Department of Environmental Protection

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2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

COMPREHENSIVE EVERGLADES RESTORATION PLAN REGULATION ACT (CERPRA) PERMIT- OPERATIONS AUTHORIZATION

PERMITTEE:
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida 33416

ATTENTION:
Ms. Carol Ann Wehle
Executive Director

Permit Numbers: 0192879-002-GL
Project: Ten Mile Creek Water Preserve Area Critical Project
County: St. Lucie County

Date of Issuance: 10/16/2006
Expiration Date: 10/16/2011

This permit is issued under the authority of the Comprehensive Everglades Restoration Plan Regulation Act (CERPRA), Chapter 373.1502, Florida Statutes (F.S.); Title 62, (F.A.C.); and pursuant to the Department's authority under Chapters 373 and 403, Florida Statutes. This permit is accompanied by a variance from the dissolved oxygen criterion established in Rule 62.302.530(31), Florida Administrative Code (F.A.C.), and referenced in Specific Condition 11(B) below. The activity is not exempt from the requirement to obtain a CERPRA Permit.

This permit for the operations phase of the Ten Mile Creek Water Preserve Area Critical Project is issued in accordance with the Comprehensive Everglades Restoration Plan Regulation Act, Section 373.1502, F.S. This permit also constitutes a finding of consistency with Florida's Coastal Zone Management Program, as required by Section 307 of the Coastal Management Act, 14 U.S.C. § 1456; constitutes certification of compliance with water quality standards under Section 401 of the Clean Water Act, 33 U.S.C. § 1341; and constitutes consumptive use (general water use) authorization pursuant to Chapter 373, F.S. and Rule 40E-20, F.A.C.

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. Failure to comply with all permit conditions and documents referenced herein shall constitute grounds for revocation of the permit and appropriate enforcement action.

Operation of the facility by the permittee is not authorized until the U.S. Army Corps of Engineers (Corps) District Engineer's turnover of the Project or functional portion thereof to the Non-Federal Sponsor (permittee) for the Project as provided in the Project Cooperation Agreement, and when the project is determined to be in conformance with all applicable rules and with the general and specific conditions of this permit/certification/authorization, as specifically described below.

PROJECT DESCRIPTION:
This project is a Critical Restoration project, which was authorized by Congress under Section 528 of the Water Resources Development Act of 1996. The purpose of the Ten Mile Creek Water Preserve Area Critical Project (Ten Mile Creek Project) is to control the quantity and timing of water deliveries to the North Fork of the St. Lucie River by capturing and storing stormwater originating in the Ten Mile Creek basin. Additional benefits to the St. Lucie River and Estuary should occur due to reduction in sediment load, concentration of suspended solids, and nutrients.

The project involves construction, operation, and maintenance of a two-stage detention system (see Figure 1). The first component is a 526 acre water storage area (reservoir) with an operational storage capacity of 5,786 acre feet, and the second component is a 132 acre treatment cell with an operational storage capacity of 198 acre feet for a combined storage capacity within the facility of approximately 6,000 acre feet. A 380 cfs pump station (S-382) will move water from Ten Mile Creek into the reservoir, from which it will flow downstream into the treatment wetland via a gravity control structure (S-383) with two auxiliary pumps (15 and 25 cfs). An emergency spillway is located adjacent to the pump station for the purpose of discharging water back to Ten Mile Creek prior to the reservoir reaching critical levels. A final control structure (S-384) will convey water by gravity from the treatment wetland into Ten Mile Creek by way of Canal 96. When water is available, the reservoir will also provide irrigation water supply to local agriculture via a return bay at the main pump station.

The Corps is the federal sponsor of this project and is responsible for activities performed during the "period of construction", as defined by Article I.E. of the Project Cooperation Agreement for this project. The South Florida Water Management District (SFWMD) is the local sponsor of this project and is responsible for operation, maintenance, repair, replacement, and rehabilitation in accordance with Article VIII of the Project Cooperation Agreement. A separate permit (Permit No. 0192879-001-GL) was issued to the Corps on July 13, 2003, authorizing activities performed during the construction phase, while this permit is being issued to SFWMD authorizing activities performed during the operations phase. In addition to the construction and operation phase permits, a State Lands Authorization (Permit No. 0192879-003) was issued to the District on December 17, 2002. All conditions found herein apply to the SFWMD.

PROJECT LOCATION*:*
The project is located adjacent to Ten Mile Creek (Class III Waters) in the vicinity of the Gordy Road Structure, which is in St. Lucie County, Sections 25, 26, 27, 34, 35, and 36, Township 35 South, Range 39 East. Specifically, the reservoir and treatment wetland are situated south of Ten Mile Creek and State Road 70, immediately west of the I-95/Florida Turnpike intersection in St. Lucie County, and north of Midway Road.

DECLARATION OF REASONABLE ASSURANCES:

In issuing this permit, the Department finds that the SFWMD has given reasonable assurances sufficient to satisfy the requirements of the Comprehensive Everglades Restoration Plan Regulation Act, Section 373.1502, F.S. The Department bases this finding on the following documents, listed by FDEP document number:

1) United States Army Corps of Engineers, Jacksonville District, Ten Mile Creek Water Preserve Area Critical Project Comprehensive Everglades Restoration Plan Water Quality Certification / Permit Application (Dec. 2001);
2) Post, Buckley, Schuh & Jernigan, for United States Army Corps of Engineers, Jacksonville District, Ten Mile Creek Water Preserve Area, Pump Station S-382, St. Lucie County, Florida, Construction Solicitation and Specifications (Feb. 13, 2002);
3) Post, Buckley, Schuh & Jernigan, for United States Army Corps of Engineers, Jacksonville District, Central and South Florida Ecosystem Critical Restoration Project Plans for Ten Mile Creek Water Preserve Area, St. Lucie County, Florida, Final 100% Plans (Feb. 13, 2002);
4) Post, Buckley, Schuh & Jernigan, for United States Army Corps of Engineers, Jacksonville District, Design Documentation Report for Ten Mile Creek Project, Final (100%) Design (Feb. 13, 2002) (2 volume set);
5) Project Cooperation Agreement Between the Department of the Army and South Florida Water Management District for Construction of Ten Mile Creek Water Preserve Area Critical Restoration Project (Jan. 7, 2000);
6) United States Army Corps of Engineers, Jacksonville District, Ten Mile Creek Monitoring Program (undated);

7) Wetland Solutions, Inc., for South Florida Water Management District, Ten Mile Creek Water Preserve Area – Updated Water Quality Assessment Final Report (June 2002);
8) United States Army Corps of Engineers, Jacksonville District, Draft Preliminary Water Control Plan for the Ten Mile Creek Deep Water Storage Area (Mar. 1, 2002);
9) Agreement By and Between South Florida Water Management District and North St. Lucie River Water Control District Concerning the NSLRWCD Surface Water Management System and the Ten Mile Creek Critical Restoration Project (unexecuted draft);
10) United States Army Corps of Engineers, Jacksonville District, Memorandum for the Chief of Policy and Planning Decision regarding Design Agreement for the Comprehensive Everglades Restoration Plan (Mar. 24, 2000);
11) United States Army Corps of Engineers, Jacksonville District, Response to First Request for Additional Information (Mar. 12, 2002);
12) United States Army Corps of Engineers, Jacksonville District, Response to Second Request for Additional Information (July 18, 2002); and
13) Florida Division of State Lands Title & Lands Records Section, Title Determination in Response to April 30, 2002 Request for Title Review, DEP/BOT/WMD File No. 0192879 (May 23, 2002).

Specifically, there are reasonable assurances, pursuant to section 373.1502, F.S., that:

- "The project component will achieve the design objectives set forth in the detailed design documents submitted as part of the application." This finding is based on document 1 in its entirety with emphasis on section A6; documents 2 and 3; document 4 in its entirety with emphasis on sections 2.1 and 4.18; documents 6 and 7; document 8 in its entirety with emphasis on Appendix E thereto; and documents 10 through 12.

- "State water quality standard, including water quality criteria and moderating provisions, will be met. Under no circumstances shall the project component cause or contribute to violation of state water quality standards." This finding is based on document 1 in its entirety with emphasis on the Environmental Assessment on the Ten Mile Creek Critical Project (tab E), document 2 in its entirety with emphasis on sections 01355 and 01571, document 3, document 4 in its entirety with emphasis on section 4.18, documents 6-8, and documents 11 and 12.

- "Discharges from the project component will not pose a serious danger to public health, safety, or welfare." This finding is based on document 1 in its entirety with emphasis on the Environmental Assessment on the Ten Mile Creek Critical Project (tab E); document 2; document 3; document 4 in its entirety with emphasis on sections 4.16.2, 4.16.3, 4.16.4, and appendices C through E; documents 6-8; and documents 11 and 12.

- "Any impacts to wetlands or threatened or endangered species resulting from implementation of the project component will be avoided, minimized, and mitigated, as appropriate." This finding is based on document 1 in its entirety with emphasis on the Environmental Assessment on the Ten Mile Creek Critical Project (tab E) and the USFWS Draft Coordination Act Report (appendix D to tab E); document 2 in its entirety with emphasis on sections 01355 and 01571; document 3; and documents 11 and 12.

The SFWMD agrees to operate the project in accordance with the provisions of the permit application and supporting documentation.

GENERAL CONDITIONS:
In accordance with Subsection 373.1502(3)(e)(2) of the CERPRA, this permit may include any standard conditions provided by Department rule, which are appropriate and consistent with the CERPRA.

1. Enforcement. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Chapters 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 total project which are not addressed in this permit. However, this permit is in lieu of other permits under Chapter 373 or Chapter 403, F.S., except for permits issued under s. 403.0885, if applicable.

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 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 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.

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; 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 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; 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. Pre-construction/activity authorization. The permittee is hereby advised that Section 253.77, F.S. states that a person may not commence any excavation, construction, or other activity involving the use of sovereign or other lands of the state, the title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund without obtaining 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.

SPECIFIC CONDITIONS:

1. Artifacts. If historical or archaeological artifacts, including but not limited to Indian canoes, are discovered at any time within the project site, the permittee shall immediately notify the Department's Tallahassee Office at the address and telephone number listed in Specific Condition No. 2, below, and the Bureau of Historic Preservation, Division of Historical Resources, R. A. Gray Building, 500 S. Bronough St., Tallahassee, Florida 32399-0250, telephone (904) 487-2333.

2. Addresses. Reports and notices submitted to the Department in accordance with this permit 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) 245-8416.

Operations and Maintenance Conditions

3. Turbidity Monitoring. Effective means of turbidity control, such as, but not limited to, turbidity curtains, shall be employed during all construction, maintenance, or operation activities that may create turbidity so that it shall not exceed 29 NTU's above background in the Ten Mile Creek. Turbidity controls shall be placed and maintained around the work area. All turbidity control devices shall remain in place until all turbidity has subsided and meets state standards.

Turbidity monitoring equipment and personnel trained to use it shall be available on site at all times during construction, maintenance, or operation activities that could result in project-generated turbidity levels beyond the work areas. For monitoring purposes, the work area is that area defined by the turbidity curtained "cell(s)". The permittee shall monitor turbidity levels at least once every four hours during all operations that may create turbidity (unless monitoring data shows this to be excessive) as follows.

A. Monitoring samples shall be taken at the surface at the following locations:

1. Background Sample(s): One background sample station, at least 1000 feet upstream of the work area, in the Ten-Mile Creek, outside any visible plume generated by the construction; and

2. Compliance Sample(s)**:** Monitoring station located in the Ten-Mile Creek adjacent to the work area, no more than 225 feet down current from the work area within the densest portion of any visible plume.

B. Turbidity monitoring results shall be compiled daily and summarized quarterly (every three calendar months) by project. Beginning with the first calendar month in which activities occur that could generate turbidity in waters adjacent to the project sites, a report containing the summarized turbidity monitoring results for each project shall be submitted quarterly to the Department at the address listed in Specific

Condition No. 2. Monitoring data with supporting documents shall be submitted to the Department quarterly during the period of actual construction. The report shall contain 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 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
4. Water level stage and direction of flow.

In the event that project-generated turbidity levels beyond the work areas exceed the standard (29 NTU's above background), project 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.

4. Project Operation and Maintenance. The permittee shall operate and maintain the Ten Mile Creek Project consistent with the design documents and the Operation, Maintenance, Repair, Replacement, and Rehabilitation (OMRR&R) Manual as provided in Article II of the Project Cooperation Agreement between the permittee and the Federal Sponsor (Corps) as required in Specific Condition 9 of Department Permit No. 0192879-001-GL.

5. Requirements for Operation and Maintenance of Above Ground Impoundment(s). 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 Inspection Report shall include a summary of site conditions and the 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, in March and September of each year. Every five years, at a minimum, the permitted facilities shall be inspected by a Florida registered professional engineer and the subsequent Inspection Report shall be signed and sealed. At a future date, the District may request a modification to this condition if these permitted facilities are included in a formalized inspection program that has been reviewed and approved by the Department.

6. Initiation of Operations. The operation phase of this permit shall become effective upon the District Engineer's turnover of the Project or functional portion thereof to the SFWMD as provided in the Project Cooperation Agreement. Prior to turnover to the SFWMD, the Corps will conduct an initial operational testing and monitoring period as described in Permit No. 0192879-001-GL. Notification of the completion of the initial operational testing and monitoring period should be provided to the Department at the addresses listed in Specific Condition 2 prior to the SFWMD's initiation of the operations phase.

7. Operations Phase. The initial operations testing period of this project shall be in accordance with the attached Preliminary Water Control Plan for the Ten Mile Creek Deep Water Storage Area (Exhibit A). This plan includes the flexibility to make incremental changes to the proposed optimum canal elevations and water levels in the reservoir and treatment wetland in order to achieve desired project benefits while maintaining the existing level of flood protection in the Ten Mile Creek basin.

It is anticipated that this preliminary plan will be optimized based on information obtained during initial operations, including improved understanding of the watershed's hydrology, local water management, and regional water management. Modifications to the Preliminary Water Control Plan will be conducted according to procedures in the Corps engineering regulations and manuals and an opportunity will be provided for interested parties, including state agencies, to be involved in the development of and modifications to water control plans. The resulting Long-Term Water Control Plan should be provided to the Department no later than 30 days after it is finalized and prior to initiating any modified operations.

8. Water Quantity and Flooding Impacts. The permittee shall be responsible for ensuring that the project is constructed and operated so as to not 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 construction and operation of this project.

9. Operations Plan. No later than six months after turnover of the Project or functional portion thereof to the Non-Federal Sponsor for the Project, the permittee shall submit to the Department at the addresses listed in Specific Condition 2, a Final Operations Plan for the Ten Mile Creek Project. The Operations Plan shall contain specific provisions for operation of the Ten Mile Creek Project, and the plan shall include the following information:

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 the reservoir and treatment wetland to prevent dryout, 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 the Ten Mile Creek Project. 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;

C. Maximum Water Level Targets for the Treatment Wetland. The permittee shall ensure to the maximum extent practicable that maximum water depths of 4 feet in the treatment wetland are not exceeded for more than 10 consecutive days during storm events;

D. Nutrient Uptake Optimization. Operations shall be conducted to distribute the flows and water levels within the treatment wetland to optimize the nutrient reduction; and

E. Operations Plan and Modifications. If data from the operation of Ten Mile Creek indicate that operations are adversely affecting water quality or performance of the project, then the Operational Plan may be modified, upon approval by the Department. In addition, the Operational Plan may be modified at any time upon the Department's verification of data to be supplied by the permittee that justifies the need for such modification and as mutually agreed upon by the Department and the permittee.

F. Minimum Flows and Levels. The operational protocols (both preliminary and long-term) shall be designed and the project shall be operated so as to be consistent with the St. Lucie Estuary minimum flow and level, as defined in Rule 40E-8, F.A.C.

10. Pre-Discharge (Start-Up) Activities. If the project has not passed the Start-Up test described in Department Permit No. 0192879-001-GL prior to turnover of the project from the Corps to SFWMD, then the conditions of Permit No. 0192879-001-GL pertaining to Pre-Discharge Activities shall be met by the permittee prior to initiating flow-through (discharge) activities.

11. Stabilization/ Post-Stabilization Operations. Following completion of the pre-discharge (Start-Up) activities, the project shall begin a period of stabilization until grow-in of wetland vegetation (in the treatment wetland) is complete. Upon completion of the stabilization phase, the project will begin post-stabilization operations. During the stabilization and post-stabilization operations phases, water quality monitoring shall be conducted in accordance with Table 1 and compliance shall be evaluated as set forth below.

A. Phosphorus and Nitrogen.

1. **Stabilization.** After start-up operations have ended and flow-through operations and discharges have begun, the permittee shall operate and monitor the Ten Mile Creek Project, allowing for a stabilization period. The stabilization period for the Ten Mile Creek Project shall end when the 12-month flow weighted average total phosphorus and nitrogen concentrations at outflow do not exceed, or are equal to, the 12-month flow weighted average total phosphorus and nitrogen concentrations at inflow.

2. **Post-Stabilization.** Once the Ten Mile Creek Project has achieved stabilization as defined above, it will be operated in such a manner as to maximize phosphorus and nitrogen concentration reductions. The permittee shall take all reasonable steps to optimize STA performance consistent with the water quality performance estimates set forth in the final report entitled "Assessment of Water Quality and Environmental Benefits of the Proposed Ten Mile Creek Water Preserve Area" prepared by Robert L. Knight. Phosphorus removal performance estimates for the STA were based on the DMSTA Model and steady-state, infiltrating/exfiltrating model with storage. Nitrogen removal performance estimates for the STA were based on the Sequential Nitrogen Model from Kadlec and Knight (1996). If field conditions in the STA are found to differ significantly from the assumptions for the model parameters or if new information warrants, the design objectives and/or water quality performance estimates for the project shall be modified accordingly. If, after the first three years of operation, the STA is not performing in a manner consistent with its design objectives, the permittee and Department shall confer and develop an optimization plan designed to enhance its performance. The optimization plan shall not include enlargement of the STA footprint unless expressly agreed to by the permittee. Permittee's failure to implement the optimization plan may constitute a violation of this permit.

B. Dissolved Oxygen. A variance consistent with Chapter 403.201, F.S. has been issued in conjunction with the Ten Mile Creek permit to grant relief from the Class III dissolved oxygen criteria at the project outflow (discharge location). Variance Number 0192879-004-EV, dated October 16, 2006 is hereby incorporated by reference and made a part of this permit as Exhibit B. The variance shall remain in effect for the length of the permit and shall be reviewed prior to permit renewal. This project is not authorized to operate unless the variance remains in effect. In order to ensure that the Project is not responsible for degradation of dissolved oxygen in downstream receiving waters, dissolved oxygen data shall be monitored in accordance with Table 1 and evaluated consistent with the variance.

C. Other Water Quality Parameters. For all water quality parameters listed in Table 1 other than total phosphorus, total nitrogen, dissolved oxygen, and mercury, compliance with Section 373.1502(3)(b)(2), F.S., will be determined based on a comparison of concentrations at the outflow, S-384, with the applicable surface water quality criteria identified in Rule 62-302, F.A.C.

D. Public Health, Safety, or Welfare. Pursuant to Subsection (3)(b)(3) of the CERPRA, discharges from the Ten Mile Creek project shall not pose a serious danger to the public health, safety, or welfare.

FACTORS IMPACTING COMPLIANCE

12. Vegetation Conditions. The permittee shall report to the Department any instances in which vegetation conditions in the Ten Mile Creek Project have contributed to non-compliance and shall develop and employ a remediation plan including monitoring and assessment, hydrologic operation controls, and vegetation management practices, as appropriate, in an effort to bring the project into compliance. The permittee shall contact the Department regarding the details of the remediation plan in a timely fashion and shall provide the Department with a detailed discussion of the measures implemented and the results of such measures as part of the annual monitoring report identified in Specific Condition 16.

13. Factors Outside the Permittee's Control. In the event that non-compliance or failure to perform as designed occurs for any reason other than those listed below, the permittee shall take appropriate remedial measures.

A. 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.

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.

MONITORING PROGRAM

14. Monitoring Requirements. The permittee shall conduct a Monitoring Program in accordance with Table 1 and Specific Condition No 15. The permittee shall report the results to the Department, in accordance with the annual reporting requirements specified in Specific Condition No. 16. Pursuant to Subsection 373.1502(3)(b)(2), F.S., under no circumstances shall the project component cause or contribute to violations of state water quality standards set forth in Rule 62-302, F.A.C.

15. Mercury and Pesticide Monitoring. The permittee shall monitor mercury and pesticides, report the results obtained, and take all necessary actions as specified in the document entitled "Ten Mile Creek Water Preserve Area Draft Water Quality Monitoring Plan," which is hereby incorporated by reference and made a part of this permit as Exhibit C. The District shall submit a final water quality monitoring plan prior to initiating any operations.

16. Annual Water Quality Monitoring Reports. The permittee shall submit an "Annual Report" to the Department detailing the progress of the project. In addition to the permit number and name of the permit administrator, the Annual Reports shall contain, at a minimum, the following information: the project name, permit number, a summary of monitoring results from the work conducted under Specific Condition Nos. 14, and 15, an evaluation of the success of the project in achieving its objectives, problems encountered during the period covered, and actions taken to address problems encountered. 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. If additional reporting modifications are required, the permittee may request a modification of the annual report submission date and upon approval by the Department, the permittee may modify the Annual Report submission date to coincide with other reporting requirements and time periods needed for data acquisition and analysis. The reports shall be submitted on an annual basis for a period of 5 years after the completion of construction. At that time the permittee and Department shall meet to determine if further reporting is required.

A. Water Quality Data. Records of monitoring information shall include:

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. Person responsible for performing the analyses;
5. Analytical techniques or methods used, including MDL;
6. Results of such analyses, including appropriate data qualifiers;
7. Depth of samples;
8. Flow conditions and weather conditions at time of sampling; and,
9. Monthly flow volumes.

B. Hydraulic Retention Time. Calculations for reporting which require averaging of measurements shall be weighted by flow value. Comparison of the moving annual average inflow and outflow levels shall be

calculated by comparing outflow data to inflow data adjusted appropriately for the estimated hydraulic retention time within the Project.

C. Performance Evaluation.

1. The operations status of the Project, stating whether the Project is in start-up, stabilization, or normal flow-through 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. During flow-through operations, a statistical evaluation of whether the project is performing in a manner consistent with its design objectives/water quality performance estimates as described in Specific Condition 11.A.2. In the event that the project is not performing in this manner, the Department may impose additional evaluation and reporting requirements;
4. Beginning with the second Annual Report, a comparison of performance of current reporting year with performance in previous years.

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 in the wetted area of the Project. Such reporting shall include the names, concentrations, locations, and quantities of all herbicides and pesticides used.

E. Implementation Schedules. When appropriate, the permittee shall include information on:

1. Comprehensive Everglades Restoration Plan Project implementation;
2. Project optimization;
3. Project design modifications; and,
4. Implementation of remedial measures in the event of noncompliance with permit conditions.

17. 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.

18. Method Detection Limits (MDLs). The sample collection, analytical test methods and method detection limits (MDLs) applicable to this permit shall be performed and reported in accordance with Rule 62-4.246, F.A.C. a 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. More stringent MDLs and PQLs may be necessary for specific parameters. If required, these will be identified in the permit monitoring table.

19. 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.

20. 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.

21. 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 Water Quality Standards and Special Projects Program at the address and telephone number listed in Specific Condition No. 2, of any suspension of sampling 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

22. 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 (3)(g) of the CERPRA.

23. Permit Modifications for Design Changes. The permittee shall submit proposed modifications of the Ten Mile Creek 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. The permittee shall modify the Project, including modifications of the Operations Plan, if the project is not achieving the design objectives of the Ten Mile Creek Project.

B. Modifications for Future Facilities. If the monitoring data indicates the need for the construction of future facilities or structures, prior to construction, the permittee shall apply for modifications to the Ten Mile Creek Project, as appropriate to accommodate for alterations in operations of the Ten Mile Creek Project in conjunction with the construction and operation of the new facilities or structures.

24. 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.

CONSUMPTIVE USE LIMITING CONDITIONS:

1. Applications (see attached Exhibit D)

Application # 040817-4; Permit # 56-02044-W; permanent well for public water supply after completion of construction

Application # 040817-5; Permit # 56-02042-W; temporary well for public water supply during construction

Application # 040817-6; Permit # 56-02043-W; temporary well for concrete processing during construction

2. Water use classification:

Permit # 56-02044-W- public water supply

Permit # 56-02042-W- public water supply

Permit # 56-02043-W- industrial water supply

3. Source Classification:

Permit # 56-02044-W- groundwater from surficial aquifer system

Permit # 56-02042-W- groundwater from surficial aquifer system

Permit # 56-02043-W- groundwater from surficial aquifer system

4. Annual allocation/Maximum Monthly Allocation

Permit # 56-02044-W- Annual allocation shall not exceed 0.0274 MG. Maximum monthly allocation shall not exceed 0.0046 MG.

Permit # 56-02042-W- Annual allocation shall not exceed 1.752 MG. Maximum monthly allocation shall not exceed 0.1459 MG.

Permit # 56-02043-W- Annual allocation shall not exceed 6.935 MG. Maximum monthly allocation shall not exceed 0.575 MG.

5. Pursuant to Rule 40E-1.6105, F.A.C., Notification of Transfer of Interest in Real Property, within 30 days of any transfer of interest or control of the real property at which any permitted facility, system, consumptive use, or activity is located, the permittee must notify the Department, in writing, of the transfer giving the name and address of the new owner or person in control and providing a copy of the instrument effectuating the transfer, as set forth in Rule 40E-1.6107, F.A.C.

6. Pursuant to Rule 40E-1.6107 (4), until transfer is approved by the Department, the permittee shall be liable for compliance with the permit. The permittee transferring the permit shall remain liable for all actions that are required as well as all violations of the permit which occurred prior to the transfer of the permit.

Failure to comply with this or any other condition of this permit constitutes a violation and pursuant to Rule 40E-1.609, Suspension, Revocation and Modification of Permits, the Department may suspend or revoke the permit.

7. Withdrawal Facilities:

Permit # 56-02044-W- Ground Water – Proposed:

1-6” X 150’ X 50 GPM Well Cased to 120 feet

Permit # 56-02042-W- Ground Water – Proposed:

1-4” X 140’ X 15 GPM Well Cased to 120 feet

Permit # 56-02043-W- Ground Water – Proposed:

1-40” X 140’ X 40 GPM Well Cased to 120 feet

8. Permittee shall mitigate interference with existing legal uses that were caused in whole or in part by the permittee’s withdrawals, consistent with the approved mitigation plan. As necessary to offset the interference, mitigation will include pumpage reduction, replacement of the impacted individual’s equipment, relocation of wells, change in withdrawal source, or other means.

Interference to an existing legal use is defined as an impact that occurs under hydrologic conditions equal to or less severe than a 1 in 10 year drought event that results in the:

A. Inability to withdraw water consistent with provisions of the permit, such as when remedial structural or operational actions not materially authorized by existing permits must be taken to address the interference; or

B. Change in the quality of water pursuant to primary State Drinking Water Standards to the extent that the water can no longer be used for its authorized purpose, or such change is imminent.

9. Permittee shall mitigate harm to existing off-site land uses caused by the permittee's withdrawals, as determined through reference to the conditions for permit issuance. When harm occurs, or is imminent, the Department will require the permittee to modify withdrawal rates or mitigate the harm. Harm as determined through reference to the conditions for permit issuance, includes:

A. Significant reduction in water levels on the property to the extent that the designed function of the water body and related surface water management improvements are damaged, not including aesthetic values. The designed function of a water body is identified in the original permit or other governmental authorization issued for the construction of the water body. In case where a permit was not required, the designed function shall be determined based on the purpose for the original construction of the water body (e.g. fill for construction, mining, drainage canal, etc.)

B. Damage to agriculture, including damage resulting from reduction in soil moisture resulting from consumptive uses; or

C. Land collapse or subsidence caused by reduction in water levels associated with consumptive use.

10. Permittee shall mitigate harm to the natural resources caused by the permittee's withdrawals, as determined through reference to the conditions for permit issuance. When harm occurs, or is imminent, the Department will require the permittee to modify withdrawal rates or mitigate the harm. Harm, as determined through reference to the conditions for permit issuance includes:

A. Reduction in ground or surface water levels that results in the harmful lateral movement of the fresh water/salt water interface;

B. Reduction in water levels that harm the hydroperiod of wetlands;

C. Significant reduction in water levels or hydroperiod in a naturally occurring water body such as a lake or pond;

D. Harmful movement of contaminants in violation of state water quality standards; or

E. Harm to the natural system including damage to habitat for rare and endangered species.

11. The permittee is advised that this permit does not relieve any person from the requirement to obtain all necessary federal, state, local and special district authorizations.

12. The permit does not convey any property right to the Permittee, nor any rights and privileges other than those specified in this Permit and Chapter 40E-2, Florida Administrative Code.

13. Permittee shall submit all data as required by the implementation schedule for each of the consumptive use limiting conditions to the Department's Division of Water Resource Management at the address identified in Specific Condition No. 2.

14. In the event of a declared water shortage, water withdrawal reductions will be ordered by the Department in accordance with the Water Shortage Plan, Chapter 40E-21, F.A.C. The Permittee is advised that during a water shortage, pumpage reports shall be submitted as required by Chapter 40E-21, F.A.C.

15. Permittee shall secure a well construction permit prior to construction, repair, or abandonment of all wells, as described in Chapters 40E-3 and 40E-30, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Jerry Brooks 10/16/06

Jerry Brooks Date
Deputy Director
Division of Water Resource Management

JB/sy/me

FILING AND ACKNOWLEDGMENT

FILED, on this date, with the designated Department Clerk, receipt of which is hereby acknowledged.

10/13/06

Clerk Date

ELECTRONIC COPIES FURNISHED TO:
Chip Merriam, South Florida Water Management District
John Mitnik, South Florida Water Management District
Kirk Burns, South Florida Water Management District
Denise Arrieta, South Florida Water Management District
Maura Merkal, South Florida Water Management District
Mark White, U.S. Army Corps of Engineers
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Margaret Embry, FDEP, Tallahassee
Ernie Marks, FDEP, Tallahassee

Table Key

Sample Type: G = Grab sample
INSITU = In Situ field sample
PR = Pump record
CAL = Calculated parameter
RG = Rain Gauge
ACF = Automatic Composite Flow Proportional

Sample Locations: Inflow = S-382 Pump Station
Outflow = S-384 Structure
Rainfall Sampling Station

Sample Frequency: BI-W = BI-Weekly
DAC = Daily accumulation of continuous sampling
DAV = Daily averages of continuous sampling
Q = Quarterly
W = Weekly, if flowing
D= Diel

TABLE 1 - ROUTINE MONITORING PROGRAM

PARAMETER	UNITS	SAMPLE TYPE	SAMPLING FREQUENCY	SAMPLING LOCATION
Ammonia	mg/l	G	BI-W	Inflow & Outflow
Calcium	mg/l	G	Q	Inflow & Outflow
Total Copper	µg/l	G	Q	Inflow & Outflow
Dissolved Oxygen[1]	mg/l	INSITU INSITU	W D	Inflow & Outflow Outflow
Magnesium	mg/l	G	Q	Inflow & Outflow

Mercury and Pesticides	(See Specific Condition 15)			
pH	SU	INSITU	W	Inflow & Outflow
Specific Conductance	Umhos	INSITU	W	Inflow & Outflow
Temperature	Deg C	INSITU	W	Inflow & Outflow
Total Phosphorus[2]	mg/l	ACF G	W BI-W	Inflow & Outflow Inflow & Outflow
Total Nitrogen	mg/l	CALC	BI-W	Inflow & Outflow
Nitrate + Nitrite	mg/l	G	BI-W	Inflow & Outflow
Total Kjiedahl Nitrogen	mg/l	G	BI-W	Inflow & Outflow
Ortho-Phosphate	mg/l	G	BI-W	Inflow & Outflow
Flow[3]	CFS	PR	DAV	Inflow & Outflow
Flow[3]	CFS	CAL	DAV	Inflow & Outflow
Rainfall Amount	Inches	RG	DAC	Rainfall Sampling Station

[1] See Variance No.: 0192789-004-EV. Diel monitoring shall occur for one annual monitoring period after which it may be discontinued per District request.

[2] During start-up or if the flow proportionate composite sampler is not functioning properly, then grab samples can be used.

[3] During periods of low water when flow is moving from the reservoir into Ten Mile Creek, flow data collected at S-382 shall be labeled as S-382O to distinguish it from inflow data.