities authorized by this permit involve maintaining water levels within the STA to optimize phosphorus uptake effectiveness of the treatment area. Optimization of the treatment wetland is defined by its performance in removing the pollutants, particularly phosphorus, for which the project was designed. Other operation and maintenance activities authorized by this permit include: water quality and vegetation monitoring; preparation and submittal of monitoring reports; vegetation maintenance; and, maintenance of the water control structures (including canals and levees).

The STA-1W and STA-1E treatment facilities are hydrologically connected and interrelated, and will be operated in concert with each other. Assuming normal operating conditions, the STA-1W and STA-1E treatment facilities discharge into the northwestern and northeastern portion, respectively, of the Arthur R. Marshall Loxahatchee National Wildlife Refuge (Refuge), also known as Water Conservation Area (WCA) 1. Both of the facilities, as well as their associated diversion structures, discharge into impacted areas of the Everglades Protection Area, as defined in 62-302.540(3)(d). Wetlands and surface waters located within the receiving water body, the Refuge, are Class III and also Outstanding Florida Waters, pursuant to Rule 62-302.700(9)(b)17, Florida Administrative Code (F.A.C.). The Department has determined that operation and maintenance of the project is consistent with the anti-degradation requirements of Rules 62-4.242(1)-(2) and 62-302.300, F.A.C. and is clearly in the public interest pursuant to Subsection 373.4592(9)(a), F.S. and the requirements of Rule 62-4.242(2), F.A.C.

The STA-1 Inflow Basin is designed to allow the direction, redirection, and ~~diversion~~ bypasses of inflows between STA-1W and STA-1E. The STA-1 Inflow Basin performs three major functions associated with the delivery of water: Direction, Redirection, and Bypass ~~Diversion~~.

- Direction occurs when water from the S-5A Pump Station is being directed into the intended STA(s) through the respective inflow structures located within the STA-1 Inflow Basin.

- Redirection occurs when: water exits the STA-1E facility, via the G-311 structure, and is routed through the G-302 structure into STA-1W for treatment; when water from the STA-1 Inflow Basin is discharged through the S-5AS spillway to the L-8 Basin north of the STA-1 Inflow Basin for water supply deliveries; and, when flows from S-5A enter STA-1E via the G-311 structure. The G-311 has the ability to flow in or out of the STA-1E facility, which allows for the utilization of both STAs in the treatment of water prior to discharge into the Refuge. Runoff could be redirected to STA-1W through the G-311 Structure; however, the present design of STA-1E is such that no redirection should be necessary as a result of hydraulic limitations in STA-1E except in response to extreme storm events or if one or more of the STA-1E flow-ways are off-line, as will be the case during the operation of the Periphyton Stormwater Treatment Area (PSTA) demonstration project being conducted by the Corps of Engineers in the Eastern flow-way of STA-1E. The current design and operation contemplates that redirection of flows from S-5A to STA-1E will occur during normal operations whenever the discharge from the S-5A Pump Station to STA-1W exceeds the hydraulic capacity of STA-1W or when other contributing factors warrant such redirection in order to optimize system performance.

- ~~Diversion~~ Bypass occurs when water from the STA-1 Inflow Basin is directed untreated into the Refuge through the G-300 and/or G-301 structures. ~~Diversion~~ Bypass may occur for water supply needs (see Section II below) or when discharges from the S-5A or S-319 pump stations will exceed the hydraulic capacity of the STAs, which will compromise the safe operation of the facilities. This may occur when stage elevations of waters, rates of inflows, or the duration of sustained inundation creates conditions threatening the survival of marsh vegetation and the treatment efficiency of the project or when water

supply needs require it. Except for instances where flow is intentionally ~~diverted~~ bypassed for water supply needs (See Section I below), all ~~diversions~~ bypasses will be monitored and reported in accordance with Specific Condition 26. With the exception of the aforementioned circumstances, it is the Department's expectation that the District shall limit the occurrence of all ~~diversions~~ bypasses from the G-300 and G-301 structures.

~~While it is hydrologically possible for the STA-1 Inflow Basin to also accept runoff from the L-8 Basin and Lake Okeechobee regulatory releases, it is not designed to regularly accept water from these sources. However, these flows are anticipated to continue to enter the STA-1 Inflow Basin until the additional projects necessary for diversion of these sources are complete.~~

The District is the Local Sponsor of the Congressionally-mandated Central and South Florida Project for Flood Control and Other Purposes, and must operate STA-1E, STA-1W, S-5A and other structures as necessary to fulfill its obligations as Local Sponsor, including but not limited to providing flood control and water supply throughout South Florida.

PROJECT COMPONENTS:

The individual ECP components included in STA-1W are as follows: The S-5A Pump Station, STA-1 Inflow Basin, STA-1W Interior Treatment Works, and both the G-251 and G-310 Outflow Pump Stations. Collectively, these components are referred to as the District's STA-1W Project (STA-1W). While the S-5A Pump Station and the STA-1 Inflow Basin distribute water to the STAs and they are considered an integral part of the operation of STA-1W, these portions of the facility are considered conveyance mechanisms and are not part of the treatment works.

The individual ECP components included in STA-1E are as follows: S-319 Inflow Pump Station, S-361 Inflow Pump Station, G-311 Gated Spillway, STA-1E Interior Treatment Works, S-362 Outflow Pump Station, C-51 Basin Divide Structure S-155A, and the C-51 Canal Improvements. While the East and West Distribution Cells distribute water to the STA and they are considered an integral part of the operation of STA-1E, these portions of the facility are considered conveyance mechanisms and are not part of the treatment works.

Below are descriptions of the ECP works taken from:

- The Conceptual Design Document for the Everglades Protection Project, reference page VII-11 (1994);
- Detailed Design Report for Stormwater Treatment Area 1 West (June 1996);
- Supplement to the STA-1W Detailed Design Report, Hutcheon Engineers (October 1996);
- Final Design Report for Storm Water Treatment Area 1 Inflow and Distribution Works, Stanley Consultants Inc. (September 1996);
- Final Design Report for Pumping Stations G-310 and G-335, Brown and Caldwell (January 1997); Addendum To Design Documentation Report Stormwater Treatment Area 1 East (May 2000);
- Stormwater Treatment Area 1 East Period of Record Dry-Out Analysis (June 2000);
- C-51 & STA 1 East Design Documentation Report (October 1999);
- Permit Application for STA-1W prepared by the South Florida Water Management District (June 1997);
- Permit Application for STA-1E prepared by the South Florida Water Management District (February 2002);
- Central and Southern Florida Project For Flood Control And Other Purposes, Stormwater Treatment Area 1 East C-51 Improvements, Construction and Solicitation and Specifications (September 2003);

- *Everglades Protection Area Tributary Basins Long Term Plan for Achieving Water Quality Goals* (Long-Term Plan, October 2003); and subsequnt revisions;
- Permit Renewal and Modification Application for STA-1W and the Modification Application for STA-1E (December 2003);
- The Design Analysis Report for STA-1E, Cell 1-2, PSTA/SAV Field-Scaled Demonstration Project (September 2005);
- STA-1E PSTA Demonstration Project, Engineering Plans (2005);,
- STA-1E PSTA Construction Solicitation Specifications (July 2005);
- Design Analysis Report for the STA-1E PSTA demonstration DAR FAV Addendum (June, 2006),
- Operations Plan for the STA-1E, Cells 1-2 PSTA/ SAV Field Scale Demonstration Project (June, 2006);
- Draft Operations and Partnering Plan for the STA-1E Cells 1-2 PSTA/SAV Field-Scaled Demonstration Project (November 2006);
- Draft Monitoring Plan for the STA-1E Cells 1-2 PSTA/SAV Field-Scaled Demonstration Project (June 2006).
- ~~Technical Support Document for the STA-1E TBEL (Goforth *et al*. 2007); and,~~
- ~~Technical Support Document for the STA-1W TBEL (Goforth *et al*. 2007).~~

I. S-5A Pump Station

The S-5A Pump Station provides flood protection to an upstream agricultural basin of approximately 230 square miles. The removal of ~~stormwater~~ wastewater runoff from the upstream basin has been, and will continue to be, the primary function of the S-5A Pump Station. In addition to flood control for the S-5A tributary basin, the S-5A Pump Station has been used to remove excess flows from the L-8, East Beach Water Control District, and Western C-51 Basins as well as to convey excess water from Lake Okeechobee (when it is above its regulation schedule) to the Refuge. It is also used to convey water from Lake Okeechobee to the Refuge for the purpose of water supply for points downstream of the pump station. This structure is a six-unit pumping plant located on the south side of State Road 80 and the West Palm Beach Canal about 20 miles west of West Palm Beach. The pump station is equipped with six pumps each rated at 800 cubic feet per second (cfs) at a static head of 11.1 feet, with a combined capacity of 4,800 cfs.

II. STA-1 Inflow Basin

The STA-1Inflow Basin includes physical works adjacent to the north end of the WCA-1 (outside the boundaries of the Refuge) that convey ~~stormwater~~ non-process wastewater and other discharges from the existing S-5A Pump Station to STA-1W, STA-1E, the Refuge, and the L-8 Basin. These works consist of a separation levee, access canal, five remotely automated control structures (G-311, G-300, G-301, G-302, and S-5AS) and three associated control buildings. The G-311 structure serves as one of the two inflow compliance monitoring stations for STA-1E. The G-302 structure serves as the inflow compliance monitoring station for STA-1W. Besides conveyance of flows, the STA-1 Inflow Basin may also be used to facilitate the transfer of flow between STA-1W and STA-1E, which allows the utilization of both STAs to treat runoff and discharged waters from the S-5A Basin, the Western C-51 Basin, the L-8 Basin, Lake Okeechobee regulatory releases, the East Beach Water Control District and, runoff from the Village of Wellington Acme Basin B. When required by operational constraints in the STAs or other considerations, S-5A Pump Station outflows may be diverted around STA-1W and STA-1E and discharged directly into the Refuge via the G-300 and/or G-301 structures, or into the L-8 Basin via the S-5AS structure. Water supply deliveries may be made to the L-8 Basin via the S-5AS structure. In addition, G-300 and G-301 may be operated to avoid hydrological overloading of the STAs or water conditions within the STAs that may damage existing vegetation.

III. Inflow Pump Stations S-319

Inflow Pump Station S-319 accepts ~~stormwater~~ non-process wastewater runoff and other flows from the C-51 Canal and conveys it to the Eastern Distribution Cell of STA-1E where it can be routed through the S-375 structure to the West Distribution Cell. S-319 is the primary point of inflow to STA-1E. The pump station is located approximately 2 miles east of the S-5A Pump Station and approximately 2 miles west of Flying Cow Road. Water from the distribution cells can also be discharged into the STA-1 Inflow Basin via the G-311 structure or released back through the S-319 Pump Station by gravity to the Western C-51 Canal.

IV. Inflow Pump Station S-361

Inflow Pump Station S-361 is a secondary inflow pump station that discharges directly into treatment Cell 4S of STA-1E. S-361 has three vertical electric pumps (approximately 75 cfs capacity) with diesel power back-up. S-361 is located on the southeastern perimeter of STA-1E. S-361 serves to preserve permitted drainage for the Rustic Ranches subdivision and agricultural lands located in Section 24, south and east of STA-1E. In addition, S-361 also serves to return collected seepage into STA-1E.

V. Gated Spillway G-311

The G-311 Gated Spillway, a three bay reinforced spillway situated in the northwest corner of STA-1E, east of the L-40 Borrow Canal, serves to direct flows between the STA-1 Inflow Basin and STA-1E. The structure has the capability to accept S-5A Pump Station when water from the STA-1 Inflow Basin is discharged into the STA-1E Western Distribution Cell from the STA-1 Inflow Basin or redirect inflows from the S-319 Pump Station into the STA-1 Inflow Basin, where it can then be routed into STA-1W through the G-302 Gated Spillway inflow structure or diverted directly into the L-40 Borrow canal through the G-300 Gated Spillway, and/or diverted directly into the L-7 Borrow Canal through the G-301 Gated Spillway.

VI. STA-1W Interior Treatment Works

STA-1W is located on the northwest border of the Refuge in Palm Beach County. The facility consists of a wetland marsh system which utilizes biological treatment technology in the removal of nutrients from ~~stormwater~~ non-process wastewater entering the facility. Wetland vegetation within STA-1W is managed in conjunction with hydrologic operations to maintain optimal performance levels within the facility. The structural works (See Figure 1) involved in the operation of STA-1W consist of inflow and discharge conveyance canals, treatment cell divide levees, gravity flow control structures, pump stations, and independent treatment paths (Flow-ways 1-3).

All untreated ~~stormwater~~ wastewater flows enter the STA-1W Interior Treatment Works through the G-302 inflow structure and are dispersed throughout the facility by a series of internal structures. During the design storm event, approximately 55% of the water entering the inflow canal from the G-302 structure will be routed to Flow-ways 1 & 2 via the G-303 structure. Flow-way 1, the "Eastern" flow-way, is comprised of Treatment Cells 1A, 1B, and 3. Cells 1B and 3 are currently being converted to submerged aquatic vegetation through 2008. Water entering Flow-way 1 follows a north to south sheet-flow path and discharges from the facility via the G-251 Outflow Pump Station. Under high flow conditions, water in Flow-way 1 may be conveyed through the G-308 and G-259 structures into the Western Discharge Canal and exit the facility via the G-310 Outflow Pump Station.

Flow-way 2, the "Western" flow-way, is comprised of Treatment Cells 2A, 2B, and 4. Water entering Flow-way 2 follows a general north to south sheet-flow path and is conveyed through the G-309, G-258, and/or G-307 structures to the Western Discharge Canal and is then discharged to the Refuge via the G-310 Outflow Pump Station.

The remaining flows entering STA-1W are routed to Flow-way 3 via structures G-304A-J. Flow-way 3, the "northern" flow-way, is comprised of Treatment Cells 5A and 5B. Water entering Flow-way 3 follows an east to west sheet-flow path. Treated water exits Flow-way 3 through the G-306A-J structures and enters the Western discharge canal where it is discharged from the facility via the G-310 Outflow Pump Station. Seepage from Flow-way 3 enters a seepage collection canal, located along the north side of Flow-way 3 from the west end and moves to the east end of the canal where it is returned via the seepage collection canal system and returned via the G-250S Pump Station to Flow-ways the front end of 1. Seepage is also collected via the G-327B Seepage Pump Station and is used to maintain stages within Cell 5B. The combination of all three treatment paths provides an effective treatment area of 6,670 acres.

VII. STA-1E Inflow Distribution Cells

~~Stormwater~~ Wastewater from the S-319 Pump Station is directed into the Eastern Distribution Cell, located at the northern-most part of STA-1E. ~~Stormwater~~ Wastewater may also enter the Western Distribution Cell from STA-1 Inflow Basin via the G-311 Gated Spillway. The Eastern and Western Distribution Cells are divided by a center levee. Inflow water is routed between the Eastern and Western Distribution Cells by the operation of the S-375 gated box culverts located in the center levee. After inflow water is directed into the Eastern or Western Distribution Cell, it is then routed to one or more of the three separate and independently operable treatment paths or flow-ways.

VIII. STA-1E Interior Treatment Works

STA-1E is located on the northeast border of the Refuge in Palm Beach County. The facility consists of a wetland marsh system which utilizes biological treatment technology in the removal of nutrients from ~~stormwater~~ non-process wastewater entering the facility. Wetland vegetation within STA-1E is managed in conjunction with hydrologic operations to maintain optimal performance levels within the facility. The structural works (See Figure 2) involved in the operation of STA-1E consist of inflow and discharge conveyance canals, treatment cell divide levees, gravity flow control structures, pump stations, and independent treatment paths (Flow-ways 1-3).

Once inflow water is directed to the Eastern Distribution Cell, it can be routed to treatment Cell 1 of the Eastern most flow-way (Flow-way 1; Cells 1-2) via the S-363 A-C structures where it would continue in a north-to-south path into treatment Cell 2 via the S-364 A-C structures. Treated water would then be routed from treatment Cell 2 into the discharge collection canal via the S-365 A-B structures and then discharged into the Refuge through the S-362 Pump Station. All S-363, S-364, and S-365 structures are gated box culverts.

Inflow water that is directed to the Eastern Distribution Cell can also be routed to treatment Cell 3 of the central flow-way (Flow-way 2; Cells 3-4N-4S) or, under certain hydraulic conditions it is feasible to backflow through the S-319 Pump Station to the C-51 Canal. Inflow water enters treatment Cell 3 via the S-366 A-E structures, where it continues in a north-to-south path into treatment Cell 4N via the S-367 A-E structures and then into treatment Cell 4S via the S-368 A-E structures. Treated water is then routed from treatment Cell 4S into the discharge collection canal via the S-369 A-D structures and discharged into the Refuge through the S-362 Pump Station. All S-366, S-367, S-368, and S-369 structures are gated box culverts.

Inflow water that is directed to the Western Distribution Cell can be routed to treatment Cells 5 and 7 of the Western most flow-way (Flow-way 3; Cells 5, 6, & 7) or, under certain hydraulic conditions can flow from the Western Distribution Cell to the STA-1 Inflow Basin or back to the Eastern Distribution Cell where it can be released back to the C-51 Canal by gravity through the S-319 Pump Station. Water traveling to treatment Cell 5 via the S-370 A-C structures continues in a north-to-south path into treatment Cell 6 via the S-371 A-C structures. Water traveling to treatment Cell 7 via the S-373 A & B structures continues in a north-to-south path into treatment Cell 6 via the S-374 A-C structures. Treated water is then routed from treatment Cell 6 into the discharge collection canal via the S-372 A-E structures and discharged into the L-40 Canal through the S-362 Pump Station. All S-370, S-371, S-372, S-373 and S-374 structures are gated box culverts. The combination of all treatment paths provides an effective treatment area of 5,132 acres.

Seepage along the east side of STA-1E adjacent to treatment Cells 1, 2, and 4S is collected in a seepage collection canal, located immediately outside of the exterior levee (L-85). The seepage collection system connects directly to the C-51 Canal by gravity or collected seepage is routed into Cell 4S via the S-361 Pump Station.

The US Army Corps of Engineers (Corps or USACE) constructed a PSTA demonstration project in cell 2 of STA-1E. The District and the Corps shall coordinate operational schedules for the Eastern Distribution Cell, and Cells 1 and 2 of STA-1E as necessary. Interior PSTA demonstration cells will be used to evaluate three different alternatives for the development of activated PSTA. The field demonstration, expected to be conducted over a 24-month operation period, will be used to determine the optimum design parameters, operational parameters, and recommendations for full-scale implementation of PSTA for STA-1E. The conceptual treatment train for the field-scale demonstration of PSTA in STA-1E (Cells 1 and 2) will use Emergent Aquatic Vegetation (EAV) in Cell 1, 55 acres in the northern most portion of Cell 2 for Submerged Aquatic Vegetation area (SAV) and cyanobacteria-

dominated periphyton cells in the eastern third of Cell 2. A conceptual layout and a flow diagram of the EAV/SAV/PSTA treatment train in Cells 1 and 2 are shown in Figure 2.

IX. STA-1W Outflow Pump Stations G-251 & G-310

There are two primary discharge locations for STA-1W, Outflow Pump Stations G-251 and G-310, both of which act as the outflow compliance monitoring stations for the project. These two pump stations discharge directly into the L-7 Canal which is located within the Refuge. The combined capacity of these pump stations is 3,490 cubic feet per second (cfs). The G-310 Pump Station discharges treated water from Flow-ways 2 and 3 and also from Flow-ways 1 & 2 when outflows from the Flow-ways exceed the G-251 Pump Station nominal discharge capacity of 450 cfs.

a. The G-251 Pumping Station is the primary outflow pump station serving Flow-way 1 which discharges treated water into the Refuge. G-251 is equipped with six 36-inch diameter pumps, each with a maximum capacity of 75 cfs, for a total discharge capacity of 450 cfs. The G-251 Pump Station draws treated water from the STA-1W facility and releases those discharges into the L-7 canal.

b. The G-310 Pumping Station is the primary outflow pumping station serving Flow-ways 2 and 3, and which draws treated water from the STA-1W Western discharge canal and releases those discharges to the L-7 canal. This pumping station houses two 100 cfs, two 470 cfs, and two 950 cfs pumps with a maximum facility design outflow pumping capacity of 3,040 cfs. The pumping station also includes approach and discharge canals, and other related civil works.

X. STA-1E Outflow Pump Station S-362

S-362 is the outflow pump station drawing treated water from the STA-1E internal discharge collection canal and discharging into the L-40 Borrow Canal. This pump station has the capacity to discharge up to 4,200 cfs. The pump station includes seven pumps, approach and discharge canals, pump station enclosure and other related civil works. S-362 has five diesel engine-driven pumps (three 960 cfs pumps and two 550 cfs pumps) and two additional 110 cfs electric motor driven pumps. Due to the close location to adjacent residential areas, electric motors are used for the smaller pumps, used most frequently, to reduce the noise. During storm conditions, S-362 may be required to pump up to its maximum capacity to prevent overtopping of the external levees.

XI. C-51 Basin Divide Structure S-155A

The S-155A structure is located in the C-51 Canal, approximately 800 feet west of State Road 7, and serves as a divide structure between the Western C-51 and Eastern C-51 Basins. S-155A is a concrete ogee crested weir/spillway, with two 14 feet wide by 9 feet high vertical lift gates. S-155A is designed to pass flood discharges from the Western C-51 and S-5A Basins to the east, when STA-1E has reached maximum operational depths and no longer has the capacity for additional inflows. Up to 1,460 cfs will be discharged via S-155A to the Eastern C-51 Basin if conditions allow.

XII. C-51 Canal Improvements

C-51 Canal has been enlarged over a distance of about 3.3 miles from 1/2 mile east of Ousley Farm Road to Pump Station 319. This section of the C-51 Canal has been widened progressively from 30 feet to 70 feet (east to west) and deepened progressively from a bottom elevation of 1.6 feet m.s.l. to -6 feet m.s.l (east to west). A berm on the south side of the C-51 Canal has been constructed with the dredge material for the enlarged reach. The berm provides access to the canal and controls overland flow.

XIII. Recreational Facilities

In fulfillment of the public access and recreation requirements of the EFA Subsection 373.4592 (4)(a) F.S., and as further described in Subsection 373.1391(1)(a) F.S. and (b), recreational facilities are proposed at STA-1W and STA-1E. The proposed recreational facilities shall be designed to ensure compatibility with the restoration goals of the ECP and the water quality and hydrological purposes of the STAs.

- The currently proposed recreational facilities at STA-1W include an asphalt parking area on the south side of CR 880 and associated road improvements such as an acceleration and deceleration lane in the

vicinity of the entrance to the parking lot. A walkway across the FPL easement will provide access to the canoe launching site on the north bank of the seepage canal. Here a footbridge will cross the seepage canal to provide pedestrian access to the existing leveled area adjacent to the north end of the limerock berm in Cell 5B. An information kiosk, a composting toilet, lighting and landscaping are proposed at this location. Pedestrian gates, signage and fencing as needed to define public access areas and to protect sensitive equipment are also proposed. The design of the STA-1W recreational facilities is complete and the current schedule calls for construction to be completed in FY2008.

- The currently proposed recreational facilities at STA-1E include an asphalt parking area, a composting toilet, landscaping, lighting, and an information kiosk. Pedestrian gates, signage and fencing as needed to define public access areas and to protect sensitive equipment are also proposed. The location of this site has been moved from the SE corner of the STA to the north side, west of the pump station on C-51. The design of the STA-1E recreational facilities is complete, and the current schedule calls for construction to be completed in FY2008.

LOCATION:

The project is located within the following property descriptions in Palm Beach County:

- **S-5A Pump Station.** Section 32, Township 43 North, Range 40 East.
- **STA-1 Inflow Basin**. Section 5, Township 44 South, Range 40 East and Section 32, Township 43 South, Range 40 East and Section Government Lot 5, Township 43.5, Range 40 East.
- **G-302 Inflow Structure**. Double Gated Spillway, Section 6, Township 44 South, Range 40 East.
- **STA-1W Interior Treatment Works**. Northwest portions of Sections 6 and 7, Township 44 South, Range 40 East and Sections 1, 2, 3, 10, 11, 14, 15, 22, 23; northwest portions of Sections 12, 13, 26, 27, 34; Eastern line of Sections 4, 9, 16, 21, 28, 33; Township 44 South, Range 39 East.
- **G-251 Outflow Pump Station.** Southern tip of STA-1W, in Section 37, Township 44 North, Range 39 East.
- **G-310 Outflow Pump Station.** Extreme southern tip of STA-1W, in Section 34, Township 44 South, Range 39 East.
- **Inflow Pump Station S-319.** Located in the north central portion of STA-1E, adjacent to the C-51 Canal, in Section 35, Township 43 South, Range 40 East in Palm Beach County, Florida.
- **Inflow Pump Station S-361.** Located in the southeastern portion of STA-1E, just east of STA-1E, in Section 14, Township 44 South, Range 40 East in Palm Beach County, Florida.
- **Gated Spillway G-311.** Located in the northwestern corner of STA-1E, Section 5, Township 44 South, Range 40 East and Section 32, Township 43 South, Range 40 East and Section Government Lot 5, Township 43.5, Range 40 East in Palm Beach County, Florida.
- **STA-1E Interior Treatment Works.** Located within the entire STA, Sections 1-4, 9-12, 14, 15, and 23, Township 44 South, Range 40 East in Palm Beach County, Florida.
- **Outflow Pump Station S-362.** Located in the southwestern portion of STA-1E, just east of and adjacent to the L-40 Borrow Canal levee, in Section 23, Township 44 South, Range 40 East in Palm Beach County, Florida.
- **C-51 Basin Divide Structure S-155A.** Located in the C-51 Canal, six miles east of the northern corner of STA-1E, just west of State Road 7, in Section 36, Township 43 South, Range 41 East in Palm Beach County, Florida.
- **C-51 Canal Improvements.** Located in the C-51 Canal from 1/4 mile east of Ousley Farm Road to Pump Station 319, Sections 31-36 Township 43 South, Range 41 East and Sections 35 & 36 of Township 43 South, Range 40 East in Palm Beach County.

GENERAL CONDITIONS:

In accordance with Subsection 373.4592(9)(g), F.S., this permit may include any standard conditions provided by Department rule which are appropriate and consistent with the EFA.

1. Enforcement. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 373.129, 403.141, 403.727 and 403.859 through 403.861 F.S. The permittee is placed on notice that the Department will conduct periodic compliance review of this permit and may initiate enforcement action for any violation of these conditions.

2. Scope of permit. This permit is valid only for the specific ~~processes and operations applied for and indicated in the approved drawings or exhibits~~ requirements of this permit. Any unauthorized deviation from the ~~approved drawings, exhibits, specifications, or conditions~~ requirements of this permit may constitute grounds for revocation and enforcement action by the Department.

3. Limitation of rights. The issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the STA-1W and STA-1E which are not addressed in this permit. However, this permit is in lieu of other permits under Part IV of Chapter 373, F.S., pursuant to Subsection 373.4592(9)(c), F.S.

4. Limitations upon title. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. Liability. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules~~, unless specifically authorized by an order from the Department~~. The permittee shall hold and save the Department harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any system authorized by the permit.

6. Operation and Maintenance Responsibilities. The permittee shall properly operate and maintain STA-1W and STA-1E and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. Access Rights. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

A. Have access to and copy any records that must be kept under conditions of the permit;

B. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

C. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. Noncompliance. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

A. A description of and cause of noncompliance; and

B. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. Records as evidence. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data, and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111, F.S. and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. Changes in Law. The permittee agrees to comply with changes in applicable Department rules and applicable Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida law. However, this section cannot be used as a basis to extend the time to comply with the permit's total phosphorus WQBEL.

11. Transferability. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-343.130, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. Permit at Work Site. This permit or a copy thereof shall be kept at the work site of the permitted activity. For the purposes of this permit the work site shall be defined as the South Florida Water Management District Headquarters located at 3301 Gun Club Road in West Palm Beach, Florida.

13. Records Retention. The permittee shall comply with the following:

A. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department;

B. The permittee shall hold, at the STAs or other location(s) designated by this permit records of all monitoring information required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five years from the date of the sample, measurement, report, and application unless otherwise specified by Department rule; and,

C. Records of monitoring information shall include:

1. the date, exact place, and time of sampling or measurements;
2. the person responsible for performing the sampling or measurements;
3. the dates analyses were performed and the appropriate code as required by Chapter 62-160, F.A.C.;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used, including but not limited to MDL (Method Detection Limit); and,
6. the results of such analyses, including identification of potential outlier values.

14. Requests for Information. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

15. External Agency Requirements. Should any other regulatory agency require changes to the permitted system, the permittee shall notify the Department in writing of the changes prior to implementation so that a determination can be made whether a permit modification is required.

16. Sovereign Lands. The permittee is hereby advised that Florida law states: No person shall commence any excavation, construction, or other activity involving the use of sovereign or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund or the Department of Environmental Protection under Chapter 253, until such person has received from the Board of Trustees of the Internal Improvement Trust Fund the required lease, license, easement, or other form of consent authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on sovereignty lands or other state-owned lands.

17. Artifacts. If historic or archaeological artifacts such as, but not limited to, Indian canoes, arrow heads, pottery or physical remains, are discovered at any time on the project site, the permittee shall immediately stop all activities which disturb the soil and notify the Department and the State Historic Preservation Officer.

SPECIFIC CONDITIONS:

1. Addresses. Reports and notices submitted to the Department in accordance with this permit, unless otherwise specified, shall be submitted to the Department's Division of Water Resource Management, Water Quality Standards and Special Projects Program, 2600 Blair Stone Road, MS 3560, Tallahassee, Florida, 32399-2400, telephone no. (850) 245-8440, and to the Department's Southeast District Office, Water Resource Management and Environmental Planning, 400 North Congress Avenue, Suite 200, West Palm Beach, Florida 33401, telephone no. (561) 681-6600.

2. Related Permits. The Department and the permittee acknowledge the issuance of other permits related to STA-1W and STA-1E. STA-1W previously operated under EFA Permit No.: 0226317 (503074709) and NPDES Permit No. FL0177962-001-IW7A. Additional related permits include Department Permit No. 0178018, which authorizes temporary dewatering activities to construct and modify the STAs and associated works, and, the U.S. Army Corps of Engineers 404 Permit No. 199404532. This STA-1W permit, upon issuance, shall supersede and replace the former STA-1W EFA Permit previously issued by the Department. A timely request to renew the NPDES Permit No. FL0177962-002-IW7A has been received and is being processed.

STA-1E previously operated under Department EFA Permit No. 0195030-001 and NPDES Permit No. FL0304549-001. Additional related permits include Permit No. 0195030-002, which authorizes the S-319 Pump Test, Individual Water Use, Permit No. 0178018, which authorizes temporary dewatering activities for the construction of facilities within the ECP Restoration Projects, and the Dewatering General Water Use Permit No. 0229886. This STA-1E permit, upon issuance, shall supersede and replace the former STA-1E EFA Permit previously issued by the Department. A request to revise the NPDES Permit No. FL0304594-002-IW7A has been received and is being processed.

3. Public Use. The recreational facilities located within the STA-1W and STA-1E Projects shall be maintained to ensure compatibility with the restoration goals of the ECP and the water quality and hydrological purposes of the STAs. This permit does not absolve the permittee from the responsibility of obtaining other permits (federal, state, or local) which may be required for the activities occurring at these sites.

Conditions for Operation and Maintenance

4. Project Operation and Maintenance. The permittee shall operate and maintain STA-1W and STA-1E consistent with the design documents, as may be modified and reflected on the record drawings, operations criteria, and operation plans required by Specific Condition 8.

5. As-Built Certification and Record Drawings. Within 60 days after completion of any construction contracts for STA-1W and STA-1E, the permittee shall submit a written statement of completion and certification by a registered professional engineer or other appropriate individual as authorized by law. The statement of completion and certification shall be based on on-site observation of construction or review of as-built drawings for the purpose of determining if the work was completed in compliance with permitted plans and specifications. This submittal shall serve to notify the Department that STA-1W and STA-1E are ready for inspection. Additionally, if deviation from the approved drawings is discovered during the certification process, the certification must be accompanied by a copy of the approved permit drawings with deviations noted. Both the original and revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawing. All surveyed dimensions and elevations shall be certified by a registered surveyor.

6. Operational Improvements and Enhancements. ~~Structural, operational, and vegetation improvements and enhancements are presently underway in accordance with the Long-Term Plan (Exhibit A). These improvements and enhancements are designed to optimize performance as needed to achieve the phosphorus water quality standard~~. The District shall complete the construction of improvements and enhancements for STA-1W and STA-1E that are needed to meet the requirements of this permit ~~identified in the currently approved Long-Term Plan~~. ~~The schedules, strategies, and timelines for these improvements and enhancements, along with any additional schedules, strategies, and timelines for regional water management projects, are detailed in Specific Condition 17.~~ ~~The District shall submit proposals for additional phosphorus reduction and operational improvements and enhancements, including the schedules, strategies, and timelines associated with these improvements and enhancements for STA-1W and STA-1E as part of the adaptive implementation process identified in the Long-Term Plan. Revisions to the Long-Term Plan are available on the District's webpage: http://www.sfwmd.gov/sta. Revisions to the Long-Term Plan require approval by the Department prior to implementation and any approved changes to the Long-Term Plan will be reviewed by the Department to determine whether a permit revision is required. The Florida Legislature has defined Best Available Phosphorus Reduction Technology (BAPRT) as a combination of BMPs and STAs, including a continuing research and monitoring program, to reduce outflow concentrations of phosphorus so as to achieve the phosphorus criterion in the Everglades Protection Area (Subsection 373.4592(2)(a), F.S.). These phosphorus reductions are being achieved through the iterative adaptive implementation of the Long-Term Plan and subsequent revisions. The Florida Legislature, in Subsection 373.4592(3)(b), F.S., has determined that the combination of BMPs and STAs contained within the Long-Term Plan constitutes the BAPRT for achieving the phosphorus criterion in the Everglades Protection Area. The Long-Term Plan contains a planning objective of achieving compliance with the phosphorus criterion in the Everglades Protection Area. The October 27, 2003 version of the Long-Term Plan was subsequently revised to include further refinements to the recommended water quality improvement measures consistent with the iterative adaptive implementation process described in the plan. Post-2006 improvements, enhancements, and strategies, which will continue through 2016, are also included within the Long-Term Plan. The District has demonstrated that they will implement or cause to be implemented BAPRT as defined by Subsection 373.4592(2)(a), F.S., and further defined in the Rule, which shall include a continued research and monitoring program designed to reduce outflow concentrations of phosphorus~~.

7. Pump Station Maintenance. Maintenance requirements for the pump stations include operation of the pumps for approximately 2 to 4 hours per month, as necessary, to maintain their mechanical integrity. Temporary operation of the pump stations for maintenance purposes is allowed; however, such discharges are subject to the discharge criteria of the Specific Conditions of this permit. The permittee shall document all such temporary maintenance operations, and shall include all such discharge flows and loads as a part of the monitoring requirements of this permit.

8. STA Operation Plans and Modifications. Upon completion of and compliance with the ~~scheduled Long-Term Plan improvements and enhancements~~ requirements specified herein, ~~and within 90 days of the completion of any additional Long-Term Plan enhancements~~, the permittee shall submit to the Department at the addresses listed

in Specific Condition No. 1 an updated Operation Plan for both STA-1W and STA-1E. Until the updated Operation Plans are submitted by the permittee and approved by the Department, the previously existing Operating Plans shall remain in effect, subject to modification under the conditions set forth below.

If at any time changes to the STA-1W or STA-1E Operation Plans are warranted to optimize facility operation, and upon verification of data to be supplied by the permittee that justifies the need for such modification, the Operation Plans may be modified as mutually agreed upon by the Department and the permittee. The Operation Plans shall also include the information described in A-F, below.

Under emergency conditions that threaten the safety of life, property, or the STA-1W or STA-1E facilities, the permittee may modify the operations of STA-1W or STA-1E and immediately employ any remedial means to protect life and property in accordance with the emergency provisions of Chapter 373, F.S. The permittee shall notify the Department within 48 hours of such occurrence and shall provide data justifying the need to employ the emergency modifications to operations of STA-1W and/or STA-1E.

A. Minimum Water Level Targets to Avoid Dryout. In accordance with the relevant design documents, the permittee shall, to the maximum extent practicable, maintain a minimum static water level of 0.5 feet above the average ground elevation of the treatment cells to avoid dryout of the treatment cells, subject to available water from the upstream watershed.

B. Responding to Dryout Conditions. The permittee shall evaluate and correct potential adverse dryout effects on the water quality performance of STA-1W or STA-1E. If the compliance requirements in this permit are not met due to dryout conditions, then the permittee shall propose modifications to the Operation Plans as appropriate and submit the revised plan to the Department for review and approval.

C. Maximum Water Level Targets. The permittee shall ensure, to the maximum extent practicable, that maximum water depths of 4.0 feet above the average ground elevation of the treatment cells will not be exceeded in order to avoid long-term damage to the treatment vegetation and provide protection of project levees.

D. Operational Envelope. The District shall ensure that operation of the facility does not exceed the operational envelopes for STA-1W and STA-1E contained in the Operation Plans, except as required to fulfill the District's obligations as local sponsor of the C&SF project. In the event that the District anticipates the need to operate outside of the operational envelope(s) for reasons other than the District's obligations as local sponsor of the C&SF project, the District shall notify the Department prior to any such operations, with the exception of routine maintenance. The District shall receive Department concurrence prior to any such operations when practicable. Departmental concurrence shall be obtained prior to initiating Lake Okeechobee regulatory or water supply releases that would result in an exceedance of the maximum levels of flow or phosphorus load contained in the operational envelope.

E. Phosphorus Uptake Optimization. Operations shall be conducted to distribute the flows and water levels within STA-1W and STA-1E to optimize the phosphorus reduction performance and shall be updated as necessary ~~to include the results of the permittee's Process Development and Engineering (PDE) program being implemented as a part of the Long-Term Plan~~.

F. **Hydropattern Restoration**. STA-1W and STA-1E shall be operated in such a manner as to be consistent with the activities proposed to restore the hydropattern of the Everglades Protection Area, as described in Specific Condition 9 below.

9. Hydropattern Restoration. In accordance with Subsection (4)(b) of the EFA, the permittee shall operate the STAs in order to improve and restore the Everglades water supply and hydroperiod. The permittee shall operate the ECP to achieve the requirements of Specific Condition 12 and provide additional increased flow to the Everglades Protection Area through the modification of historical operational practices for regulatory releases from Lake Okeechobee and the Water Conservation Areas. The STAs shall be operated to achieve the goal of providing additional flows to the Everglades Protection Area and shall, to the maximum extent practicable, be coordinated with and consistent with the Lower East Coast Water Supply Plan, the Lake Okeechobee and Water Conservation Area

Regulation Schedules, the Comprehensive Everglades Restoration Plan (CERP), and the entitlement of the Seminole Tribe of Florida to surface water withdrawals under the Water Rights Compact (P.L. 100-228).

10. Implementation of Source Control Programs.

A. **Implementation.** The permittee shall continue to implement source control programs in each of the contributing basins in accordance with ~~the Long-Term Plan,~~ Chapter 40E-63, F.A.C., and other applicable programs. Basins that do not presently include source control programs shall be monitored to determine if such programs are necessary in the event that phosphorus loads to the facility from these basins limit the facility or facilities progress towards achieving the WQBEL ~~technology-based effluent limitation (TBEL), hereby incorporated by reference as part of this permit [See Goforth *et al*, Exhibit B (STA-1W) and Exhibit C (STA-1E)], or the applicable permit effluent limit.~~

B. **Performance.** On an annual basis, the permittee shall evaluate the performance of source controls in the contributing basins and include the findings in the annual report required in Specific Condition 25 ~~30~~. The report shall include phosphorus loads from the basins and shall describe trends and compare current loads to those determined necessary to achieve the WQBEL ~~assumed during the development of the TBEL~~.

C. Improvements. If the ~~TBEL~~ WQBEL is not achieved and if the assumed inflow concentration used to develop the Amended Determination remedy ~~loads in the TBEL are~~ is exceeded, the permittee shall submit, as part of the annual reporting requirements in Specific Condition No. 30, a report explaining the cause(s) for the excess ~~loads~~ concentration and, if applicable, schedules and strategies for source control improvements necessary to achieve the ~~TBEL~~ WQBEL in the annual report.

11. Water Quantity and Flooding Impacts. The permittee shall be responsible for ensuring that STA-1W and STA-1E are operated so as not to adversely affect adjacent lands with regard to flooding impacts and water supply needs of the region. The permittee shall hold and save the Department harmless for any and all damages, claims, or liabilities that may arise from water quantity and/or flooding impacts resulting from the construction and operation of STA-1W and STA-1E.

Phosphorus Conditions

12. Phosphorus Standard. Pursuant to Subsection 373.4592(4)(e)2, F.S., the Department adopted a 10 parts per billion (ppb) numeric criterion for phosphorus in the Everglades Protection Area (Rule 62-302.540, F.A.C.), which was approved by the United States Environmental Protection Agency (U.S. EPA) on January 24, 2005. The compliance methodology for this criterion was revised and adopted by the Department on May 5, 2005, and the revised rule was approved by the U.S. EPA on July 27, 2005. Achievement of the criterion shall be determined through the WQBEL set forth in Table 1 below.

~~12. Under the State's Long-Term Plan, the goal is to achieve the phosphorus criterion in the Everglades Protection Area at the earliest achievable date, which will be accomplished through the iterative adaptive implementation process set forth in the Long-Term Plan. (See Subsection 373.4592(3), F.S.)~~

~~The Long-Term Plan, and its subsequent revisions, set forth the framework for achieving compliance with the new water quality standard. It is envisioned that Post-2006 improvements, enhancements, and strategies, in conjunction with the Pre-2006 projects, may need to continue being developed through the Long-Term Plan process to further optimize the facility's phosphorus reduction capabilities. The Department has determined that the improvements and enhancements identified for STA-1W and STA-1E through the iterative adaptive implementation process contained within the Long-Term Plan are the most environmentally appropriate and expeditious means of achieving compliance with applicable water quality standards in the Everglades Protection Area. The Department recognizes that the District will need sufficient time to develop and implement prescribed measures necessary to achieve compliance with the new water quality standard. This permit and the compliance requirements and schedules contained herein shall provide relief, in the interim, from the water quality based effluent limitation (WQBEL)~~

~~necessary to achieve the 10 ppb numeric criterion[1] until such time as the effluent achieves the WQBEL or no later than December 31, 2016, at which time the WQBEL shall be achieved.~~

~~Consistent with the Long-Term Plan and Rule 62-302.540, F.A.C., a technology-based effluent limitation (TBEL) for phosphorus has been derived in accordance with state rules, and is consistent with the Federal guidelines for best available technology economically achievable (BAT) set forth in 40 CFR Subsection 125.3(d). The Tests for Determining Achievement of the STA-1W TBEL and Determining Achievement of the STA-1E TBEL are set forth in Specific Condition 16. The *Technical Support Document for the STA-1W TBEL* (Goforth *et al.*, Exhibit B) and *Technical Support Document for the STA-1E TBEL* (Goforth *et al.*, Exhibit C), further explains the derivation of the TBEL limits for STA-1W and STA-1E and identifies factors which may impact flows and loads associated with the treatment system. At this time, the relationship between waters discharged to, and the resulting water quality in the Everglades Protection Area has not been determined and a WQBEL has not been established under Rule 62-650, F.A.C. as necessary to achieve the phosphorus criterion in Rule 62-302.540 F.A.C. Research is currently ongoing to establish this relationship and establish a WQBEL. In the interim, until such a relationship is determined and a WQBEL established, discharges from STA-1W, via the G-251 and G-310 Pump Stations, and from STA-1E, via S-362 pump stations, shall meet the TBELs identified in the Exhibits B and C. The TBELs shall be revised as appropriate, consistent with the iterative implementation of BAPRT and Rule 62-620.620(3), F.A.C., until such time that the TBELs become consistent with the water quality based effluent limitation (WQBEL) established to achieve the numeric phosphorus criterion.~~

13. Start-Up Phase. During the initial Start-Up Phase of a new treatment cell or new flow-way, the permittee shall monitor phosphorus concentrations within the facility to demonstrate that the project is achieving a net reduction in phosphorus. Portions of STA-1W and STA-1E may operate independently of each other. Under those circumstances, Start-Up Phase operation and monitoring within the treatment area shall be performed as follows:

A. ***Establishment of Marsh Vegetation.*** The permittee shall manage water depths in the treatment cells to facilitate the recruitment of marsh vegetation in accordance with the Operations Plan, which may include recirculating waters within the STA.

B. ***Start-Up Monitoring.*** On a weekly basis, the permittee shall monitor total phosphorus at the upstream side of a flow-ways inflow structure(s). Total phosphorus shall also be monitored on a weekly basis on the upstream side of the flow-ways outflow structures. For flow-ways with one or more inflow or discharge structures, representative samples at a single structure may be used upon Department discretion.

C. ***Phosphorus Start-Up Test.*** The Phosphorus Start-Up Test for an individual flow-way or treatment cell shall be met when the above samples demonstrate, over a four-week period, that a net reduction in phosphorus occurs. This net reduction shall be deemed to occur when the 4-week geometric mean total phosphorus water column concentration from samples collected at the applicable outflow structures is less than the 4-week geometric mean total phosphorus water column concentration collected at the applicable inflow structure(s).

D. ***Discharge Operations.*** Discharge operations, from an individual flow-way or treatment cell that has passed the Phosphorus Start-Up Test described above, may commence once Initial Start-Up Phase documentation and all supporting data and analyses are submitted to the Department via regular or electronic mail. For flow-ways or treatment cells that have not met these tests within six months after issuance of the permit, the permittee shall submit monthly status updates regarding progress toward achieving and identifying strategies and timelines to achieve this test.

[1] The 10 ppb numeric criterion is set forth in Rule 62-302.540(4)(a), F.A.C. and is consistent with Section 301(b)(1)(C) of the CWA. ~~A water quality based effluent limitation (WQBEL) for phosphorus will be established in accordance with Specific Condition 18. It is recognized that the ultimate WQBEL to be developed may be higher than a flow-weighted mean of 10 ppb.~~

E. ***Initiation of Individual Flow-way (~~Stabilization and~~ Routine Operation) Discharges and Monitoring.*** Once flow-through discharges from a flow-way begin, the permittee shall initiate routine water quality monitoring for that flow-way consistent with Table 1 and the monitoring program described in this permit.

~~**14. Stabilization Phase** (Flow-through Operations) – During the Stabilization Phase the treatment vegetation will be maturing and the STA performance will generally be improving toward achieving the TBEL. However, the overall performance of the STA is extremely difficult to evaluate and predict. It is anticipated that the treatment vegetation may require one to three years after flow through operations begin for the affected cells to achieve optimal performance. During the stabilization phase the TBEL shall apply. Once the facility achieves the TBEL it shall enter the Routine Operations Phase. During the Stabilization Phase, exceedance of the TBEL may occur; however, the STA shall be deemed in compliance with the permit as long as the actions described Specific Condition 17 of this permit are being taken in conjunction with all other applicable permit conditions.~~

~~An STA or Flow way may enter the Stabilization Phase after one of four antecedent conditions: (1) once flow-through operations begin following the initial start-up of a new treatment cell; (2) when a treatment cell is taken off-line for implementation of Long-Term Plan enhancements that may have adverse impacts on STA performance, (3) when a treatment cell is taken off line for recovery activities associated with a major event that compromises the structural integrity or performance of the STA, or (4) planned/unplanned maintenance activities which would cause adverse impacts to the STA's treatment capabilities. If the flow-way is determined by the District to be incapable of operating or performing effectively as a result of the impacts caused by one or more of these circumstances, the District shall submit strategies and timelines identified as being the most effective in restoring the impacted flow-way(s) to the optimal performance level within 60 days from such a determination or occurrence. The timely submittal and implementation of these strategies and timelines in conjunction with the Department's review and approval of such submittals and compliance with all other applicable conditions of this permit shall constitute compliance.~~

~~As part of the first annual report following any adverse impact to the facility, and each subsequent year until the facility achieves the TBEL, the 12 month rolling flow weighted mean TP concentration of the STA outflow shall be assessed as to whether there is a trend in improvement of performance relative to prior years. If the trend analysis that is applied to this data indicates that there is not a trend in improvement of performance, the permittee shall report as to the causes behind the lack of performance improvement. If during a subsequent annual report the trend analysis applied to these data indicate that there is not a trend in improvement of performance after the affected flow-way has been in flow through operation for 24 months, the annual report shall include any remedial measures necessary to achieve improved facility performance by the end of next year, and shall provide an estimate of when the TBEL shall be achieved.~~

1~~5~~4.Routine Operations Phase - During the Routine Operations Phase, discharges from the STA shall achieve compliance with the WQBEL as of December 31, 2006. ~~TBEL, as described in Specific Condition 16 of this permit. STA-1W and STA-1E shall achieve the WQBEL, established pursuant to Specific Condition 18, by no later than Dec 31, 2016~~

~~**16. Application of Technology Based Effluent Limits.** The TBEL described above will be applied as follows:~~

~~**A.** Compliance shall be tested in each water year (May – April) using data from the monitored representative inflow structures (G-302, G-311, and S-319) and outflow structures (G-251, G-310, and S-362), except as noted below. The result of this compliance testing shall be reported by the District as part of the annual reporting requirements in Specific Condition 30. The compliance calculations will exclude flows made for low-flow water supply deliveries. Low-flow water supply deliveries are deliveries that pass through the Everglades Protection Area to Dade, Broward or Palm Beach County, and the Big Cypress Seminole Indian Reservation for water supply (wellfield recharge and salt water intrusion prevention) purposes. In addition, low-flow water supply deliveries are made at times when water levels in the Water Conservation Areas (WCAs) are below the minimum elevations presented below:~~

- ~~WCA-1 – 14.5 ft. NGVD measured at the 1-8C gauge~~

- WCA-2 – 10.5 ft. NGVD measured at the headwater (HW) of the S-11B structure
- WCA-3A – 7.5 ft. NGVD measured at HW of S-333 or 11.0 ft at HW of G-409

These stage thresholds will be reviewed as part of any future analyses associated with revisions to the current regulation schedules (WCA-1: May 1995; WCA-2: June 1989; WCA-3A: November 2000). This method will also exclude water supply deliveries to the Loxahatchee National Wildlife Refuge (Refuge) or Everglades National Park (ENP), which have been requested by Refuge, ENP or U.S. Army Corps of Engineers staff and which cannot be treated by an STA prior to delivery.

B. The TBEL shall not apply in water years when rainfall in the source basins tributary to the STA exceeds the maximum annual basin rainfall that occurred during the period of record used for deriving the TBEL (See Goforth *et. al*., 2007). In addition, the TBEL shall not apply in water years when rainfall in the basin tributary to that STA is less than the minimum annual rainfall that occurred during the period of record used for deriving the TBEL for that STA if supplemental flows are not available to maintain wet conditions in that STA. If a year is excluded based upon these criteria, results from adjacent years shall be treated as consecutive in testing compliance.

C. The STAs will be deemed in compliance with the TBEL unless the annual flow-weighted mean phosphorus concentration at the monitored representative outflows is greater than the annual limit. The annual limit can be calculated using the methods contained on pages 9-12 of the *Technical Support Document for the STA-1W TBEL* (Goforth et al. 2007, Exhibit B) and the *Technical Support Document for the STA 1E TBEL* (Goforth *et. al*., 2007, Exhibit C). The method may be revised in the future as appropriate to reflect lower STA limits. Tables 2 and 3 below contain example calculations of the TBEL based on corresponding phosphorus loading rates (PLR).

17. Improvements, Enhancements and Regional Water Management Projects - In accordance with the Long-Term Plan, as may be amended with Department approval the District shall proceed with the planning, design and construction of additional regional water management projects and internal improvements and enhancements that, when fully implemented, shall result in the improved performance of STA-1W and STA-1E (See Table 4). These projects include:

A. Internal Improvements and Enhancements

1. **Enhancements.** The Western and Northern flow-ways of STA-1W began Flow-through Operations in July 2006 after being off-line for enhancements and hurricane rehabilitation activities. The Stabilization Phase for these flow-ways shall conclude in approximately June 2008. In addition to these activities, the District is currently in the process of completing the remaining improvements and enhancements identified in the October 2003 Long-Term Plan, and subsequent revisions. Remaining improvements and enhancements previously identified through the Long Term Plan process and approved by the Department include the Eastern Flow-way Cell 1 internal levee and associated G-248 structures (to be completed prior to December 31, 2007), and the vegetative conversion of Cells 1B and 3 to submerged aquatic vegetation (to be completed prior to October 31, 2008). The Eastern flow-way will enter Stabilization Phase where the flow-way will progress towards its optimal performance. The Stabilization Phase is assumed to last approximately 24 months or no later than November 2010.

2. **STA-1E Enhancements.** Following limited emergency operations associated with the 2004 hurricanes, the Central and Western flow-ways of STA-1E began flow-through operations in September 2005. Vegetation enhancements designed to improve the phosphorus removal performance are underway in the Central and Western flow-ways. Although the downstream cells (4N, 4S and 6) of these flow-ways were originally designed for emergent vegetation, vegetation management activities have been enacted to develop submerged aquatic vegetation (SAV). Full conversion to SAV is anticipated to take 2 to 3 years and should be complete by September 2008. It is anticipated that post-construction ground elevations in the STA and incomplete backfilling of a north-south oriented canal in Cell 7 may hinder the development of SAV and lengthen the period for full conversion. Until Flow-way 1 has been converted to full flow-

through operations, the Central and Western Flow-ways may receive flows and phosphorus loads in excess of their design and as a result may remain in stabilization for an extended period.

Regional Water Management Projects
B.

1. **Conversion of STA-1E to full flow-through operations.** The Corps of Engineers recently constructed a PSTA Demonstration Project within the Eastern flow-way of STA-1E; that portion of the STA has not yet been transferred to the District and remains under the control of the Corps. The demonstration project is currently beginning start-up activities and is anticipated to be operated over a 24-month period by the Corps. After completion of the demonstration project, in approximately September 2009, test cell levees and structures shall be removed to return the Eastern flow-way to full flow capability by the USACE. For the purpose of forecasting a performance schedule, it is assumed that flow-through in the Eastern flow-way will occur by June 30, 2010 and that the Stabilization Phase will last 24 months (June 2012). It is recognized that additional time will be needed in order for STA-1E to achieve full flow-through operations. Since STA-1W was designed to work in concert with STA-1E, until STA-1E is in full flow-through operation, a portion of the water intended for STA-1E will be captured and treated in STA-1W and the performance of STA-1W is expected to improve after the full flow-through operation of STA-1E begins, as flows and phosphorus loads into STA-1W are reduced.

2. **L-8 Diversion Project.** As part of the Comprehensive Everglades Restoration Plan (CERP), the Corps of Engineers and the District are underway with the planning of capital works that will eventually divert upwards of 75,000-100,000 acre-feet per year (AF/yr) away from the STA-1E/STA-1W inflow works. The L-8 Diversion Project features shall be completed by December 31, 2014 according to the Master Implementation Schedule. Until the L-8 Diversion Project is completed, a portion of L-8 Basin runoff will continue to be captured and treated by STA-1W and STA-1E, contributing to flows and phosphorus loads greater than their design values. The performance of STA-1W and STA-1E is expected to improve after the L-8 Diversion Project is complete as flows and phosphorus loads to STA-1W and STA-1E are reduced.

3. **Additional Treatment Area.** The District is presently designing capital works for approximately 6,800 acres of additional treatment area. This area, referred to as Compartment B, will provide additional treatment capacity for waters that presently are captured and treated in STA-1W and STA-1E. When the conveyance improvements referenced below are completed STA-1W and STA-1E performance will improve as flows and phosphorus loads are reduced. The Compartment B build-out project shall be flow-capable by December 31, 2013.

4. **Conveyance Improvements.** In order for STA-1W and STA-1E to receive the full treatment benefit of the expanded area in Compartment B, improvements to the conveyance infrastructure are required. The District is presently designing the conveyance improvements. Construction of the conveyance improvements shall be substantially completed by December 31, 2013.

The District shall report on the progress of the aforementioned projects, project schedule updates, and estimated timeframes for the implementation of future improvements and enhancements as part of the annual report requirements in Specific Condition No. 30 of this permit.

18. Water Quality Based Effluent Limitation. The District shall conduct a study to determine the relationship between discharges from STA-1W and STA-1E and the resulting water quality in the Refuge. The final scope of work for this study shall be submitted to the Department by no later than December 31, 2007 for the Department's review and written approval. The District shall prepare and submit a report of its findings, based on the data collected over the course of this study for Department review by no later than December 31, 2009. Based on the findings of this study and Department concurrence with its methods and results, the Department shall establish a WQBEL in accordance with Rule 62-650 F.A.C. and 373.4592 F.S. by December 31, 2010. Establishment of a

~~WQBEL for these facilities shall result in a major modification to this permit.~~ The WQBEL for STA-1W and STA-1E is specified in Table 1 below.

15. Operational Envelope. As a part of the annual reporting requirements in Specific Condition 25 ~~30~~, the District shall provide an annual assessment as to whether the facility is operating within or outside the operational envelope. The assessment shall be based on annual inflow volumes and phosphorus loads and shall compare flows and loads to the corresponding average and maximum values contained in the operational envelope described in *Technical Support Document for the STA-1W TBEL* (Exhibit B) and *Technical Support Document for the STA-1E TBEL (*Exhibit C). If the annual inflow volumes or phosphorus loads exceed the corresponding average values of the operational envelope during an annual compliance period, the District shall conduct a review of potential causes and include this review in the annual report. If annual inflow volumes or phosphorus loads exceed the corresponding maximum values of the operational envelope during an annual compliance period and such an exceedance is determined to have caused or contributed to the facility's inability to achieve the WQBEL ~~effluent limitation~~, the District shall conduct a review of potential causes and include a comparison of the relationships between rainfall, runoff, and phosphorus loads from the compliance year with the rainfall/ runoff/ load relationships derived from the data used in deriving the WQBEL ~~TBEL~~. Departmental concurrence shall be obtained prior to initiating Lake Okeechobee regulatory or water supply releases that would result in an exceedance of the maximum levels of flow or phosphorus load contained in the operational envelope.

Conditions for Parameters Other than Total Phosphorus

16. Comparison of Outflows to Inflows. For all water quality parameters indicated in the STA-1W and STA-1E Routine Monitoring Table (Table 1) other than total phosphorus, mercury, and dissolved oxygen, inflow and outflow samples collected at the G-302, G-251, S-319, G-311, G-310, and S-362 shall be used to determine compliance with this Specific Condition. Compliance with this Specific Condition shall be evaluated as follows:

A. If the annual average outflow concentration does not cause or contribute to violations of applicable Class III water quality standards, then the STA shall be deemed in compliance with this condition.

B. If the annual average concentration at the outflow station causes or contributes to violations of applicable Class III water quality standards, but is of equal or better quality than, the annual average concentration at the inflow stations, then the STA shall be deemed in compliance with this condition.

C. If the annual average concentration at the outflow causes or contributes to violations of applicable Class III water quality standards, and also exceeds the annual average concentration at the inflow station, then the STA shall be deemed out of compliance with this condition.

17. Dissolved Oxygen. The dissolved oxygen parameter shall meet the requirements set forth in the Everglades Marsh Dissolved Oxygen Site Specific Alternative Criteria (DO SSAC, Exhibit D). Compliance with the DO SSAC shall be evaluated annually using a statistical analysis to compare dissolved oxygen levels within facility discharges to predicted model values. The specific methods for determining compliance are set forth in the DO SSAC which was adopted by Secretarial Order on January 26, 2004, and approved by the U.S. Environmental Protection Agency as a revision to the State of Florida's water quality standards on June 16, 2004.

18. Public Health, Safety, or Welfare. Pursuant to Subsection 373.4592(9)(h)3 of the EFA, discharges from the STA-1W and STA-1E project shall not pose a serious danger to the public health, safety, or welfare.

Factors Impacting Compliance

19. ~~Factors Outside the Permittee's Control.~~ In the event that non-compliance or failure to achieve the WQBEL ~~performance objectives~~ results for any of the reasons other than those below, the permittee shall take appropriate remedial measures.

~~**A. Anomalous Rainfall.** Compliance with the TBEL shall not be tested in water years when the rainfall in the source basins exceed the range of values that occurred during the period of model simulation used in~~

~~the development of the TBELs, or when sufficient supplemental flows are not available to maintain an average depth of 0.5 ft in each treatment cell of STA-1W and/or STA-1E. In these instances, results from adjacent years will be treated as consecutive for purposes of testing compliance. The Department may make similar adjustments where emergency discharges occur.~~

~~**B. Random Variation.** The permittee shall report any statistical uncertainty in the methodology using acceptable scientific methods.~~

~~C~~A. **Other Factors**. Events beyond the permittee's control that may prevent or delay compliance, including natural disasters as well as unavoidable legal barriers or restraints, including those arising from actions or regulations not under the control of the permittee (e.g. Lake Okeechobee Regulation schedule and WCA-1 Regulation schedule).

B. **Emergency Conditions.** ~~–~~Discharges from the G-251 and/or G-310 Pump and/or S-362 Stations and bypass ~~diversion~~ of waters through the G-300 and/or G-301 structures shall also be allowed in accordance with the emergency provisions of Chapter 373, F.S., to avoid hydrological and nutrient overloading the STA, or when water conditions within STA-1W and/or STA-1E may damage existing marsh vegetation. When a ~~diversion~~ bypass event or series of proximal ~~diversion~~ bypass events is anticipated due to aforementioned conditions, the permittee shall notify the Department of the anticipated event.

SPECIFIC CONDITIONS FOR MONITORING PROGRAM

In accordance with Subsection 373.4592(9)(h) of the EFA, the following monitoring conditions are intended to assess the water quality of the discharges of STA-1W and STA-1E, to assess the ability of the STA in achieving the ~~design objectives of the ECP~~, ~~as modified by the Long-Term Plan~~ WQBEL specified herein, and to measure progress towards achieving state water quality standards.

2~~0~~. **Turbidity Monitoring.** Effective means of turbidity control, such as, but not limited to, turbidity curtains or the discontinuance of flow activity to and from the affected cell(s), shall be employed during all maintenance activities that may create turbidity so that turbidity shall not exceed 0 NTUs above background in the receiving waters which are classified as Outstanding Florida Waters (OFW), and 29 NTUs above background in Class III waters. Turbidity controls and/or preventive operation procedures shall remain in place until all turbidity has subsided and the turbidity level at the point of discharge to receiving waters meets state standards

Turbidity monitoring equipment and personnel trained to use it shall be available on site at all times during maintenance activities that result in project-generated turbidity levels in the receiving water body. The permittee shall monitor turbidity levels at least twice daily at a minimum of 4 hours apart during these activities as follows:

A. Monitoring samples shall be taken at the following locations:

1. Background Sample(s): At the project inflow monitoring station G-302, S-319, and G-311
2. Compliance Sample(s): Upstream of the project outflow monitoring stations G-251, G-310 and S-362.

B. Turbidity monitoring results shall be summarized quarterly (every three calendar months) by project component, beginning with the first calendar month in which construction or maintenance projects occur that could generate turbidity in receiving waters and continuing until all maintenance is completed. Monitoring data with supporting documents shall be submitted to the Department quarterly during the period of actual construction. The reports shall clearly identify the following information:

1. Permit number;
2. Dates and time of sampling and analysis;
3. A statement describing the methods used in collection, handling, storage and analysis of the samples;

4. A clear description of project component activities taking place at the time of sampling;

5. A map indicating the sampling locations; and,

6. A statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection and accuracy of the data.

C. Monitoring reports shall also include the following information for each sample that is taken:

1. Water depth;

2. Depth of sample;

3. Weather conditions; and,

4. Water level stage and direction of flow.

In the event that project-generated turbidity levels in receiving waters exceed the standard 0 NTUs above background in an OFW or 29 NTUs above background in Class III waters, project component activities contributing to elevated turbidity levels shall immediately cease, and the Department shall be notified immediately. Work shall not resume until the work can be conducted in compliance with the aforementioned turbidity standard. In such cases where turbid conditions will be attributed to activities associated with dewatering, the District shall comply with the turbidity requirements set forth in the dewatering permit issued by the Department in lieu of the above requirements.

25~~1~~.Monitoring Program. Monitoring performed in accordance with this permit shall include the vegetation and water quality and quantity parameters listed below and in the STA-1W and STA-1E Routine Monitoring Table (Table 1) of this permit. At a minimum, the monitoring program for STA-1W and STA-1E shall include the following:

A. ~~**Long-Term Plan**~~ **Monitoring Program.** The permittee shall continue to implement ~~the portions of the Process Development and Engineering (PDE) component of the Long-Term Plan that are related to this permit. This program shall~~ monitoring in order to evaluate the effectiveness of the STAs in improving water quality and maintaining designated and existing beneficial uses of the Everglades Protection Area and tributary waters. Results of the monitoring efforts shall be reported as part of the annual South Florida Environmental Report (SFER).

1. **Aerial Vegetation Photographs and Mapping.** Aerial vegetation photographs and mapping shall be conducted ~~in accordance with the PDE components of the Long-Term Plan~~.

2. **Mercury Monitoring Program**. The permittee shall monitor mercury, report the results obtained, and take all necessary actions as specified in the document entitled "Mercury Monitoring Program," which is hereby incorporated by reference and made a part of this permit as Exhibit E (STA-1W) and Exhibit F (STA-1E).

3. **Routine Research and Monitoring Program**. The permittee shall conduct long-term monitoring at the G-302, G-311, S-361 and S-319 inflow structures, the G-251, G-310 and S-362 outflow pump stations, and report the results to the Department in accordance with the annual reporting requirements of this permit for the parameters listed in the STA-1W and STA-1E Routine Monitoring Table (Table ~~1~~2) of the "Monitoring Required" section of this permit. Data from this program may provide the basis for additional permit compliance requirements. ~~The District shall also monitor additional stations as defined in the PDE element of the Long-Term Plan.~~

26~~2~~. ~~Diversions~~ Bypasses. The District shall notify the Department and the Refuge within 48 hours of any unanticipated ~~diversions~~ bypasses of flow through the G-300 and/or G-301 gated structures and the District shall notify the Department as soon as practicable in advance of anticipated bypasses ~~diversions~~, with the exception of routine maintenance. The submitted

notification shall include a description of the circumstances related to the ~~diversion~~ bypass and a projection of the anticipated duration of the bypass ~~diversion~~. All ~~diversions~~ bypasses occurring through the G-300 and G-301 structures shall be monitored for the parameters Total Phosphorus and Flow as required in the table below. As soon as practicable after cessation of all bypasses ~~diversions~~, the District shall submit a summary of the data collected for these parameters, and identify the duration of the bypasses ~~diversions~~. Bypasses shall be limited to the shortest time possible and are not allowed solely to achieve the WQBEL. Bypasses are subject to and must meet the requirements of F.A.C. Sections 62-620.610(20), (21), and (22).

Parameter	Units	Sample Type	Frequency
Total Phosphorus	mg/l	Grab	Weekly
Flow	CFS	Calculated	Daily Average

~~**A. STA-1W Diversion Limit.** To limit discharge concentrations resulting from diversion events, discharges of waters from the EAA to the L-7 Canal from the G-301 diversion structure and the discharge pump stations from STA-1W shall not exceed a 50 ppb maximum annual discharge limit. The 50 ppb maximum annual discharge limit shall be calculated as an annual flow-weighted mean total phosphorus concentration for combined discharges from the EAA during the May-April Water Year from the G-301 diversion structures and from the G-251 and G-310 pump stations.~~

~~**B. STA-1E Diversion Limit.** To limit discharge concentrations resulting from diversion events, discharges of waters from the EAA to the L-40 Canal from the G-300 diversion structure and the discharge pump station from STA-1E shall not exceed a 50 ppb maximum annual discharge limit. The 50 ppb maximum annual discharge limit shall be calculated as an annual flow-weighted mean total phosphorus concentration for combined discharges from the EAA during the May-April Water Year from the G-300 structure and the G-362 pump station.~~

~~The 50 ppb maximum annual discharge limit for waters from the EAA shall be enforceable after all of the additional components of the control program set forth in Specific Condition 17 of this permit are operational. By including a 50 ppb maximum annual discharge limit in this permit, the Department is not determining, admitting, or waiving any adjudicating permittee's or the Department's rights, claims, or defenses of the permittee, the Department, or any other party to any matters relating to compliance with requirements of the Everglades Consent Decree, as modified, entered in the case styled *United States v. So. Fla. Water Management Dist., et al.*, case No. 88-1886-CIV-Moreno (S.D. Fla.).~~

23. STA-1W Transect Monitoring. The permittee shall conduct water quality, soil, and vegetation monitoring as specified below at a series of sites located along transects downstream of the STA-1W discharge site to characterize the effects of the STA-1W discharge on adjacent marsh areas of the Refuge. Table 4 ~~5~~ below identifies seven (7) sampling sites located along a transect originating at the Rim Canal adjacent to the STA-1W discharge point and extending to the southeast toward the center of the Refuge into an unimpacted portion of the marsh. Table 5 below identifies five (5) sampling sites located along a transect originating at the Rim Canal downstream of the STA-1W discharge point and extending to the southeast toward the center of the Refuge into an unimpacted portion of the marsh. Upon demonstration that an additional sampling site or removal of an existing sampling site is warranted, the permittee may request a modification to the monitoring program as appropriate. The Department and USEPA shall review and approve such requests on a case by case basis. Any alteration in the monitoring program approved by the Department and USEPA shall occur in the form of a modification to this permit.

For the first transect, monitoring site LOXA104 is located in the Rim Canal and will be used to evaluate changes in water quality occurring between the Rim Canal and the actual marsh. Of the remaining six sites, four are located in areas currently identified as impacted (i.e., sediment TP concentration greater than 500 mg/kg) with the final two

sites located in areas currently identified as unimpacted. For the second transect, monitoring site Z-0 is located in the Rim Canal and will be used to evaluate changes in water quality occurring between the Rim Canal and the actual marsh. Of the remaining four sites, three are located in areas currently identified as impacted (i.e., sediment TP concentration greater than 500 mg/kg), with the final site located in an area currently identified as unimpacted.

All water quality, soil, and vegetation samples will be collected and reported for the parameters and at the frequency specified in the SFWMD's January 20, 2010 'Project WCA-2A Monitoring Plan for STA-2 and Compartment B Build-Out Downstream Monitoring Plan'. ~~Water quality grab samples will be collected at each of the transect sampling sites identified in Table 5 below on a monthly basis. In addition, sediment samples will be collected at each marsh site every 3 years. The sediment samples will be subdivided into floc (if present) and the upper 10 cm of sediment with each component being analyzed separately for TP and bulk density. The depth of any floc layer will also be recorded. To assure that the samples collected are representative of ambient conditions, all marsh sampling will be conducted in accordance with the marsh sampling protocols provided in the SFWMD's Field Sampling Quality Manual as refined in the District's Monitoring Plan for Everglades Protection Area WCA-1, Project: EVPA.~~

24. STA-1E Transect Monitoring. The permittee shall conduct water quality, soil, and vegetation monitoring as specified below at a series of sites located along a transect downstream of the STA-1E discharge site to characterize the effects of the STA-1E discharge on adjacent marsh areas of the Refuge. Table 6 below identifies five sampling sites located along a transect originating at LOXA-135 sampling site in the rim canal adjacent to the STA-1E discharge point and extending to the LOXA-139 sampling site located in an unimpacted portion of the marsh. Upon demonstration that an additional sampling site or removal of an existing sampling site is warranted, the permittee may request a modification to the monitoring program as appropriate. The Department and USEPA shall review and approve such requests on a case by case basis. Any alteration in the monitoring program approved by the Department and USEPA shall occur in the form of a modification to this permit.

The monitoring site closest to the discharge point (LOX-135) is located in the rim canal and will be used to evaluate changes in water quality occurring between the discharge point and the actual marsh. Of the remaining four marsh sites, LOXA-136 and LOXA-137 are located in areas currently identified as impacted (i.e., sediment TP concentration greater than 500 mg/kg) with the final two sites located in areas currently identified as unimpacted. All water quality, soil, and vegetation samples will be collected and reported for the parameters and at the frequency specified in the SFWMD's January 20, 2010 'Project WCA-2A Monitoring Plan for STA-2 and Compartment B Build-Out Downstream Monitoring Plan'. ~~Water quality grab samples will be collected at each of the transect sampling sites identified in Table 6 below on a monthly basis. In addition, sediment samples will be collected at each marsh site every three years. The sediment samples will be subdivided into floc (if present) and the upper 10 cm of sediment with each component being analyzed separately for TP and bulk density. The depth of any floc layer will also be recorded. To assure that the samples collected are representative of ambient conditions, all marsh sampling will be conducted in accordance with the marsh sampling protocols provided in the SFWMD's Field Sampling Quality Manual as refined in the District's Monitoring Plan for Everglades Protection Area Water Conservation Area 1 (WCA1), Project: EVPA.~~

25. Inspection Reports. The permittee shall submit Inspection Reports to the Department evaluating the integrity and functionality of the above ground dikes/levees and structures, including pump stations. The cover letter of the Inspection Report should summarize site conditions and work that was completed in response to inadequacies that may have been found during regular inspections. Inspection Reports shall be prepared under the guidance of a professional engineer and submitted semi-annually to the Department. Every five years, as a minimum, the permitted facilities shall be inspected by a Florida registered professional engineer and the subsequent Inspection Report shall be signed and sealed. The District may request a modification to this condition if the facility is included in a formalized inspection program that has been reviewed and approved by the Department.

~~30~~26. Annual Monitoring Reports. All studies, monitoring reports, and technical submittals required by this permit shall be submitted to the Department in an "Annual Report." The annual reporting requirements under this

permit shall be incorporated into the South Florida Environmental Report (SFER) and submitted to the Department no later than March 1st of each year. Each Annual Report shall present the information for the previous water year, from May 1st to April 30th. If additional reporting modifications are required, and upon approval by the Department, the permittee may modify the Annual Report submission date to coincide with multiple reporting requirements and time periods needed for data acquisition and analysis. In addition to the permit number, and name of the permit administrator, the Annual Reports shall contain, at a minimum, the following information:

A. Quality Assurance and Quality Control. Sampling and monitoring data shall be collected, analyzed, reported and retained in accordance with Chapter 62-160, F.A.C. Any laboratory test required by this permit shall be performed by a laboratory that has been certified by the Department of Health (DOH) under Chapter 64E-1, F.A.C., where such certification is required by Rule 62-160.300, F.A.C. The laboratory must be certified for all specific method/analyte combinations that are used to comply with this permit. The analytical method used shall be appropriate so as to determine if the sample complies with Class III surface water quality standards as specified in Chapter 62-302, F.A.C. All field activities including on-site tests and sample collection, whether performed by a laboratory or another organization, must follow all applicable procedures described in DEP-SOP-001/01 (February 1, 2004). Alternate field procedures and laboratory methods may be used if they have been approved according to the requirements of Rules 62-160.220 and 62-160.330, F.A.C.

B. Water Quality Data. Records of monitoring information shall include all applicable laboratory information specified in Rule 62-160.340(2), F.A.C. including the following:

1. Date, location, and time of sampling or measurements;
2. Person responsible for performing the sampling or measurements;
3. Dates analyses were performed and the appropriate code as required by Chapter 62-160, F.A.C.;
4. Laboratory/Person responsible for performing the analyses;
5. Analytical methods used, including MDL and PQL;
6. Results of such analyses, including appropriate data qualifiers, and all compounds detected;
7. Depth of sampling;
8. Flow conditions and weather conditions at time of sampling; and,
9. Monthly flow volumes.

In addition, the following records must be kept on file for reference during the duration of the project but are not required to be submitted in annual reports.

10. Field sampling and laboratory quality manuals
11. Sampling and analysis notes, as required under Chapter 62-160, F.A.C. and NELAC Quality Systems (2003), respectively.

C. Performance Evaluation.

1. Records of the operations status of the STAs during the water year, stating whether each STA (or particular cells or flow-ways therein) is in start-up~~, stabilization~~ or routine operations;

2. A comparison of inflow water quality data with outflow water quality data using the student's t-test with a 95% confidence interval;

3. A comparison of outflow phosphorus concentrations with the ~~TBELs~~ WQBEL for STA-1W and STA-1E and between the current reporting year and previous years; and

4. An assessment of the inflow volumes and phosphorus loads during the year relative to the anticipated operational envelope contained in *the Technical Support Document for the STA-1W TBEL*(Exhibit B) and *the Technical Support Document for the STA-1E TBEL*(Exhibit C).

~~Calculations for any reporting that requires averaging of measurements shall be weighted by flow value.~~

D. Herbicide and Pesticide Tracking. The permittee shall provide, in each annual report, information regarding the application of herbicides and pesticides used to exclude/eliminate undesirable vegetation and pests within STA-1W and STA-1E. Such reporting shall include the names, concentrations, locations, and quantities of all herbicides and pesticides used, and a statement certifying that the permittee has adhered to manufacturer application guidelines.

E. Implementation Schedules. The Annual Report shall provide details on the following:

1. Implementation of ~~projects~~ the WQBEL and activities required by this permit and affecting flows and loads to STA-1W and/or STA-1E;
2. Source Control implementation and optimization ;
3. STA design modifications affecting implementation of the WQBEL and activities required by this permit;
4. Improvements, enhancements, and strategies that have been initiated and/or completed within the previous year;
5. Any delays in the implementation of the improvements, enhancements, or strategies, ~~and~~ the duration of the delays, the reason(s) for the delays, and the expected timeframe for their resolution;
6. The operational status of the STA, stating whether the STA is in routine operations or start-up ~~stabilization.~~ If the facility is in non-routine operations during the reporting period, the report shall also include the date at which the facility entered the start up ~~or stabilization~~ phase and the length of time it remained or is expected to remain in that phase;
7. ~~Achievement of effluent limitations set forth in the TBEL and/or~~ implementation of STA Recovery Plans;
8. Whether revisions and/or additions to the requirements of this permit ~~improvements, enhancements, and strategies~~ are recommended;
9. Implementation of remedial measures in the event of noncompliance with permit conditions;
10. Whether the facility was operated within or outside of the operational envelope per Specific Condition 15; and
11. For each downstream transect station, a compilation of the water quality, sediment, and vegetation monitoring data collected, as appropriate, and an assessment of whether the cumulative impact remained unchanged, improved, or worsened from the previous year/monitoring.

F. The permittee shall report with the monthly DMR if operation of facilities is impacted by or constrained due to requirements under the Endangered Species Act or Migratory Bird Treaty Act. The report should include the species involved, an estimate of the number of individuals involved, actions taken to avoid deleterious impacts on the endangered species, the affect those actions had on compliance with any condition of this permit, and an estimate of when facility operation will no longer be impacted or constrained.

27. Removal of Parameters. Upon demonstration that a specific parameter(s) is not present or is found consistently to be in compliance with Class III Water Quality Standards, the permittee may request a modification to the monitoring program as appropriate. A minimum of one year's worth of data, for those parameters being sampled quarterly or more frequently, will be required prior to the Department approving any modification to the monitoring program. Parameters sampled semi-annually or annually will be examined on a case-by-case basis. The Department may approve a reduction of the monitoring frequency or waive the monitoring requirement for parameters that consistently are reported as in compliance with state water quality standards.

28. Addition of Parameters. If the Department has reason to believe that additional parameters are necessary to determine whether discharges from the STAs may cause or contribute to water quality violations, those parameters shall be added to the monitoring section of this permit as a permit modification.

29. Public Health, Safety, or Welfare. Data from existing STAs and the monitoring and compliance requirements of this permit, provide reasonable assurances that discharges authorized by this permit will not pose a serious danger to the public health, safety, or welfare. If warranted by additional information, the Department may include additional monitoring or compliance conditions in this permit, in accordance with Subsections (9)(g) and (11)(a)2, of the EFA.

30. Emergency Suspension of Sampling. Under hurricane or tropical storm warnings, or other extreme weather conditions, the permittee's normal sampling schedule may be suspended if necessary. The permittee shall notify the Department of any anticipated sampling suspension associated with hurricanes, tropical storms, or other extreme weather events that may require deviation from the normal sampling schedule. Within 14 days following the cessation of emergency conditions, the permittee shall notify the Department of when normal sampling is expected to resume.

Renewals and Modifications

31. Permit Renewal. At least 60 days prior to the expiration of this permit, the permittee shall apply for renewal of this permit. Renewal may be for a period of up to 5 years in accordance with Subsection 373.4592(9)(f) of the EFA.

~~**36. Permit Modifications for STA Optimization.** Pursuant to Subsections (3)(b) (e) and (9)(j) of the EFA and the PDE component of the Long Term Plan, the permittee may submit proposed modifications to STA 1W and/or STA 1E through the adaptive implementation process identified in the Long Term Plan. Within 30 days after receipt of such a submittal, the Department shall notify the permittee as to whether a permit modification is necessary. Minor modifications can be processed in letter format. The Department shall determine whether the modification is minor or major based on the nature and magnitude of the proposed modification and the potential for the modification to have environmental impacts that are significantly different from those previously considered by the Department for the activity, pursuant to Rule 62-343.100, F.A.C. The permittee shall be required to publish a notice of application pursuant to Subsections 373.413 (3) and (4), F.S., as applicable, for any requested permit modifications determined to be major in accordance with this Specific Condition.~~

32. Department Review and Approval. Where conditions in this permit require Department review and approval of remedial actions or plan modifications to be implemented pursuant to this permit, the Department will consult with the permittee to ascertain whether mutual agreement can be reached. If mutual agreement on the remedial actions or plan modifications cannot be reached, the action of the Department will be deemed final agency action and will be subject to judicial or administrative review, as appropriate.

33. Reopener Clause. The permit may be reopened to adjust effluent limitations or monitoring requirements should future water quality based effluent limitation (WQBEL) determinations, water quality studies, Department approved changes in water quality standards, or other information show a need for a different limitation or monitoring requirement.

Discharge Limits and Monitoring:

Table 1: Discharge Limitations and Associated Monitoring Requirements

	Discharge Limitations				Monitoring Requirements		
Parameters (units)	**Daily Minimum**	**Daily Maximum**	**Other**		**Monitoring Frequency**	**Sample Type**	**Sample Point**
Phosphorus, Total (as P) (ppb)	--	--	Not to exceed 10 as a geometric mean (GM) annual average in more than two consecutive years	18 as a flow-weighted mean (FWM) annual average	Weekly	GM – based on grab samples collected when discharge occurs FWM - 7-day flow proportioned composite	outflow
			See Footnote [1,2,3,4] below				
Phosphorus, Total (as P) (ppb)	--	--	Report[5]		Weekly	7-day flow proportioned composite	inflow
Oxygen, Dissolved (DO) (mg/L)	Report See Specific Condition 2, 3, 4				Weekly	Grab (Meter)	Inflow/ outflow

[1] All outflow TP monitoring results shall be reported as separate weekly values without rounding to whole numbers. The results shall also be reported as FWM annual averages that are calculated based on the FWM of the weekly values. The results shall also be reported as GM annual averages that are calculated based on all sample point weekly values collected when discharge occurs in the previous 12 months. All FWM and GM annual averages shall be reported to the nearest whole number (i.e., 10.5 ppb shall be reported as 11 ppb; 10.49 ppb shall be reported as 10 ppb

[2] The discharge shall not cause phosphorus concentrations in the receiving waters to be altered so as to cause or contribute to an imbalance in natural populations of aquatic flora or fauna. The discharge shall not cause phosphorus concentrations in the receiving waters to exceed the criteria in Rule 62-302.540(4)(a), F.A.C. Beginning at the end of April after the permit effective date and at the end of each April thereafter, the permittee shall report the FWM annual average using data it collected for the prior 12 months. Beginning at the end of April after the permit effective date and at the end of each April thereafter, the permittee shall report the GM annual average using data it collected for each of the prior 3 years.

[3] In the year following any two consecutive years where the TP GM annual average exceeds 10 ppb, the permittee shall report quarterly the GM of all monthly TP values for that year. If that mean exceeds 10 ppb, the permittee shall provide a report to both FDEP and USEPA by the fifteenth of the month following the quarterly report of its evaluation of why that mean is as high as it is and the specific steps it is taking to ensure that the TP GM for that year will not exceed 10 ppb.

For the TP FWM WQBEL, the permittee shall report quarterly the average of all monthly FWMs for that year. If that average exceeds 18 ppb, the permittee shall provide a report to both FDEP and USEPA by the fifteenth of the month following the quarterly report of its evaluation of why that average is as high as it is and the specific steps it is taking to ensure that the TP FWM annual average for that year will not exceed 18 ppb.

[4] If the facility does not meet the FWM WQBEL in any year, the permittee shall report the annual load of TP discharged by the STA into the Everglades that is in excess of the WQBEL load (based on 18 ppb). If the facility does not meet the GM WQBEL in any year, the permittee shall separately report the annual load of TP discharged by the STA into the Everglades that is in excess of the WQBEL load (based on 10 ppb) for that year and the previous two years.

[5] All inflow TP monitoring results shall be reported as separate weekly values without rounding to whole numbers. All results shall also be reported as monthly averages and as FWM annual averages. The monthly averages and FWM annual averages shall be calculated based on the FWM of the weekly values and shall be reported to the nearest whole number (i.e., 10.5 ppb shall be reported as 11 ppb; 10.49 ppb shall be reported as 10 ppb).

MONITORING REQUIRED:

In addition to any other monitoring requirements set forth in this permit, the permittee shall conduct routine monitoring as set forth for the specified parameters in the following table. Reporting of results shall be as provided in the applicable General and Specific Conditions of this permit.

Key for Table ~~1~~2

Sample Type:
G = Grab sample
C = Soil Core
FPC = Flow proportionate composite sample
INSITU = In Situ field sample
CAL = Calculated parameter
PR = Pump record
RG = Rain Gauge

Sample Frequency:
W = Weekly
BI-W = Once every other week
WF = Weekly when flowing
M = Monthly
DAV = Daily averages of continuous sampling
DAC = Daily accumulation of continuous sampling

Table 2. STA-1W and STA-1E Routine Monitoring Table

PARAMETER	UNITS	SAMPLE TYPE	SAMPLING FREQUENCY	SAMPLING LOCATION
Alkalinity	mg/l	G	BI-W	G-302, S-319, S-361, and G-311 Inflow;G-251, G-310, and S-362 Outflow
Dissolved Oxygen	mg/l	INSITU	W	G-302, S-319, S-361, and G-311 Inflow; G-251, G-310, and S-362 Outflow
Mercury	See attached Exhibit E & F (Mercury Monitoring Program)			
pH	SU	INSITU	W	G-302, S-319, S-361, and G-311 Inflow; G-251, G-310, and S-362 Outflow
Specific Conductance	µmhos	INSITU	W	G-302, S-319, S-361, and G-311 Inflow; G-251, G-310, and S-362 Outflow
Temperature	Deg C	INSITU	W	G-302, S-319, S-361, and G-311 Inflow; G-251, G-310, and S-362 Outflow
Total Phosphorus (Water)	mg/l	FPC/G	W	G-302, S-319, S-361, and G-311 Inflow; G-251, G-310, and S-362 Outflow;G-300 and G-301
Total Nitrogen	mg/l	G	BI-W	G-302, S-319, S-361, and G-311 Inflow; G-251, G-310, and S-362 Outflow
Turbidity	NTU	G	See Specific Condition 24	G-302, S-319, S-361, and G-311 Inflow; G-251, G-310, and S-362 Outflow
Nitrate + Nitrite	mg/l	G	BI-W	G-302, S-319, S-361, and G-311 Inflow; G-251, G-310, and S-362 Outflow
Sulfate	mg/l	G	BI-W	G-302, S-319, S-361, and G-311 Inflow; G-251, G-310, and S-362 Outflow
Flow	CFS	PR	DAV	S-319, G-251, G-310, and S-362 Outflow
Flow	CFS	CAL	DAV	G-302, S-319, S-361, and G-311 Inflow; G-251, G-310, and S-362 Outflow; G-300 and G-301
Rainfall Volume	in	RG	DAC	Rainfall Sampling Station

~~Table 2. Interim TBELs for STA-1W As A Function of PLR~~

Phosphorus Loading Rate $g/m^2/yr$	Annual Phosphorus Limit ppb	Phosphorus Loading Rate $g/m^2/yr$	Annual Phosphorus Limit ppb	Phosphorus Loading Rate $g/m^2/yr$	Annual Phosphorus Limit ppb
0.973	28	1.500	30	2.050	34
1.000	28	1.550	31	2.100	34
1.050	28	1.600	31	2.150	34
1.100	28	1.650	31	2.200	34
1.150	29	1.700	32	2.250	35
1.200	29	1.750	32	2.300	35
1.250	29	1.800	32	2.350	35
1.300	29	1.850	32	2.400	36
1.350	30	1.900	33	2.450	36
1.400	30	1.950	33	2.500	36
1.450	30	2.000	33		

~~Table 3. Interim TBELs for STA-1E As A Function of PLR~~

Phosphorus Loading Rate $g/m^2/yr$	Annual Phosphorus Limit ppb	Phosphorus Loading Rate $g/m^2/yr$	Annual Phosphorus Limit ppb	Phosphorus Loading Rate $g/m^2/yr$	Annual Phosphorus Limit ppb
0.972	25	1.500	29	2.050	33
1.000	25	1.550	29	2.100	34
1.050	26	1.600	30	2.150	34
1.100	26	1.650	30	2.200	34
1.150	27	1.700	31	2.250	35
1.200	27	1.750	31	2.300	35
1.250	27	1.800	31	2.350	36
1.300	28	1.850	32	2.400	36
1.350	28	1.900	32	2.412	36
1.400	28	1.950	32		
1.450	29	2.000	33		

Table 3. Schedule of Compliance Activities

Activity		Completion Date
STA-1W and STA-1E Internal Improvements and Enhancements	STA-1W Western Flow-way Achieve Stabilization Test	June 2008
	STA-1W Northern Flow-way Achieve Stabilization Test	June 2008
	STA-1W Construction of Eastern Flow-way Enhancements	December 2007
	STA-1W Establishment of Eastern Flow-way Vegetation	October 2008
	STA-1W Eastern Flow-way Achieve Stabilization Test	November 2010
	STA-1E Central and Western Flow-way Achieve Stabilization Test	September 2008
	STA-1E PSTA Demonstration Project Completed by USACE	September 2009
	STA-1E Eastern Flow-way Flow Capable by USACE	June 2010
	STA-1E Eastern Flow-way Achieve Stabilization Test	June 2012
Regional Water Management Projects	L8 Diversion Project by USACE	December 2014
	Additional Treatment Area (Compartment B) Flow Capable	December 2013
	Conveyance Improvements Completed	December 2013
	Compartment B Enters Stabilization	February 2015
	Compartment B Stabilization	December 2016

Table 4. STA-1W Transect Sampling Sites.

Station	Latitude	Longitude	Impacted/Unimpacted
LOXA-104	26.597982	-80.440045	Rim Canal
LOXA-104.5	26.594111	-80.439111	Impacted
LOXA-105	26.591899	-80.436094	Impacted
LOXA-106	26.592206	-80.431281	Impacted
LOXA-107	26.587390	-80.421445	Impacted
LOX-107U	26.581200	-80.412000	Unimpacted
LOXA-108	26.577960	-80.405853	Unimpacted

Table 5. STA-1W Z Transect Sampling Sites.

Station	Latitude	Longitude	Impacted/Unimpacted
Z-0	26.46697	-80.44218	Rim Canal
Z-1	26.4683	-80.44012	Impacted
Z-2	26.46453	-80.42794	Impacted
Z-3	26.4583	-80.40862	Impacted
Z-4	26.44617	-80.38851	Unimpacted

Table 6. STA-1E Transect Sampling Sites.

Station	Latitude	Longitude	Impacted/Unimpacted
LOXA-135	26.623355	-80.316123	Rim Canal
LOXA-136	26.618793	-80.318667	Impacted
LOXA-137	26.615103	-80.321703	Impacted
LOXA-138	26.606817	-80.326665	Unimpacted
LOXA-139	26.593325	-80.337154	Unimpacted

DONE AND ORDERED on this 16 day of November, 2007 in Tallahassee, Florida.

**STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION**

_____

Michael W. Sole
Secretary

MS/jb/jh

FILING AND ACKNOWLEDGMENT

FILED, on this date, under Section 120.52(7), F.S., with the designated deputy clerk, receipt of which is hereby acknowledged.

_____

Clerk Date

PARTIES REQUESTING NOTICE:
Miccosukee Tribe of Indians of Florida, c/o Dexter Lehtinen, Esq.
Miccosukee Tribe of Indians of Florida, c/o Kelly Brooks, Esq.
United States Sugar Corporation, c/o Bubba Wade
Seminole Tribe of Indians of Florida, c/o Stephen A. Walker, Esq.
Sugar Cane Growers Cooperative, Roth Farms, Inc., and Wedgeworth Farms, Inc.,
c/o William H. Green, Esq.
Keith Saxe, Esq., U. S. Department of Justice
Michael Stevens, U.S. Department of the Interior (fax)
Jeffrey J. Ward, Sugar Cane Growers Cooperative
Philip S. Parsons, Young van Assenderp
Helen Hickman, Brown & Caldwell
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Don Klima, U.S. Advisory Council on Historic Preservation
John Childe, Friends of the Everglades
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Florida Department of Environmental Protection
Bob Martinez Center
2600 Blair Stone Road
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EVERGLADES FOREVER ACT
CONSTRUCTION AND OPERATION AUTHORIZATION

PERMITTEE:
South Florida Water Management District
3301 Gun Club Road
P. O. Box 24680
West Palm Beach, Florida 33416-4680

ATTENTION:
Ms. Carol Ann Wehle

Permit Number: 0126704-008-EM
Project: Stormwater Treatment Area 2 (STA-2)
County: Palm Beach

Date of Issue: March 17, 2009
Expiration Date: March 17, 2014

This permit is issued in accordance with the Everglades Forever Act (EFA), Section 373.4592, Florida Statutes (F.S.), authorizing operation and maintenance activities for the existing components of Stormwater Treatment Area 2 (STA-2) and construction of the Compartment B Build-Out. The above named permittee is hereby authorized to initiate the activities necessary to meet the requirements of this permit ~~described on the application, associated drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof~~. The activities authorized by this permit must be conducted in conformance with all the provisions of this permit. ~~This permit is accompanied by Administrative Order AO-010-EV, which is incorporated herein by reference.~~ Failure to comply with all permits conditions and documents referenced herein shall constitute grounds for revocation of the permit and appropriate enforcement action.

PROJECT DESCRIPTION:

This permit authorizes the operation and maintenance of existing STA-2 facilities (Cells 1-4), and the construction of Compartment B Build-Out. STA-2 and Compartment B Build-Out are components of the Everglades Construction Project (ECP), construction, operation, and maintenance of which is required by the EFA, Section 373.4592, F.S. The STA-2 Facility (Figure 1) consists of the following: S-5A Basin Runoff Diversion Works, the S-6 Diversion Works, the STA-2 Supply Canal Works, the STA-2 Inflow Works, the STA-2 Interior Treatment Works, the STA-2 Discharge Works, the G-335 Pump Station, WCA-2A Hydropattern Restoration Works, the Okeelanta Bridge, Florida Power and Light (FPL) Facilities, Recreational Facilities, and Structural, Operational and Vegetation Enhancements. Compartment B Build-Out will consist of a North Build-Out Treatment Area (NBO) and a South Build-Out Treatment Area (SBO), the associated Inflow, Distribution and Outflow Works and G-444 Divide Structure.

Initial construction of this facility was previously authorized and completed under Florida Department of Environmental Protection (Department) EFA Permit No. 0126704-001. This permit contains requirements to meet the WQBEL specified herein. ~~In addition, structural, operational and vegetation enhancements have been conducted in accordance with the October 2003 *EPA Tributary Basins Long Term Plan for Achieving Water Quality Goals* and subsequent revisions (Long Term Plan, Exhibit A). These improvements and enhancements were designed to optimize performance as needed to achieve the phosphorus water quality standard. Additional enhancements to STA-2 may occur as part of the adaptive implementation process envisioned in the Long Term Plan~~. STA-2 and Compartment B Build-Out are components of a Stormwater Management System (SMS) as defined in Subsection 373.403(10), F.S., and therefore state surface water quality standards do not apply within STA-2 or Compartment B Build-Out pursuant to Section 373.4142, F.S.

Operation and maintenance activities authorized by this permit involve maintaining water levels within the existing components of STA-2 to optimize efficiency of the treatment area. Optimization of the treatment wetland is defined by its performance at removing the pollutants, particularly phosphorus, for which the project was designed and providing regional flood control and water supply. Other operation and maintenance activities for the existing components of STA-2 include water quality and vegetation monitoring, preparation and submittal of monitoring reports, vegetation maintenance, and maintenance of the water control structures (including project canals and levees). Discharges from the completed NBO and SBO STAs are not authorized under this permit.

Assuming normal operating conditions, the following treatment path culminates with discharges into WCA-2A. Runoff from the Chapter 298 drainage districts situated on the easterly shore of Lake Okeechobee (East Shore Water Control District and Closter Farms), a portion of runoff from the S-5A basin via the Ocean and Hillsboro canals and the S-6/S-2 basin, along with Lake Okeechobee releases intended for WCA-2A or meant for delivery to the Lower East Coast, are directed into the eastern treatment cells (Cells 1-4) of STA-2 from the S-6 Pump Station to the STA-2 Inflow Works. Seepage from the adjacent WCA-2A also enters STA-2. After introduction to STA-2, interior structures will direct water into the cells where it will undergo treatment. Cells 1-4 were previously constructed and are operational. Treated discharges are drawn from the STA-2 Discharge works by the G-335 Pump Station and then released to the WCA-2A via the L-6 Borrow Canal and WCA-2A Hydropattern Restoration Works. Wetlands and surface waters located within the receiving water body are Class III Waters.

The Compartment B Build-Out is a 7,570-acre irregularly shaped parcel of land located in southern Palm Beach County between the L-6 Borrow Canal (the northwestern boundary of WCA-2A) and the North New River Canal (NNRC). Compartment B Build-Out is designed to further improve water quality discharges to the Everglades Protection Area (EPA) and is part of the overall effort to balance flows and phosphorus loads across the STAs located in the EAA. Treatment cells within the Build-Out area will consist of emergent (EMG) and submerged aquatic vegetation (SAV) treatment cells. Authorized construction activities associated with Compartment B Build-Out consist of the following:

The North Build-Out Area, approximately 4,380 acres in total area, includes two new treatment cells (Cells 5 and 6) that will operate in series with Cell 4 (of the existing STA-2). The NBO will provide water quality treatment for a portion of the EAA from two sources, the NNRC and the S-6 and G-328 pump stations (the existing inflow source water for STA-2). Inflow into the NBO from the NNRC will be supplied by a proposed 1,120 cfs capacity pump station to be located in the northwestern corner of the NBO. S-6 and G-328 inflows to NBO from the existing STA-2 Supply Canal shall be regulated by the existing G-337A control structure.

The South Build-Out Area is a triangular shaped parcel, approximately 3,190 acres in total area, located directly south of Cells 1-4 of the existing STA-2. The two new treatment cells in the SBO (Cells 7 and 8) will be operated independently from the NBO. Inflow into the SBO from the NNRC will be supplied by a proposed 480 cfs capacity pump station to be located in the northwestern corner of the SBO.

Treated water from the NBO and the SBO will be delivered into the L-6 Borrow Canal via a common 1,600 cfs capacity outflow pump station to be located just south of the existing STA-2 outflow pump station G-335. Discharges from the NBO and SBO STAs must obtain the appropriate authorizations under the existing EFA and NPDES permits prior to commencing operations.

PROJECT COMPONENTS

The individual ECP components included in this project are as follows:

I. S-5A Basin Runoff Diversion Works

A portion of S-5A Basin ~~stormwater~~ non-process wastewater is diverted to STA-2 for treatment prior to discharge into WCA-2A. The existing S-5A basin runoff diversion works include the following features: the enlargement of the Hillsboro Canal extending southeasterly from its confluence with the Ocean Canal for a distance of approximately 7 miles; the enlargement of the Ocean Canal between its confluence with the Hillsboro Canal and the

old S-5AX structure (removed during the construction of the diversion works); the 5.68 miles extension east from the old S-5AX structure and the construction and operation of the G-341 structure, located on the Ocean Canal.

II. The S-6 Diversion Works

The existing S-6 Diversion Works includes approximately 3,852 linear feet of canals and associated levees to convey discharges from the S-6 Pump Station to the STA-2 Supply Canal. Two gated control structures (G-338 and G-339) are also included. The G-338 structure, single vertical lift gate, functions as a water supply and partial emergency ~~diversion~~ bypass system, sending flows to the Refuge and downstream areas. The G-339 structure, double vertical lift gates, functions as an emergency ~~diversion~~ bypass system for the remainder of flows should operation of STA-2 require the ~~diversion~~ bypass of flows during extreme storm events from the S-6 Pump Station to WCA-2A via the L-6 Borrow Canal. In addition, G-339 may be operated for flow recirculation from the L-6 Borrow Canal back into the STA-2 Supply Canal, to avoid hydrological and nutrient overloading the STA, or when water conditions within STA-2 may damage existing marsh vegetation. G-339 is located at the confluence of STA-2 Supply Canal and the L-6 Borrow Canal.

III. STA-2 Supply Canal Works

The existing STA-2 Supply Canal Works include the STA-2 Supply Canal, east and west Supply Canal Levees; with associated seepage collection canal and inflow control mound beginning at G-339 and extending in a southwesterly direction parallel to and west of the existing Levee L-6 to the north boundary of STA-2. The supply canal connects into the inflow canal located along the northerly perimeter of STA-2. Pump Station G-328 is a privately owned and operated pump station which directs EAA discharge water into the supply canal for inflow into STA-2 for treatment along with the S-6 pump station. This pump station has a capacity of approximately 445 cfs. Pump Station G-328 can also be operated to withdraw water from the STA-2 Supply Canal to meet irrigation water supply demands.

The G-337 Seepage Pump Station and remove perimeter seepage water along the north side of STA-2 and discharge into the northern inflow canal for re-circulation through the STA. The Seepage pumps at the G-434 pump station discharge collected seepage into the NBO area only. Seepage around the remainder of STA-2 will be captured in existing adjacent canals with the exception of the FPL property. Structure G-337A was previously modified from a seepage pump station to a control structure (refer to description below).

IV. STA-2 Inflow Works

The STA-2 Inflow works will consist of three pump stations, perimeter/divide levees, inflow canals, inflow levees and associated inflow structures, and spreader canals. The existing STA-2 inflow canal is being extended north and west along the top of Cells 5 and 6 from the G-337A Structure. This section of inflow canal will serve the NBO. The portion of the inflow canal that delivers water to Cell 4 will be abandoned and a section filled to re-direct flows to the north. A separate inflow canal will be constructed to serve the SBO.

For STA-2 Cells 1 through 3, flows are directed from the northern inflow canal into Treatment Cell 1 via G-329A-D gated control structures, into Treatment Cell 2 via G-331A-G gated control structures and into Treatment Cell 3 via G-333A-E gated control structures. Gated control structure G-337A currently allows direction of flows to Cell 4, however with the completion of the Compartment B Build-Out project, G-337A will provide operational flexibility for the direction of S-6 and G-328 inflow water into Cells 5 and 6, or isolation of flow within the Inflow Canal. This structure will either be opened to deliver flows to the NBO or closed to deliver flows to Cells 1 through 3. In either operational scenario water will be supplied from the eastern pump stations S-6 and G-328 or seepage pump station G-377.

Other inflows to the NBO will be directed from the NNRC to the northern inflow canal using pump station G-434. From the inflow canal, structures G-438A-E will direct flows to Cell 5 and G-438F-J will direct flows to Cell 6. Inflows will be directed into Treatment Cell 4 via G-367 A-F gated control structures after treatment through Cells 5 and 6. All inflow structures for Cells 4-6 are 72” gated culverts. During high flow operations, additional structures, G-443A and B will provide inflows to Cell 4 via Cells 5 and 6 respectively. Both structures are a single 8’x 8’ gated box culvert. Gated control structure G-337A may also deliver water to the NBO treatment cells.

For the SBO, inflows will be directed from the NNRC through the G-439 structure and into the SBO inflow canal using pump station G-435. From the inflow canal, six 60" gated culverts, G-440A-F, will direct flows south into Cell 7. Inflow to Cell 8 will be directed through three 8'x8' un-gated box culverts, G-442A-C, located under the FPL access road.

V. STA-2 Interior Treatment Works

The existing eastern STA-2 interior treatment works are divided into three parallel treatment cells (Cells 1-3) through interior levees and water control structures. Cell 4 interior treatment works, completed as part of the initial expansion of STA-2, operate in conjunction with Cells 1-3. Flows pass through the treatment cells from north to south and are directed into the STA-2 discharge canal situated along the south boundary of Cell 1. Cell 1 consists of approximately 1,798 acres of effective treatment area, Cell 2 approximately 2,270 acres, Cell 3 approximately 2,270 acres and Cell 4 has approximately 1,900 acres. Upon completion of the NBO, Cell 4 will work in concert with the NBO.

For the NBO interior treatment works, Treatment Cells 5 and 6 will be separated by a divider levee with flows passing through the treatments cells from north to south. Both cells will flow into Cell 4 for additional treatment prior to discharge into to the outflow canal. The eastern levee of the NNRC, which will serve as the western levee for Cell 4 and Cell 5, will be raised in some sections to meet design requirements. Cell 5 has an effective treatment area of 2,096 acres, including 574 acres of emergent vegetation, and Cell 6 has an effective treatment area of 1,786 acres, including 489 acres of emergent vegetation.

For the SBO interior treatment works, Treatment Cells 7 and 8 will be separated by the FPL access road which will be raised to create a divider levee. Flows will pass through the Cell 7 from north to south and then through Cell 8 from south to north for additional treatment prior to discharging into to the NBO/SBO outflow canal. The eastern levee of the NNRC, which will serve as the western levee for Cell 7, will be raised in some sections to meet design requirements. Cell 7 will be managed for an effective treatment area of approximately 1,525 acres of emergent vegetation and Cell 8 will have approximately 1,410 acres of SAV treatment area.

VI. STA-2 Discharge Works

Cells 1-3 of STA-2 collect treated water at the southern end of each treatment cell and pass it through a series of outflow control structures (Cell 1 outflow structures G-330 A-E, Cell 2 outflow structure G-332 and Cell 3 outflow structure G-334). The discharge canal for Cells 1-3 is located along the south side of Cell 1. Water collected in the discharge canal is pumped into the L-6 Borrow Canal by the G-335 Pump Station. Operation of Cells 1-4 of STA-2 shall continue to discharge under the existing operational authorization.

For the NBO, Cell 5 and 6 will discharge through Cell 4 inflow structures, G-367A-F and G-443A and B after degradation of the existing Cell 4 north levee. Cell 4 outflow structure, G-368A-D, connects the NBO to the NBO/SBO discharge canal. Structures G-368A-D consists of four gated culverts that serve as the outflow control structures for treatment Cell 4. Each culvert has a 140-ft long 8-ft x 8-ft concrete box culvert with a 96"x 96" slide gate in the center of the culvert alignment, and flared end sections. These structures convey water from a collector canal that runs across the south end of Cell 4 and into the NBO/SBO discharge canal. This discharge canal from Cell 4, which is currently connected to the G-335 Pump Station, will be re-aligned to parallel the existing STA-2 discharge canal and connect to the new G-436 Pump Station for release to the L-6 Borrow Canal. Operation of the Cells 5-6, in combination with the existing Cell 4, will require a separate authorization for operations under this permit.

For the SBO, Cell 7 will discharge through the Cell 8 inflow structures, G-442A-C, with the Cell 8 outflow structure, G-441A and B, connecting to the NBO/SBO discharge canal. Structures G-441A and B each consists of a single 8-ft x 8-ft gated box culvert. These two structures will convey water from a collector canal located along the north end of Cell 8 and into the NBO/SBO discharge canal. Water collected in the discharge canal will be pumped into the L-6 Borrow Canal by the G-436 Pump Station. Operation of the Cell 7 & 8 configuration described above will require a separate authorization for operations under this permit.

VII. G-335 Outflow Pump Station

The existing outflow Pump Station G-335 draws treated water from the STA-2 discharge canal and releases it to the existing WCA-2A Hydropattern Restoration Works via the L-6 Borrow Canal. This pump station is located in the southeastern corner of Cell 1 and serves Cells 1-4. Until the NBO is complete, G-335 will continue to serve Cell 4. G-335 pump station includes two 100 cfs pumps, two 470 cfs pumps and two 950 cfs pumps (3,040 cfs total discharge rate) a pump station enclosure, and a connection canal leading to the L-6 Borrow Canal. Discharges from this pump station normally flow northeast and southwest along the L-6 Borrow Canal and are conveyed into WCA-2A via the existing Hydropattern Restoration Works.

VIII. G-434 Inflow Pump Station

Inflow Pump Station G-434 will draw water from the NNRC and discharge it into the northern inflow canal for delivery to Cells 5 and 6. This pump station will be located in the northwestern corner of Cell 5 and will serve the NBO treatment cells (Cells 4, 5 and 6). G-434 pump station includes two 460 cfs pumps and two 100 cfs pumps (1,120 cfs total inflow rate), three 100 cfs seepage pumps, a pump station enclosure and an intake canal. Four 8-ft x 8-ft un-gated box culverts, G-437A-D, will be constructed in the intake canal to G-434 for continuation of levee access along the NNRC.

IX. G-435 Inflow Pump Station

Inflow Pump Station G-435 will draw water from the NNRC and discharge it into the southern inflow canal for delivery to Cell 7. This pump station will be located in the northwestern corner of Cell 7 and will serve the SBO treatment cells (Cells 7 and 8). G-435 pump station includes three 160 cfs pumps (480 cfs total inflow rate), a pump station enclosure and an intake canal. Three 8-ft x 8-ft un-gated box culverts, G-439A-C, will be constructed in the intake canal to G-435 for continuation of levee access along the NNRC.

X. G-436 Outflow Pump Station

Outflow Pump Station G-436 will discharge treated water from the NBO/SBO into the L-6 Borrow Canal. This pump station will be located in the northeastern corner of Cell 8 and will serve all of the NBO and SBO treatment cells. G-436 pump station includes three 533 cfs pumps and two 100 cfs pumps (1,800 cfs total discharge rate), a pump station enclosure, and a connection canal leading to the L-6 Borrow Canal. Discharges from this pump station will normally flow northeast and southwest along the L-6 Borrow Canal and will be conveyed into WCA-2A via the Hydropattern Restoration Works.

XI. Okeelanta Bridge

The Okeelanta Bridge, located near the SBO Inflow Pump Station G-435, will provide access to STA-2 from US 27. This bridge provides two 12-ft. lanes with paved shoulders and traffic barriers. Once construction of the bridge is completed, future public access to STA-2 for recreational purposes will exist via this new bridge.

XII. WCA 2A Hydropattern Restoration Works

The existing works consist of six existing box culverts, G-336A-F (approximately 300 cfs each) located along the northern edge of WCA-2A, and an existing 3,400-foot degraded section (gap) in the L-6 Borrow Canal Levee located immediately north of the S-7 Pump Station. The six box culverts and the levee gap convey water into previously impacted areas of WCA-2A. Flow through the box culverts and the levee gap will be delivered from the G-335 and G-436 Pump Station.

An existing divide structure, G-336G, will be removed and a new structure, G-444, constructed in the L-6 Borrow Canal south of the G-335 and G-436 Pump Stations. This structure will consist of a double roller gated structure to control stage and flow between the north and south sections of the L-6 Borrow Canal. The L-6 Borrow Canal/Levee will be modified in accordance with Specific Condition 4 to provide additional conveyance for discharges from the G-436 Pump Station.

XIII. FPL Facilities

A Seepage Pump Station, G-445, with a capacity of 26 cfs will be constructed within Cell 8 of the SBO to control water levels within the FPL property (switching station parcel). Miscellaneous improvements to the access roads serving the transmission towers will be required within the SBO due to increased water levels with the STA.

XIV. Recreational Facilities

In fulfillment of the public access and recreation requirements of the EFA Subsection 373.4592 (4)(a) F.S., and as further described in Subsection 373.1391(1)(a) F.S. and (b), recreational facilities are proposed at STA-2. The proposed recreational facilities shall be designed to ensure compatibility with the restoration goals of the ECP and the water quality and hydrological purposes of the STAs. The proposed STA-2 facilities will ultimately include a parking lot along the east side of U.S. Highway 27; an information kiosk and composting toilet; a canoe launching site for access to canals and deepwater areas outside the treatment footprint of the STA; pedestrian gates; and signage and fencing as needed to define public access areas and to protect sensitive equipment and landscaping.

XV. Structural, Operational and Vegetation Enhancements

In accordance with the EFA, the District is conducting structural, operational and vegetation enhancements to STA-2 ~~designed to achieve compliance with state water quality standards~~. These are ~~described in detail in the Long-Term Plan, and are~~ summarized below:

- Construction of approximately 2 miles of interior levee and additional water control structures with telemetric control subdividing Cell 1 into Cells 1A and B~~,~~ and Cell 2 into Cells 2A and 2B
- One small forward-pumping station along the new interior Cell 2 levee to permit withdrawal from upstream emergent marsh cell to maintain stages in the downstream SAV cell
- Emergent vegetation in the downstream portions of Cells 1 and 2 will be converted to SAV. Herbicide treatment of Cells 1B and 2B for removal of emergent macrophyte vegetation to permit development of SAV will be applied

LOCATION:

STA-2 is located within the following property descriptions in Palm Beach County:

- **S-5A Basin Diversion.** The enlargement of the Ocean Canal (also known as Cross Canal, Cross Cut Canal and Levee 13) from the G-340 Structure east to the G-341 Basin Divide structure occurred on the north side of the existing canal within the District's right-of-way. The enlargement of the Ocean Canal from the G-340 Structure south to its confluence with the Hillsboro Canal occurred on the northwest side of the existing canal within the District's right-of-way. The Ocean Canal is located in Sections 4, 5, and 6, Township 44 South, Range 39 East, Hiatus lots 4, 5, and 6 between Townships 43 and 44 South, Range 39 East, Sections 1, 2, 3, 4, 5, 7, 8, 17, and 18, Township 44 South, Range 38 East, and Hiatus lots 1, 2, 3, and 4 between Townships 43 and 44 South, Range 38 East

  The enlargement of the Hillsboro Canal (also known as Levee 15) begins at its confluence with the Ocean Canal and extends southeast a total distance of approximately 34,800 feet and occurred on the northeastern side of the existing canal within the District's right-of-way. The Hillsboro Canal is located in Sections 17, 18, 20, 28, 29, 33, and 34, Township 44 South, Range 38 East, and Sections 2, 3, 4, 10, 11, 13, and 14, Township 45 South, Range 38 East

- **S-6 Diversion Works.** A strip of land approximately 400 feet in width extending through a portion of Sections 3 and 4 of Township 46 South, Range 39 East

- **STA-2 Supply Canal Works.** A strip of land 1,015 feet in width extending throughout Sections 8, 9, 16, 17, 19 and 20, Township 46 South, Range 39 East

- **STA-2 Interior Works**. This includes the Inflow Works, Interior Treatment Works, Discharge Works, FPL and Recreational Facilities and Pump Station G-335, G434, G-435 and G-436 are located within the following: Sections 19, 20, 21, 25, 26, 27, 28, 29, 30, the western portion of 31, 32, 33, 34, 35, and 36 (less the southeast corner), Township 46 South, Range 38 East; a western portion of Section 30, the far northwestern tip of Section 31, Township 46 South, Range 39 East; the northwest corner of Sections 1, 11, 14 and 22, all of Sections 2, 3, 4 5, 9 and 10, the northeast corner of Sections 6, 8, 17, and 21, Section 16

(less the southwest corner) and Section 15 (less the southeast corner), Township 47 South, Range 38 East; the northeast corner of Section 23, Section 24 (less the southwest corner), the northeast portion of Section 25 and the northeast corner or Section 36, Township 46 South, Range 37 East and Section Government Lot 5, Township 43.5, Range 40 East.

- **Okeelanta Bridge.** Within the NNRC right-of-way in Section 8, Township 47 South, Range 38 East.

- **Water Conservation Area 2A (WCA 2A) Hydropattern Restoration.** A strip of land approximately 490 feet in width extending through Sections 4 and 9, Township 46 South, Range 39 East; Sections 17, 20, 30 and 31, Township 46 South, Range 39 East; Section 36, Township 46 South, Range 38 East; and Sections 1, 2,11, 14, 15 and 22, Township 47 South, Range 38 East.

GENERAL CONDITIONS:
In accordance with Subsection 373.4592(9)(g), F.S., this permit may include any standard conditions provided by Department rule which are appropriate and consistent with the EFA.

1. Enforcement. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 373.129, 403.141, 403.727, 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. Scope of permit. This permit is valid only for the specific ~~processes and operations applied for and indicated in the approved drawings or exhibits~~ requirements of this permit. Any unauthorized deviation from the ~~approved drawings, exhibits, specifications, or conditions~~ requirements of this permit may constitute grounds for revocation and enforcement action by the Department.

3. Limitation of rights. The issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the STA-2 project which are not addressed in this permit. However, this permit is in lieu of other permits under Part IV of Chapter 373, F.S., pursuant to Subsection 373.4592(9)(c), F.S.

4. Limitations upon title. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. Liability. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, ~~unless specifically authorized by an order from the Department~~. The permittee shall hold and save the Department harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any system authorized by the permit.

6. Operation and maintenance responsibilities. The permittee shall properly operate and maintain the STA and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. Access Rights. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted for the following purposes:

1. Access to, and the right to, copy any records that must be kept under conditions of the permit
2. Inspection of the facility, equipment, practices, or operations regulated or required under this permit
3. Sampling or monitoring of any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules
4. Reasonable time may depend on the nature of the concern being investigated.

8. Noncompliance. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

1. A description of and cause of noncompliance
2. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit

9. Records as evidence. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data, and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111, F.S. and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. Changes in Law. The permittee agrees to comply with changes in applicable Department rules and applicable Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida law. However, this section cannot be used as a basis to extend the time to comply with the permit's total phosphorus WQBEL.

11. Transferability. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-343.130, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. Permit at Work Site. This permit or a copy thereof shall be kept at the work site of the permitted activity. For the purposes of this permit the work site shall be defined as the South Florida Water Management District Headquarters located at 3301 Gun Club Road in West Palm Beach, Florida.

13. Records Retention. The permittee shall comply with the following:

A. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department

B. The permittee shall hold at the STA or other location designated by this permit records of all monitoring information required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five years from the date of the sample, measurement, report, and application unless otherwise specified by Department rule

C. Records of monitoring information shall include the following:

1. The date, exact place, and time of sampling or measurements
2. The person responsible for performing the sampling or measurements
3. The dates analyses were performed or the appropriate code as required by Chapter 62.160 F.A.C.
4. The person responsible for performing the analyses
5. The analytical techniques or methods used, including but not limited to MDL (Method Detection Limit)
6. The results of such analyses, including identification of potential outlier values

14. Requests for Information. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

15. External Agency Requirements. Should any other regulatory agency require changes to the permitted system, the permittee shall notify the Department in writing of the changes prior to implementation so that a determination can be made whether a permit modification is required.

16. Sovereign Lands. The permittee is hereby advised that Florida law states: No person shall commence any excavation, construction, or other activity involving the use of sovereign or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund or the Department of Environmental Protection under Chapter 253, until such person has received from the Board of Trustees of the Internal Improvement Trust Fund the required lease, license, easement, or other form of consent authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on sovereignty lands or other state-owned lands.

17. Artifacts. If historic or archaeological artifacts such as, but not limited to, Indian canoes, arrow heads, pottery or physical remains, are discovered at any time on the project site, the permittee shall immediately stop all activities which disturb the soil and notify the Department and the State Historic Preservation Officer.

SPECIFIC CONDITIONS:

1. Addresses. Reports and notices submitted to the Department in accordance with this permit, unless otherwise specified, shall be submitted to the Department's Division of Environmental Assessment and Restoration, Restoration Planning and Permitting Section, 2600 Blair Stone Road, MS 3560, Tallahassee, Florida, 32399-2400, telephone no. (850) 245-8346 and to the Department's Southeast District Office, Water Resource Management and Environmental Planning, 400 North Congress Avenue, Suite 200, West Palm Beach, Florida 33401, telephone no. (561) 681-6600. Electronic copies of reports and notices required by this permit shall be sent to RPPS_Comp@dep.state.fl.us.

2. Related Permits. The Department and the permittee acknowledge the issuance of other permits related to STA2. STA-2 previously operated under EFA Permit No. 00126704-005 and portions of the facility currently operate under NPDES Permit No. FL0177946-003-IW7A. Additional related permits include Department Permit No. 0289306 which authorizes temporary dewatering activities associated with the STAs and Non-ECP structures, and the U.S. Army Corps of Engineers 404 Permit No. 199404532. An additional authorization by the U.S. Army Corps of Engineers is anticipated to be issued subsequent to the completion of the Compartment B and C Environmental Impact Statement. This STA-2 EFA permit, upon issuance, shall supersede and replace the former STA-2 EFA Permits issued by the Department.

3. Public Use. The recreational facilities located within the STA-2 Project shall be maintained to ensure compatibility with the restoration goals of the ECP and the water quality and hydrological purposes of the STAs. This permit does not absolve the permittee from the responsibility of obtaining other permits (federal, state, or local) which may be required for the activities occurring at these sites.

Conditions for Construction, Operation and Maintenance

4. L-6 Levee/Canal Conveyance Improvements. Within 180 days of permit issuance, the District shall submit 60% design drawings and related information regarding the proposed improvement of the existing STA-2 conveyance features into WCA-2A for Department review and approval. Prior to any conveyance improvement activities commencing, 90% plans for the proposed conveyance modifications shall be submitted and approved by the Department. The information to be submitted to the Department shall include, at a minimum, the following:

1. L-6 Canal conveyance improvements.
2. Alternate proposed location of the G-444 Divide Structure.
3. Modifications to the existing conveyance area bounded by the G-336A-F structures.
4. Proposed location(s) of material to be dredged/excavated as a result of the proposed activities (including temporary storage locations).
5. Copies of all real estate authorizations (i.e., right-of-way(s), leases, easements, or other legal agreements that authorize the applicant to perform the proposed activities)
6. Information describing the employment of erosion controls (Best Management Practices) necessary to prohibit the transport of sediment into downstream receiving waters.
7. Supporting information on how the proposed activities shall aid in achieving the design objectives of the Everglades Construction Project.

Prior to any of the proposed conveyance modifications commencing, the District shall submit all necessary authorizations from the U. S. Fish and Wildlife Service to the Department.

5. Project Construction. The permittee shall ensure that Compartment B Build-Out components are constructed consistent with the design documents. During any construction and modification of Compartment B and associated works, the permittee shall take all reasonable precautions to minimize the suspension and transport of soils, levee materials, and roadway materials into waters adjacent to or downstream of the construction site. In addition, during construction, the permittee shall perform turbidity monitoring in accordance with Specific Condition 24.

6. Project Operation and Maintenance. The permittee shall operate and maintain STA-2 consistent with the design documents, as may be modified and reflected on the record drawings, operations criteria, and operation plan required by Specific Condition 11. Treatment cells existing at the time of permit issuance (STA 2-1, 2-2, 2-3 and 2-4) are authorized to maintain existing operation. Operation of the NBO individual components of Compartment B Build-Out (including Cell 4 once hydrologically connected to Cells 5 and 6) and SBO components of the facility are not authorized under this permit.

7. As-Built Certification and Record Drawings. Within 60 days following substantial completion of any construction contract for STA-2, including the modification of treatment cells or structures, the permittee shall submit a written statement of completion and certification by a registered professional engineer or other appropriate individual as authorized by law. Construction is considered complete when the associated construction contract is completed and closed out. The statement of completion and certification shall be based on on-site observation of construction or review of as-built drawings for the purpose of determining if the work was completed in compliance with permitted plans and specifications. This submittal shall serve to notify the Department that STA-2 and/or Compartment B are ready for final inspection. Additionally, if deviation from the approved drawings is discovered during the certification process, the certification must be accompanied by a copy of the approved permit drawings with deviations noted. Both the original and revised specifications must be clearly shown. The plans must be clearly labeled as “as-built” or “record” drawing. All surveyed dimensions and elevations shall be certified by a registered surveyor.

8. Contaminated Sites and Residual Agrichemicals. The Permittee shall address all contaminated sites within the project footprint in accordance with all applicable Department statutes and rules including but not limited to Chapters 62-770, 62-780, and 62-785, F.A.C. The Permittee shall address any agricultural chemical residuals in the project footprint in accordance with the "*Protocol For Assessment, Remediation And Post-Remediation Monitoring For Environmental Contaminants On Everglades Restoration Projects*" (Protocol) dated March 14, 2008 so that risk to the environment is minimized based upon the projected use of the property. Regardless of any remedial action plan, the Chapter 62-777, F.A.C. cleanup target levels, or the Protocol, the Permittee shall address all contamination within the project footprint, to minimize to the maximum extent practicable any detrimental impacts to Threatened or Endangered species. As a corrective action, the Department may require limitations on property access or use as part of the Permittee's Land Management Plan for the project area. All corrective actions must be completed prior to initial operation or use of the project. Documentation of completion of corrective actions must be submitted to the Department no later than 90 days prior to the initial operation or use of the completed project, unless the Department approves an alternative schedule. The Permittee shall secure written concurrence from the Department that the corrective actions have been completed based upon applicable protocols and the projected land use, prior to initial operation of the completed project. If contamination is discovered after initial operations, the Permittee shall send to the Department at the address listed in Specific Condition No. 1 an assessment and remedial action plan for Department approval. Upon the Department's approval, the Permittee shall implement the assessment and remedial action plan and provide quarterly reports to the Department on the progress of the remediation until the cleanup is completed to the Department's satisfaction.

9. Vegetation and Operational Enhancements. Vegetation and operational enhancements shall be implemented to optimize performance as needed to achieve this permit's total phosphorus WQBEL ~~e phosphorus criterion in the EPA~~. Vegetation and operational enhancements shall be coordinated with the Department to determine whether a modification to the permit is required.

10. Pump Station Maintenance. Maintenance requirements for the pump stations include operation of the pumps for approximately 2 to 4 hours per month, as necessary, to maintain their mechanical integrity. Therefore, temporary operation of the pump stations for maintenance purposes is allowed and is not subject to the discharge criteria of the specific conditions of this permit. However, the permittee shall document all such temporary maintenance operations, and shall include all such discharge flows and loads as a part of the monitoring requirements of this permit.

11. STA Operation Plan and Modifications. Upon completion of and compliance with the ~~scheduled Long Term Plan~~ the requirements specified herein ~~improvements and enhancements~~ herein and within 90 days of the completion of the Compartment B Build-~~Out or any additional Long Term Plan improvements and enhancements~~, the permittee shall submit to the Department, at the addresses listed in Specific Condition 1, an updated Operations Plan for the STA-2 facility, as applicable, subject to modification under the conditions set forth below.

If at any time changes to the STA-2 Operations Plan are warranted to optimize facility operation, and upon verification of data to be supplied by the permittee that justifies the need for such modification, the Operations Plan may be modified as mutually agreed upon by the Department and the permittee. The Operations Plan shall also include the information described in A-G, below.

A. Minimum Water Level Targets to Avoid Dryout. In accordance with the relevant design documents, the permittee shall, to the maximum extent practicable, maintain a minimum static water level of 0.5 feet above the average ground elevation of the treatment cells to avoid dryout of the treatment cells, subject to available water from the upstream watershed.

B. Responding to Dryout Conditions. The permittee shall evaluate and correct potential adverse dryout effects on the water quality performance of STA-2. If the compliance requirements in this permit are not met due to dryout conditions, then the permittee shall propose modifications to the Operations Plan and Monitoring Plan as appropriate and submit the revised plan(s) to the Department for review and approval.

C. Maximum Water Level Targets. The permittee shall ensure, to the maximum extent practicable, that maximum water depths of 4.0 feet above the average ground elevation of the treatment cells will not be exceeded in order to avoid long-term damage to the treatment vegetation and protection of project levees.

D. Operational Envelope. The permittee shall ensure to the maximum extent practicable that authorized operation of the existing components of the facility do not exceed the operational envelope for STA-2 (this permit does not authorize operations for Compartment B Build-Out), as set forth in the existing STA-2 Operations Plan.

E. Phosphorus Uptake Optimization. Operations shall be conducted to distribute the flows and water levels within STA-2 to optimize the phosphorus reduction performance and shall be updated as necessary ~~to include the results of the permittee's Process Development and Engineering (PDE) program being implemented as a part of the Long Term Plan~~.

F. Operations Plan Modifications. The STA-2 Operations Plan should be reviewed and may be revised as appropriate based on operational experience, research results, downstream monitoring and upstream levels of service.

G. Hydropattern Restoration. STA-2 shall be operated in such a manner as to be consistent with the activities proposed to restore the hydropattern of the EPA, as described in Specific Condition 12 below.

Under emergency conditions that threaten the safety of life, property, or the STA-2 facility, the permittee may modify the operations of STA-2 and immediately employ any remedial means to protect life and property in accordance with the emergency provisions of Chapter 373, F.S. The permittee shall notify the Department within 48 hours of such occurrence and shall provide data justifying the need to employ the emergency modifications to operations of STA-2.

12. Hydropattern Restoration. In accordance with Subsection 373.4592(4)(b), F.S., the permittee shall operate the STAs in order to improve and restore the Everglades water supply and hydroperiod. The permittee shall operate the ECP to provide additional increased flow to the EPA through the modification of historical operational practices for regulatory releases from Lake Okeechobee and the Water Conservation Areas. The STAs shall be operated to achieve the goal of providing additional flows to the EPA and shall, to the maximum extent practicable, be coordinated with and consistent with the Lower East Coast Water Supply Plan, the Lake Okeechobee and Water Conservation Area Regulation Schedules, Comprehensive Everglades Restoration Plan (CERP), and the entitlement of the Seminole Tribe of Florida to surface water withdrawals under the Water Rights Compact (P.L. 100-228).

13. Implementation of Source Control Programs.

A. Implementation. The permittee shall continue to implement source control programs in each of the contributing basins in accordance with ~~the Long Term Plan,~~ Chapter 40E-63, F.A.C., and other applicable programs. Basins that do not presently include source control programs shall be monitored to determine if such programs are necessary in the event that phosphorus loads to the facility from these basins limit the facility's ability to achieve the WQBEL ~~permit effluent limit.~~

B. Performance. On an annual basis, the permittee shall evaluate the performance of source controls in the contributing basins and include the findings in the annual report required in Specific Condition 2~~8~~7. The report shall include phosphorus loads from the basins and shall describe trends and compare current loads to those determined necessary to achieve the WQBEL ~~permit effluent limit~~.

C. Improvements. If the WQBEL ~~permit effluent limit~~ is not achieved and if the assumed inflow concentration used to develop the Amended Determination remedy ~~inflow loads determined necessary to achieve the permit effluent limit are~~ is exceeded, the permittee shall submit a report explaining the causes(s) for the excessive concentration and schedules and strategies for source control improvements necessary to achieve the WQBEL ~~permit effluent limit~~ in the annual report.

14. Minimization of Wetland Impacts. In accordance with Subsection 373.4592(9) (e)3, F.S., of the EFA, the permittee shall provide reasonable assurances that any wetland impacts associated with STA-2 activities will be minimized to the maximum extent practicable and consistent with the documents on file with the Department.

15. Water Quantity and Flooding Impacts. The permittee shall be responsible for ensuring that STA-2 is operated so as not to adversely affect adjacent lands with regards to flooding impacts and water supply needs of the region. The permittee shall hold and save the Department harmless for any and all damages, claims, or liabilities, which may arise from water quantity and/or flooding impacts resulting from the construction and operation of STA-2.

Phosphorus Conditions

16. Phosphorus Standard. Pursuant to Subsection 373.4592(4)) (e)2, F.S., the Department adopted a 10 parts per billion (ppb) numeric criterion for phosphorus in the EPA, which was approved by the United States Environmental Protection Agency (EPA) on January 24, 2005. The compliance methodology for determining achievement of the phosphorus numeric criterion was revised and adopted by the Department on May 5, 2005, and the revised rule (62-302.540 F.A.C.) was approved by the U.S. EPA on July 27, 2005. Achievement of the criterion shall be determined through the WQBEL ~~limitation~~ set forth in Table 1 below.

17. Start-Up Phase. During the initial Start-Up Phase of a new cell or new flow-way, the permittee shall monitor phosphorus concentrations within the facility to demonstrate that the project is achieving a net reduction in phosphorus. Portions of STA-2 may operate independently of each other. Under those circumstances, Start-Up Phase operation and monitoring within a new cell or flow way shall be performed as follows:

A. Establishment of Marsh Vegetation. The permittee shall manage water depths in the treatment cells to facilitate the recruitment of marsh vegetation in accordance with the Operations Plan, which may include recirculating waters within the STA.

B. Start-Up Monitoring. On a weekly basis, the permittee shall monitor total phosphorus at the upstream side of inflow structure(s). Total phosphorus shall also be monitored on a weekly basis on the upstream side of the outflow structures.

C. Phosphorus Start-Up Test. The Phosphorus Start-Up Test for an individual flow-way or cell is based on when the above samples demonstrate, over a four-week period, a net reduction in phosphorus occurs. This net reduction shall be deemed to occur when the 4-week geometric mean total phosphorus water column concentration from samples collected at the applicable outflow structures is less than the 4-week geometric mean total phosphorus water column concentration collected at the applicable inflow structure(s).

D. Discharge Operations. Discharge operations, from an individual flow-way or cell that has passed the Phosphorus Start-Up Test described above, may commence once Initial Start-Up Phase documentation and all supporting data and analyses are submitted to the Department via regular or electronic mail. For flow-ways that have not met these tests within six months after issuance of the permit, the permittee shall submit status updates regarding progress toward and identifying strategies and timelines to achieve this test.

E. Initiation of Individual Flow-way (~~Stabilization and~~ Routine Operation) Discharges and Monitoring. Once flow-through discharges from a flow-way begin, the permittee shall initiate routine water quality monitoring for that flow-way consistent with the monitoring program described in this permit.

18. ~~Stabilization Phase.~~ ~~(Flow through Operations) An STA enters the Stabilization Phase after each of three antecedent conditions: (1) once flow through operations begin following the initial start up of a new treatment cell; (2) when a treatment cell is undergoing implementation of the Long Term Plan enhancements that may have adverse impacts on STA performance, or (3) when a treatment cell undergoing recovery activities associated with a major event that compromises the structural integrity or performance of the STA. During the Stabilization Phase the treatment vegetation will be maturing and the STA performance will generally be improving toward achieving~~

~~the permit effluent limitation. However, the overall performance of the STA is extremely difficult to evaluate and predict. It is anticipated that the treatment vegetation will require one to three years after flow through operations begin for the affected cells to continue to improve toward achieving the permit effluent limit. During the stabilization phase, the effluent limitation shall apply. Once the facility achieves the effluent limitation, it shall enter the Routine Operations Phase. During the Stabilization Phase, exceedance of the effluent limitation is anticipated; however, the STA shall be deemed in compliance as long as the actions described in this condition and all other applicable permit conditions are met.~~

~~If a flow-way is determined to be incapable of operating or performing effectively as a result of the impacts caused by one or more of the above mentioned circumstances, within 60 days the District shall submit strategies and timelines identified as being the most effective in restoring the impacted flow way(s) and achieving the permit effluent limit. The District's strategies and timelines shall include, at a minimum, the following:~~

~~1. Identify the cause of the incident which resulted in the facility not achieving the effluent limitation;~~
~~2. A statement that the facility was being properly operated at the time of the incident;~~
~~3. The period of the anticipated stabilization phase; and,~~
~~4. Any remedial steps employed to ensure that the stabilization period will be as minimal as possible..~~

~~The timely submittal and implementation of these strategies and timelines in conjunction with the Department's review and approval of such submittals and compliance with all other applicable conditions set forth in this permit shall constitute compliance.~~

~~In addition to the reporting associated with this condition and as part of the annual reporting requirements of the permit, the District shall provide an assessment of the facility and the steps being taken to meet the permit effluent limit. As part of the first annual report following any adverse impact to the facility, and each subsequent year until the facility achieves the permit effluent limit, the 12 month rolling flow weighted mean TP concentration of the STA outflow shall be assessed as to whether there is a trend in improvement of performance relative to prior years. If the trend analysis that is applied to this data indicates that there is not a trend in improvement of performance, the permittee shall report as to the causes behind the lack of performance improvement. If during a subsequent annual report the trend analysis applied to these data indicate that there is not a trend in improvement of performance after the affected flow way has been in flow through operation for 24 months, the annual report shall include any remedial measures necessary to achieve improved facility performance by the end of next year, and shall provide an estimate of when the permit effluent limit shall be achieved.~~

~~19~~18. Routine Operations Phase. During the Routine Operations Phase, discharges from the STA shall meet the WQBEL ~~permit effluent limitations~~ set forth in Table 1 below.

19. Operational Envelope. As a part of the annual reporting requirements in Specific Condition 27~~8~~, the District shall provide an annual assessment as to whether the existing components of the STA-2 facility are operating within or outside the operational envelope. The assessment shall be based on annual inflow volumes and phosphorus loads and shall compare flows and loads to the corresponding maximum values contained in the operational envelope described in the current STA-2 Operations Plans. If the annual inflow volumes or phosphorus loads exceed the corresponding maximum values of the operational envelope during an annual compliance period, the District shall conduct a review of potential causes and include this review in the annual report. The review shall include a comparison of the relationships between rainfall, runoff, and phosphorus loads from the compliance year with historical data. Departmental concurrence shall be obtained prior to initiating Lake Okeechobee regulatory or water supply releases that would result in an exceedance of the maximum levels of flow or phosphorus loads contained in the operational envelope.

Factors Impacting Compliance

~~21~~20. ~~**Factors Outside the Permittee's Control.**~~ In the event that non-compliance or failure to achieve the WQBEL ~~performance objectives~~ results for any of the reasons other than those below, the permittee shall take appropriate remedial measures.

~~**A. Anomalous Rainfall.** Compliance with the effluent limitation shall not be tested in water years when the rainfall in the source basins fall outside the range of values that occurred during the period of model simulation if sufficient supplemental flows are not available to maintain wet conditions in STA-2. A joint field inspection between the Department and the District will be undertaken to verify if the facility has resulted in dryout conditions that would impact compliance. In these instances, results from adjacent years will be treated as consecutive for purposes of testing compliance. The Department may make similar adjustments where emergency discharges occur.~~

~~**B. Random Variation.** The permittee shall report any statistical uncertainty in the methodology using acceptable scientific methods.~~

~~C~~A. **Other Factors**. Unavoidable legal barriers or restraints, including those arising from actions or regulations not under the control of the permittee (e.g. Lake Okeechobee Regulation Schedule).

B. **Emergency Conditions.** Discharges from STA-2 outflow structures or ~~diversion~~ bypass of waters through the G-339 and G-338 structures, as defined in the project description, shall be allowed in accordance with the emergency provisions of Chapter 373, F.S., or when water conditions within STA-2 may damage existing marsh vegetation. When a ~~diversion~~ bypass event or series of proximal diversion events is anticipated due to aforementioned conditions, the permittee shall notify the Department of the anticipated event.

Conditions for Parameters Other than Total Phosphorus

21. **Comparison of Outflows to Inflows.** For all water quality parameters indicated in Table 2 of this permit other than total phosphorus, mercury, and dissolved oxygen, inflow and outflow samples collected at water quality monitoring sites shall be used to determine compliance with this specific condition. Compliance with this specific condition shall be evaluated as follows:

A. If the annual average outflow concentration does not cause or contribute to violations of applicable Class III water quality standards, then the STA shall be deemed in compliance with this condition.

B. If the annual average concentration at the outflow station causes or contributes to violations of applicable Class III water quality standards, but is of equal or better quality than, the annual average concentration at the inflow stations, then the STA shall be deemed in compliance with this condition.

C. If the annual average concentration at the outflow causes or contributes to violations of applicable Class III water quality standards, and also exceeds the annual average concentration at the inflow station, then the STA shall be deemed out of compliance with this condition.

22. **Dissolved Oxygen.** The dissolved oxygen parameter shall meet the requirements set forth in the Everglades Marsh Dissolved Oxygen Site Specific Alternative Criteria (DO SSAC, Exhibit C). Compliance with the DO SSAC shall be evaluated annually using a statistical analysis to compare dissolved oxygen levels at the outflows to predicted model values. The specific methods for determining compliance are set forth in the DO SSAC which was adopted by Secretarial Order on January 26, 2004, and approved by the U.S. Environmental Protection Agency as a revision to the State of Florida's water quality standards on June 16, 2004.

23. **Turbidity Monitoring.** Effective means of turbidity control, such as, but not limited to, turbidity curtains or the discontinuance of flow activity to and from the affected cell(s), shall be employed during all construction or maintenance activities that may create turbidity so that turbidity shall not exceed 29 NTUs above background in the receiving waters. Turbidity controls and/or preventive operation procedures shall remain in place until all turbidity has subsided and the turbidity level at the point of discharge to receiving waters meets state standards.

Turbidity monitoring equipment and personnel trained to use it shall be available on site at all times during construction or maintenance activities that result in project-generated turbidity levels in the receiving water body. The permittee shall monitor turbidity levels at least twice daily at a minimum of 4 hours apart during these activities as follows:

A. Monitoring samples shall be taken at the following locations:

1. Background Sample(s): At affected cell/flowway inflow monitoring stations or at least 1000 feet upstream of any construction or maintenance activities that may generate turbidity within a canal or conveyance feature outside of the treatment facility.

2. Compliance Sample(s): Upstream of the affected cell/flowway outflow monitoring stations or no greater than 150 meters downstream of any construction or maintenance activities that may generate turbidity and within any visible plume.

B. Turbidity monitoring results shall be summarized quarterly (every three calendar months) by project component, beginning with the first calendar month in which construction or maintenance projects occur that could generate turbidity in receiving waters and continuing until all maintenance is completed. Monitoring data with supporting documents shall be submitted to the Department quarterly during the period of actual construction. The reports shall clearly identify the following information:

1. Permit number
2. Dates and time of sampling and analysis
3. A statement describing the methods used in collection, handling, storage and analysis of the samples
4. A clear description of project component activities taking place at the time of sampling
5. A map indicating the sampling locations
6. A statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection and accuracy of the data

C. Monitoring reports shall also include the following information for each sample that is taken:

1. Water depth
2. Depth of sample
3. Weather conditions
4. Water level stage and direction of flow

In the event that project-generated turbidity levels exceed 29 NTUs above background in the receiving waters, project component activities contributing to elevated turbidity levels shall immediately cease, and the Department shall be notified immediately. Work shall not resume until the work can be conducted in compliance with the aforementioned turbidity standard. In such cases where turbid conditions will be attributed to activities associated with dewatering, the District shall comply with the turbidity requirements set forth in the dewatering permit issued by the Department in lieu of the above requirements.

SPECIFIC CONDITIONS FOR MONITORING PROGRAM

In accordance with Subsection 373.4592(9)(h), F.S., the following monitoring conditions are intended to assess the water quality of the discharges of STA-2, ~~and~~ achievement of the WQBEL specified herein ~~permit effluent limit~~, and progress toward achieving state water quality standards.

24. Monitoring Program. Monitoring performed in accordance with this permit shall include the vegetation and water quality and quantity parameters listed below and in Table 2.

A. Long-Term Plan Monitoring Program. The permittee shall continue to implement the portions of the PDE component of the Long-Term Plan that are related to this permit. This program shall evaluate the effectiveness of the STAs in improving water quality and maintaining designated and existing beneficial uses of the receiving waters. Results of the monitoring efforts shall be reported as part of the annual South Florida Environmental Report (SFER).

1. **Aerial Vegetation Photographs and Mapping.** Aerial vegetation photographs and mapping shall be conducted in accordance with the PDE components of the Long-Term Plan.

2. **Mercury Monitoring Program.** The permittee shall monitor mercury in accordance with the approved Mercury Monitoring Plan, which is hereby incorporated by reference and made a part of this permit as Exhibit D.

3. **Routine Research and Monitoring Program.** The permittee shall conduct long term monitoring at the outflow monitoring stations, the inflow monitoring stations and report the results to the Department, in accordance with the annual reporting requirements of this permit. Data from this program may provide the basis for additional permit compliance requirements. The permittee shall also conduct monitoring at additional stations as defined in the PDE element of the Long-Term Plan.

B. Hydropattern Restoration Monitoring. In order to ensure that the hydropattern restoration discharges from STA-2 do not adversely impact the previously unimpacted downstream portions of Water Conservation Area 2, the permittee shall conduct monitoring in downstream locations to ensure that the continued operation of STA-2 does not result in adverse impacts. The District shall include in its annual report on STA-2 an evaluation of conditions in representative downstream locations in the previously unimpacted areas, including:

1. Beneficial environmental effects, including changes in water quality, soil and vegetative conditions, inundation and timing of discharges;

2. Adverse environmental effects, including imbalances in natural populations of flora or fauna; changes to periphyton communities; phosphorus accumulation rates in soil; expansion of cattail or other undesirable or exotic vegetation; or other undesirable consequences of hydropattern restoration, if any

3. The WCA 2A monitoring shall include at least 2 transects with at least 4 marsh stations each. The transects will be located in proximity to present or projected hydropattern restoration discharges. Stations will be located to include impacted and unimpacted portions of WCA 2.

If a determination is made by the Department that the adverse impacts of the hydropattern restoration efforts exceed the environmental benefits, the permittee shall, within 90 days, submit plans and schedules to this office to remedy the adverse impacts. While the remedy is being developed and implemented, the permittee shall make best efforts to minimize the adverse impacts. Subsequently, modifications shall be made to this permit as appropriate.

25. ~~Diversion~~ Bypass. The District shall notify the Department within 48 hours of any unanticipated ~~diversions~~ bypasses of flow through the G-338 and/or G-339 gated structures, and as soon as practicable in advance of anticipated bypasses ~~diversions~~, with the exception of routine maintenance activities. The submitted notification shall include a description of the circumstances related to the ~~diversion~~ bypass and a projection of the anticipated duration of the bypass ~~diversion~~. All ~~diversions~~ bypasses occurring through the G-338 and G-339 structures shall be monitored for the parameters Total Phosphorus and Calculated Flow listed in the table ~~2~~ below. As soon as practicable after cessation of all bypasses ~~diversions~~, the District shall submit a summary of the data collected from the table below, and identify the duration of the bypasses ~~diversions~~. Bypasses shall be limited to the shortest time

possible and are not allowed solely to achieve the WQBEL. Bypasses are subject to and must meet the requirements of F.A.C. Sections 62-620.610(20), (21), and (22).

Parameter	Units	Sample Type	Frequency
Total Phosphorus	mg/l	Grab	Weekly
Flow	CFS	Calculated	Daily Average

26. Inspection Reports. The permittee shall submit annual inspection reports to the Department evaluating the integrity and functionality of the above-ground levees and structures, including pump stations. Annual inspection reports shall be prepared by field staff trained by a Professional Engineer and reviewed by the designated superintendent of the area prior to submittal to the Department. The cover letter of the inspection report should summarize site conditions and work that was completed in response to inadequacies that may have been found during regular inspections. Every five years, at a minimum, each permitted facility shall have an inspection by a Professional Engineer registered in the State of Florida, and the subsequent inspection report shall be signed and sealed by that Professional Engineer and submitted to the Department. A Professional Engineer or the District's Dam Safety Officer shall review and approve major repair plans or remedial work associated with inadequacies identified during routine and formal inspections. All reporting shall be submitted to the Department in March with the initial 5-year inspection report for STA-2, including Compartment B, due in 2013.

2~~8~~7.Annual Monitoring Reports. All studies, monitoring reports and technical submittals required by this permit shall be submitted to the Department in an "Annual Report". The annual reporting requirements under this permit shall be incorporated into the SFER and submitted to the Department no later than March 1 of each year. Each Annual Report shall present the information for the previous water year, from May 1 to April 30. If additional reporting modifications are required, and upon approval by the Department, the permittee may modify the Annual Report submission date to coincide with multiple reporting requirements and time periods needed for data acquisition and analysis. In addition to the permit number, and name of the permit administrator, the Annual Reports shall contain, at a minimum, the following information:

A. Quality Assurance and Quality Control. Sampling and monitoring data shall be collected, analyzed, reported and retained in accordance with Chapter 62-160, F.A.C. Any laboratory test required by this permit shall be performed by a laboratory that has been certified by the Department of Health (DOH) under Chapter 64E-1, F.A.C., where such certification is required by Rule 62-160.300, F.A.C. The laboratory must be certified for all specific method/analyte combinations that are used to comply with this permit. The analytical method used shall be appropriate so as to determine if the sample complies with Class III surface water quality standards as specified in Chapter 62-302, F.A.C. All field activities including on-site tests and sample collection, whether performed by a laboratory or another organization, must follow all applicable procedures described in DEP-SOP-001/01 (February 1, 2004). Alternate field procedures and laboratory methods may be used if they have been approved according to the requirements of Rules 62-160.220, and 62-160.330, F.A.C.

B. Water Quality Data. Records of monitoring information shall include all applicable laboratory information specified in Rule 62-160.340(2), F.A.C. including the following:

1. Date, location, and time of sampling or measurements
2. Person responsible for performing the sampling or measurements
3. Dates analyses were performed or the appropriate code as required by Chapter 62-160, F.A.C.
4. Laboratory/ Person responsible for performing the analyses
5. Analytical techniques or methods used, including method detection limit (MDL) and practical quantification limits (PQL)
6. Results of such analyses, including appropriate data qualifiers, and all compounds detected
7. Depth of sampling
8. Flow conditions and weather conditions at time of sampling

9. Monthly flow volumes

In addition, the following records must be kept on file for reference during the duration of the project but are not required to be submitted in annual reports.

10. Field sampling and laboratory quality manuals
11. Sampling and analysis notes, as required under Ch. 62-160 FAC and NELAC Quality Systems (2003), respectively

C. Performance Evaluation. The Annual Report shall provide a performance evaluation for STA-2 containing the following information~~:~~

1. The operations status of the STA, stating whether the STA is in start-up~~, stabilization~~ or routine operations
2. A comparison of inflow water quality data with outflow water quality data an appropriate statistical test with a 95% confidence interval and based on statistical distributional assumptions (e.g., Student's t-test or Mann-Whitney test);
3. A comparison of outflow phosphorus concentrations with the permit effluent limit for STA-2 and between the current reporting year and previous years; and
4. An assessment of the inflow volumes and phosphorus loads during the year relative to the anticipated operational envelope contained in STA 2 Operations Plan.

~~Calculations for any reporting which require averaging of measurements shall be weighted by flow value.~~

D. Herbicide and Pesticide Tracking. The permittee shall provide in each annual report, information regarding the application of herbicides and pesticides used to exclude/eliminate undesirable vegetation and pests within STA-2. Such reporting shall include the names, concentrations, locations, and quantities of all herbicides and pesticides used, and a statement certifying that the permittee has adhered to manufacturer application guidelines.

E. Implementation Schedules. The Annual Report shall provide details on the following:

1. Implementation of ~~projects~~ the WQBEL and activities required by this permit and affecting flows and loads to STA-2;
2. Source Control implementation and optimization;
3. STA design modifications affecting implementation of the WQBEL and activities required by this permit;
4. Improvements, enhancements, and strategies that have been initiated and/or completed within the previous year;
5. Any delays in the implementation of the improvements, enhancements, or strategies, ~~and~~ the duration of the delays, the reason(s) for the delays, and the expected timeframe for their resolution;
6. The operational status of the STA, stating whether the STA is in Start-up~~, Stabilization~~ or Routine Operations; ~~If the facility is in Stabilization operations during the reporting period, the report shall also include the date at which the facility entered the Stabilization Phase and the length of time it remained or is expected to remain in that phase~~
7. Implementation of STA Recovery Plans;
8. Whether revisions and/or additions to the requirements of this permit ~~improvements, enhancements, and strategies~~ are recommended;
9. Implementation of remedial measures in the event of non-compliance with permit conditions;
10. Whether the facility was operated within or outside of the operational envelope per Specific Condition 19; and
11. For each downstream transect station, a compilation of the water quality, sediment, and vegetation monitoring data collected, as appropriate, and an assessment of whether the cumulative impact remained unchanged, improved, or worsened from the previous year/monitoring.

F. The permittee shall report with the monthly DMR if operation of facilities is impacted by or constrained due to requirements under the Endangered Species Act or Migratory Bird Treaty Act. The report should include the species involved, an estimate of the number of individuals involved, actions taken to avoid deleterious impacts on the endangered species, the affect those actions had on compliance with any condition of this permit, and an estimate of when facility operation will no longer be impacted or constrained.

28. Removal of Parameters. Upon demonstration that a specific parameter(s) is not present or is found consistently in compliance with Class III Water Quality Standards, the permittee may request a modification to the monitoring program as appropriate. A minimum of one year's worth of data, for those parameters being sampled quarterly or more frequently, will be required prior to the Department approving any modification to the monitoring program. Parameters sampled semi-annually or annually will be examined on a case-by-case basis. The Department may approve a reduction of the monitoring frequency or waive the monitoring requirement for parameters that consistently are reported as in compliance with state water quality standards.

29. Addition of Parameters. If the Department has reason to believe that additional parameters exist that may cause or contribute to water quality violations in the receiving waters, those parameters shall be added to the monitoring section of this permit as a permit modification.

30. Public Health, Safety, or Welfare. Pursuant to Subsection 373.4592(9)(h)3, F.S., discharges from STA-2 shall not pose a serious danger to the public health, safety, or welfare. If warranted by additional information, the Department may include additional monitoring or compliance conditions in this permit, in accordance with Subsections 373.4592(9)(g) and (11)(a) 2, F.S.

31. Emergency Suspension of Sampling. Under hurricane, tropical storm warnings, or other extreme weather conditions, the permittee's normal sampling schedule may be suspended if necessary. The permittee shall notify the Department of any anticipated sampling suspension associated with hurricanes, tropical storms, or other extreme weather events that may require deviation from the normal sampling schedule. Within 14 days following the cessation of emergency conditions, the permittee shall notify the Department of when normal sampling is expected to resume.

32. **Transect Monitoring**

The permittee shall conduct water quality, soil, and vegetation monitoring specified below located along three transects downstream of the STA-2 discharge to characterize the effects of the STA-2 discharge on adjacent marsh areas of WCA-2. The table below identifies 14 sampling sites. Of the 14 sites, nine are located in areas currently identified as impacted (i.e., sediment TP concentration greater than 500 mg/kg), and five sites located in areas currently identified as unimpacted. Upon demonstration that an additional sampling site or removal of an existing sampling site is warranted, the permittee may request a modification to the monitoring program as appropriate. The Department and USEPA shall review and approve such requests on a case by case basis. Any alteration in the monitoring program approved by the Department and USEPA shall occur in the form of a modification to this permit.

All water quality, soil, and vegetation samples will be collected and reported for the parameters and at the frequency specified in the SFWMD's January 20, 2010 'Project WCA-2A Monitoring Plan for STA-2 and Compartment B Build-Out Downstream Monitoring Plan'.

Table: Transect Monitoring Locations

Transect 1			
SITE	**LAT_DEC**	**LONG_DEC**	**Category**
2AN.25	26 27 14.34	80 27 23.34	Impacted
2AN1	26 26 50.46	80 27 22.08	Impacted
2AN2	26 26 20.28	80 27 14.47	Impacted
2AN4	26 25 21.48	80 27 01.38	Impacted
2AN5*	26 24 49.54	80 26 52.69	Unimpacted
2AN6*	26 24 18.12	80 26 44.08	Unimpacted
2AC0.25	26 25 34.68	80 28 30.90	Impacted
2AC2	26 24 43.39	80 28 16.97	Impacted
2AC4	26 23 42.54	80 28 05.10	Unimpacted
2AC5*	26 23 9.50	80 28 0.97	Unimpacted
Transect 2			
SITE	**LAT_DEC**	**LONG_DEC**	**Category**
2AFS.25	26 20 44.77	80 31 36.59	Impacted
2AFS1	26 20 38.46	80 31 10.320	Impacted
2AFS3	26 20 15.84	80 30 01.62	Impacted
CA 29	26 19 49.28	80 28 42.13	Unimpacted

* Station coordinates are approximate; exact coordinates to be determined

Renewals and Modifications

33. Permit Renewal. At least 60 days prior to the expiration of this permit, the permittee shall apply for renewal of this permit. Renewal may be for a period of up to 5 years in accordance with Subsection 373.4592(9)(f), F.S.

~~**34. Permit Modifications for STA Optimization.** Pursuant to Subsections 373.4592(3)(b) (e) and (9)(j), F.S. and the PDE component of the Long-Term Plan, the permittee may submit proposed modifications to STA-2 through the adaptive implementation process identified in the Long-Term Plan. Within 30 days after receipt of such a submittal, the Department shall notify the permittee as to whether a permit modification is necessary. Minor modifications can be processed in letter format. The Department shall determine whether the modification is minor or major based on the nature and magnitude of the proposed modification and the potential for the modification to have environmental impacts that are significantly different from those previously considered by the Department for the activity, pursuant to Rule 62-343.100, F.A.C. The permittee shall be required to publish a notice of application pursuant to Subsections 373.413 (3) and (4), F.S., as applicable, for any requested permit modification determined to be major in accordance with this specific condition.~~

34. Department Review and Approval. Where conditions in this permit require Department review and approval of remedial actions or plan modifications to be implemented pursuant to this permit, the Department will consult with the permittee to ascertain whether mutual agreement can be reached. If mutual agreement on the remedial actions or plan modifications cannot be reached, the action of the Department will be deemed final agency action and will be subject to judicial or administrative review, as appropriate.

MONITORING REQUIRED:

Key for Tables 1 and 2:

Sample Type: G = Grab sample
FPC = Flow proportionate composite sample

INSITU = In Situ field sample
CAL = Calculated parameter
PR = Pump record
RG = Rain Gauge

Sample Locations: Inflow Sites = S-6 and G-328
Outflow Sites = G-335
~~Diversion~~ Bypass Sites = S-6, G-338, G-339

Sample Frequency: W = Weekly
BI-W = Once every other week (26 samplings per year)
DAV = Daily averages of continuous sampling
DAC = Daily accumulation of continuous sampling

Discharge Limits and Monitoring:

Table 1: Discharge Limitations and Associated Monitoring Requirements

	Discharge Limitations				Monitoring Requirements		
Parameters (units)	**Daily Minimum**	**Daily Maximum**	~~**Annual Average**~~ **Other**		**Monitoring Frequency**	**Sample Type**	**Sample Point**
Phosphorus, Total (as P) (ppb)	--	--	Not to exceed 10 as a geometric mean (GM) annual average in more than two consecutive years	18 as a flow-weighted mean (FWM) annual average	Weekly	GM – based on grab samples collected when discharge occurs FWM - 7-day flow proportioned composite	Outflow
			See Footnote [1, 2, 3, 4] below				
Phosphorus, Total (as P) (ppb)	--	--	Report [5]		Weekly	7-day flow proportioned composite	inflow
Oxygen, Dissolved (DO) (mg/L)	Report See Specific Condition 23				Weekly	Grab (Meter)	Inflow/ outflow
Flow (cfs) --	Report	Report	Report	Continuous		Recorder	Inflow/ outflow

[1] All outflow TP monitoring results ~~for this parameter~~ shall be reported as ~~a monthly average and as an annual average~~ separate weekly values without rounding to whole numbers. The results shall also be reported as FWM annual averages that are calculated based on the FWM of the weekly values. The results shall also be reported as GM annual averages that are calculated based on all sample point weekly values collected when discharge occurs in the previous 12 months. All FWM and GM annual averages shall be reported to the nearest whole number (i.e., 10.5 ppb shall be reported as 11 ppb; 10.49 ppb shall be reported as 10 ppb. ~~The "monthly average" is a flow-weighted mean of the weekly effluent samples. The "annual average" shall be computed for each water year (May-April) and is equal to the flow-weighted mean concentration for the water year.~~

[2] The discharge shall not cause phosphorus concentrations in the receiving waters to be altered so as to cause or contribute to an imbalance in natural populations of aquatic flora or fauna. The discharge shall not cause phosphorus concentrations in the receiving waters to exceed the criteria in Rule 62-302.540(4)(a), F.A.C. Beginning at the end of April after the permit effective date and at the end of each April thereafter, the permittee shall report the FWM annual average using data it collected for the prior 12 months. Beginning at the end of April after the permit effective date and at the end of each April thereafter, the permittee shall report the GM annual average using data it collected for each of the prior 3 years. ~~The 10 ppb effluent limit represents the phosphorus criterion set forth in Rule 62-302.540(4)(a), F.A.C. and is consistent with Section 301(b)(1)(C) of the CWA. A water quality based effluent limitation (WQBEL) for phosphorus shall be established in accordance with Rule 62-650 F.A.C. and Section 373.4592 Florida Statutes by December 31,2010 and will be a major permit modification. It is recognized that the ultimate WQBEL to be developed may be higher than a flow-weighted mean of 10 ppb. The antibacksliding provisions of the CWA and NPDES regulations do not apply to an effluent limitation with a delayed compliance date, until the date of compliance. In this case, restrictions on backsliding would not apply to the 10 ppb permit effluent limit until the established WQBEL takes effect at the end of the compliance schedule.~~

[3] In the year following any two consecutive years where the TP GM annual average exceeds 10 ppb, the permittee shall report quarterly the GM of all monthly TP values for that year. If that mean exceeds 10 ppb, the permittee shall provide a report to both FDEP and USEPA by the fifteenth of the month following the quarterly report of its evaluation of why that mean is as high as it is and the specific steps it is taking to ensure that the TP GM for that year will not exceed 10 ppb.

For the TP FWM WQBEL, the permittee shall report quarterly the average of all monthly FWMs for that year. If that average exceeds 18 ppb, the permittee shall provide a report to both FDEP and USEPA by the fifteenth of the month following the quarterly report of its evaluation of why that average is as high as it is and the specific steps it is taking to ensure that the TP FWM annual average for that year will not exceed 18 ppb.

[4] If the facility does not meet the FWM WQBEL in any year, the permittee shall report the annual load of TP discharged by the STA into the Everglades that is in excess of the WQBEL load (based on 18 ppb). If the facility does not meet the GM WQBEL in any year, the permittee shall separately report the annual load of TP discharged by the STA into the Everglades that is in excess of the WQBEL load (based on 10 ppb) for that year and the previous two years.

[5] All inflow TP monitoring results shall be reported as separate weekly values without rounding to whole numbers. All results shall also be reported as monthly averages and as FWM annual averages. The monthly averages and FWM annual averages shall be calculated based on the FWM of the weekly values and shall be reported to the nearest whole number (i.e., 10.5 ppb shall be reported as 11 ppb; 10.49 ppb shall be reported as 10 ppb).

Table 2: STA-2 Routine Monitoring Program

PARAMETER	UNITS	SAMPLE TYPE	SAMPLING FREQUENCY	SAMPLING LOCATION
Dissolved Oxygen	mg/l	INSITU	W	Inflow and outflow
Mercury	See attached Exhibit D Mercury Monitoring Program			
pH	SU	INSITU	W	Inflow and outflow
Specific Conductance	µmhos	INSITU	W	Inflow and outflow
Temperature	Deg C	INSITU	W	Inflow and outflow
Total Phosphorus (water)[1]	mg/l	FPC/G	W	Inflow, outflow and ~~diversion~~ bypass
Total Kjeldahl Nitrogen (TKN) [2]	mg/l	G	BI-W	Inflow and outflow
Turbidity	NTU	G	See Specific Condition 24	Inflow and outflow
Nitrate + Nitrite	mg/l	G	BI-W	Inflow and outflow
Sulfate	mg/l	G	BI-W	Inflow and outflow
Flow	CFS	PR	DAV	Inflow and outflow
Flow[3]	CFS	CAL	DAV	Inflow, outflow and bypass ~~diversion~~
Rainfall Volume	in	RG	DAC	Rainfall Sampling Station

[1] During bypasses ~~diversions~~, Grab sampling will be conducted at S-6, and shall be used as monitoring surrogates for G-338 and G-339 diversions see Specific Condition 26

[2] Total Nitrogen (TN) is calculated from TKN and nitrate-nitrite values (TN= (nitrate/nitrite) + (TKN)).

[3] During bypasses ~~diversions~~,G-338 and/or G-339 will be monitored for flow, see Specific Condition 25

DONE AND ORDERED on this 17th day of March, 2009 in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

_____
Jerry Brooks, Director
Division of Environmental Assessment and Restoration

JB/em/swf/kje

FILING AND ACKNOWLEDGMENT

FILED, on this date, under Section 120.52(7), F.S., with the designated clerk, receipt of which is hereby acknowledged.

_____
Clerk Date

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PARTIES REQUESTING NOTICE:
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Miccosukee Tribe of Indians of Florida, c/o Kelly Brooks, Esq.
United States Sugar Corporation, c/o Bubba Wade
Seminole Tribe of Indians of Florida, c/o Stephen A. Walker, Esq.
Sugar Cane Growers Cooperative, Roth Farms, Inc., and Wedgeworth Farms, Inc.,
c/o William H. Green, Esq.
Keith Saxe, Esq., U. S. Department of Justice
Jay Gelderman, Esq., U.S. Department of Justice
Michael Stevens, U.S. Department of the Interior
Jeffrey J. Ward, Sugar Cane Growers Cooperative
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Department of
Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
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David B. Struhs
Secretary

Type of Permit:	Everglades Forever Act Permit
Project:	Stormwater Treatment Area 3/4 (STA-3/4 Project)
County:	Palm Beach
Permit No.:	0192895
Applicant:	South Florida Water Management District
Applicant Address:	3301 Gun Club Road P. O. Box 24680 West Palm Beach, Florida 33416-4680
Authorization:	The Everglades Forever Act, Section 373.4592, Florida Statutes
Application Received:	December 17, 2001
Issuance Date:	January 9, 2004
Expiration Date:	January 9, 2009

PROJECT DESCRIPTION:
The project is to construct, operate and maintain Stormwater Treatment Area 3/4 (STA-3/4 Project). The STA-3/4 Project consists of the STA-3/4 Works, STA-3/4 Supply Canal, G-371 and G-373 Diversion Structures, U.S. Highway 27 Bridges, STA-3/4 West L-5 Canal Enlargement including associated components along the L-5 borrow canal, and Pump Stations G-370 and G-372 (See Figure 1). The STA-3/4 Project is part of the Everglades Construction Project (ECP), construction, operation, and maintenance of which is required by the Everglades Forever Act (EFA- Ch. 373.4592, F.S.) to restore the Everglades ecosystem. Construction activities authorized by this permit include dredging and filling in wetlands, construction of water control structures, and other earthmoving work necessary to ~~construct the project~~ comply with the requirements of this permit.

Construction and operation of the project involves rehydrating approximately 16,544 acres of historical wetlands previously converted to agricultural cropland. This project will impact approximately 115.16 acres of jurisdictional wetlands. Approximately 3 acres of the wetland impacts are within the boundaries of STA-3/4. The remaining 112.16 acres of wetland impacts are associated with the enlargement of the L-5 canal. All of the surface waters and wetlands to be impacted by the construction of the project are Class III Waters.

Upon completion of construction and the start-up phase of operation, the project will be operated to treat water from the S-7/S-2 and S-8/S-3 basins. Presently, untreated runoff from those basins drains into the North New River and Miami Canals to be routed through the S-7 and S-8 Pump Stations to Water Conservation Areas 2A and 3A. ~~Stormwater~~ Non-process wastewater runoff from these basins that is currently flowing untreated will, upon completion of the STA, be diverted into the constructed wetland for treatment utilizing natural, passive physical, and biological processes for nutrient removal and water quality improvement and

will then be discharged back to the North New River and Miami Canals. Operation of the project involves maintaining water levels within the project to optimize the efficiency of the treatment area as defined by performance at removing the pollutants for which the treatment wetland was designed. Other operation and maintenance activities include water quality and vegetation monitoring, preparation and submittal of monitoring reports, vegetation maintenance, and maintenance of the water control structures (including canals and levees).

Operation of this project shall be implemented to meet the requirements of this permit ~~in three phases~~. The start-up phase of operation will begin after construction is completed and continue until the 4-week geometric mean total phosphorus concentration at the outflow is less than that of the inflow. Upon successfully meeting the start-up phase, the STA-3/4 Project may begin initial discharges. ~~A stabilization phase will follow, continuing until the 12 month flow-weighted average total phosphorus concentration at the outflow is less than or equal to 50 parts per billion. Thereafter, the project will be in the normal or post stabilization operations phase.~~ Once the WQBEL is achieved, the project will be in routine operations.

PROJECT FACILITIES:
The seven individual ECP components included in the STA-3/4 Project are as follows (see Figure 1):

1. Diversion Structures
2. Project Inflow Pump Stations
3. Project Supply Canal
4. Interior Works
5. STA-3/4 Discharge Canals
6. STA-3/4 Seepage Collection System
7. US 27 New Bridges

Below are descriptions of these ECP works, taken from the September 20, 1999, *Alternatives Analysis* Report for "STA-3/4" prepared by Burns and McDonnell. Other documents related to this project are: February 15, 1994 *Conceptual Design, Everglades Protection* Project; April 4, 1996 General Design Memorandum; June 30, 2000 *Plan Formulation* Document; August 23, 2000 *Plan Implementation* Document; and the October 11, 2000 *Design Criteria* Document. Since the preparation of the aforementioned documents, the permittee has identified certain improvements and enhancements to improve design and operation of STA-3/4. Descriptions of these improvements and enhancements can be found in Subsection H. below.

A. Diversion Structures

G-371 will act as a diversion structure located in the North New River Canal. As such, G-371 will divert canal flows to new inflow Pump Station G-370, located in the northeast corner of STA-3/4, and will allow existing Pump Station S-7, located in the southeast corner of STA-3/4, to be used as an outflow pump station.

Under normal STA-3/4 operating conditions, G-371 will be in the full-closed position. However G-371 may be operated for any of the following conditions:

1. Full or partial bypass of STA-3/4 during runoff events in the S2/S7 Basins;
2. Full or partial bypass of STA-3/4 during periods of regulatory releases from Lake Okeechobee to the North New River Canal;
3. Bypass of STA-3/4 during periods of water supply releases from Lake Okeechobee intended for delivery to communities and other users in Broward county via the North New River Canal; and
4. Full or partial bypass of STA-3/4 when all or portions of the STA are unavailable due to maintenance or other conditions, including but not limited to when interior water conditions may damage existing treatment cell marsh vegetation.

The G-373 structure will be installed in the Miami Canal downstream of G-372 and will divert canal flows to new Pump Station G-372. This structure will allow existing Pump Station S-8, located 8 miles west of the southwest corner of STA-3/4, to be used as an outflow pump station. Under normal STA-3/4 operating conditions, G-373 will be in the full-closed position. However G-373 may be operated for any of the following conditions:

1 Full or partial bypass of STA-3/4 during runoff events in the S3/S8 Basins;
2. Full or partial bypass of STA-3/4 during periods of regulatory releases from Lake Okeechobee to the Miami Canal;
3. Bypass of STA-3/4 during periods of water supply releases from Lake Okeechobee intended to delivery to communities and other users via the Miami Canal; and
4. Full or partial bypass of STA-3/4 when all or portions of the STA are unavailable due to maintenance or other conditions, including but not limited to when interior water conditions may damage existing treatment cell marsh vegetation.

B. Project Inflow Pump Stations

Untreated water from the North New River and the Miami canals is directed into the STA at its north boundary by means of pump stations G-370 and G-372.

Inflow Pump Station G-372 is the project's primary inflow structure, drawing water from the Miami Canal. G-372 has a design capacity of 3,670 cfs and will pump an annual average volume of water equal to 252,601 acre-feet (derived from a 10-year base period).

Inflow Pump Station G-370 is the secondary inflow pump station for the project, drawing water from the North New River Canal. G-370 has a design capacity of 2,770 cfs and will pump an annual average volume of water equal to 385,535 acre-feet (derived from a 10-year base period).

C. Project Supply Canal

The Inflow Canal borders the north side of the STA and the Holey Land. Control structure, G-383, provides flexibility in managing incoming flows before distribution into the cells. This structure is situated in the Inflow Canal immediately north of the intersection of the Inflow Control levee with Interior Levee 1. This normally closed structure serves to maintain separation between inflows from the North New River Canal and the Miami Canals, but can serve to redistribute water to prevent cell dryout, provide optimum treatment, and provide other operational strategies. G-383 is designed to pass 1470 cfs, 40% of Miami Canal peak inflow rate or 50% of North New River Canal peak inflow rate.

D. Interior Works

Inflow to the north cell is controlled by a series of gated hydraulic structures, G-374 A-F, G-377 A-E and G-380 A-F, which allow water to pass from the Inflow Canal to the treatment cells. The hydraulic gradient is such that water flows in a southerly direction within the cells. Water that passes through Cell 1A and Cell 2A, then enter Cell 1B and 2B passing through a series of structures (G-375 A-F and G-378 A-E) located on Interior Levee 2 and 3. Water at this point travels through Cells 1B and 2B for additional treatment, then exits along the southern boundaries of the cells into the Discharge Canal by passing through another series of structures (G-376 A-F and G-379 A-E).

E. STA-3/4 Discharge Canal

The Eastern Discharge Canal (EDC) is located at the southern boundary of cell 1B and 2B and is connected to the borrow pits at its western end. The eastern end of the EDC terminates in L-5, west of the existing pump station S-7. The Western Discharge Canal (WDC) is located along the southern boundary of Cell 3 and the western boundary of Cell 2B. The northern end of the WDC starts at Cell 3 and the terminates at the borrow pits.

Treated water from STA 3/4 will be discharged into the L-5 Borrow Canal from the G-381 A-F, G-379 A-E and G-376 A-F structures, and then will be released to WCA-3A, once the performance of STA-3/4 has been optimized in accordance with Subsection (4)(b) of the EFA. In the meantime, the treated water will be pumped back to the North New River and Miami Canals by means of existing pump stations S-7 on the North New River and S-8 and G-404 on the Miami Canal. Pump Station S-7 discharges to WCA-2A, Pump Station S-8 discharges to WCA3A, and Pump Station G-404 discharges to western WCA-3A via the L-4 Borrow Canal, the South L-4 Levee Gap and L-3 extension canal. G-404 was part of the STA-5 permit, but functions to move water from both STA 3/4 and 5. Treated water from STA 3/4, once discharged into the L-5 Canal can also be released to WCA-3A via structure S-150 when water levels in the North New River Canal are higher than the downstream water level in WCA-3A.

F. STA-3/4 Seepage Collection System

Seepage control is accomplished by routing water collected by the project's north seepage collection canal back to the inflow pump stations (G-370 and G-372) via (3) 75 cfs seepage return pumps at each station. Seepage collected will then be routed back to the treatment cells by the inflow canal system.

G. US 27 New Bridges

Conveyance of water from the North New River Canal (L-18) to the G-370 Inflow Pump Station at STA-3/4 requires the excavation of a canal crossing at US 27. This section of the G-370 intake canal will allow water to pass from the eastern side to the western side of US 27. Correspondingly, northbound and southbound bridges will need to be constructed to carry US 27 traffic over the new canal section.

H. Improvements and Enhancements

Cell 3 will be subdivided into Cells 3A and 3B through construction of a new interior levee and additional water control structures will be constructed through the new levee. An overhead power distribution line will be extended along the new levee across Cell 3. Small forward-pumping stations will be constructed along the interior levees between cells in series to permit withdrawal from upstream emergent marsh cells to maintain stages in the downstream SAV cells. Three stations are anticipated. The station pumping from Cell 1A to Cell1B is assigned a preliminary capacity of 54 cfs, the station from Cell 2A to Cell 2B is assigned a preliminary capacity of 29 cfs, and the station from Cell 3A to 3B is assigned a preliminary capacity of 24 cfs. Cells 1B, 2B and 3B will be treated with herbicide for removal of emergent macrophyte vegetation to permit development of submerged aquatic vegetation.

The southwestern corner of treatment cell 2B (west of outflow Structure G-379E) will be utilized for an approximate 100-acre Periphyton Stormwater Treatment Area (PSTA) demonstration project. The purpose of this project is to demonstrate the ability of PSTA to serve as a final "polishing" cell in the overall STA treatment process. This PSTA Demonstration Project is intended to augment and form an additional element of the Process Development and Engineering component of the Conceptual Plan for Achieving Long-Term Water Quality Goals (Burns & McDonnell, 2003) in discharges from tributary basins to the Everglades Protection Area (EPA). The demonstration cell will be placed at the downstream end of the treatment cell 2A-2B flow path, where the lowest phosphorus concentrations can be anticipated, consistent with the intended function of the PSTA cell as a final "polishing" cell in an STA.

LOCATION:

The project is located within the south-central portion of the Everglades Agricultural Area and includes works in wetlands and Class III fresh waters within the southern most portion of

Palm Beach County, Florida. The STA (**STA-3/4**) is located on 16,544 acres of lands located just north of the L-5 canal, directly north of the Palm Beach County line, extending from the Holey Land Wildlife Management Area eastward to U.S. Highway 27 (North New River Canal), and includes Sections 31, 32, 33, 34, 35, and 36, Township 46 South, Range 37 East, Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14. 15, 16, 22, 23, 24, Township 47 South, Range 37 East, Sections 6, 7, 8, 16, 17, 18, 19, 20, 21, Township 47 South, Range 38 East, and Section 31, Township 46 South, Range 38 East.

The **Supply Canal** connects the STA with both the Miami Canal and the North New River Canal and will be located just north of the STA and Holey Land Wildlife Management Area, within Sections 35 and 36, Township 46 South, Range 35 East, Sections 31, 32, 33, 34, 35, 36, Township 46 South, Range 36 East, and Sections 18, 19, and 30, Township 46 South, Range 37 East.

The **Discharge Canal** will be constructed by enlarging the existing L-5 borrow canal, a Class III fresh waters, running east-west just south of STA-3/4, in Sections 22, 23, 24, 27, 28, 29 and 30,Township 47 South, Range 37 East, and Sections 19, 20, 21, 22 and 28, Township 47 South, Range 38 East, and Sections 7, 8, 9, 10, 11, and 12, Township 48 South, Range 36 East, Palm Beach County.

IN ACCORDANCE WITH:
This EFA permit for the construction, operation, and maintenance of the STA-3/4 Project is issued in accordance with the following:

- The Everglades Forever Act, Section 373.4592, F.S.;

- The permit application for the construction, operation, and maintenance of the ECP, including the STA-3/4 Project and associated works, prepared by the South Florida Water Management District, and received by the Department on June 1, 1994;

- The permit application for the construction, operation, and maintenance of the STA-3/4 Project and associated works, prepared by the South Florida Water Management District, submitted to the Department on December 17, 2001, and additional information submitted in support of the application on May 29, 2002 and August 12, 2002; and,

- The engineering drawings and technical specifications for STA-3/4 and associated works, including the design documents.

GENERAL CONDITIONS:
In accordance with Subsection 373.4592(9)(g) of the EFA, this permit may include any standard conditions provided by Department rule which are appropriate and consistent with the EFA.

1. **Enforcement.** The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Chapter 373.129, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. **Scope of permit.** This permit is valid only for the specific requirements of ~~processes and operations~~ this permit ~~applied for and indicated in the approved drawings or exhibits~~. Any unauthorized deviation from the ~~approved drawings, exhibits, specifications, or~~ requirements of this permit may constitute grounds for revocation and enforcement action by the Department.

3. **Limitation of rights.** The issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit. However, this permit is in lieu of other permits under Part IV of Chapter 373, F.S. (1994) or part VIII of Chapter 403, (1992), pursuant to Subsection 373.4592(9)(c), F.S. Sections 403.91-403.938 comprised part VIII of Ch. 403 in 1992. Except for s. 403.927 and ss. 403.93-403.958, these sections were repealed by ss. 45, 46, Ch. 93-213, or s. 18, Ch. 95-145. Sections 403.93-403.936 were repealed by s. 13, Ch. 95-299. The two remaining sections from former part VIII as it was constituted in 1992, ss. 403.927 and 403.938 (transferred to s. 403.9333 by s. 12, Ch. 95-299), are located in part VII of Ch. 403.

4. **Limitations upon title.** This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of sovereign submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. **Liability.** This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Chapter 373.4592 F.S. (the EFA).

6. **Operation and maintenance responsibilities.** The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. **Access Rights.** The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

A. Have access to and copy any records that must be kept under conditions of the permit;

B. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

C. Sample or monitor any substances or parameters at any reasonable location necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. **Noncompliance.** If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

A. A description of and cause of noncompliance; and

B. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties and/or for revocation of this permit.

9. **Records as evidence.** In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data, and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111, F.S. and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. **Changes in Law.** The permittee agrees to comply with changes in applicable Department rules and applicable Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida law. However, this section cannot be used as a basis to extend the time to comply with the permit's total phosphorus WQBEL.

11. **Transferability.** This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-343.130, F.A.C., as applicable. The permittee shall

be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. **Permit at Work Site.** This permit or a copy thereof shall be kept at the work site of the permitted activity. For the purposes of this permit the work site shall be defined as South Florida Water Management District Headquarters located at 3301 Gun Club Road in West Palm Beach, Florida.

13. **Records Retention.** The permittee shall comply with the following:

A. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

B. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

C. Records of monitoring information shall include:

1. the date, exact place, and time of sampling or measurements;

2. the person responsible for performing the sampling or measurements;

3. the dates analyses were performed or the appropriate code as required by Chapter 62.160 F.A.C.;

4. the person responsible for performing the analyses;

5. the analytical techniques or methods used, including MDL; and

6. the results of such analyses, including identification of potential outlier values.

14. **Requests for Information.** When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

1. Sovereign Lands. The permittee is hereby advised that Florida law states: "No person shall commence any excavation, construction, or other activity involving the use of sovereign or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund or the Department of Environmental Protection under Chapter 253, until such person has received from the Board of Trustees of the Internal Improvement Trust Fund the required lease, license, easement, or other form of consent authorizing the proposed use." Pursuant to Florida Administrative Code Rule 18-14.002(1), if such work is done without consent, or if a person otherwise damages state land or products of state land, the Board of Trustees may levy administrative fines of up to $10,000 per offense.

2. Artifacts. If historical or archaeological artifacts, such as Indian canoes, are discovered at any time within the project site, the permittee shall immediately notify the Department's Southeast District Office at the address and telephone number listed in Specific Condition No. 3, below, and the Bureau of Historic Preservation, Division of Historical Resources, R. A. Gray Building, 500 S. Bronough St., Tallahassee, Florida 32399-0250, telephone (850) 487-2333.

3. Addresses. Reports and notices submitted to the Department in accordance with this permit shall be submitted to the Department's Division of Water Facilities, Water Quality Standards and Special Projects Program, 2600 Blair Stone Road, MS 3560, Tallahassee, Florida, 32399-2400, telephone no. (850) 245-8424, and to the Department's Southeast District Office, Office of Environmental Affairs, 400 North Congress Avenue, P. O. Box 15425, West Palm Beach, Florida, 33416-5425, telephone no. (561) 681-6709.

4. Related Permits. The Department and the permittee acknowledge the issuance of other permits related to the STA-3/4 Project. Related permits include FDEP NPDES Permit No. FL0300195, EFA/Individual Water Use Permit No. 0178018, which authorizes temporary dewatering activities for the construction of facilities within the STA-3/4 and STA-2 Hydropattern Restoration Projects, and, the U.S. Army Corps of Engineers 404 Permit No. 199404532.

Construction, Operation, and Maintenance Conditions

5. Project Construction. During construction of the STA-3/4 Project and the associated works, the permittee shall take all reasonable precautions to minimize the suspension and transport of soils, levee materials, and roadway materials into waters adjacent to or downstream of the construction site in accordance with Section 02435 of the Technical Specifications for the STA-3/4 Project and associated works (appended hereto as Exhibit A). In addition, during construction, the permittee shall perform turbidity monitoring in accordance with Section 02435 of the Technical Specifications.

The permittee shall construct the STA-3/4 Project consistent with the design documents. The STA-3/4 Project, including applicable construction activities, may be further modified for standard engineering practices pursuant to Subsection 373.4592(9)(j)(3) of the EFA or for technological advances pursuant to Subsection 373.4592(9)(j)(2) of the EFA.

6. Construction of Enhancements. Prior to construction of the enhancements detailed in Subsection H. of the Project Description, the permittee shall submit final engineering design plans to the Department for approval.

7. Project Operation and Maintenance. The permittee shall operate and maintain the STA-3/4 Project consistent with the design documents and the operations criteria required by Specific Condition 10. The STA-3/4 Project, including applicable operation and maintenance activities, may be further modified for standard engineering practices pursuant to Subsection 373.4592(9)(j)(3) of the EFA or for technological advances pursuant to Subsection 373.4592(9)(j)(2) of the EFA.

8. As-Built Certification and Record Drawings. Within 30 days after completion of the construction contract for this project, the permittee shall submit a written statement of completion and certification by a registered professional engineer or other appropriate individual as authorized by law. The statement of completion and certification shall be based on on-site observation of construction or review of as-built drawings for the purpose of determining if the work was completed in compliance with permitted plans and specifications. This submittal shall serve to notify the Department that the project is ready for inspection. Additionally, if deviation from the approved drawings is discovered during the certification process, the certification must be accompanied by a copy of the approved permit drawings with deviations noted. Both the original and revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawing. A registered surveyor shall certify all surveyed dimensions and elevations.

9. Pump Station Testing and Maintenance. In order to ensure operational readiness, initial testing is required by the construction contractor for the pump stations authorized by this permit prior to turnover of the pump stations to the permittee for operation. Maintenance requirements for the pump stations include operation of the pumps for approximately 2 to 4 hours per month, as necessary, to maintain their mechanical integrity. Therefore, temporary operation of the pump stations for testing and maintenance purposes is allowed and is not subject to the discharge criteria of the specific conditions of this permit. However, the permittee shall include all such discharge flows and loads as a part of the monitoring requirements of this permit.

10. STA Operations Plan. Upon completion of and compliance with the requirements specified herein, the permittee shall submit to the Department, at the addresses listed in Specific Condition 1, an updated Operations Plan for this facility, subject to modification under the conditions set forth below.

If at any time changes to the STA-3/4 Operations Plan are warranted to optimize facility operation, and upon verification of data to be supplied by the permittee that justifies the need for such modification, the Operations

Plan may be modified as mutually agreed upon by the Department and the permittee. The Operations Plan shall also include the information described in A-G, below.

A. **Minimum Water Level Targets to Avoid Dryout**. In accordance with the relevant project design documents, the permittee shall plan to maintain a minimum of six (6) inches of water within STA-3/4 to prevent dryout of the treatment cells, subject to available water from the upstream watershed. The average elevations for each cell as determined in the detailed topographic survey performed for the STA-3/4 design are as follows:

Cell 1A = 9.35 ft. NGVD
Cell 1B = 9.25 ft. NGVD
Cell 2A = 9.70 ft. NGVD
Cell 2B = 9.70 ft. NGVD
Cell 3 = 9.60 ft. NGVD

Topographic data were utilized to establish the static water level in STA-3/4. The corresponding minimum static water control elevations to prevent dryout (based on the prevailing ground elevations noted above) are as follows. During drought events, the permittee shall, to the maximum extent practicable, maintain these minimum water control elevations.

Cell 1A = 9.85 ft. NGVD
Cell 1B = 9.75 ft. NGVD
Cell 2A = 10.15 ft. NGVD
Cell 2B = 10.15 ft. NGVD
Cell 3 = 10.25 ft. NGVD

B. **Responding to Dryout Conditions**. The permittee shall evaluate and correct potential adverse dryout effects on the water quality performance of STA-3/4. If the compliance requirements in this permit are not met due to dryout conditions, then the permittee shall propose modifications to the Operations Plan as appropriate and as approved by the Department.

C. **Maximum Water Level Targets**. The permittee shall ensure to the maximum extent practicable that maximum water depths of 4.5 feet are not exceeded for more than 10 consecutive days during storm events.

D. **Phosphorus uptake optimization**. Operations shall be conducted to distribute the flows and water levels within STA-3/4 to optimize the phosphorus reduction performance and shall be updated as necessary to include the results of the permittee's STA optimization research conducted pursuant to Subsection (4)(d)(7) of the EFA.

E. **Hydropattern Restoration**. STA-3/4 shall be operated in such a manner to be consistent with the activities proposed to restore the hydropattern of the Everglades Protection Area, as described in Specific Condition 11 below.

F. **Operations Plan Modifications**. If data from the operation of STA-3/4 indicate that operations are adversely affecting water quality or performance of STA-3/4, then the Operations Plan may be modified, as approved by the Department. The District may implement modifications to the Operations Plan for hydraulic or other justifiable reasons pertaining to operations.

G. **Operational Envelope**. The permittee shall ensure to the maximum extent practicable that authorized operation of the existing components of the facility do not exceed the operational envelope for STA-3/4, as set forth in the existing STA-3/4 Operations Plan.

Hydropattern Restoration. This permit does not authorize the hydropattern restoration of WCA-3A. Once the performance of STA-3/4 attains the WQBEL ~~has been optimized and long-term water quality solutions for S-7/S-2 and S-8/S-3 basins have been implemented~~, it is anticipated that discharges from STA-3/4 could be directed southward directly across the L-5 canal and levee ~~will be diverted directly~~ into WCA-3A to assist in hydropattern restoration in accordance with Subsection (4)(b) of the EFA. Future WCA-3A hydropattern restoration plans will be coordinated with CERP implementation. Implementation of hydropattern restoration in WCA-3A associated with STA-3/4 will require review and approval by the Department and USEPA in the form of a modification to this permit. If hydropattern restoration proceeds, monitoring will be required along a transect in WCA3A downstream of the STA 3/4 discharge. The purpose of this monitoring will be to document the effect of the discharge on the downstream EPA marsh and changes in downstream water quality and cumulative phosphorus impacts. Transect monitoring will begin one year prior to the commencement of hydropatterm restoration discharges in order to document baseline conditions. ~~The modification will require downstream monitoring which must be implemented sufficiently in advance to establish a scientifically defensible baseline and may include transect monitoring, if appropriate. The monitoring plan should be submitted to the Department for review and approval prior to the commencement of monitoring.~~

In accordance with Subsection (4)(b) of the EFA, the permittee shall operate the STAs in order to improve and restore the Everglades water supply and hydroperiod. The permittee shall operate the Everglades Construction Project as specified in the February 15, 1994, Conceptual Design Document (Part VII, Intended Operation of Plan Components), to provide additional increased flow to the Everglades Protection Area (EPA) through the modification of historical operational practices for regulatory releases from Lake Okeechobee and the Water Conservation Areas. Pursuant to Subsection (4)(b) of the EFA, the expectation is that these practices will achieve an average increase of 28 percent to the Everglades Protection Area compared to the baseline years of 1979 to 1988. The STAs shall be operated to achieve the goal of providing additional flows to the Everglades Protection Area and shall, to the

maximum extent practicable, be coordinated with and consistent with the Lower East Coast Water Supply Plan, the Lake Okeechobee Regulated Schedule for the Water Conservation Areas, the Central and Southern Florida Project Comprehensive Review Study, and the entitlement of the Seminole Tribe of Florida to surface water withdrawals under the Water Rights Compact (P.L. 100-228).

11. Implementation of Everglades Agricultural Area Best Management Practices (BMP) Program.

A. *Implementation.* The permittee shall continue to implement the Everglades Agricultural Area BMP program in accordance with Rule 40E-63, F.A.C.

B. *BMP Fluctuations.* The permittee shall report phosphorus loads from the EAA to STA-3/4 in excess of those expected under the BMP requirements of Chapter 40E-63, F.A.C. as assumed in the design basis and design refinements for STA-3/4.

C. *BMP Performance.* On an annual basis, the permittee shall evaluate the performance of BMPs in agricultural areas upstream of STA-3/4, consistent with Rule 40E-63, F.A.C., as may be modified, and Subsection (4)(f) of the EFA.

13. Minimization of Wetland Impacts. In accordance with Subsection (9)(e)3 of the EFA, the permittee shall comply with the information related to minimization of wetland impacts provided in the Permit Application, dated December 17, 2001, attached as Exhibit B, and hereby incorporated by reference.

14. Water Quantity and Flooding Impacts. The permittee shall be responsible for ensuring that the project is operated so as not to adversely affect adjacent lands with regards to flooding impacts. The permittee shall hold and save the Department harmless for any and all damages, claims, or liabilities, which may arise from water quantity and/or flooding impacts resulting from the construction and operation of this project.

15. Structures Inspection Plan. Within 60 days from permit issuance, the permittee shall submit to the Department for approval, an inspection plan to evaluate the integrity and functionality of all above ground dikes, levees and structures, including pump stations, created under the guidance of a Florida registered professional engineer. A summary report of annual inspections and any necessary work completed to respond to inadequacies that may have been found during inspections shall be included annually in the Everglades Consolidated Report.

16. Implementation of Source Control Programs.

A. Implementation. The permittee shall continue to implement source control programs in each of the contributing basins in accordance with Chapter 40E-63, F.A.C. and other applicable programs. Basins that do not presently include source control programs shall be monitored to determine if such programs are necessary in the event

that phosphorus loads to the facility from these basins limit the facility's ability to achieve the WQBEL.

B. Performance. On an annual basis, the permittee shall evaluate the performance of source controls in the contributing basins and include the findings in the annual report required in Specific Condition 30. The report shall include phosphorus loads from the basins and shall describe trends and compare current loads to those determined necessary to achieve the WQBEL.

C. Improvements. If the WQBEL is not achieved and if the assumed inflow concentration used to develop the Amended Determination remedy is exceeded, the permittee shall submit a report explaining the causes(s) for the excessive concentration and schedules and strategies for source control improvements necessary to achieve the WQBEL in the annual report.

Phosphorus Conditions

17. Start-Up. During the Start-Up Phase, the District shall monitor phosphorus concentrations within STA-3/4 to demonstrate that the project is achieving a net reduction in phosphorus. Start-Up Phase operation and phosphorus monitoring within STA-3/4 shall be performed as follows:

A. *Recirculation.* During Start-Up, the District may recirculate waters within the STA.

B. *Treatment Cell Start-Up.* Portions of the STA-3/4 facility may operate independently of each other. Under those circumstances, performance of operating portions of the STA shall be measured as follows:

1) In order to ensure that no discharge of pollutants occur due to the inundation of soils within STA-3/4, the permittee shall comply with the following for each cell:

a) The permittee shall manage water depths in STA-3/4 to facilitate the recruitment of marsh vegetation.

b) On a weekly basis, the permittee shall monitor water quality at the upstream side of inflow stations G-370 (flow path Cell 1) and G-372 (flow path Cells 2 & 3), and the upstream side of outflow structures G-376B and G-376E (Cell 1B), G-379B and G-379D (Cell 2B), and G-381B and G-381E (Cell 3) (See Figure 1).

c) The Start-Up Phase for STA-3/4 shall end when these samples demonstrate, over a four-week period, a net reduction in phosphorus occurs, per Specific Condition 16.B.d.

d) This net reduction shall be deemed to occur when the 4-week geometric mean total phosphorus water column concentration from samples collected at the G-376B, G-376E, G-379B, and G-379D outflow structures is less than the 4-week geometric mean total phosphorus water column concentration collected at G-370 pump station for the eastern flow-ways (Cells 1A/1B and

Cells 2A/2B) and the 4-week geometric mean total phosphorus water column concentration from samples collected at the G-381B and G-381E outflow structures is less than the 4-week geometric mean total phosphorus water column concentration collected at the G-372 pump station for the western flow-way (Cells 3A/3B). If STA-3/4 has not met this test within two months after beginning start-up operations, the permittee shall submit monthly reports of the 4-week geometric mean difference. If after six months, the system has not met the 4-week start-up test, the permittee shall evaluate vegetative conditions and identify strategies to achieve that test. Discharge from STA-3/4 may commence at the end of the start-up period. Some of the treatment cells may meet the net reduction criteria before the others; therefore, to maximize treatment effectiveness of STA-3/4, discharges may commence from each of the treatment cells as soon as they meet the net reduction test for phosphorus.

2) Pesticide Sampling. The permittee shall conduct a one-time monitoring at the inflow structures G-370 (flow path Cell 1) and G-372 (flow path Cells 2 & 3) and the outflow structures G-376B and G-376E (Cell 1B), and G-379B and G-379D (Cell 2B), and G-381B and G-381E (Cell 3) for the pesticides indicated in Table 1.

C. *Alternative Data.* When required by flow or water levels, alternative representative data may be provided by the District to demonstrate that any portion of the STA-3/4 facility is achieving start-up compliance requirements.

D. *Initiation of Flow-Through Operation.* Start-Up Phase documentation shall be submitted to the Department and shall include all supporting data and analyses. When STA-3/4, or individual cells of STA-3/4, meets the start-up criteria, routine flow through operation for STA-3/4, or individual cells of STA-3/4, may begin. Once flow-through discharges begin, the District shall initiate water quality monitoring consistent with the monitoring program described in this permit.

E. *Interim Operations.* Prior to the full flow-through operation of STA-3/4, discharge of excess inflows may be diverted through the G-371 and G-373 structures during times when the discharges from S-7 and/or S-8 exceed the safe flow-through capacity of STA-3/4, or when stages within the cells exceed target levels or established vegetation is threatened.

F. *Mercury Monitoring.* The Start-Up Phase is also dependent on the individual treatment cells demonstrating a net improvement in total mercury and methyl mercury, in accordance with the provisions of the mercury monitoring condition (2) in Exhibit C.

~~**16. Stabilization.** Following completion of the Start-Up Phase, the project shall begin a period of stabilization, in accordance with Subsection (9)(h) of the EFA. The stabilization period for STAs is generally anticipated to last 2 to 3 years after the start-up phase ends. During that period, compliance with the criteria in Subsection (9)(h) of the EFA shall be evaluated as follows:~~

~~After start-up operations have ended and flow project flow-through operations and discharges have begun from each flow-way, the District shall operate and monitor STA-3/4, allowing for a stabilization period. The stabilization period for STA-3/4 shall end when the 12-month flow-weighted average total phosphorus concentration at the outflow stations is less than or equal to 50 ppb. Starting 12 months after commencing discharge from each flow-way, the District shall provide rolling 12-month flow-weighted average total phosphorus concentration in monitoring reports. If, after the first two years of full project flow-through operation, the STA has not met this stabilization test, the District shall submit a report which shall compare the flow-weighted mean of the total phosphorus discharge data from the most recent 12-month period (e.g., months 13 – 24) with the flow-weighted mean of the total phosphorus discharge data from the previous 12-month period (e.g., months 1 – 12) to ensure that performance of the STA is not declining, based upon a Student's t-test at the 95% confidence interval. This report is to be submitted 90 days after the end of each reporting period. If at any time, the STA performance indicates that this test will not be met by December 31, 2006, the permittee shall submit a report on the progress made towards meeting the stabilization requirements and an analysis of the system operation and shall submit and initiate implementation of an optimization plan designed to reach the phosphorus stabilization goal by December 31, 2006.~~

~~**17. Post Stabilization / Normal Flow-Through Operations.** From the end of the stabilization period, until the beginning of the long-term compliance period discharges from STA-3/4, via the G-376B, G-376E, G-379B, G-379D, G-381B, and G-381E structures, shall meet an annual flow-weighted average total phosphorus concentration at the outflow stations of less than or equal to 76 ppb for each water year, (May 1 – April 30). In addition, the discharges shall not exceed an annual flow-weighted average total phosphorus concentration of 50 ppb for three or more consecutive water years. Both tests are simultaneously applied to ensure that the design objectives of the STA-3/4 project are met.~~

Conditions for Parameters Other than Total Phosphorus

18. Comparison of Outflows to Inflows. For all water quality parameters indicated in the Monitoring Table other than total phosphorus and dissolved oxygen, inflow and outflow samples collected at the sampling locations identified in Table 2 (See Figure 1) shall be used to determine compliance with this specific condition. Compliance with this specific condition shall be evaluated as follows:

A. If the annual average outflow concentration does not cause or contribute to violations of applicable Class III water quality standards, then the facility shall be deemed in compliance with this condition.

B. If the annual average concentration at the outflow causes or contributes to violations of applicable Class III water quality standards, but does not exceed, or is equal to, the annual average concentration at the inflow stations, then the facility shall be deemed in compliance with this condition.

C. If the annual average concentration at the outflow causes or contributes to violations of applicable Class III water quality standards, and also exceeds the annual average concentration at the inflow station, then the facility shall be deemed out of compliance with this condition.

19. Dissolved Oxygen. The permittee shall comply with the requirements for dissolved oxygen and the associated compliance schedule listed in Administrative Order AO-008-EV, attached as Exhibit D, and herein incorporated by reference.

20. Public Health, Safety, or Welfare. Pursuant to Subsection (9)(h)3 of the EFA, discharges from the STA-3/4 Project shall not pose a serious danger to the public health, safety, or welfare.

Factors Impacting Compliance

221. ~~Factors Outside the Permittee's Control.~~ In the event that non-compliance or failure to achieve the WQBEL ~~performance objectives~~ results for any reason other than those listed below, the permittee shall take appropriate remedial measures.

~~**A. Anomalous Rainfall.** Compliance with Specific Conditions 16-19 shall not be tested in water years when the EAA annually adjusted rainfall, as defined in Rule 40E-63, F.A.C., exceeds 63.8 inches, or is less than 35.1 inches (based on the minimum and maximum annual rainfall values for the EAA during water years 1979 thru 1988), and sufficient supplemental flows are not available to maintain wet conditions in STA-3/4. In this instance, results from adjacent years will be treated as consecutive for purposes of testing compliance. The Department may make similar adjustments where emergency discharges occur.~~

~~**B. Natural Background.** Deviations from water quality standards may occur as a result of natural background conditions, in accordance with Section 403.021(11), F.S. The Department shall evaluate such deviations as a part of the Department's evaluation of water quality standards in accordance with Subsection (4)(e)4 of the EFA.~~

~~**C. Random Variation.** The District shall report any statistical uncertainty in the methodology using acceptable scientific methods.~~

~~**D. Vegetation Conditions**. The District shall report whether vegetation conditions in STA-3/4 have contributed to the non-compliance. The permittee shall prepare an analysis of the vegetation coverage of STA-3/4 as compared with the baseline vegetation coverage maps developed in accordance with the monitoring conditions found in Specific Condition 29.~~

A~~E.~~ **Other Factors**. Unavoidable legal barriers or restraints, including those arising from actions or regulations not under the control of the permittee.

2~~3~~**3. Emergency Conditions.** Discharges from STA-3/4 or ~~diversion~~ bypass of waters from the STA-3/4 inflow structures through the G-371 and/or G-373 structures shall also be allowed in accordance with Section 373.439, F.S., or when water conditions within STA-3/4 may damage existing marsh vegetation. When a ~~diversion~~ bypass event or series of proximal ~~diversion~~ bypass events is anticipated due to aforementioned conditions, the permittee shall notify the Department of the anticipated event via email. After major ~~diversion~~ bypass events, ~~t~~he permittee shall submit a ~~diversion~~ bypass summary report to the Department. The ~~diversion~~ bypass summary report shall contain information regarding the circumstances related to the discharge, as well as duration of the discharge and may be submitted in electronic format via email. Summary reports of minor bypasses ~~diversions~~, not associated with Section 373.439 F.S. emergency measures, shall be submitted by the permittee on a monthly basis.

Renewals and Modifications

23. Permit Renewal. At least 60 days prior to the expiration of this permit, the permittee shall apply for renewal of this permit. Renewal may be for a period of 5 years in accordance with Subsection (9)(f) of the EFA.

24. Permit Modifications for Technological Advances. Pursuant to Subsection (9)(j) of the EFA, the permittee may submit proposed modifications to the STA-3/4 Project, including proposed superior technologies to be incorporated into the operation of the STA-3/4 Project, to the Department for a determination as to whether a permit modification is necessary. Within 30 days after receipt of such a submittal, the Department shall notify the permittee as to whether a permit modification is necessary. Minor modifications can be processed in letter format. The Departments shall determine whether the modification is minor or major based on the nature and magnitude of the proposed modification and the potential for the modification to have environmental impacts that are significantly different from those previously considered by the Department for the activity, pursuant to Rule 62-343.100, F.A.C. The permittee shall be required to publish a notice of application pursuant to Section 373.413 (3) and (4), F.S., as applicable, for any major permit modifications required in accordance with this specific condition.

25. Permit Modifications for Design Changes. The District shall submit proposed modifications of the STA-3/4 Project to the Department prior to implementation of the

modifications for review and approval by the Department. Such modifications may include, but not be limited to:

A. **Modifications to Achieve Design Objectives**. Pursuant to Subsection (9)(j)3 of the EFA, the District shall modify the STA-3/4 Project, including modifications of the Operations Plan, if the project is not achieving the design objectives of the Everglades Construction Project;

B. **Modifications for Future Facilities.** If the monitoring data indicates the need for the construction of future facilities or structures, the permittee may apply for modifications to the STA-3/4 Project, as appropriate to accommodate alterations in operations of STA-3/4 in conjunction with the construction and operation of the new facilities or structures.

C. Modifications for WCA-2A and WCA-3A Hydropattern Restoration Activities. The permittee may modify the operation of the STA-3/4 Project if inter-agency agreements based on research and monitoring activities justify the need for such modification to assist in the restoration of the hydrology and biological status of WCA-2A or WCA-3A, pursuant to Subsection (4)(b) of the EFA and the design of the Everglades Construction Project (ECP-4).

26. Permit Modifications for Long Term Compliance. Pursuant to Subsection (10)(a) of the EFA, the District shall submit to the Department a permit modification to incorporate proposed changes to the Everglades Construction Project and this permit by December 31, 2003. These changes shall be designed to achieve compliance with the phosphorus and other state water quality standards by December 31, 2006.

27. Department Review and Approval. Where conditions in this permit require Department review and approval of remedial actions or plan modifications to be implemented pursuant to this permit, the Department will consult with the permittee to ascertain whether mutual agreement can be reached. If mutual agreement on the remedial actions or plan modifications cannot be reached, the action of the Department will be deemed final agency action and will be subject to judicial or administrative review, as appropriate.

28. Bypass may occur during the operation of STA-3/4. The District shall notify the Department within 48 hours subsequent to any unanticipated bypasses of flow through the G-371 and G-373 Diversion Structures and the District shall notify the Department as soon as practicable in advance of anticipated bypasses, with the exception of routine maintenance activities. The submitted notification shall include a description of the circumstances related to the bypass and a projection of the anticipated duration of the bypass. All bypasses occurring through the G-371 and G-373 Diversion Structures shall be monitored for the parameters listed in the table below. As soon as practicable after cessation of all bypasses, the District shall submit a summary of the data collected from the table below, and identify the duration of the bypasses. Bypasses shall be limited to the shortest time possible and are not allowed solely to achieve the WQBEL. Bypasses are subject to and must meet the requirements of F.A.C. Sections 62-620.610(20), (21), and (22).

Table 1. Required Monitoring for All Bypasses

Parameter	Units	Sample Type	Frequency
Total Phosphorus at the G-371 and G-373 structures	mg/l	Grab	Weekly if flowing
Flow G-371 and/or G-373 structures	CFS	Calculated	Daily Average

SPECIFIC CONDITIONS FOR MONITORING PROGRAM

In accordance with Subsection (9)(h) of the EFA, the following monitoring conditions are intended to assess the water quality of the discharges of the STA-3/4 Project, achievement of the WQBEL specified herein, to assess the ability of the STA in achieving the design objectives of the Everglades Construction Project, and to measure progress towards achieving state water quality standards.

29. Monitoring Program. Monitoring performed in accordance with this permit shall include the vegetation and water quality and quantity parameters listed below and in the attached tables. At a minimum, the monitoring program for the STA-3/4 Project, shall include the following:

A. **Aerial vegetation photographs and mapping.** Within twelve months after start-up, the permittee shall submit a baseline vegetation coverage map for STA-3/4, based upon ground-truthed aerial photographs. The baseline vegetation coverage map shall include color codes for cattail, open water, and mixed marsh vegetation, although the latter category may be broken down into subcategories if dominated by certain types of vegetation. From the baseline vegetation coverage map, the extent of area coverage of each vegetation cover type within STA-3/4 shall be assessed. Following completion, the baseline vegetation coverage map and a summary of the extent of area coverage of each vegetative coverage type shall be included in the following annual monitoring report to be submitted to the Department in accordance with Specific Condition 30.

In the event that the water quality performance requirements of Specific Conditions 16-21 are not being met, the Department may require the permittee to develop additional vegetation coverage maps of STA-3/4, developed using the same methods as for the baseline vegetation coverage map. The additional maps shall be developed within six months after such notification by the Department.

Based upon the vegetation coverage maps and the water quality performance information submitted in accordance with this permit, the operations plan for the

STA-3/4 Project may be modified in accordance with Specific Conditions 25-28. The permittee must use their best efforts to modify the operations plan for the STA-3/4 Project, as soon as the vegetation analysis provides information warranting modification of the operations plan.

B. **Research and Monitoring Program**. In accordance with the water quality research and monitoring objectives of Subsections (4)(d) and (9)(h)2 of the EFA, the permittee shall implement an EFA Research and Monitoring Program, which shall be in addition to the effluent monitoring required in this permit. This program shall evaluate the effectiveness of the STAs in improving water quality and maintaining designated and existing beneficial uses of the EPA and tributary waters. The research monitoring of the STAs shall include specific analysis for each treatment cell of each STA to determine treatment effectiveness for each of the cells and to obtain data needed for STA performance optimization. Results of research efforts shall be reported as part of the annual Everglades Consolidated Report.

1) Start-Up Phase Monitoring Program. For the first four weeks after flow-through operation of STA-3/4 begins, the permittee shall monitor total phosphorus at G-370 and G-372 (Inflow locations) and G-376B, G-376E, G-379B, G-379D, G-381B, and G-381E (Outflow Locations) in accordance with Table 2, and shall submit data to the Department within 60 days after the last date of sampling.

2) Mercury Monitoring Program. The permittee shall monitor mercury, report the results obtained, and take all necessary actions as specified in the document entitled "Mercury Monitoring Program," which is hereby incorporated by reference and made a part of this permit as Exhibit C.

3) Routine Monitoring Program. The permittee shall conduct a Long-Term Monitoring Program at G-370, G-372, G-376B, G-376E, G-379B, G-379D, G-381B, and G-381E, and report the results to the Department, in accordance with the annual reporting requirements of this permit for the parameters listed in Table 2 of the "Monitoring Required" section of this permit. Data from this program may provide the basis for additional permit compliance requirements.

4) Representative Monitoring Program. The permittee shall collect grab samples at all outflow locations (G-381 A-F, G-379 A-E and G-376 A-F structures) in order to verify whether discharge water quality can be adequately characterized by monitoring at a limited number of outflow discharge structures in each flow-way. This program should include monthly grab samples collected concurrently from each outflow location. It should be initiated at Start-Up and should be conducted until sufficient data is gathered to support conclusions regarding water quality comparability amongst the stations in individual flow-ways. The permittee shall submit an evaluation of this data to the Department for approval upon determining that sufficient data exists to support conclusions. Upon approval by the

Department, the permittee may cease this monitoring program. Data from this program may provide the basis for modifications to the number and location of outflow compliance monitoring stations and may be used to determine compliance with Specific Conditions 16-18.

5) Monitoring for Future Facilities or Structures. The permittee shall continue to collect the data from the STAs, including STA-3/4, and other applicable data needed to determine the effective settling rate for the STAs, the efficiency and effectiveness of STA-3/4 in treating waters from the EAA, and to adequately assess the need, if any, for future treatment wetland facilities or structures.

6) Monitoring for effectiveness of corrective actions related to former land use. As part of the start-up monitoring program, as identified in Table 1, the permittee shall monitor and evaluate potential impacts from historical land use and the effectiveness of completed corrective actions. Pre-construction contamination assessments and ecological assessments have identified concentrations of pesticides, petroleum, and metals ("compounds of concern"), related to former agricultural application and operations (e.g., pump stations, mix/load areas, storage facilities, and airstrips). Various contaminants including but not limited to, those found in Table 3, were found to be present at concentrations of potential ecological and/or human concern and corrective actions, to address identified contamination or known conditions, were implemented prior to construction of the STA and associated structures. This compounds of concern monitoring program is intended to provide long term assessment to determine if operation of the permitted system causes detrimental release of compounds, currently bound to soils, into the water column or creates a sediment system that poses an ecological threat. Therefore, at a minimum the monitoring plan should include the parameters and frequency of monitoring listed in Table 3.

30. Annual Monitoring Reports. All studies and other reports and submittals required by this permit shall be submitted to the Department in an " Annual Report." The Annual Reports are to be received by the Department no later than ~~January~~ March 1st of each year following the date of issuance of this permit. Each Annual Report shall present the information for the previous water year, from May 1st to April 30th. The District may consolidate the reporting requirements of this permit into the Everglades Consolidated Report. If additional reporting modifications are required, and upon approval by the Department, the District may modify the Annual Report submission date to coincide with multiple reporting requirements and time periods needed for data acquisition and analysis. In addition to the permit number and name of the permit administrator, the Annual Reports shall contain, at a minimum, the following information:

A. **Quality Assurance and Quality Control.** Sampling and monitoring data shall be collected, analyzed, reported and retained in accordance with Chapter 62-160, F.A.C. Any laboratory test required by this permit shall be performed by a laboratory that

has been certified by the Department of Health (DOH) under Chapter 64E-1, F.A.C., where such certification is required by Rule 62-160.300, F.A.C. The laboratory must be certified for all specific method/analyte combinations that are used to comply with this permit. The analytical method used shall be appropriate so as to determine if the sample complies with Class I and Class III surface water quality standards as specified in Chapter 62-302, F.A.C., and groundwater standards as specified in Chapter 62-530, F.A.C., whichever is more stringent. All field activities including on-site tests and sample collection, whether performed by a laboratory or another organization, must follow all applicable procedures described in DEP-SOP-001/01 (January 2002). Alternate field procedures and laboratory methods may be used if they have been approved according to the requirements of Rules 62-160.220, and 62-160.330, F.A.C.

B. **Water Quality Data**. Records of monitoring information shall include all applicable laboratory information specified in Rule 62-160.340(2), F.A.C. including the following:

1) Date, location, and time of sampling or measurements;

2) Person responsible for performing the sampling or measurements;

3) Dates analyses were performed or the appropriate code as required by Chapter 62-160, F.A.C.;

4) Laboratory/Person responsible for performing the analyses;

5) Analytical methods used, including MDL and PQL;

6) Results of such analyses, including appropriate data qualifiers, and all compounds detected;

7) Depth of sampling;

8) Flow conditions and weather conditions at time of sampling; and,

9) Monthly flow volumes.

Also the following records must be kept on file for reference during the duration of the project but are not required to be submitted in annual reports.

10) Field sampling and laboratory quality manuals

11) Sampling and analysis notes, as required under Ch. 62-160 FAC and NELAC Quality Systems (1999), respectively.

C. Hydraulic Retention Time. Calculations for reporting which require averaging of measurements shall be weighted by flow value. In order to account for the estimated hydraulic retention times within the STA, comparison of the moving annual average inflow and outflow levels for all parameters established in the start-up monitoring program of the monitoring plan shall be calculated by comparing the outflow data from one 12-month period with the inflow data from the 12-month period which begins one month prior to that of the outflow data.

D. Performance Evaluation.

1) The operations status of the STA, stating whether the STA is in start-up, ~~stabilization,~~ or ~~normal flow-through~~ routine operations;

2) A comparison of inflow water quality data with outflow water quality data using the student's t-test with a 95% confidence intervals; and,

3) ~~Beginning with the second Annual Report, a~~ A comparison of performance of current reporting year with performance in previous years.

E. Herbicide and Pesticide Tracking. The permittee shall provide, in each annual report, information regarding the application of herbicides and pesticides used to exclude/eliminate undesirable vegetation and pests in the wetted area of the treatment cells. Such reporting shall include the names, concentrations, locations, and quantities of all herbicides and pesticides used.

F. Implementation Schedules. The Annual Report ~~When appropriate, the permittee~~ shall provide details ~~include information~~ on:

1. Implementation of the WQBEL and activities required by this permit and affecting flows and loads to STA-3/4;
2. Source Control implementation and optimization ;
3. STA design modifications affecting implementation of the WQBEL and activities required by this permit;
4. Improvements, enhancements, and strategies that have been initiated and/or completed within the previous year;
5. Any delays in the implementation of the improvements, enhancements, or strategies, the duration of the delays, the reason(s) for the delays, and the expected timeframe for their resolution;
6. The operational status of the STA, stating whether the STA is in routine operations or start-up ~~stabilization.~~ If the facility is in start-up ~~non-routine operations~~ during the reporting period, the report shall also include the date at which the facility entered start up ~~or stabilization phase~~ and the length of time it remained or is expected to remain in that phase; ~~Achievement of effluent limitations set forth in the TBEL and/or~~
7. Implementation of STA Recovery Plans;

8. Whether revisions and/or additions to the requirements of this permit ~~improvements, enhancements, and strategies~~ are recommended;

9. Whether the facility was operated within or outside of the operational envelope; and
10. Implementation of remedial measures in the event of noncompliance with permit conditions.

~~ECP implementation;~~

~~2) BMP implementation and optimization;~~

3) ~~STA optimization~~;

~~4) Project design modifications~~;

~~5) Implementation of remedial measures in the event of noncompliance with permit conditions;~~

F. The permittee shall report with the monthly DMR if operation of facilities is impacted by or constrained due to requirements under the Endangered Species Act or Migratory Bird Treaty Act. The report should include the species involved, an estimate of the number of individuals involved, actions taken to avoid deleterious impacts on the endangered species, the affect those actions had on compliance with any condition of this permit, and an estimate of when facility operation will no longer be impacted or constrained.

31. Removal of Parameters. Upon demonstration that a specific parameter(s) is not present or is found consistently in compliance with Class III Water Quality Standards, the permittee may request a modification to the monitoring program as appropriate. A minimum of one year's worth of data, for those parameters being sampled quarterly or more frequently, will be required prior to the Department approving any modification to the monitoring program. Parameters sampled semi-annually or annually will be examined on a case-by-case basis. The Department may approve a reduction of the monitoring frequency or waive the monitoring requirement for parameters that consistently are reported as in compliance with state water quality standards.

32. Addition of Parameters. If the Department has reason to believe that additional parameters exist that may cause or contribute to water quality violations in the project area, those parameters shall be added to the monitoring section of this permit as a permit modification.

33. Public Health, Safety, or Welfare. Data from the Everglades Nutrient Removal Project, STA-1W, STA-2, STA-5, and STA-6, as well as, the monitoring and compliance requirements of this permit, provide reasonable assurances that discharges authorized by this permit will not pose a serious danger to the public health, safety, or welfare. If warranted by additional information, the Department may include additional monitoring or compliance conditions in this permit, in accordance with Specific Condition 26 and Subsections (9)(g) and (11)(a)2, of the EFA.

34.Emergency Suspension of Sampling. Under hurricane, tropical storm warnings, or other extreme weather conditions, the permittee's normal sampling schedule may be suspended if necessary. The permittee shall notify the Department's Southeast District and Water Quality Standards and Special Projects Program at the addresses and telephone numbers listed in Specific Condition No. 3, above, of any anticipated sampling suspension associated with hurricanes, tropical storms, or other extreme weather events that may require deviation from the normal sampling schedule. Within 14 days following the cessation of emergency conditions, the permittee shall notify the Department of when normal sampling is expected to resume.

Discharge Limits and Monitoring:

Table 2: Discharge Limitations and Associated Monitoring Requirements

<table>
<tr><th></th><th colspan="3">Discharge Limitations</th><th colspan="3">Monitoring Requirements</th></tr>
<tr><th>Parameters (units)</th><th>Daily Minimum</th><th>Daily Maximum</th><th colspan="2">Other</th><th>Monitoring Frequency</th><th>Sample Type</th><th>Sample Point</th></tr>
<tr><td rowspan="2">Phosphorus, Total (as P) (ppb)</td><td rowspan="2">--</td><td rowspan="2">--</td><td>Not to exceed 10 as a geometric mean (GM) annual average in more than two consecutive years</td><td>18 as a flow-weighted mean (FWM) annual average</td><td rowspan="2">Weekly</td><td rowspan="2">GM – based on grab samples collected when discharge occurs

FWM - 7-day flow proportioned composite</td><td rowspan="2">outflow</td></tr>
<tr><td colspan="2">See Footnote [1,2,3,4] below</td></tr>
<tr><td>Phosphorus, Total (as P) (ppb)</td><td>--</td><td>--</td><td colspan="2">Report[5]</td><td>Weekly</td><td>7-day flow proportioned composite</td><td>inflow</td></tr>
<tr><td>Oxygen, Dissolved (DO) (mg/L)</td><td colspan="4">Report
See Specific Condition 23</td><td>Weekly</td><td>Grab (Meter)</td><td>Inflow/ outflow</td></tr>
</table>

[1] All outflow TP monitoring results shall be reported as separate weekly values without rounding to whole numbers. The results shall also be reported as FWM annual averages that are calculated based on the FWM of the weekly values. The results shall also be reported as GM annual averages that are calculated based on all sample point weekly values collected when discharge occurs in the previous 12 months. All FWM and GM annual averages shall be reported to the nearest whole number (i.e., 10.5 ppb shall be reported as 11 ppb; 10.49 ppb shall be reported as 10 ppb.

[2] The discharge shall not cause phosphorus concentrations in the receiving waters to be altered so as to cause or contribute to an imbalance in natural populations of aquatic flora or fauna. The discharge shall not cause phosphorus concentrations in the receiving waters to exceed the criteria in Rule 62-302.540(4)(a), F.A.C. Beginning at the end of April after the permit effective date and at the end of each April thereafter, the permittee shall report the FWM annual average using data it collected for the prior 12 months. Beginning at the end of April after the permit effective date and at the end of each April thereafter, the permittee shall report the GM annual average using data it collected for each of the prior 3 years.

[3] In the year following any two consecutive years where the TP GM annual average exceeds 10 ppb, the permittee shall report quarterly the GM of all monthly TP values for that year. If that mean exceeds 10 ppb, the permittee shall provide a report to both FDEP and USEPA by the fifteenth of the month following the quarterly report of its evaluation of why that mean is as high as it is and the specific steps it is taking to ensure that the TP GM for that year will not exceed 10 ppb.

For the TP FWM WQBEL, the permittee shall report quarterly the average of all monthly FWMs for that year. If that average exceeds 18 ppb, the permittee shall provide a report to both FDEP and USEPA by the fifteenth of the month following the quarterly report of its

evaluation of why that average is as high as it is and the specific steps it is taking to ensure that the TP FWM annual average for that year will not exceed 18 ppb.

[4] If the facility does not meet the FWM WQBEL in any year, the permittee shall report the annual load of TP discharged by the STA into the Everglades that is in excess of the WQBEL load (based on 18 ppb). If the facility does not meet the GM WQBEL in any year, the permittee shall separately report the annual load of TP discharged by the STA into the Everglades that is in excess of the WQBEL load (based on 10 ppb) for that year and the previous two years.

[5] All inflow TP monitoring results shall be reported as separate weekly values without rounding to whole numbers. All results shall also be reported as monthly averages and as FWM annual averages. The monthly averages and FWM annual averages shall be calculated based on the FWM of the weekly values and shall be reported to the nearest whole number (i.e., 10.5 ppb shall be reported as 11 ppb; 10.49 ppb shall be reported as 10 ppb).

MONITORING REQUIRED:

Key for Table:

Sample Type: G = Grab sample
FPC = Flow proportionate composite sample
INSITU = In Situ field sample
CAL = Calculated parameter
PR = Pump record
TB = Tipping bucket
HYDRO = Hydrolab

Sample Locations: Inflow Sites = G-370 and G-372 Pump Stations
Outflow Sites = G-376B, G-376E, G-379B, G-379D, G-381B and G-381E Structures

Sample Frequency: W = Weekly
BI-W = Once every other week (26 samplings per year)
Q = Quarterly
DAV = Daily averages of continuous sampling
DAC = Daily accumulation of continuous sampling

TABLE 2- STA-3/4 START UP PESTICIDE MONITORING
DEP ANALYSIS GROUP "AA" and "BB"

Chlorinated acids	**Water**	**Units**	**Sediment**	**Units**	**Sampling Locations**
2,4-D	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
2,4,5-T	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
2,4,5-TP	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
Organochlorine compounds					
ALDRIN	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
ALPHA BHC	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
BETA BHC	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
GAMMA BHC	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
DELTA BHC	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
CARBOPHENOTHION	Yes	ug/L	Ye	ug/Kg	See key for inflow and outflow sites
CHLORDANE	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
DICOFOL	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
DIELDRIN	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
DDD-P,P'	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
DDE-P,P'	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
DDT-P,P'	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
ENDOSULFAN ALPHA	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
ENDOSULFAN BETA	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
ENDOSULFAN SULFATE	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
ENDRIN	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
ENDRIN ALDEHYDE	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
HEPTACHLOR	Yes	ug/L	Yes	ug/Kg	See key for inflow and

					outflow sites
HEPTACHLOR EPOXIDE	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
METHOXYCHLOR	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
MIREX	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
TOXAPHENE	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
TRIFLURALIN	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
CHLOROTHALONIL	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
CYPERMETHRIN	Yes	ug/L	No	ug/Kg	See key for inflow and outflow sites
PERMETHRIN	Yes	ug/L	No	ug/Kg	See key for inflow and outf sites
PCB'S 1016,1221,1232,1242,1254,1260	Yes	ug/L	Yes	ug/Kg	See key for inflow and outflow sites
Organophosphorus & nitrogen compounds (water insol)					
ALACHLOR	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
AZINPHOS METHYL	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
CHLORPYRIFOS ETHYL	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
CHLORPYRIFOS METHYL	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
DIAZINON	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
ETHION	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
ETHOPROP	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
FONOFOS	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
MALATHION	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
MEVINPHOS	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
NALED	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
PARATHION METHYL	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites

PARATHION ETHYL	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
PHORATE	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
FENAMIPHOS	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
BUTYLATE	Yes	Ug/L	no	ug/Kg	See key for inflow and outflow sites
AMETRYN	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
ATRAZINE	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
METRIBUZIN	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
PROMETRYN	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
SIMAZINE	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
METOLACHLOR	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
METALAXYL	Yes	Ug/L	no	ug/Kg	See key for inflow and outflow sites
HEXAZINONE	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
NORFLURAZON	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
DISULFOTON	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
DEMETON	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
Urea and other pesticides					
BROMACIL	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
DIURON	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites
LINURON	Yes	Ug/L	yes	ug/Kg	See key for inflow and outflow sites

TABLE 3 - EFA ROUTINE MONITORING PROGRAM

PARAMETER	UNITS	SAMPLE TYPE	SAMPLING FREQUENCY	SAMPLING LOCATION
Alkalinity	mg/l	G	BI-W	See key for inflow and outflow sites
Ammonia	mg/l	G	BI-W	See key for inflow and outflow sites
Chloride	mg/l	G	BI-W	See key for inflow and outflow sites
Dissolved Oxygen (See Attached Administrativ Order AO-008-EV)				See key for inflow and outflow sites
Mercury (See attached Mercury Monitoring Program)				See key for inflow and outflow sites
PH	SU	INSITU	W	See key for inflow and outflow sites
Specific Conductance	Umhos	INSITU	W	See key for inflow and outflow sites
Temperature	Deg C	INSITU	W	See key for inflow and outflow sites
Turbidity	NTU	G	BI-W	See key for inflow and outflow sites
Total Phosphorus	mg/l	FPC/G	W	See key for inflow and outflow sites Start-up Sites (see Spec 28.B.1)
Total Nitrogen	mg/l	G	BI-W	See key for inflow and outflow sites
Total Dissolved Phosphorus	mg/l	G	BI-W	See key for inflow and outflow sites
Nitrate + Nitrite	mg/l	G	BI-W	See key for inflow and outflow sites
Total Dissolved Nitrogen	mg/l	G	BI-W	See key for inflow and outflow sites
Ortho-Phosphate	mg/l	G	BI-W	See key for inflow and outflow sites
Total Dissolved Solids	mg/l	G	BI-W	See key for inflow and outflow sites

Sulfate	mg/l	G	BI-W	See key for inflow and outflow sites
Flow	CFS	PR	DAV	See key for inflow and outflow sites
Flow	CFS	CAL	DAV	See key for inflow and outflow sites
Rainfall Volume	Gal	TB	DAC	Rainfall Sampling Station

TABLE 4 COMPOUNDS OF CONCERN MONITORING PROGRAM

Parameter	Medium	Units	Sample Type	Sampling Frequency	Sampling Locations
DDD	Surface Water [1]	ug/L	G	0, 6, 12, and 24 mths [2]	G-376B, G-379B, and G-381B
DDT	Surface Water [1]	ug/L	G	0, 6, 12, and 24 mths [2]	G-376B, G-379B, and G-381B
DDE	Surface Water [1]	ug/L	G	0, 6, 12, and 24 mths [2]	G-376B, G-379B, and G-381B
ATRAZINE	Surface Water [1]	ug/L	G	0, 6, 12, and 24 mths [2]	G-376B, G-379B, and G-381B
CHLORDANE	Surface Water [1]	ug/L	G	0, 6, 12, and 24 mths [2]	G-376B, G-379B, and G-381B
SIMAZINE	Surface Water [1]	ug/L	G	0, 6, 12, and 24 mths [2]	G-376B, G-379B, and G-381B
TOXAPHENE	Surface Water [1]	ug/L	G	0, 6, 12, and 24 mths [2]	G-376B, G-379B, and G-381B
ARSENIC	Surface Water [1]	ug/L	G	0, 6, 12, and 24 mths [2]	G-376B, G-379B, and G-381B
COPPER	Surface Water [1]	ug/L	G	0, 6, 12, and 24 mths [2]	G-376B, G-379B, and G-381B
LEAD	Surface Water [1]	ug/L	G	0, 6, 12, and 24 mths [2]	G-376B, G-379B, and G-381B
ZINC	Surface Water [1]	ug/L	G	0, 6, 12, and 24 mths [2]	G-376B, G-379B, and G-381B

[1] Sediment monitoring for these parameters will be conducted in accordance with Table 1

[2] Samples will be collected at Start-Up (0 months) and 6, 12, and 24 months thereafter.

DONE AND ORDERED on this 9th day of January, 2004, in Tallahassee, Florida.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

_____

Jerry Brooks
Deputy Director
Water Resource Management

FILING AND ACKNOWLEDGMENT

FILED, on this date, under Section 120.52(7), F.S., with the designated deputy clerk, receipt of which is hereby acknowledged.

_____

Jaro Joseph Date

PARTIES REQUESTING NOTICE:
Miccosukee Tribe of Indians of Florida, c/o Dexter Lehtinen, Esq.
Miccosukee Tribe of Indians of Florida, c/o Kelly Brooks, Esq.
United States Sugar Corporation, c/o Bubba Wade
Seminole Tribe of Indians of Florida, c/o Stephen A. Walker, Esq.
Sugar Cane Growers Cooperative, Roth Farms, Inc., and Wedgeworth Farms, Inc.,
c/o William H. Green, Esq.
Keith Saxe, Esq., U. S. Department of Justice
Michael Stevens, U.S. Department of the Interior (fax)
Jeffrey J. Ward, Sugar Cane Growers Cooperative
Philip S. Parsons, Landers & Parsons
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Tom MacVicar, MacVicar, Frederico, & Lamb
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David Reiner, Friends of the Everglades
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Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

EVERGLADES FOREVER ACT
CONSTRUCTION AND OPERATION AUTHORIZATION

PERMITTEE:
South Florida Water Management District
3301 Gun Club Road
P. O. Box 24680
West Palm Beach, Florida 33416-4680

ATTENTION:
Ms. Carol Ann Wehle

Permit Number: 0131842-009-EM
Project: Stormwater Treatment Area 5/6 (STA-5/6)
County: Hendry, Palm Beach, and Broward

Date of Issue: January 29, 2009
Expiration Date: September 4, 2014

This permit is issued in accordance with the Everglades Forever Act (EFA), Section 373.4592, Florida Statutes (F.S.), authorizing operation and maintenance activities for the existing Stormwater Treatment Area 5 (STA-5) and Stormwater Treatment Area 6 (STA-6), hereinafter referred to as STA-5/6, and construction of the Compartment C Build-Out consisting of Cells 5-4A-B, 5-5A-B, 6-4. The above named permittee is hereby authorized to initiate the activities ~~described on the application, associated drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof~~ necessary to meet the requirements of this permit. The activities authorized by this permit must be conducted in conformance with all the provisions of this permit. ~~This permit is accompanied by Administrative Order AO 011 EV, which is incorporated herein by reference.~~ Failure to comply with all permit conditions and documents referenced herein shall constitute grounds for revocation of the permit and appropriate enforcement action.

PROJECT DESCRIPTION:

This permit authorizes the operation and maintenance of Stormwater Treatment Area (STA) 5/6, and the construction of Compartment C Build-Out. Operation of Compartment C Build-Out is not authorized at this time. STA-5/6 and Compartment C Build-Out are a component of the Everglades Construction Project (ECP), construction, operation, and maintenance of which is required by the Everglades Forever Act (EFA), Section 373.4592, F.S. The STA-5/6 facility and Compartment C (Figure 1) consist of the following: Inflow Structures; Inflow Works; Interior Treatment Works; Outflow Structures; Outlet Canal and associated Bridges; Seepage Collection and Return Systems; Re-hydration Pump Stations and Structures; the G-351 Structure; the G-357 Divide Structure; the G-404 Pump Station; Diversion Structures (G-406, G-407 and G-408); the G-409 Pump Station; the G-411 Divide Structure; the G-508 Pump Station and associated Bridge; the Southern L-4 Levee Gap; Deer Fence Canal Bridge and Deer Fence Road Improvements; Rotenberger Hydropattern Restoration; Structure Removal; Recreational Facilities; and Structural, Operational and Vegetation Enhancements. Initial construction of this facility was previously authorized and completed under Florida Department of Environmental Protection (Department) EFA Permit No's 0131842-001 and 0236905-001. ~~Structural, operational and vegetation enhancements have been conducted in accordance with the October 2003 *Everglades Protection Area Tributary Basins Long Term Plan for Achieving Water Quality Goals* and subsequent revisions (Long Term Plan, Exhibit A). These improvements and enhancements were designed to optimize performance as needed to achieve the phosphorus water quality standard. Additional enhancements to STA-5/6 may occur as part of the adaptive implementation process envisioned in the Long Term Plan.~~ STA-5/6 and Compartment C are Stormwater Management Systems (SMS) as defined in Subsection 373.403(10), F.S., and therefore state surface water quality standards do not apply, pursuant to Section 373.4142, F.S.

Operation and maintenance activities authorized by this permit involve maintaining water levels within the existing components of STA-5/6 (5-1A-B, 5-2A-B, 5-3A-B, 6-1 & 6-2) to optimize efficiency of the treatment area. Optimization of the treatment wetland is defined by its performance at removing the pollutants, particularly phosphorus, for which the project was designed and providing regional flood control and water supply. Other operation and maintenance activities include: water quality and vegetation monitoring; preparation and submittal of monitoring reports; vegetation maintenance; and maintenance of the water control structures (including canals and levees). Construction activities authorized by this permit involve the creation of Cells 5-4A-B, 5-5A-B and 6-4, located between the existing STA-5 and STA-6. The creation of these Cells (Collectively Compartment C) will unify the existing STA-5 and STA 6 facilities, effectively creating one large STA (STA-5/6). Operations of the Cells 5-4A-B, 5-5A-B and 6-4 (independently or in connection with Cell 6-2) are not authorized under this permit.

STA-5/6 is designed to treat inflows delivered from the L-2/L-3 Borrow Canal which includes agricultural runoff and discharges from the C-139 Basin and C-139 Annex. After introduction to STA-5/6 through inflow structures, water is treated within the existing treatment cells utilizing natural, passive physical and biological processes for nutrient removal. Treated water exits STA-5/6 (via the STA-5/6 Outflow Structures) into the STA-5/6 Discharge Canal. Assuming normal operating conditions, the treatment path culminates with discharges from the northern Flow-ways (5-1 and 5-2 and 5-3 prior to completion of Compartment C Build-Out) directed either to the Miami Canal (via the STA-5/6 Outlet Canal) or to the Rotenberger Wildlife Management Area (WMA) via the G-410 Pump Station. Discharges to the Rotenberger WMA are for the purpose of hydrologic restoration of the approximate 29,000-acre WMA. Discharges from the remainder of the STA-5/6 are directed south via the L-3 Canal downstream of the G-407 Diversion Structure. Wetlands and surface waters located within the receiving water bodies (Rotenberger WMA, Miami Canal, L-3 Canal, the Northwestern portion of the WCA-3A, the L-4 Canal, and the L-3 Canal Extension) are all Class III waters; and the Rotenberger WMA is an Outstanding Florida Water, pursuant to Rule 62-302.700(9)(f)48, Florida Administrative Code (F.A.C.).

PROJECT FACILITIES:

The individual ECP components included in this project are as follows:

I. Inflow Structures and Inflow Works

The L-2/L-3 Canal, located along the west side of the STA-5/6 Project is the primary conveyance/inflow canal for STA-5-1 and 5-2. STA-5, Flow-ways 3 through 5 (STA 5-3, 5-4 and 5-5) and STA-6, Sections 4 and 2 (STA 6-4 and 6-2) will receive flows via the newly constructed Inflow Canal upon completion. The remaining segment of the L-3 Canal south of G-406 and north of G-408 will become the STA-5/6 Seepage Canal. The function of the L-3 Canal section, south of G-408, along the west side of STA-6, Section 1 will remain an inflow/conveyance canal.

A. STA-5

Structures G-342A-M consist of a series of gated concrete box culverts that control inflow into STA-5. North of the G-508 Pump Station, the G-342A and B direct flows into Flow-way 1 and G-342C and D direct flows into Flow-way 2. Structures G-342A-D are situated along the western perimeter levee adjacent to the L-2/L-3 Canal. South of the G-508 Pump Station are the G-342E-M structures, which consist of a series of gated concrete box culverts that control flows from the STA-5/6 Inflow Canal. G-342E-H structures serve Flow-way 3, G-342I and J will serve Flow-way 4 and G-342K and M will serve Flow-way 5. Water is conveyed eastward from these structures to the upstream end of each flow-way, and distributed to the treatment area by means of a spreader canal. Each of the nine G-342 E-M structures consists of a single 10-ft x 6-ft box culvert fitted with a 10-ft x 6-ft control gate at its upstream end. The G-342E and F structures, which currently direct flows into Flow-way 3, will provide a connection from the Inflow Canal to the STA-5/6 Seepage Canal (aka the L-3 Canal). These structures may be used for deliver of water to the Inflow Canal under certain conditions; however, they will normally remain closed. Structures G-353A and B control discharges to Cell 5; structure G-353C controls discharges to Cell 3.

B. STA-6

After completion of the G-508 pump station, flows to the STA-6 treatment cells will be pumped south by the G-508 pump station from the L-2 Canal to the Inflow Canal and then routed through the inflow structures. Emergent treatment cell, STA 6-4, has one inflow structure, G-342N, which consists of two gated 10-ft. x 8-ft. box culverts. Flows to STA-6, Section 2 (STA 6-2) SAV treatment cell will be delivered through Cell 6-4 and controlled by three gated 8-ft. x 8-ft. box culverts (G-396A-C) installed within the west levee of the treatment cell. Inflow works to STA 6-1 include three 8-ft.x 6-ft. gated box culverts (G-353A-C) within the east levee of the L-3 Canal to direct untreated water from the L-3 Canal to the existing inflow/distribution canal.

II. Interior Treatment Works

A. STA-5

The STA-5 interior works are divided into parallel treatment flow-ways, each consisting of two treatment cells in a series flowing in an easterly direction. Flow-way 1 (Cells 1A and 1B), Flow-way 2 (Cells 2A and 2B) and Flow-way 3 (Cells 3A and 3B) provide approximately 6,095 acres of effective treatment area. For Compartment C, Flow-way 4 (Cell 4A and Cell 4B) and Flow-way 5 (Cell 5A and 5B) will provide approximately 4, 126 acres of additional effective treatment area. The western cells ("A" Cells) of each flow-way consist of emergent vegetative communities (EMG); the eastern cells ("B" Cells) consist of submerged aquatic vegetation (SAV) communities. Due to topography, a portion of treatment area located on the west side of Flow-ways 3, 4 and 5 has been identified as ineffective. A confinement berm and spreader canal will be constructed around this area to direct flows from the inflow structures to the effective treatment areas.

Water flow and water elevations are controlled and directed through the STA-5 Flow-ways via interior levees, canals, and the synchronized operation of water control structures (G-343A-O) located between the EMG Cells and SAV Cells. These intermediate structures, G-343A-O, consist of concrete box culverts with upstream gates that control water levels in the western EMG treatment cells and flow into the eastern SAV treatment cells. Each of the G-343A-J structures consists of a single gated 10-ft x 8-ft high box culvert; structures G-343A-D controls Cell 1A, G-343E-H controls Cell 2A and G-343I-J controls Cell 3A. Each of the G-343K-O structures will consist of a single gated 10-ft x 9-ft box culvert; structures G-343K and L controls Cell 4A and G-434M-O controls Cell 5A.. All gates are single leaf slide gates with the exception of Cell 3A, which has double leaf gates. Local and remote operation of the G-343 gates is possible.

Due to topographical challenges, north-south intermediate flow control berms and overflow weirs are provided within STA 5-4A and 5-5B. The berms are approximately 2-ft. high with 50' wide concrete "keyway" weirs. Flow-way 5-4 has eight weirs (G-522E/W to G-525E/W) and Flow-way 5-5 has 12 weirs (G-526E/W to G-531E/W). These berms and weirs are intended to increase detention time and re-distribute flows internally to improve treatment.

B. STA-6

STA-6 consists of a wetland marsh system which utilizes biological treatment technology in the removal of nutrients from ~~stormwater~~ non-process wastewater that enters the facility. Wetland vegetation within the STA is managed in conjunction with hydrologic operations to maintain optimal performance levels within the facility. The approximate effective treatment area of STA 6-1 (both cells) is 870 acres, STA 6-2 is 1,387 acres and STA 6-4 is 530 acres for a total effective treatment area of 2,787 acres. The western cell, STA 6-4, consists of an emergent vegetative communities (EMG); the eastern cell for this treatment flow-way, STA 6-2, consists of a submerged aquatic vegetation (SAV) community. STA-6 Section1, Cells 3 and 5 were created using an existing wetland area for treatment.

Water flow and water elevations will be controlled and directed through the Cells 6-4 and 6-2 via an interior levee, canals, and the synchronized operation of water control structures (G-396A-C) located between the EMG and SAV Cells. These intermediate inflow structures, G-396A-C, consist of concrete box culverts with upstream gates that control water levels in the western EMG treatment cell and flow into the eastern SAV treatment cell. Each of the G-

396A-C structures consists of a single gated 8-ft x 8-ft box culvert. Local and remote operation of the G-396 gates is possible. Water flow and elevations for STA 6-1 are controlled through the inflow/outflow structures and distributed via the interior canals; both Area 6-1, Cell 3 and Cell 5 are single treatment cells.

III. STA-5/6 Outflow Structures

Outflow structures will be regularly operated to maintain interior stages at desired levels. Structures will be fully closed when interior stages fall below prescribed levels, for maintenance or when it is desirable to prevent discharges. Newly constructed outflow structures and discharges from Cell 6-2 (Compartment C Build-Out) will require a separate operational authorization and are not authorized to discharge under this permit.

A. STA-5

The G-344A-K outflow structures consist of gated concrete box culverts controlling outflows from the flow-ways to the Discharge Canal. These structures are situated along the eastern perimeter levee. Flow-way 1 (G-344A-B) and Flow-way 2 (G-344C-D) convey treated water from these structures east to the STA-5 Discharge Canal where discharges may be directed either to the Miami Canal (via the STA-5 Outlet Canal) or to Rotenberger WMA (via the G-410 Pump Station). G-344E-F structures serve Flow-way 3, G-344G-H serve Flow-way 4 and G-344I-K serve Flow-way 5. Treated water from Structures G-344E-K is conveyed east to the STA-6 Discharge Canal for delivery south to the L-3/L-4 Canal. Each of the G-344 structures consists of a single gated 10-ft x 10-ft box culvert.

B. STA-6

For STA 6-1, six outflow structures, G-393A-C (Cell 3) and G-354A-C (Cell 5), located along the east perimeter levee release treated water into the STA-6 Discharge Canal. Each structure has a weir structure and gate. The G-352A-C structures, also situated along the east perimeter levee, convey outflows to the Discharge Canal from STA-6-2. These three 10-ft. x 10-ft. structures includes a multi-leaf operable gate to allow release of water from the upper section of the water column to reduce scouring of the collection canal. STA 6-4 will discharge into STA 6-2 through the STA-6-2 inflow structures (G-396A-C).

IV. Discharge Canal, Outlet Canal and Associated Bridges

The Discharge Canal for STA-5/6 is located between the eastern levee of the STA and the Rotenberger WMA. This canal will be continuous along the east side of STA-5/6 and will be able to deliver flows to the north (Miami Canal or Rotenberger WMA) via the STA-5 Outlet Canal or to the south (L-3/L-4 Canals). A Divide Structure, the G-411, will define the limits of the STA-5 Discharge Canal to the north and the STA-6 Discharge Canal to the south. This structure will normally remain closed. The STA-5 Outlet Canal extends south along the eastern boundary of the Rotenberger WMA to connect with the Miami Canal downstream of the G-372 structure (STA-3/4 inflow pump station) to ensure that treated water from STA-5 is not directed into STA-3/4 for re-treatment.

Treated water is directed to the Discharge Canals via the outflow structures along the eastern perimeter levees. The STA-5 Discharge Canal is located on the east side of STA-5, Flow-ways 1 and 2 and continues north along the western and northern boundary of the Rotenberger WMA, ultimately connecting to the Miami Canal south of the G-373 divide structure. The canal adjacent to STA-5 Flow-ways 4 and 5 will complete the connection of the STA-5 Discharge Canal (north section) to the STA-6 Discharge Canal (south section).

In order to provide a means for vehicles to cross the STA-5 Discharge Canal and maintain a continuous access to the Miami Canal, a bridge was constructed across the STA-5 Discharge Canal adjacent to the northeastern portion of the Rotenberger WMA. Access along the west side of the Miami Canal follows the new East Perimeter Levee of the Rotenberger WMA. The L-3 Levee Access Bridge was also constructed over the STA-6 Discharge Canal to provide greater flow capacity and access to the L-3 canal and levee.

V. Seepage Collection and Return Systems

The function of the northern seepage collection canal is to collect and return seepage to the upstream (western) portion of the STA-5, Cells 1A and 1B. This seepage collection canal is located between the northern perimeter levee of Flow-way 1 and the adjacent private property to the north, and extends from the L-2 Canal to the STA-5 discharge canal. The northern seepage canal has two separate operational sections with a divide structure, G-360B, controlling water levels and limiting drawdown in the western section of the canal. This structure has a 36" culvert pipe with a 3-ft x 6-ft flashboard riser/weir plate and is located just east of the G-349A seepage pump station. No operation is envisioned for the G-360B, although flashboards may be added or removed to alter the weir crest height.
After completion of Compartment C Build-Out, seepage along the west side of STA-5, Flow-ways 3, 4 and 5 and STA 6-4 will be collected in the STA-5 Seepage Canal (formerly the L-3 Canal). Water levels will be controlled by G-508 seepage pumps.

Seepage return pump stations G-349A and G-349C are located on the north perimeter levee. G-349A is approximately 0.5 mile east of the L-2 Canal and controls the water levels in the western section of the seepage canal; the G-349C, located at the northwest corner of Cell 1B, controls the eastern section. Each station has two pumps with a discharge capacity of 18-27 cfs depending on headwater and tailwater stages, for a combined capacity at each station of 36-54 cfs.

Additional water may be routed into the northern seepage canal via the G-348 structure. G-348 is a single 48" culvert located near the northeast corner of STA-5 and serves to transfer seepage flows from the discharge canal seepage canal to the northern seepage canal. The discharge canal seepage collection canal is approximately 3.3 miles in length and extends from the northeast corner of STA-5 to just south of the Manley Canal. The discharge canal seepage collection canal is located between the discharge canal and adjacent farm fields. A flap gate on the west end of the pipe prevents unintended increases in stages east of G-348 during delivery of supplemental water to STA-5 (via G-349B to the northern seepage canal).

VI. Re-hydration Pump Stations and Structures

Pump station G-507 is located on the northeast side of STA-5, at the point that the discharge canal bends to the east. The purpose of this pump station is to provide supplemental water to the STA by moving water from the STA-5 discharge canal into STA 5-1B during periods of drought. The station has a discharge capacity of 51 cfs and is operated manually.

Pump station G-349B (39 cfs capacity) is also located on the northeast side of STA-5, at the point that the discharge canal bends to the east. The purpose of this pump station is to provide supplemental water to STA 5-1A and STA 5-2A by moving water from the STA-5 discharge canal into the north seepage collection canal during periods of drought. In this mode, pump stations G-349A and G-349C will be activated to pump the water from the seepage collection canals into STA 5-1A and 5-1B, respectively. Gated structure G-519 (2-36" culverts) connects STA 5-1A to STA 5-2A for water supply and is operated manually.

Pump station G-350B (39 cfs capacity) is located at the southeast corner of STA 5-2B at the confluence of the isolated canal area (between Flow-ways 2 and 3) and the STA-5 Discharge Canal. Drought water supply will be provided directly from the STA-5 discharge canal to the isolated canal area between Flow-ways 2 and 3, via the G-350B pump station. Culvert structures G-520 (2-48" culverts) and G-521 (2-48" culverts) will connect from this isolated canal to STA 5-2A and STA 5-3A respectively, for water supply. Both structures have manually operated gates.

Pump station G-509 (100 cfs capacity), which is being constructed as part of the Compartment C Build-Out is located on the eastern levee between STA-5, Flow-ways 4B and 5B at the discharge canal. Drought water supply will be pumped directly from the STA-6 Discharge Canal to STA 5 Cell 4B and Cell 5B for delivery to the other cells, both SAV and EMG, through gated 36" culvert structures (single or dual). All nine culvert structures G-510 through G-518 have manually operated gates.

VII. G-351 Structure

The G-351 structure, which includes two gated 10-ft. x 9-ft. box culverts, will divide the STA-5/6 Inflow Canal from the remaining section of the L-3 Canal to the south of G-408. This structure will normally remain closed allowing the two inflow canals to operate at different levels. Under certain conditions, the G-351 gates may be operated to allow connection of the STA 5/6 Inflow Canal to the L-3 Canal for delivery of water to the flow-ways.

VIII. G-357 Divide Structure

G-357 is a two barrel box culvert with a twin lift gate control system. This structure prevents water movement between the Miami and L-4 canals during the operation of the G-404 pump station.

IX. G-404 Pump Station

G-404 is a pump station with a total capacity of 570 cfs. G-404 is located at the confluence of the Miami Canal and the L-4 borrow canal. It functions to direct water into and move water westerly in the L-4 borrow canal in order to supply treated water to locations that historically received water from the L-3 borrow canal.

X. Diversion Structures

There is a single diversion structure (G-407) located within the L-3 Canal that may be operated to allow bypass ~~diversion~~ of ~~stormwater~~ wastewater around STA-5/6 to WCA-3A via the Seepage/L-3 Canal. ~~Diversions~~ Bypasses may be necessary during certain events that compromise the safe operation of the facilities, when stage elevations of waters, rates of inflows, or the duration of sustained inundation creates conditions threatening the survival of marsh vegetation and the treatment efficiency of the project, to avoid hydrological and nutrient overloading the STA or when water supply needs require it. The G-407 Diversion Structure, which is located near the southwest corner of STA 6-1, is the southernmost diversion structure. This structure has two gated 10-ft. x 9-ft. box culverts and provides access over the L-3 Canal.. During normal operations, G-407 will remain closed.

Two other structures, G-406 and G-408, can be operated to facilitate ~~diversion~~ bypass of ~~stormwater~~ wastewater around STA-5/6. The northernmost structure, the G-406, is located just south of the Deer Fence Canal. This structure includes two 10-ft. x 9-ft. gated box culverts and an overflow weir at elevation 21.75 ft. NGVD. Operation of the gates diverts flow from the north (the L-2/L-3 Canal) to the Seepage/L-3 Canal, by-passing the G-508 Pump Station and Inflow Canal. The weir controls upstream water levels in the L-2 Canal. When the G-508 pump station is unavailable, the G-406 structure may be used to deliver water to the STA-5/6 Inflow Canal (via the G-342E and F structures) and/or south to STA-6 (via the G-408, G-351 and inflow structures); the G-407 would remain closed during these routine operations.

The G-408 Diversion Structure is located between G-406 and G-407 at the northwest corner of STA 6-1. This structure has two gated 10-ft. x 9-ft. box culverts and divides the Seepage/L-3 Canal located along the west side of the project from the L-3 Canal to the south. When the G-508 pump station is unavailable, the G-406 structure may be used to deliver water to the STA-5/6 Inflow Canal (via the G-342E and F structures) and/or south to STA-6 (via the G-408, G-351 and inflow structures); the G-407 would remain closed.

XI. G-409 Pump Station

G-409 is a pump station with a total capacity of 190 cfs. G-409 is located south of STA-6, Section 1, upstream of the G-155 structure on the existing levee which connects to the L-28 levee immediately to the east. It functions to supply irrigation water to the Seminole Tribe of Florida's Big Cypress Reservation.

XII. G-411 Divide Structure

The G-411 Divide Structure is located within the discharge canal at the northeast corner of STA 5-3B. This structure divides the discharges from STA-5, Flow-ways 1 and 2, and the remaining flow-ways for STA-5 and all of STA-6. The G-411 structure has two gated 10-ft. x 8-ft. box culverts that will provide flexibility on directing discharge flows either to the north or south. Under normal operations, the structure will be closed to direct discharges from Flow-ways 1 and 2 to the Miami Canal and all other Flow-ways / cells to WCA-3A via the L-3 Canal Extension.

XIII. G-508 Pump Station and associated Bridge

Pump Station G-508 draws water from the L-2/L-3 Canal and releases it into the STA-5/6 Inflow Canal for delivery to the treatment areas. This pump station is located in the northwestern corner of STA 5-3 at the confluence of the L-2/L-3 Canal and Deer Fence Canal. This pump station serves Flow-ways 3-5 and STA-6-4/6-2. G-508 pump station includes three-470 cfs pumps (plus one back-up pump) and two 110 cfs pumps (1,630 cfs total inflow rate), two-25 cfs seepage pumps (plus one back-up pump), a pump station enclosure and an intake canal. A north-south bridge will be constructed over the intake canal to provide a continuation for access along the east levee of the L-3 Canal.

XIV. Southern L-4 Levee Gap

The G-404 pump station is located at the confluence of the Miami Canal and the L-4 borrow canal and directs water westward in the L-4 canal for water delivery to western WCA 3A and the Seminole Tribe of Florida's Big Cypress Reservation. Directly north of the point that the existing L-3 extension canal turns south, a small canal connects the L-4 borrow canal to the L-3 extension canal.

XV. Deer Fence Canal Bridge and Deer Fence Road

Deer Fence Canal Bridge is a 100 ft. two lane pre-stressed concrete bridge (Deer Fence Canal Bridge). Approximately 170 ft. of limerock road connects the bridge to Deer Fence Road. Deer Fence Road from the East line of County Road 835 right-of-way East has been paved (approximately 200 feet); Deer Fence Road from the end of the pavement to Deer Fence Bridge has been graded. A surface water management system associated with the paving of Deer Fence Road and two 72 inch culverts in the S&M Canal have been constructed. The Deer Fence Bridge and Deer Fence Road improvements provide the U.S. Sugar Corporation access to its Unit 2 Ranch. The two 72 inch culverts in the S&M Canal are necessary to access a 500 acre wetland tract to the north.

XVI. Rotenberger Hydropattern Restoration

The G-410 pump station allows a portion of STA-5 discharges to be routed to the Rotenberger WMA and ultimately-to the Miami Canal via Rotenberger WMA discharge structures G-402A-D. The remainder of STA-5 discharges are directed to the Miami Canal via the STA-5 Discharge and Outlet Canals.

Project features include 240 cubic foot per second (cfs) electric powered pump station (G-410) consisting of two 48-inch vertical axial pumps. Discharges from the G-410 pump station are distributed in Rotenberger WMA through a one-mile long spreader canal which is parallel to the west perimeter levee of the Rotenberger WMA. The spreader canal is connected to a 2-1/2 mile long borrow canal, for a total spreader canal length of 3-1/2 miles. Discharges out of Rotenberger WMA are directed into the Miami Canal via three 54-inch diameter gated culverts (G-402 A-C) and one 42-inch diameter gated culvert (G-402D), along the east side of Rotenberger WMA. There is also a 1/4 mile long collection canal upstream of each gated culvert.

The District operates the G-410 pump station to achieve an initial hydro pattern restoration target based on a 31-year average stage prediction by the Natural Systems Model (NSM). The NSM and the South Florida Water Management Model are currently the best available technology to estimate historic water levels within the Everglades, including Rotenberger WMA. Data will be collected during restoration and recommendations will be made for operational modifications to maximize environmental benefits to Rotenberger WMA.

XVII. Structure Removal

Over time, the following structures have been removed from STA-5/6: G-155; G-350A re-hydration pump station; and G-604. The G-600 pump station will also be removed. The G-601, G-602 and G-603 structures are no longer operated.

XVIII. Recreational Facilities

In fulfillment of the public access and recreation requirements of the EFA Subsection 373.4592 (4)(a) F.S., and as further described in Subsection 373.1391(1)(a) and (b) F.S., recreational facilities are proposed at STA-5. The proposed recreational facilities shall be designed to ensure compatibility with the restoration goals of the ECP and the water quality and hydrological purposes of the STAs. The proposed STA-5/6 facilities include the following:

- An information kiosk, trailhead, a composting toilet, an asphalt parking area with parking for vehicles with trailers, landscaping, pedestrian gates, signage and fencing as needed to define public access areas and to protect sensitive equipment
- One multi-use trail on top of the levee to accommodate all user groups, hiking, biking, equestrian, and bird watching
- One Americans with Disabilities Act (ADA) compliant boardwalk/viewing platform with associated bird blind, providing enhanced recreation opportunities for bird-watching, photography, hiking, biking and waterfowl hunting.

LOCATION:

STA-5/6 resides on District-owned lands between the C-139 Basin and C-139 Annex to the west and the Rotenberger Wildlife Management Area (Rotenberger WMA) to the east.

The project is located within the following property descriptions in Palm Beach, Broward, and Hendry County:

- STA-5/6 Inflow and Outflow Structures, Inflow Works, Interior Treatment Works, Seepage Collection and Return Systems, Re-hydration Pump Stations and Structures, STA-5 and STA-6 Discharge Canals and Recreational Facilities. Sections 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, and 36, Township 46 South, Range 34 East; Sections 1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, 35 and 36, Township 47 South, Range 34 East; and Section 1, Township 48 South, Range 34 East, Hendry County, Florida and Section 6, Township 48 South, Range 35 East, Palm Beach County, Florida
- STA-5/6 Outlet Canal. A parcel of land located in Sections 19, 20, 21, 22, 26, 27, 28, 29, 30 and 35, Township 46 South, Range 35 East together with a parcel located in Section 2, Township 47 South, Range 35 East, Palm Beach County, Florida
- G-357 Structure. Section 6, Township 48 South, Range 36 East, Broward County, Florida
- G-351 Inflow Structure. Section 26, Township 47 South, Range 34 East, Hendry County, Florida
- G-406 Diversion Structure. Section 33, Township 46 South, Range 34 East, Hendry County, Florida
- G-407 Diversion Structure. Section 1, Township 48 South, Range 34 East, Hendry County, Florida
- G-408 Diversion Structure. Section 26, Township 47, Range 34 East, Hendry County, Florida
- G-404 Pump Station. Sections 6 and 7, Township 48 South, Range 36 East, Broward County, Florida
- Southern L-4 Gap. Section 9, Township 48 South, Range 35 East, Broward County, Florida
- G-409 Pump Station. Section 12, Township 48 South, Range 34 East, Hendry County, Florida
- G-411 Divide Structure. Section 1, Township 47 South, Range 34 East, Hendry County, Florida

- G-508 Pump Station and Bridge. Section 33, Township 46 South, Range 34 East, and Section 4, Township 47 South, Range 34 East, Hendry County, Florida
- Deer Fence Road Improvements. Sections 31 and 32, Township 46 South, Range 34 East, Hendry County, Florida

GENERAL CONDITIONS:

In accordance with Subsection 373.4592(9)(g) of the EFA, this permit may include any standard conditions provided by Department rule which are appropriate and consistent with the EFA.

1. **Enforcement.** The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 373.129, 403.141, 403.727, 403.859 through 403.861 F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. **Scope of permit.** This permit is valid only for the specific requirements of this permit ~~processes and operations applied for and indicated in the approved drawings or exhibits.~~ Any unauthorized deviation from the ~~approved drawings, exhibits, specifications, or conditions~~ requirements of this permit may constitute grounds for revocation and enforcement action by the Department.

3. **Limitation of rights.** The issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the STA-5/6 project which are not addressed in this permit. However, this permit is in lieu of other permits under Part IV of Chapter 373, F.S., pursuant to Subsection 373.4592(9)(c), F.S.

4. **Limitations upon title.** This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. **Liability.** This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department. The permittee shall hold and save the Department harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any system authorized by the permit.

6. **Operation and maintenance responsibilities.** The permittee shall properly operate and maintain the STA and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. **Access Rights.** The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted for the following purposes:

   A. Access to, and the right to, copy any records that must be kept under conditions of the permit

   B. Inspection of the facility, equipment, practices, or operations regulated or required under this permit

C. Sampling or monitoring of any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules

Reasonable time may depend on the nature of the concern being investigated.

8. Noncompliance. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

A. A description of and cause of noncompliance

B. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit

9. Records as evidence. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data, and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111, F.S. and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. Changes in Law. The permittee agrees to comply with changes in applicable Department rules and applicable Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida law. However, this section cannot be used as a basis to extend the time to comply with the permit's total phosphorus WQBEL.

11. Transferability. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-343.130, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. Permit at Work Site. This permit or a copy thereof shall be kept at the work site of the permitted activity. For the purposes of this permit the work site shall be defined as the South Florida Water Management District Headquarters located at 3301 Gun Club Road in West Palm Beach, Florida.

13. Records Retention. The permittee shall comply with the following:

A. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department

B. The permittee shall hold at the STA or other location designated by this permit records of all monitoring information required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five years from the date of the sample, measurement, report, and application unless otherwise specified by Department rule

C. Records of monitoring information shall include the following:

1. The date, exact place, and time of sampling or measurements
2. The person responsible for performing the sampling or measurements
3. The dates analyses were performed or the appropriate code as required by Chapter 62.160 F.A.C.
4. The person responsible for performing the analyses
5. The analytical techniques or methods used, including but not limited to MDL (Method Detection Limit)
6. The results of such analyses, including identification of potential outlier values

14. **Requests for Information.** When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

15. **External Agency Requirements**. Should any other regulatory agency require changes to the permitted system, the permittee shall notify the Department in writing of the changes prior to implementation so that a determination can be made whether a permit modification is required.

16. **Sovereign Lands**. The permittee is hereby advised that Florida law states: No person shall commence any excavation, construction, or other activity involving the use of sovereign or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund or the Department of Environmental Protection under Chapter 253, until such person has received from the Board of Trustees of the Internal Improvement Trust Fund the required lease, license, easement, or other form of consent authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on sovereignty lands or other state-owned lands.

17. **Artifacts.** If historic or archaeological artifacts such as, but not limited to, Indian canoes, arrow heads, pottery or physical remains, are discovered at any time on the project site, the permittee shall immediately stop all activities which disturb the soil and notify the Department and the State Historic Preservation Officer.

SPECIFIC CONDITIONS:

1. **Addresses.** Reports and notices submitted to the Department in accordance with this permit, unless otherwise specified, shall be submitted to the Department's Division of Environmental Assessment and Restoration, Restoration Planning and Permitting Section, 2600 Blair Stone Road, MS 3560, Tallahassee, Florida, 32399-2400, telephone no. (850) 245-8346 and to the Department's Southeast District Office, Water Resource Management and Environmental Planning, 400 North Congress Avenue, Suite 200, West Palm Beach, Florida 33401, telephone no. (561) 681-6600. Electronic copies of reports and notices required by this permit shall be sent to RPPS_Comp@dep.state.fl.us.

2. **Related Permits.** The Department and the permittee acknowledge the issuance of other permits related to STA-5/6. STA-5/6 previously operated under EFA Permit No's. 0131842 and 0236905 and portions of the facility currently operate under NPDES Permit No's. FL0177954 and FL0473804. Additional related permits include Department Permit No. 0289306 which authorizes temporary dewatering activities associated with the STAs and Non-ECP structures, and the U.S. Army Corps of Engineers 404 Permit No. 199404532. An additional authorization by the U.S. Army Corps of Engineers is anticipated to be issued subsequent to the completion of the Compartment B and C Environmental Impact Statement. This STA-5/6 EFA permit, upon issuance, shall supersede and replace the former STA-5 and STA-6 EFA Permits issued by the Department.

3. **Public Use.** The recreational facilities located within the STA-5/6 Project shall be maintained to ensure compatibility with the restoration goals of the ECP and the water quality and hydrological purposes of the STAs. This permit does not absolve the permittee from the responsibility of obtaining other permits (federal, state, or local) which may be required for the activities occurring at these sites.

Conditions for Construction, Operation and Maintenance

4. **Project Construction.** The permittee shall ensure that Compartment C is constructed consistent with the design documents. During any construction and modification of Compartment C and associated works, the permittee shall take all reasonable precautions to minimize the suspension and transport of soils, levee materials, and

roadway materials into waters adjacent to or downstream of the construction site. In addition, during construction, the permittee shall perform turbidity monitoring in accordance with Specific Condition 25.

5. **Project Operation and Maintenance.** The permittee shall operate and maintain STA-5/6 consistent with the design documents, as may be modified and reflected on the record drawings, operations criteria, and operation plan required by Specific Condition 10. Operation of the individual components of Compartment C Build-Out (including Cell 6-4 once hydrologically connected to Cell 6-2) are not authorized under this permit. The treatment cells existing at the time of permit issuance (STA-5-1, 5-2, 5-3, 6-1 and 6-2) are authorized to maintain existing operation.

6. **As-Built Certification and Record Drawings.** Within 60 days after completion of any construction for the existing Cells of STA-5/6, or Compartment C, the permittee shall submit a written statement of completion and certification by a registered professional engineer or other appropriate individual as authorized by law. Construction is considered complete when the associated construction contract is completed and closed out. The statement of completion and certification shall be based on on-site observation of construction or review of as-built drawings for the purpose of determining if the work was completed in compliance with permitted plans and specifications. This submittal shall serve to notify the Department that STA-5/6 is ready for inspection. Additionally, if deviation from the approved drawings is discovered during the certification process, the certification must be accompanied by a copy of the approved permit drawings with deviations noted. Both the original and revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawing. All surveyed dimensions and elevations shall be certified by a registered surveyor

7. **Contaminated Sites and Residual Agrichemicals.** The Permittee shall address all contaminated sites within the project footprint in accordance with all applicable Department statutes and rules including but not limited to Chapters 62-770, 62-780, and 62-785, F.A.C. The Permittee shall address any agricultural chemical residuals in the project footprint in accordance with the "*Protocol For Assessment, Remediation And Post-Remediation Monitoring For Environmental Contaminants On Everglades Restoration Projects*" (Protocol) dated March 14, 2008 so that risk to the environment is minimized based upon the projected use of the property. Regardless of any remedial action plan, the Chapter 62-777, F.A.C. cleanup target levels, or the Protocol, the Permittee shall address all contamination within the project footprint, to minimize to the maximum extent practicable any detrimental impacts to Threatened or Endangered species. As a corrective action, the Department may require limitations on property access or use as part of the Permittee's Land Management Plan for the project area. All corrective actions must be completed prior to initial operation or use of the project. Documentation of completion of corrective actions must be submitted to the Department no later than 90 days prior to the initial operation or use of the completed project, unless the Department approves an alternative schedule. The Permittee shall secure written concurrence from the Department that the corrective actions have been completed based upon applicable protocols and the projected land use, prior to initial operation of the completed project. If contamination is discovered after initial operations, the Permittee shall send to the Department at the address listed in Specific Condition No. 1 an assessment and remedial action plan for Department approval. Upon the Department's approval, the Permittee shall implement the assessment and remedial action plan and provide quarterly reports to the Department on the progress of the remediation until the cleanup is completed to the Department's satisfaction.

8. **Vegetation and Operational Enhancements**. Vegetation and operational enhancements shall be implemented to optimize performance as needed to achieve the total phosphorus WQBEL of this permit ~~criterion in the EPA~~. Vegetation and operational enhancements shall be coordinated with the Department to determine whether a modification to the permit is required.

9. **Pump Station Maintenance.** Maintenance requirements for the pump stations include operation of the pumps for approximately 2 to 4 hours per month, as necessary, to maintain their mechanical integrity. Therefore, temporary operation of the pump stations for maintenance purposes is allowed and is not subject to the discharge criteria of the specific conditions of this permit. However, the permittee shall document all such temporary

maintenance operations, and shall include all such discharge flows and loads as a part of the monitoring requirements of this permit.

10. STA Operation Plan and Modifications. Upon completion of and compliance with the ~~scheduled Long-Term Plan improvements and enhancements~~ requirements specified herein and within 90 days of the completion of ~~any additional Long-Term Plan improvements and enhancements (~~the Compartment C Build-out), the permittee shall submit to the Department, at the addresses listed in Specific Condition 1, an updated Operations Plan for the STA-5/6 facility, as applicable, subject to modification under the conditions set forth below.

If at any time changes to the STA-5/6 Operations Plan are warranted to optimize facility operation, and upon verification of data to be supplied by the permittee that justifies the need for such modification, the Operations Plan may be modified as mutually agreed upon by the Department and the permittee. The Operations Plan shall also include the information described in A-H, below.

Under emergency conditions that threaten the safety of life, property, or the STA-5/6 facility, the permittee may modify the operations of STA-5/6 and immediately employ any remedial means to protect life and property in accordance with the emergency provisions of Chapter 373, F.S. The permittee shall notify the Department within 48 hours of such occurrence and shall provide data justifying the need to employ the emergency modifications to operations of STA-5/6.

A. Minimum Water Level Targets to Avoid Dryout. In accordance with the relevant design documents, the permittee shall, to the maximum extent practicable, maintain a minimum static water level of 0.5 feet above the average ground elevation of the treatment cells to avoid dryout of the treatment cells, subject to available water from the upstream watershed.

B. Responding to Dryout Conditions. The permittee shall evaluate and correct potential adverse dryout effects on the water quality performance of STA-5/6. If the compliance requirements in this permit are not met due to dryout conditions, then the permittee shall propose modifications to the Operations Plan and Monitoring Plan as appropriate and submit the revised plan(s) to the Department for review and approval.

C. Maximum Water Level Targets. The permittee shall ensure, to the maximum extent practicable, that maximum water depths of 4.0 feet above the average ground elevation of the treatment cells will not be exceeded in order to avoid long-term damage to the treatment vegetation and protection of project levees.

D. Operational Envelope. The permittee shall ensure to the maximum extent practicable that authorized operation of the existing components of the facility do not exceed the operational envelope for STA-5 and STA-6 (this permit does not authorize operations for Compartment C Build-Out), as set forth in the existing STA-5 and STA-6 Operations Plans.

E. Phosphorus Uptake Optimization. Operations shall be conducted to distribute the flows and water levels within STA-5/6 to optimize the phosphorus reduction performance and shall be updated as necessary ~~to include the results of the permittee's Process Development and Engineering (PDE) program being implemented as a part of the Long-Term Plan~~.

F. Operations Plan Modifications. The STA-5/6 Operations Plan should be reviewed and may be revised as appropriate based on operational experience, research results, downstream monitoring and upstream levels of service.

G. Hydropattern Restoration. STA-5/6 shall be operated in such a manner as to be consistent with the activities proposed to restore the hydropattern of the EPA, as described in Specific Condition 11 below.

11. Hydropattern Restoration. In accordance with Subsection 373.4592(4)(b), F.S., the permittee shall operate the STAs in order to improve and restore the Everglades water supply and hydroperiod. The permittee shall operate the ECP to provide additional increased flow to the EPA through the modification of historical operational practices for regulatory releases from Lake Okeechobee and the Water Conservation Areas. The STAs shall be operated to achieve the goal of providing additional flows to the EPA and shall, to the maximum extent practicable, be coordinated with and consistent with the Lower East Coast Water Supply Plan, the Lake Okeechobee and Water Conservation Area Regulation Schedules, Comprehensive Everglades Restoration Plan (CERP), and the entitlement of the Seminole Tribe of Florida to surface water withdrawals under the Water Rights Compact (P.L. 100-228).

12. Rotenberger WMA Restoration. This permit authorizes discharges to Rotenberger Wildlife Management Area, according to the following terms and conditions:

Operation and Maintenance of Rotenberger Wildlife Management Area Hydropattern Restoration

A. **Project Operation and Maintenance.** The permittee shall operate and maintain the Rotenberger Wildlife Management Area Hydropattern Restoration Project consistent with the following:

- The conceptual Design Document for the Everglades Protection Project, dated February 15, 1994
- The General Design Memorandum for STA-5 and Rotenberger Tract Restoration, dated July 1996
- The final engineering plans for Rotenberger Wildlife Management Area Hydropattern Restoration, submitted to the Department on May 15, 2000
- The Summary of Revised Hydrologic Simulations for Rotenberger dated August 15, 2000

By operating in accordance with these documents, the objectives of the ECP will be achieved, as outlined in the EFA, 373.4592(9)(e) and 373.4592(9)(h), F.S. To the extent that there is a conflict with the above documents, the permit conditions shall control.

1. **Emergency Releases into Rotenberger.** Water releases from STA-5/6 or other sources, if available, into Rotenberger may be made on an emergency basis for the purpose of extinguishing wildfires within Rotenberger.

2. **Pump Stations Testing and Maintenance.** Maintenance requirements for the pump stations include operation of the pumps for approximately 2 to 4 hours per month, as necessary, to maintain their mechanical integrity. Therefore, temporary operation of the pump stations for testing and maintenance purposes is authorized.

If the permitted facilities are demonstrated to be not achieving compliance with the requirements of this permit, the permittee shall modify the Operations Plan as appropriate. The Rotenberger Wildlife Management Area Hydropattern Restoration Project, including applicable operation and maintenance activities, may be further modified for standard engineering practices pursuant to Subsection 373.4592(9)(j)(3) of the EFA.

B. **Monitoring and Reporting.**

1. The permittee will monitor headwater and tailwater stages, and pump information at the G-410 pump stations and utilize appropriate pump discharge relationships to estimate surface inflow to the Rotenberger.

2. The permittee will monitor headwater and tailwater stages at the G-402 structures and utilize appropriate stage discharge relationships to estimate surface outflows from the Rotenberger.

3. The permittee will monitor rainfall and ET at nearby stations in order to estimate these components of the Rotenberger water budget.

4. Annual estimates of inflows and outflows will be reported in the annual South Florida Environmental Report.

13. Implementation of Source Control Programs.

A. Implementation. The permittee shall continue to implement source control programs in each of the contributing basins in accordance with ~~the Long Term Plan,~~ Chapter 40E-63, F.A.C., and other applicable programs. Basins that do not presently include source control programs shall be monitored to determine if such programs are necessary in the event that phosphorus loads to the facility from these basins limit the facility's ability to achieve the WQBEL ~~permit effluent limit~~.

B. Performance. On an annual basis, the permittee shall evaluate the performance of source controls in the contributing basins and include the findings in the annual report required in Specific Condition 2~~9~~8. The report shall include phosphorus loads from the basins and shall describe trends and compare current loads to those determined necessary to achieve the WQBEL ~~permit effluent limit~~.

C. Improvements. If the WQBEL ~~permit effluent limit~~ is not achieved and if the assumed inflow concentration used to develop the Amended Determination remedy ~~inflow loads determined necessary to achieve the permit effluent limit are~~ is exceeded, the permittee shall submit a report explaining the cause(s) for the excessive concentration and schedules and strategies for source control improvements necessary to achieve the WQBEL ~~permit effluent limit~~ in the annual report.

14. Minimization of Wetland Impacts. In accordance with Subsection 373.4592(9)(e)3, F.S., of the EFA, the permittee shall provide reasonable assurances that any wetland impacts associated with STA-5/6 activities will be minimized to the maximum extent practicable and consistent with the documents on file with the Department.

15. Water Quantity and Flooding Impacts. The permittee shall be responsible for ensuring that STA-5/6 is operated so as not to adversely affect adjacent lands with regards to flooding impacts and water supply needs of the region. The permittee shall hold and save the Department harmless for any and all damages, claims, or liabilities, which may arise from water quantity and/or flooding impacts resulting from the construction and operation of STA-5/6.

Phosphorus Conditions

16. Phosphorus Standard. Pursuant to Subsection 373.4592(4) (e)2, F.S., the Department adopted a 10 parts per billion (ppb) numeric criterion for phosphorus in the EPA, which was approved by the United States Environmental Protection Agency (EPA) on January 24, 2005. The compliance methodology for determining achievement of the phosphorus numeric criterion was revised and adopted by the Department on May 5, 2005, and the revised rule (62-302.540 F.A.C.) was approved by the U.S. EPA on July 27, 2005. Achievement of the criterion shall be determined through the WQBEL ~~limitation~~ set forth in Table 1 below.

17. Start-Up Phase. During the initial Start-Up Phase of a new cell or new flow-way, the permittee shall monitor phosphorus concentrations within the facility to demonstrate that the project is achieving a net reduction in phosphorus. Portions of STA-5/6 may operate independently of each other. Under those circumstances, Start-Up Phase operation and monitoring within the new treatment area shall be performed as follows:

i. ***Establishment of Marsh Vegetation.*** The permittee shall manage water depths in the treatment cells to facilitate the recruitment of marsh vegetation in accordance with the Operations Plan, which may include recirculating waters within the STA.

ii. ***Start-Up Monitoring.*** On a weekly basis, the permittee shall monitor total phosphorus at the upstream side of inflow structure(s). Total phosphorus shall also be monitored on a weekly basis on the upstream side of the outflow structures.

iii. ***Phosphorus Start-Up Test.*** The Phosphorus Start-Up Test for an individual flow-way or cell is based on when the above samples demonstrate, over a four-week period, a net reduction in phosphorus occurs. This net reduction shall be deemed to occur when the 4-week geometric mean total phosphorus water column concentration from samples collected at the applicable outflow structures is less than the 4-week geometric mean total phosphorus water column concentration collected at the applicable inflow structure(s).

iv. ***Discharge Operations.*** Discharge operations, from an individual flow-way or cell that has passed the Phosphorus Start-Up Test described above, may commence once Initial Start-Up Phase documentation and all supporting data and analyses are submitted to the Department via regular or electronic mail. For flow-ways that have not met these tests within six months after issuance of the permit, the permittee shall submit status updates regarding progress toward and identifying strategies and timelines to achieve this test.

v. ***Initiation of Individual Flow-way ~~(Stabilization and Routine Operation)~~ Discharges and Monitoring.*** Once flow-through discharges from a flow-way begin, the permittee shall initiate routine water quality monitoring for that flow-way consistent with the monitoring program described in this permit.

18. ~~**Stabilization Phase** (Flow-through Operations) An STA enters the Stabilization Phase after each of three antecedent conditions: (1) once flow-through operations begin following the initial start-up of a new treatment cell; (2) when a treatment cell is undergoing implementation of Long-Term Plan enhancements that may have adverse impacts on STA performance, or (3) when a treatment cell undergoing for recovery activities associated with a major event that compromises the structural integrity or performance of the STA. During the Stabilization Phase the treatment vegetation will be maturing and the STA performance will generally be improving toward achieving the permit effluent limitation. However, the overall performance of the STA is extremely difficult to evaluate and predict. It is anticipated that the treatment vegetation will require one to three years after flow through operations begin for the affected cells to continue to improve toward achieving the permit effluent limit. During the stabilization phase the effluent limitation shall apply. Once the facility achieves the effluent limitation it shall enter the Routine Operations Phase. During the Stabilization Phase, exceedance of the effluent limitation is anticipated; however, the STA shall be deemed in compliance as long as the actions described in this condition and all other applicable permit conditions are met.~~

~~If a flow way is determined to be incapable of operating or performing effectively as a result of the impacts caused by one or more of the above mentioned circumstances, within 60 days the District shall submit strategies and timelines identified as being the most effective in restoring the impacted flow way(s) and achieving the permit effluent limit. The District's strategies and timelines shall include, at a minimum, the following:~~

~~1. Identify the cause of the incident which resulted in the facility not achieving the effluent limitation;~~
~~2. A statement that the facility was being properly operated at the time of the incident;~~
~~3. The period of the anticipated stabilization phase; and,~~
~~4. Any remedial steps employed to ensure that the stabilization period will be as minimal as possible..~~

~~The timely submittal and implementation of these strategies and timelines in conjunction with the Department's review and approval of such submittals and compliance with all other applicable conditions set forth in this permit shall constitute compliance.~~

In addition to the reporting associated with this condition and as part of the annual reporting requirements of the permit, the District shall provide an assessment of the facility and the steps being taken to meet the WQBEL specified in Table 1 below ~~permit effluent limit~~. ~~As part of the first annual report following any adverse impact to the facility, and each subsequent year until the facility achieves the permit effluent limit, the 12-month rolling flow-weighted mean TP concentration of the STA outflow shall be assessed as to whether there is a trend in improvement of performance relative to prior years. If the trend analysis that is applied to this data indicates that there is not a trend in improvement of performance, the permittee shall report as to the causes behind the lack of performance improvement. If during a subsequent annual report the trend analysis applied to these data indicate that there is not a trend in improvement of performance after the affected flow-way has been in flow-through operation for 24 months, the annual report shall include any remedial measures necessary to achieve improved facility performance by the end of next year, and shall provide an estimate of when the permit effluent limit shall be achieved.~~

19. **Routine Operations Phase** - During the Routine Operations Phase, discharges from the STA shall meet the permit effluent limitations set forth in Table 1 below.

20. **Operational Envelope.** As a part of the annual reporting requirements in Specific Condition 28, the District shall provide an annual assessment as to whether the existing components of the STA-5/6 facility are operating within or outside the operational envelope. The assessment shall be based on annual inflow volumes and phosphorus loads and shall compare flows and loads to the corresponding maximum values contained in the operational envelope described in the current STA-5 and STA-6 Operations Plans. If the annual inflow volumes or phosphorus loads exceed the corresponding maximum values of the operational envelope during an annual compliance period, the District shall conduct a review of potential causes and include this review in the annual report. The review shall include a comparison of the relationships between rainfall, runoff, and phosphorus loads from the compliance year with historical data. Departmental concurrence shall be obtained prior to initiating Lake Okeechobee regulatory or water supply releases that would result in an exceedance of the maximum levels of flow or phosphorus loads contained in the operational envelope.

~~Factors Impacting Compliance~~

21. **~~Factors Outside the Permittee's Control.~~** In the event that non-compliance or failure to achieve the WQBEL ~~performance objectives~~ results for any of the reasons other than those below, the permittee shall take appropriate remedial measures.

~~A. **Anomalous Rainfall.** Compliance with the effluent limitation shall not be tested in water years when the rainfall in the source basins fall outside the range of values that occurred during the period of model simulation if sufficient supplemental flows are not available to maintain wet conditions in STA-5/6. A joint field inspection between the Department and the District will be undertaken to verify if the facility has resulted in dryout conditions that would impact compliance. In these instances, results from adjacent years will be treated as consecutive for purposes of testing compliance. The Department may make similar adjustments where emergency discharges occur.~~

~~B. **Random Variation.** The permittee shall report any statistical uncertainty in the methodology using acceptable scientific methods.~~

~~C~~A.. **Other Factors**. Unavoidable legal barriers or restraints, including those arising from actions or regulations not under the control of the permittee (e.g. Lake Okeechobee Regulation schedule and WCA-3A Regulation schedule).

B. **Emergency Conditions.** Discharges from STA-5/6 outflow structures or ~~diversion~~ bypass of waters through G-407 as defined in the project description shall also be allowed in accordance with the emergency provisions of Chapter 373, F.S., or when water conditions within STA-5/6 may damage existing marsh vegetation. When a ~~diversion~~ bypass event or series of proximal ~~diversion~~ bypass events is anticipated due to aforementioned conditions, the permittee shall notify the Department of the anticipated event.

Conditions for Parameters Other than Total Phosphorus

22. Comparison of Outflows to Inflows. For all water quality parameters indicated in Table 2 of this permit other than total phosphorus, mercury, and dissolved oxygen, inflow and outflow samples collected at water quality monitoring sites shall be used to determine compliance with this specific condition. Compliance with this specific condition shall be evaluated as follows:

A. If the annual average outflow concentration does not cause or contribute to violations of applicable Class III water quality standards, then the STA shall be deemed in compliance with this condition.

B. If the annual average concentration at the outflow station causes or contributes to violations of applicable Class III water quality standards, but is of equal or better quality than, the annual average concentration at the inflow stations, then the STA shall be deemed in compliance with this condition.

C. If the annual average concentration at the outflow causes or contributes to violations of applicable Class III water quality standards, and also exceeds the annual average concentration at the inflow station, then the STA shall be deemed out of compliance with this condition.

23. Dissolved Oxygen. The dissolved oxygen parameter shall meet the requirements set forth in the Everglades Marsh Dissolved Oxygen Site Specific Alternative Criteria (DO SSAC, Exhibit C). Compliance with the DO SSAC shall be evaluated annually using a statistical analysis to compare dissolved oxygen levels at the outflows to predicted model values. The specific methods for determining compliance are set forth in the DO SSAC which was adopted by Secretarial Order on January 26, 2004, and approved by the U.S. Environmental Protection Agency as a revision to the State of Florida's water quality standards on June 16, 2004.

24. Turbidity Monitoring. Effective means of turbidity control, such as, but not limited to, turbidity curtains or the discontinuance of flow activity to and from the affected cell(s), shall be employed during all construction or maintenance activities that may create turbidity so that turbidity shall not exceed 29 NTUs above background in the receiving waters. Turbidity controls and/or preventive operation procedures shall remain in place until all turbidity has subsided and the turbidity level at the point of discharge to receiving waters meets state standards.

Turbidity monitoring equipment and personnel trained to use it shall be available on site at all times during construction or maintenance activities that result in project-generated turbidity levels in the receiving water body. The permittee shall monitor turbidity levels at least twice daily at a minimum of 4 hours apart during these activities as follows:

A. Monitoring samples shall be taken at the following locations:

1. Background Sample(s): At affected cell/flowway inflow monitoring stations or at least 1000 feet upstream of any construction or maintenance activities that may generate turbidity within a canal or conveyance feature outside of the treatment facility.

2. Compliance Sample(s): Upstream of the affected cell/flowway outflow monitoring stations or no greater than 150 meters downstream of any construction or maintenance activities that may generate turbidity and within any visible plume.

B. Turbidity monitoring results shall be summarized quarterly (every three calendar months) by project component, beginning with the first calendar month in which construction or maintenance projects occur that could generate turbidity in receiving waters and continuing until all maintenance is completed. Monitoring data with supporting documents shall be submitted to the Department quarterly during the period of actual construction. The reports shall clearly identify the following information:

1. Permit number
2. Dates and time of sampling and analysis
3. A statement describing the methods used in collection, handling, storage and analysis of the samples
4. A clear description of project component activities taking place at the time of sampling
5. A map indicating the sampling locations
6. A statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection and accuracy of the data

C. Monitoring reports shall also include the following information for each sample that is taken:

1. Water depth
2. Depth of sample
3. Weather conditions
4. Water level stage and direction of flow

In the event that project-generated turbidity levels in receiving waters exceed 29 NTUs above background in the receiving waters, project component activities contributing to elevated turbidity levels shall immediately cease, and the Department shall be notified immediately. Work shall not resume until the work can be conducted in compliance with the aforementioned turbidity standard. In such cases where turbid conditions will be attributed to activities associated with dewatering, the District shall comply with the turbidity requirements set forth in the dewatering permit issued by the Department in lieu of the above requirements.

SPECIFIC CONDITIONS FOR MONITORING PROGRAM

In accordance with Subsection 373.4592(9)(h), F.S., the following monitoring conditions are intended to assess the water quality of the discharges of STA-5/6, ~~and~~ achievement of the WQBEL specified herein, ~~permit effluent limit~~, and to measure progress towards achieving state water quality standards.

25. Monitoring Program. Monitoring performed in accordance with this permit shall include the vegetation and water quality and quantity parameters listed below and in Table 2.

A. ~~**Long-Term Plan**~~ **Monitoring Program.** ~~The permittee shall continue to implement the portions of the PDE component of the Long-Term Plan that are related to this permit.~~ This program shall evaluate the effectiveness of the STAs in improving water quality and maintaining designated and existing beneficial uses of the receiving waters. Results of the monitoring efforts shall be reported as part of the annual South Florida Environmental Report (SFER).

1. **Aerial Vegetation Photographs and Mapping.** Aerial vegetation photographs and mapping shall be conducted in accordance with the PDE components of the Long-Term Plan.

2. **Mercury Monitoring Program.** The permittee shall monitor mercury in accordance with the approved Mercury Monitoring Plan, which is hereby incorporated by reference and made a part of this permit as Exhibit D.

3. **Routine Research and Monitoring Program.** The permittee shall conduct long term monitoring at the outflow monitoring stations, the inflow monitoring stations and report the results to the Department, in accordance with the annual reporting requirements of this permit. Data from this program may provide the basis for additional permit compliance requirements. The permittee shall also conduct monitoring at additional stations as defined in the PDE element of the Long-Term Plan.

26. **~~Diversions~~ Bypasses.** The District shall notify the Department within 48 hours of any unanticipated ~~diversions~~ bypasses of flow through the G-407 gated structure. The District shall notify the Department as soon as practicable in advance of anticipated bypasses ~~diversions~~, with the exception of routine maintenance activities. The submitted notification shall include a description of the circumstances related to the bypass ~~diversion~~ and a projection of the anticipated duration of the bypass ~~diversion~~. All ~~diversions~~ bypasses occurring through the G-407 structure shall be monitored for the parameters Total Phosphorus and Calculated Flow listed in the Table 2 below. As soon as practicable after cessation of all bypasses ~~diversions~~, the District shall submit a summary of the data collected from the table below and identify the duration of the bypasses ~~diversions~~. Bypasses shall be limited to the shortest time possible and are not allowed solely to achieve the WQBEL. Bypasses are subject to and must meet the requirements of F.A.C. Sections 62-620.610(20), (21), and (22).

Parameter	Units	Sample Type	Frequency
Total Phosphorus	mg/l	Grab	Weekly
Flow	CFS	Calculated	Daily Average

27. Inspection Reports. The permittee shall submit annual inspection reports to the Department evaluating the integrity and functionality of the above-ground levees and structures, including pump stations. Annual inspection reports shall be prepared by field staff trained by a Professional Engineer and reviewed by the designated superintendent of the area prior to submittal to the Department. The cover letter of the inspection report should summarize site conditions and work that was completed in response to inadequacies that may have been found during regular inspections. Every five years, at a minimum, each permitted facility shall have an inspection by a Professional Engineer registered in the State of Florida, and the subsequent inspection report shall be signed and sealed by that Professional Engineer and submitted to the Department. A Professional Engineer or the District's Dam Safety Officer shall review and approve major repair plans or remedial work associated with inadequacies identified during routine and formal inspections. All reporting shall be submitted to the Department in March with the initial 5-year inspection report for STA 5-1, 5-2, 5-3, 6-1 and 6-2 due in 2012. The second 5-year inspection report for STA 5/6, including the Compartment C Build-out components, will be due in March 2017.

28. Annual Monitoring Reports. All studies, monitoring reports and technical submittals required by this permit shall be submitted to the Department in an "Annual Report". The annual reporting requirements under this permit shall be incorporated into the SFER and submitted to the Department no later than March 1 of each year. Each Annual Report shall present the information for the previous water year, from May 1 to April 30. If

additional reporting modifications are required, and upon approval by the Department, the permittee may modify the Annual Report submission date to coincide with multiple reporting requirements and time periods needed for data acquisition and analysis. In addition to the permit number, and name of the permit administrator, the Annual Reports shall contain, at a minimum, the following information:

A. **Quality Assurance and Quality Control.** Sampling and monitoring data shall be collected, analyzed, reported and retained in accordance with Chapter 62-160, F.A.C. Any laboratory test required by this permit shall be performed by a laboratory that has been certified by the Department of Health (DOH) under Chapter 64E-1, F.A.C., where such certification is required by Rule 62-160.300, F.A.C. The laboratory must be certified for all specific method/ analyte combinations that are used to comply with this permit. The analytical method used shall be appropriate so as to determine if the sample complies with Class III surface water quality standards as specified in Chapter 62-302, F.A.C. All field activities including on-site tests and sample collection, whether performed by a laboratory or another organization, must follow all applicable procedures described in DEP-SOP-001/01 (February 1, 2004). Alternate field procedures and laboratory methods may be used if they have been approved according to the requirements of Rules 62-160.220, and 62-160.330, F.A.C.

B. **Water Quality Data.** Records of monitoring information shall include all applicable laboratory information specified in Rule 62-160.340(2), F.A.C. including the following:

1. Date, location, and time of sampling or measurements
2. Person responsible for performing the sampling or measurements
3. Dates analyses were performed or the appropriate code as required by Chapter 62-160, F.A.C.
4. Laboratory/ Person responsible for performing the analyses
5. Analytical techniques or methods used, including method detection limit (MDL) and practical quantification limits (PQL)
6. Results of such analyses, including appropriate data qualifiers, and all compounds detected
7. Depth of sampling
8. Flow conditions and weather conditions at time of sampling
9. Monthly flow volumes

In addition, the following records must be kept on file for reference during the duration of the project but are not required to be submitted in annual reports.

10. Field sampling and laboratory quality manuals
11. Sampling and analysis notes, as required under Ch. 62-160 FAC and NELAC Quality Systems (2003), respectively

C. **Performance Evaluation.** The Annual Report shall provide a performance evaluation for STA-5/6 containing the following information:

1. The operations status of the STA, stating whether the STA is in start-up~~, stabilization~~ or routine operations
2. A comparison of inflow water quality data with outflow water quality data an appropriate statistical test with a 95% confidence interval and based on statistical distributional assumptions (e.g., Student's t-test or Mann-Whitney test);

3. A comparison of outflow phosphorus concentrations with the permit effluent limit for STA-5/6 and between the current reporting year and previous years

4. An assessment of the inflow volumes and phosphorus loads during the year relative to the anticipated operational envelope contained in the STA-5 and STA-6 Operations Plans.

~~Calculations for any reporting which require averaging of measurements shall be weighted by flow value.~~

D. Herbicide and Pesticide Tracking. The permittee shall provide in each annual report, information regarding the application of herbicides and pesticides used to exclude/eliminate undesirable vegetation and pests within STA-5/6. Such reporting shall include the names, concentrations, locations, and quantities of all herbicides and pesticides used, and a statement certifying that the permittee has adhered to manufacturer application guidelines.

E. Implementation Schedules. The Annual Report shall provide details on the following:

1. Implementation of ~~projects~~ the WQBEL and activities required by this permit and those affecting flows and loads to STA-5/6
2. Source Control implementation and optimization
3. STA design modifications affecting implementation of the WQBEL and activities required by this permit;
4. Improvements, enhancements, and strategies that have been initiated and/or completed within the previous year
5. Any delays in the implementation of the improvements, enhancements, or strategies, ~~and~~ the duration of the delays, the reason(s) for the delays, and the expected timeframe for their resolution.
6. The operational status of the STA, stating whether the STA is in Start-up~~, Stabilization~~ or Routine Operations. If the facility is in Start-up ~~Stabilization operations~~ during the reporting period, the report shall also include the date at which the facility entered ~~the Stabiliz~~ation that Phase and the length of time it remained or is expected to remain in that phase;
7. Implementation of STA Recovery Plans;
8. Whether revisions and/or additions to the requirements of this permit are recommended; and
9. Implementation of remedial measures in the event of non-compliance with permit conditions; and
10. Whether the facility was operated within or outside of the operational envelope per Specific Condition 20.

F. The permittee shall report with the monthly DMR if operation of facilities is impacted by or constrained due to requirements under the Endangered Species Act or Migratory Bird Treaty Act. The report should include the species involved, an estimate of the number of individuals involved, actions taken to avoid deleterious impacts on the endangered species, the affect those actions had on compliance with any condition of this permit, and an estimate of when facility operation will no longer be impacted or constrained.

29. Removal of Parameters. Upon demonstration that a specific parameter(s) is not present or is found consistently in compliance with Class III Water Quality Standards, the permittee may request a modification to the monitoring program as appropriate. A minimum of one year's worth of data, for those parameters being sampled quarterly or more frequently, will be required prior to the Department approving any modification to the monitoring program. Parameters sampled semi-annually or annually will be examined on a case-by-case basis. The Department may approve a reduction of the monitoring frequency or waive the monitoring requirement for parameters that consistently are reported as in compliance with state water quality standards.

30. Addition of Parameters. If the Department has reason to believe that additional parameters exist that may cause or contribute to water quality violations in the receiving waters, those parameters shall be added to the monitoring section of this permit as a permit modification.

31. Public Health, Safety, or Welfare. Pursuant to Subsection 373.4592(9)(h)3, F.S., discharges from STA-5/6 shall not pose a serious danger to the public health, safety, or welfare. If warranted by additional information, the Department may include additional monitoring or compliance conditions in this permit, in accordance with Subsections 373.4592(9)(g) and (11)(a) 2, F.S.

32. **Emergency Suspension of Sampling.** Under hurricane, tropical storm warnings, or other extreme weather conditions, the permittee's normal sampling schedule may be suspended if necessary. The permittee shall notify the Department of any anticipated sampling suspension associated with hurricanes, tropical storms, or other extreme weather events that may require deviation from the normal sampling schedule. Within 14 days following the cessation of emergency conditions, the permittee shall notify the Department of when normal sampling is expected to resume.

Renewals and Modifications

33. **Permit Renewal.** At least 60 days prior to the expiration of this permit, the permittee shall apply for renewal of this permit. Renewal may be for a period of up to 5 years in accordance with Subsection 373.4592(9)(f), F.S.

34. ~~**Permit Modifications for STA Optimization.** Pursuant to Subsections 373.4592(3)(b) (e) and (9)(j), F.S. and the PDE component of the Long Term Plan, the permittee may submit proposed modifications to STA 5/6 through the adaptive implementation process identified in the Long-Term Plan. Within 30 days after receipt of such a submittal, the Department shall notify the permittee as to whether a permit modification is necessary. Minor modifications can be processed in letter format. The Department shall determine whether the modification is minor or major based on the nature and magnitude of the proposed modification and the potential for the modification to have environmental impacts that are significantly different from those previously considered by the Department for the activity, pursuant to Rule 62-343.100, F.A.C. The permittee shall be required to publish a notice of application pursuant to Subsections 373.413 (3) and (4), F.S., as applicable, for any requested permit modification determined to be major in accordance with this specific condition.~~

3~~5~~4. **Department Review and Approval.** Where conditions in this permit require Department review and approval of remedial actions or plan modifications to be implemented pursuant to this permit, the Department will consult with the permittee to ascertain whether mutual agreement can be reached. If mutual agreement on the remedial actions or plan modifications cannot be reached, the action of the Department will be deemed final agency action and will be subject to judicial or administrative review, as appropriate.

MONITORING REQUIRED:

Key for Table 1

Sample Type:
- G = Grab sample
- FPC = Flow proportionate composite sample
- INSITU = In Situ field sample
- CAL = Calculated parameter
- PR = Pump record
- RG = Rain Gauge

Sample Locations:
- Inflow Sites = STA-5: G-342A-D, G-342E&F and G-351
  STA-6: G-396 B and G-353B
- Outflow Sites = STA-5: G-344A-D; G-344F; G-344H and G-344J
  STA-6: G-352B, G-354C and G-393B
- ~~Diversion~~ Bypass Site = G-407

Sample Frequency: W = Weekly
- BI-W = Once every other week (26 samplings per year)
- Q = Quarterly
- DAV = Daily averages of continuous sampling
- DAC = Daily accumulation of continuous sampling

DISCHARGE LIMITATIONS:

Table 1: Discharge Limitations and Associated Monitoring Requirements

	Discharge Limitations				Monitoring Requirements		
Parameters (units)	**Daily Minimum**	**Daily Maximum**	~~**Annual Average**~~ **Other**		**Monitoring Frequency**	**Sample Type**	**Sample Point**
Phosphorus, Total (as P) (ppb)	--	--	Not to exceed 10 as a geometric mean (GM) annual average in more than two consecutive years	18 as a flow-weighted mean (FWM) annual average	Weekly	GM – based on samples collected when discharge occurs FWM - 7-day flow proportioned composite	outflow
			See Footnotes below[1234]				

[1] All outflow TP monitoring results ~~for this parameter~~ shall be reported as ~~a monthly average and as an annual average~~ separate weekly values without rounding to whole numbers. The results shall also be reported as FWM annual averages that are calculated based on the FWM of the weekly values. The results shall also be reported as GM annual averages that are calculated based on all sample point weekly values collected when discharge occurs in the previous 12 months. All FWM and GM annual averages shall be reported to the nearest whole number (i.e., 10.5 ppb shall be reported as 11 ppb; 10.49 ppb shall be reported as 10 ppb. ~~The "monthly average" is a flow-weighted mean of the weekly effluent samples. The "annual average" shall be computed for each water year (May-April) and is equal to the flow-weighted mean concentration for the water year.~~

[2] The discharge shall not cause phosphorus concentrations in the receiving waters to be altered so as to cause or contribute to an imbalance in natural populations of aquatic flora or fauna. The discharge shall not cause phosphorus concentrations in the receiving waters to exceed the criteria in Rule 62-302.540(4)(a), F.A.C. Beginning at the end of April after the permit effective date and at the end of each April thereafter, the permittee shall report the FWM annual average using data it collected for the prior 12 months. Beginning at the end of April after the permit effective date and at the end of each April thereafter, the permittee shall report the GM annual average using data it collected for each of the prior 3 years. ~~The 10 ppb effluent limit represents the phosphorus criterion set forth in Rule 62-302.540(4)(a), F.A.C. and is consistent with Section 301(b)(1)(C) of the CWA. A water quality based effluent limitation (WQBEL) for phosphorus shall be established in accordance with Rule 62-650 F.A.C. and Section 373.4592 Florida Statutes by December 31,2010 and will be a major permit modification. It is recognized that the ultimate WQBEL to be developed may be higher than a flow-weighted mean of 10 ppb. The antibacksliding provisions of the CWA and NPDES regulations do not apply to an effluent limitation with a delayed compliance date, until the date of compliance. In this case, restrictions on backsliding would not apply to the 10 ppb permit effluent limit until the established WQBEL takes effect at the end of the compliance schedule.~~

[3] In the year following any two consecutive years where the TP GM annual average exceeds 10 ppb, the permittee shall report quarterly the GM of all monthly TP values for that year. If that mean exceeds 10 ppb, the permittee shall provide a report to both FDEP and USEPA by the fifteenth of the month following the quarterly report of its evaluation of why that mean is as high as it is and the specific steps it is taking to ensure that the TP GM for that year will not exceed 10 ppb.

For the TP FWM WQBEL, the permittee shall report quarterly the average of all monthly FWMs for that year. If that average exceeds 18 ppb, the permittee shall provide a report to both FDEP and USEPA by the fifteenth of the month following the quarterly report of its evaluation of why that average is as high as it is and the specific steps it is taking to ensure that the TP FWM annual average for that year will not exceed 18 ppb.

[4] If the facility does not meet the FWM WQBEL in any year, the permittee shall report the annual load of TP discharged by the STA into the Everglades that is in excess of the WQBEL load (based on 18 ppb). If the facility does not meet the GM WQBEL in any year, the permittee shall separately report the annual load of TP discharged by the STA into the Everglades that is in excess of the WQBEL load (based on 10 ppb) for that year and the previous two years.

[5] All inflow TP monitoring results shall be reported as separate weekly values without rounding to whole numbers. All results shall also be reported as monthly averages and as FWM annual averages. The monthly averages and FWM annual averages shall be calculated based on the FWM of the weekly values and shall be reported to the nearest whole number (i.e., 10.5 ppb shall be reported as 11 ppb; 10.49 ppb shall be reported as 10 ppb).

Table 2: STA-5/6 Routine Monitoring Program				
PARAMETER	**UNITS**	**SAMPLE TYPE**	**SAMPLING FREQUENCY**	**SAMPLING LOCATION**
Dissolved Oxygen	mg/l	INSITU	W	Inflow and outflow
Mercury	See attached Exhibit D Mercury Monitoring Program			
pH	SU	INSITU	W	Inflow and outflow
Specific Conductance	µmhos	INSITU	W	Inflow and outflow
Temperature	Deg C	INSITU	W	Inflow and outflow
Total Phosphorus (water)[6]	mg/l	FPC/G	W	Inflow, outflow and bypass ~~diversion~~
Total Kjeldahl Nitrogen (TKN) [7]	mg/l	G	BI-W	Inflow and outflow
Turbidity	NTU	G	See Specific Condition 24	Inflow and outflow
Nitrate + Nitrite	mg/l	G	BI-W	Inflow and outflow
Sulfate	mg/l	G	BI-W	Inflow and outflow
Flow	CFS	PR	DAV	Inflow and outflow
Flow[8]	CFS	CAL	DAV	Inflow, outflow and bypass ~~diversion~~
Rainfall Volume	in	RG	DAC	Rainfall Sampling Station

Phosphorus, Total (as P) (ppb)	--	--	Report[5]	Weekly	7-day flow proportioned composite	inflow
Oxygen, Dissolved (DO) (mg/L)	Report See Specific Condition 23			Weekly	Grab (Meter)	outflow
Oxygen, Dissolved (DO) (mg/L)	Report See Specific Condition 23			Weekly	Grab (Meter)	inflow
Flow (cfs) --	Report	See Specific Condition 17 Report	See Specific Condition 17	Continuous	Recorder	Inflow/ outflow

Deleted: monitoring results shall be reported as ~~monthly average and as an~~ annual average. ~~The "monthly average" is a flow-weighted mean of the weekly effluent samples. The "annual average" shall be computed for each water year (May-April) and is equal to the flow-weighted mean concentration for the water year.~~

[6] During bypasses ~~diversions~~, Grab sampling will be conducted at G-407, see Specific Condition 26
[7] Total Nitrogen (TN) is calculated from TKN and nitrate-nitrite values (TN=(nitrate/nitrite) + (TKN)).
[8] During ~~diversions~~ bypasses, G-407 will be monitored for flow, see Specific Condition 26

DONE AND ORDERED on this 29th day of January, 2009 in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

_____
Jerry Brooks, Director
Division of Environmental Assessment and Restoration

JB/em/swf/kje

FILING AND ACKNOWLEDGMENT

FILED, on this date, under Section 120.52(7), F.S., with the designated deputy clerk, receipt of which is hereby acknowledged.

_____
Clerk Date

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