STANDARD ENVIRONMENTAL RESOURCE PERMIT TECHNICAL STAFF REPORT
23-Jun-2011
APPLICATION #: 40-069-50126-4

Applicant: Lake County Department of Public Works
Jim Stivender Jr
123 N Sinclair Avenue
Deer Island FL 32778 USA
(352) 343-9655

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

Consultant: TLP Engineering Consultants Inc
James E Myers
3208 W SR 426 Ste 1020
Oviedo FL 32765 USA
(407) 951-8811

Project Name: Hancock Road-Old Hwy 50 to Fosgate Road
Acres Owned: 33.0
Project Acreage: 33.0
County: Lake
STR:

Section(s):	Township(s):	Range(s):
8,9,16,17	22S	26E

Receiving Water Body:

Name	Class
Unnamed Depressional Area,Patterson Lake,Plum Lake	III Fresh

Authority: 40C-4.041(2)(b)4
Existing Land Use: Residential - Low Density(1100), Medium Density Under Construction(1290), Roads and Highways(8140), Improved Pastures(2110)
Mitigation Drainage Basin: Southern Ocklawaha River
Special Regulatory Basin: Lake Apopka Basin, Ocklawaha River
Final O&M Entity: Lake County
ERP Conservation Easements/Restrictions: No

Interested Parties: No
Objectors: No

Authorization Statement:

Construction of a Surface Water Management System for a 33.03-acre project known as Hancock Road-Old Hwy 50 to Fosgate Road. The proposed surface water management system shall be constructed and operated as per plans received by the District on January 27, 2011 and as amended by plan sheets 2, 3, & 4 received by the District on May 31, 2011.

Recommendation: Approval
Reviewers: Ruth Grady; Rick Sobczak; Steve Williams

Staff Comments

Project Location and Brief Description:

The 1.42-mile roadway extension is located along N. Hancock Road just south of Old Hwy 50 to north of Fosgate Avenue in Lake County. The site is also located within the Lake Apopka Hydrologic Basin, and the Ocklawaha River Hydrologic Basin.

Engineering

Description of Surface Water Management System:

The proposed 1.42-mile roadway extension will consist of a 4-lane divided urban roadway with curb and gutter, re-alignment of Old Highway 50 from Turkey Farms Road to N. Hancock Road, 5-foot sidewalk, stormsewer system, and a surface water management system that includes two dry retention ponds (Ponds 1 & 2), existing SkyRidge Subdivision dry retention Pond J, and the existing Reserve at Minneola Subdivision dry retention pond.

In the post-development condition, runoff from the roadway will be conveyed to the proposed surface water management system for water quality treatment and runoff attenuation prior to discharging in the same direction as in the pre-development condition.

Under the master design assumptions of Permit Number 4-069-92447-1 (The Reserve @ Minneola Subdivision), 2.34 acres of drainage area and 1.29 acres of impervious area from Hancock Road were included in the design for the pond that is adjacent to the ball fields. Under the proposed Hancock Road improvement, 1.95 acres of drainage area and 1.25 acres of impervious area will be conveyed to the system, and will remain within the original design assumptions for Hancock Road. The pond will not be modified.

The proposed roadway alignment will impact a portion of the existing Sky Lake Subdivision that includes reconfiguration of existing dry retention Pond 3, which is part of three interconnected ponds (Permit Number 42-069-101701: Sky Lake Subdivision). The applicant has provided calculations demonstrating that the modified system has sufficient capacity. No impervious area from the proposed roadway will be conveyed to existing Pond 3.

As a result of the roadway re-alignment of Old Highway 50 from Turkey Farms Road to N. Hancock Road, the project design proposes to remove 1.14 acres of impervious area of Old Highway 50 from the SkyRidge Subdivision Pond J basin (Permit Number 4-069-19450-1: SkyRidge Valley Residential) and replace with 1.05 acres of new impervious area, and is consistent with the original design assumptions for Pond J. The result will be a reduction in the overall impervious area to SkyRidge Subdivision Pond J of 0.09 acres. The pond will not be modified.

The applicant has provided reasonable assurance that the proposed project is consistent with the design criteria and objectives of the District as set forth in Chapters 40C-4, 40C-41 and 40C-42, F.A.C. and that the proposed project meets all applicable conditions for permit issuance pursuant to Sections 40C-4.301 and 40C-40.302, F.A.C.

Water Quality:

Plans and calculations submitted for the proposed site show that the project meets the requirements for water quality treatment.

Flood Protection:

Plans and calculations submitted for the proposed site show that the project meets the requirements for peak discharge rate attenuation for the mean annual, 24-hour, 10-year, 24-hour and the 25-year, 24-hour storm events.

The receiving water bodies for the proposed system are considered to be landlocked. The applicant has submitted plans and calculations demonstrating that the proposed surface water management system will provide storage and recovery of the difference between the pre-development and the post-development runoff volume from the 25-year, 96-hour storm event, pursuant to Chapter 40C-4, F.A.C. and Section 10.4 of the Applicant's Handbook: Management and Storage of Surface Waters.

Special Basin Criteria:

The project site is located within the Ocklawaha River Hydrologic Basin. The applicant has demonstrated that the proposed surface water management system meets all conditions for issuance of permits, pursuant to Chapter 40C-41.063(2), F.A.C. and Section 11.2. ERP Applicant's Handbook (A.H.). More specifically:

Storm Frequency: The system has been designed to provide attenuation of the post-development peak rate of discharge to that of the pre-development peak rate of discharge for the 10-year 24-hour storm event.

Runoff Volume: The proposed system is not utilizing a pumped discharge, thus satisfying the runoff volume criteria.

The project site is also located within the Lake Apopka Hydrologic Basin. The applicant has demonstrated that the proposed system meets all conditions for issuances of permits, pursuant to subsection 40C-41.063(8), F.A.C. and Section 11.7, ERP A.H. by demonstrating that the proposed surface water management system will attenuate the post-development phosphorus loading to pre-development levels.

Environmental

Site Description:

The pre-existing site conditions include improved pasture, low- and medium density residential, and 2-lane paved and dirt rural roads. The proposed roadway alignment diverges from the current alignment at the southern end of the project. The road traverses through an improved pasture that was formerly utilized as a citrus grove. Continuing north, the alignment pass through existing single family homes on large lots and Jim Hunt Road. Jim Hunt Road is an unpaved road serving homes farther to the east. Beyond the low-density homes, the alignment passes through partially constructed residential subdivisions. Only the infrastructure, roads, utilities and stormwater, is in place within these subdivisions. No homes are present. Past the second subdivision, the proposed alignment matches the current alignment for Turkey Farm Road.

A freshwater marsh is located at the eastern extent of the project along Jim Hunt Road. A culvert from the proposed pond will discharge into a spreader swale near the marsh. The outfall structure from the culvert and associated spreader swale are beyond the limits of the wetland and sufficiently distant to preclude secondary impacts.

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.*

There are no wetland or other surface water impacts associated with this project.

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 project is sufficiently distant from wetlands or other surface waters within or adjacent to the project site to preclude secondary impacts.
- 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 significant historical or archaeological resources that will be impacted by this project according to a DHR letter received with the application packet on January 27, 2011.
- There are no known future phases, closely related onsite activities, or closely related offsite activities that would result in unacceptable impacts to the water resources.

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".*

There are no wetland or other surface water impacts associated with this project.

Mitigation:

There are no wetland or other surface water impacts associated with 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.*

There are no wetland or other surface water impacts associated with this project.

Summary:

The applicant has provided reasonable assurance that the proposed activities meet the conditions for issuance of permits specified in section 40C-4.301 and 40C-4.302, F.A.C.

Conditions

1. All activities shall be implemented as set forth in the plans, specifications and performance criteria as approved by this permit. Any deviation from the permitted activity and the conditions for undertaking that activity shall constitute a violation of this permit.

2. This permit or a copy thereof, complete with all conditions, attachments, exhibits, and modifications, shall be kept at the work site of the permitted activity. The complete permit shall be available for review at the work site upon request by District staff. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.

3. Activities approved by this permit shall be conducted in a manner which do not cause violations of state water quality standards.

4. Prior to and during construction, the permittee shall implement and maintain all erosion and sediment control measures (best management practices) required to retain sediment on-site and to prevent violations of state water quality standards. All practices must be in accordance with the guidelines and specifications in chapter 6 of the Florida Land Development Manual: A Guide to Sound Land and Water Management (Florida Department of Environmental Regulation 1988), which are incorporated by reference, unless a project specific erosion and sediment control plan is approved as part of the permit, in which case the practices must be in accordance with the plan. If site specific conditions require additional measures during any phase of construction or operation to prevent erosion or control sediment, beyond those specified in the erosion and sediment control plan, the permittee shall implement additional best management practices as necessary, in accordance with the specifications in chapter 6 of the Florida Land Development Manual: A Guide to Sound Land and Water Management (Florida Department of Environmental Regulation 1988). The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources.

5. Stabilization measures shall be initiated for erosion and sediment control on disturbed areas as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased.

6. At least 48 hours prior to commencement of activity authorized by this permit, the permittee shall submit to the District a Construction Commencement Notice Form No. 40C-4.900(3) indicating the actual start date and the expected completion date.

7. When the duration of construction will exceed one year, the permittee shall submit construction status reports to the District on an annual basis utilizing an Annual Status Report Form No. 40C-4.900(4). These forms shall be submitted during June of each year.

8. For those systems which will be operated or maintained by an entity which will require an easement or deed restriction in order to provide that entity with the authority necessary to operate or maintain the system, such easement or deed restriction, together with any other final operation or maintenance documents as are required by subsections 7.1.1 through 7.1.4 of the Applicant's Handbook: Management and Storage of Surface Waters, must be submitted to the District for approval. Documents meeting the requirements set forth in these subsections of the Applicant's Handbook will be approved. Deed restrictions, easements and other operation and maintenance documents which require recordation either with the Secretary of State or the Clerk of the Circuit Court must be so recorded prior to lot or unit sales within the project served by the system, or upon completion of construction of the system, whichever occurs first. For those systems which are proposed to be maintained by county or municipal entities, final operation and maintenance documents must be received by the District when maintenance and operation of the system is accepted by the local governmental entity. Failure to submit the appropriate final documents referenced in this paragraph will result in the permittee remaining liable for carrying out maintenance and operation of the permitted system.

9. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the initiation of the permitted use of site infrastructure located within the area served by the portion or phase of the system. Each phase or independent portion of the system must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of that phase or portion of the system to local government or other responsible entity.

10. Within 30 days after completion of construction of the permitted system, or independent portion of the system, the permittee shall submit a written statement of completion and certification by a registered professional engineer or other appropriate individual as authorized by law, utilizing As Built Certification Form 40C-1.181(13) or 40C-1.181(14) supplied with this permit. When the completed system differs substantially from the permitted plans, any substantial deviations shall be noted and explained and two copies of as-built drawings submitted to the District. Submittal of the completed form shall serve to notify the District that the system is ready for inspection. The statement of completion and certification shall

be based on on-site observation of construction (conducted by the registered professional engineer, or other appropriate individual as authorized by law, or under his or her direct supervision) or review of as-built drawings for the purpose of determining if the work was completed in compliance with approved plans and specifications. As-built drawings shall be the permitted drawings revised to reflect any changes made during construction. Both the original and any 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. The following information, at a minimum, shall be verified on the as-built drawings: 1. Dimensions and elevations of all discharge structures including all weirs, slots, gates, pumps, pipes, and oil and grease skimmers; 2. Locations, dimensions, and elevations of all filter, exfiltration, or underdrain systems including cleanouts, pipes, connections to control structures, and points of discharge to the receiving waters; 3. Dimensions, elevations, contours, or cross-sections of all treatment storage areas sufficient to determine state-storage relationships of the storage area and the permanent pool depth and volume below the control elevation for normally wet systems, when appropriate; 4. Dimensions, elevations, contours, final grades, or cross-sections of the system to determine flow directions and conveyance of runoff to the treatment system; 5. Dimensions, elevations, contours, final grades, or cross-sections of all conveyance systems utilized to convey off-site runoff around the system; 6. Existing water elevation(s) and the date determined; and Elevation and location of benchmark(s) for the survey.

11. The operation phase of this permit shall not become effective until the permittee has submitted the appropriate As-Built Certification Form, the District determines the system to be in compliance with the permitted plans, and the entity approved by the District in accordance with subsections 7.1.1 through 7.1.4 of the Applicant's Handbook: Management and Storage of Surface Waters, accepts responsibility for operation and maintenance of the system. The permit may not be transferred to such an approved operation and maintenance entity until the operation phase of the permit becomes effective. Following inspection and approval of the permitted system by the District, the permittee shall request transfer of the permit to the responsible approved operation and maintenance entity, if different from the permittee. Until the permit is transferred pursuant to section 7.1 of the Applicant's Handbook: Management and Storage of Surface Waters, the permittee shall be liable for compliance with the terms of the permit.

12. Should any other regulatory agency require changes to the permitted system, the permittee shall provide written notification to the District of the changes prior implementation so that a determination can be made whether a permit modification is required.

13. This permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any activity approved by this permit. This permit does not convey to the permittee or create in the

permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the permit and chapter 40C-4 or chapter 40C-40, F.A.C.

14. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities which may arise by reason of the activities authorized by the permit or any use of the permitted system.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered specifically approved unless a specific condition of this permit or a formal determination under rule 40C-1.1006, F.A.C., provides otherwise.

16. The permittee shall notify the District in writing within 30 days of any sale, conveyance, or other transfer of ownership or control of the permitted system or the real property at which the permitted system is located. All transfers of ownership or transfers of a permit are subject to the requirements of rule 40C-1.612, F.A.C. The permittee transferring the permit shall remain liable for any corrective actions that may be required as a result of any permit violations prior to such sale, conveyance or other transfer.

17. Upon reasonable notice to the permittee, District authorized staff with proper identification shall have permission to enter, inspect, sample and test the system to insure conformity with the plans and specifications approved by the permit.

18. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the District.

19. The permittee shall immediately notify the District in writing of any previously submitted information that is later discovered to be inaccurate.

20. This permit for construction will expire five years from the date of issuance.

21. At a minimum, all retention and detention storage areas must be excavated to rough grade prior to building construction or placement of impervious surface within the area to be served by those facilities. To prevent reduction in storage volume and percolation rates, all accumulated sediment must be removed from the storage area prior to final grading and stabilization.

22. All wetland areas or water bodies that are outside the specific limits of construction authorized by this permit must be protected from erosion, siltation, scouring or excess turbidity, and dewatering.

23. Prior to construction, the permittee must clearly designate the limits of construction on-site. The permittee must advise the contractor that any work outside the limits of construction, including clearing, may be a violation of this permit.

24. The operation and maintenance entity shall inspect the stormwater or surface water management system once within two years after the completion of construction and every two years 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 hours. If at any time the system is not functioning as designed and permitted, then within 14 days the entity shall submit an Exceptions Report to the District, on form number 40C-42.900(6), Exceptions Report for Stormwater Management Systems Out of Compliance.

25. The proposed surface water management system shall be constructed and operated in accordance with the plans received by the District on January 27, 2011 and as amended by plan sheets 2, 3, & 4 received by the District on May 31, 2011.

26. This permit does not authorize any work in, on, or over wetlands or other surface waters.