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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 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. 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 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 system, sending flows to the Refuge and downstream areas. The G-339 structure, double vertical lift gates, functions as an emergency diversion system for the remainder of flows should operation of STA-2 require the diversion 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. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions 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.

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 the 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 the scheduled Long-Term Plan improvements and enhancements 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 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 28. The report shall include phosphorus loads from the basins and shall describe trends and compare current loads to those determined necessary to achieve the permit effluent limit.

C. Improvements. If the permit effluent limit is not achieved and if the inflow loads determined necessary to achieve the permit effluent limit are exceeded, the permittee shall submit schedules and strategies for source control improvements necessary to achieve the 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 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 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. 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-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. Factors Outside the Permittee's Control. In the event that non-compliance or failure to achieve 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. 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).

D. Emergency Conditions. Discharges from STA-2 outflow structures or diversion 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 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

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 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 permit effluent limit.

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.

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.

26. Diversion. The District shall notify the Department within 48 hours of any unanticipated diversions of flow through the G-338 and/or G-339 gated structures, and as soon as practicable in advance of anticipated diversions, with the exception of routine maintenance activities. The submitted notification shall include a description of the circumstances related to the diversion and a projection of the anticipated duration of the diversion. All diversions occurring through the G-338 and G-339 structures shall be monitored for the parameters Total Phosphorus and Calculated Flow listed in Table 2 below. As soon as practicable after cessation of all diversions, the District shall submit a summary of the data collected from the table below, and identify the duration of the diversions.

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-2, including Compartment B, due in 2013.

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-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
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 affecting flows and loads to STA-2
2. Source Control implementation and optimization
3. STA design modifications
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
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. Achievement of effluent limitations and/ or implementation of STA Recovery Plans
8. Whether revisions and/or additions to the 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

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-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.

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-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.

35. 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 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**	**Monitoring Frequency**	**Sample Type**	**Sample Point**
Phosphorus, Total (as P) (ppb)	--	--	10 ppb[1,2]	Weekly	7-day flow proportioned composite	outflow
Phosphorus, Total (as P) (ppb)	--	--	Report[1]	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] Monitoring results for this parameter shall be reported as a 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.

[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.

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)[3]	mg/l	FPC/G	W	Inflow, outflow and diversion
Total Kjeldahl Nitrogen (TKN) [4]	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[5]	CFS	CAL	DAV	Inflow, outflow and diversion
Rainfall Volume	in	RG	DAC	Rainfall Sampling Station

[3] During 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

[4] Total Nitrogen (TN) is calculated from TKN and nitrate-nitrite values (TN= (nitrate/nitrite) + (TKN)).

[5] During 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 3/17/09

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.

Renee N. Gray 3/17/09

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
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