

STANDARD ENVIRONMENTAL RESOURCE PERMIT TECHNICAL STAFF REPORT

03-Sep-2009

APPLICATION #: 40-069-114354-2

**Applicant:** Lake County Department of Public Works  
C/O Jim Stivender, Jr., P.E. / P.L.S.  
437 Ardice Avenue  
Eustis, FL 32726 USA  
(352) 483-9000

**Owner:** Lake County Board of County Commissioners  
315 W Main St  
Tavares, FL 32778 USA  
(352) 483-9005

**Consultant:** HNTB Corporation  
C/O Karen Van den Avont PE  
300 Primera Blvd Ste 200  
Lake Mary, FL 32746 USA  
(407) 805-0355

**Project Name:** Hartwood Marsh Road-Phase II

**Acres Owned:** 78.68

**Project Acreage:** 78.68

**County:** Lake

**STR:**

Section(s):	Township(s):	Range(s):
1,2,11,10,3	23S	26E

**Receiving Water Body:**

Name	Class
Depressed Areas,Johns Lake	III Fresh

**Authority:** 40C-4.041(2)(b)2

**Existing Land Use:** Borrow Areas(7420), Coniferous Plantations(4410), Roads and Highways(8140)

**Mitigation Drainage Basin:** Southern Ocklawaha River

**Special Regulatory Basin:** Ocklawaha River  
**Final O&M Entity:** Lake County Department of Public Works  
**ERP Conservation Easements/Restrictions:** N/A  
**Interested Parties:** No  
**Objectors:** No

**Authorization Statement:**

Construction and operation of a Surface Water Management System for a 78.68-acre roadway expansion project known as Hartwood Marsh Road-Phase II. The proposed surface water management system must be constructed in accordance with the plans received by the District on March 2, 2009, and as amended by Sheets 1, 21, 28, 29, 96, 97-98, 101-103, 111, 112, 135-149, 204-208, received by the District on May 15, 2009, and Sheets 22, 96A and 99, received by the District on September 2, 2009. This permit does not authorize any work in, on or over surface waters or wetlands.

**Recommendation:** Approval

**Reviewers:** Sandra Joiner; Steven Williams

**Staff Comments**

**Project Location and Brief Description:**

The proposed project includes the realignment and reconstruction of Hartwood Marsh Road from a two-lane undivided rural roadway to a four-lane divided urban roadway with a raised median, bicycle lanes, sidewalk and multi-purpose recreational path. The project begins 1,500 feet east of Hancock Road and extends east through the Tarmac Sand Mine property to the Lake - Orange County line, for a total distance of 3.171 miles. The project site is located within the Palatka River Hydrologic Basin, which is nested within the Southern Ocklawaha River Hydrologic Basin. A portion of the project is within the Lake Apopka Hydrologic Basin.

**Permitting History:**

Hartwood Marsh Road Phase I was permitted under SJRWMD Permit No. 40-069-114354-1 on August 14, 2008. The project included the widening of Hartwood Marsh Road from US 27 to 1,500 feet east of Hancock Road from a two lane road to a four lane road. A multipurpose trail was also included within the construction boundary of the project. Stormwater treatment was provided by

two dry retention ponds.

## **Engineering**

### **Description of Surface Water Management System:**

The surface water management system is comprised of four retention ponds (Pond 3, Pond 5, Pond 6 and Pond 7). Pond 3 consists of two interconnected ponds (3A and 3B) and is located within the Tarmac sand mine property.

In the pre-development condition, runoff from the roadway sheet flows without treatment to either off-site depressed areas or to Johns Lake. In the post-development condition, runoff generated by the proposed roadway and contributing runoff from off-site areas will be conveyed to the retention system via a piped conveyance system for the required water quality treatment and attenuation.

### **Water Quality:**

Each pond is designed to retain and recover the required treatment volume pursuant to Rule 40C-42.026(1), F.A.C. for discharge to Class III waters.

Pond 3 is located within the Tarmac sand mine and fill will be required to construct the roadway and pond within the mine area. Because the fill has not been placed, the design and recovery of Pond 3 is based on an assumed minimum permeability rate of 19.5 feet/day. Based on this, subsequent permeability testing following pond construction is recommended to validate the permeability rates assumed in the design and recovery of the pond.

### **Flood Protection:**

The roadway and retention system are located within land locked basins. Each pond was designed to retain and recover the entire runoff volume generated by the 25-year, 96-hour storm event excluding infiltration considerations.

A portion of the roadway and Pond 5 within Basin 5 will encroach into the 10-year flood plain of Johns Lake. A compensating storage area was created to offset the impacts to the floodplain, resulting in a no net loss of floodplain storage for Johns Lake.

### **Special Basin Criteria:**

The entire project is located within the Ocklawaha River Hydrological Basin. The retention system design meets District criteria for projects located within this special basin.

Drainage Basins 5, 6 and 7 are located within the Lake Apopka Hydrologic Basin. The applicant has demonstrated that the proposed roadway improvements will result in a net reduction in phosphorous load for projects located within this special basin.

## **Environmental**

### **Site Description:**

The pre-development site conditions of the 78.68-acre project area include the existing Hartwood Marsh roadway, pine plantation and a sand mine. The pine plantation is a result of land use changes associated with the decline of the citrus industry in Lake County. A slash pine canopy with occasional citrus trees and a dense bed of pine straw are the significant features of the pine plantation. The proposed alignment of the road will also traverse a sand mine. The mine is no longer in operation and will be reclaimed prior to construction of the Hartwood Marsh Phase II roadway. There are no wetlands or other surface waters within the project area. An herbaceous wetland is located immediately east of the proposed Pond 5, but outside of the project area. There is sufficient distance from the pond to preclude impacts to the herbaceous wetland.

**Impacts:** *Subsection 12.2.2, ERP A.H., states that an applicant must provide reasonable assurances that a regulated activity will not impact the values of wetland and other surface water functions so as to cause adverse impacts to: (a) the abundance and diversity of fish, wildlife and listed species; and (b) the habitat of fish, wildlife and listed species.*

The project site consists entirely of uplands and does not contain wetlands or other surface waters. All proposed activities occur in uplands. No impacts to wetlands or other surface waters are proposed.

**Secondary impacts:** *Subsection 12.2.7, ERP A.H., contains a four part criterion which addresses additional impacts that may be caused by a project: (a) impacts to wetland functions that may result from the intended use of a project; (b) impacts to the upland nesting habitat of listed species that are aquatic or wetland dependent; (c) impacts to significant historical and archaeological resources that are closely linked and causally related to any proposed dredging or filling of wetlands or other surface waters; and (d) wetland impacts that may be caused by future phases of the project or activities that are closely linked and causally related to the project.*

The proposed activities were assessed for the potential to result in unacceptable secondary impacts, as defined in subsection 12.2.7, ERP A.H. The applicant is providing sufficient distance from proposed construction to preclude secondary impacts to the adjacent wetlands. No evidence was observed that would indicate that the uplands on the site are being utilized by aquatic and wetland dependent species for nesting and denning. There are no known future phases, closely related on-site activities, or closely related off-site activities that would result in unacceptable impacts to the water resources. Therefore, it has been determined that the applicant has provided reasonable assurances that the proposed activities will not result in unacceptable secondary impacts, as defined in subsection 12.2.7, ERP A.H.

**Elimination/Reduction of Impacts:** *Pursuant to subsection 12.2.1, ERP A.H., the applicant must consider practicable design modifications, which would reduce or eliminate adverse impacts to wetlands and other surface waters. A proposed modification which is not technically capable of being done, is not economically viable, or which adversely affects public safety through endangerment of lives or property is not considered "practicable".*

No impacts to wetlands or other surface waters are proposed; therefore, elimination or reduction of impacts is not applicable for this project.

**Mitigation:**

No impacts to wetlands or other surface waters are proposed; therefore, mitigation of impacts is not applicable for this project.

**Cumulative Impacts:** *Subsection 12.2.8, ERP A.H., requires applicants to provide reasonable assurances that their projects will not cause unacceptable cumulative impacts upon wetlands and other surface waters within the same drainage basin as the project for which a permit is sought. This analysis considers past, present, and likely future similar impacts and assumes that reasonably expected future applications with like impacts will be sought, thus necessitating equitable distribution of acceptable impacts among future applications. Mitigation, which offsets a projects adverse impacts within the same basin as the project for which a permit is sought is presumed to not cause unacceptable cumulative impacts.*

No impacts to wetlands or other surface waters are proposed; therefore, a cumulative impacts analysis is not applicable for this project.

**Special Basin Criteria**

The project is located within the Southern Ocklawaha River Hydrologic Basin.

**Summary:**

The applicant has provided reasonable assurance that the proposed activities meet the conditions for issuance of permits specified in section 40C-40.302, F.A.C.

**Conditions**

ERP General Conditions : 1-19

ERP/MSSW/Stormwater Special Conditions : 1, 4, 10, 13

## Other Conditions

1. The permit does not authorize any work in, on or over wetlands or other surface waters.
2. The proposed surface water management system must be constructed in accordance with the plans received by the District on March 2, 2009, and as amended by Sheets 1, 21, 28, 29, 96, 97-98, 101-103, 111, 112, 135-149, 204-208, received by the District on May 15, 2009, and Sheets 22, 96A and 99, received by the District on September 2, 2009.
3. The operation and maintenance entity shall inspect the stormwater or surface water management system within one year after the completion of construction and every year thereafter to determine if the system is functioning as designed and permitted. The operation and maintenance entity must maintain a record of each required inspection, including the date of the inspection, the name, address, and telephone number of the inspector, and whether the system was functioning as designed and permitted, and make such record available for inspection upon request by the District during normal business hour.

If at any time the system is not functioning as designed and permitted, then within 14 days the entity shall submit an Exceptions Report on form number 40C-42.900(6), Exceptions Report for Stormwater Management Systems Out of Compliance.

4. Contained within the as-built report, the permittee must submit a soils analysis for Ponds 3A and 3B verifying that the design permeability rate of 19.5 feet/day (minimum) is provided. If the design permeability rate cannot be verified, the permittee must obtain a modification of this permit demonstrating that the design criteria and objectives of Chapter 40C-4 and 40C-42, F.A.C. are met.