

INDIVIDUAL ENVIRONMENTAL RESOURCE PERMIT TECHNICAL STAFF REPORT
09-Jul-2014
APPLICATION #: IND-117-128293-1

Applicant: FDOT - District 5
Hannah Hernandez
719 S Woodland Blvd
Deland, FL 32720-6834
(386) 943-5601

Owner: FDOT - District 5
Hannah Hernandez
719 S Woodland Blvd
Deland, FL 32720-6834
(386) 943-5601

Consultant: E Sciences Inc
Paul Sebert
34 E Pine St
Orlando, FL 32801-2608
(407) 481-9006

Project Name: SR 15/600 Roadway Widening

Acres Owned: 87.18

Project Acreage: 84.0

County: Seminole

STR:

Section(s):	Township(s):	Range(s):
11,14,15,21,22,27,28	20S	30E

Receiving Water Body:

Name	Class
Six-Mile Creek	III Fresh
Soldier Creek	III Fresh, OFW

Authority: 40C-4.041(2)(b)2, 40C-4.041(2)(b)8
Mixed Wetland Hardwoods(6170), Residential - Medium
Density(1200), Hardwood - Conifer Mixed(4340), Commercial and
Services(1400), Disturbed Land(7400), Other Light Industrial(1550),
Existing Land Use: Community Recreational Facilities(1860), "Residential, High
Density"(1300), Lakes(5200), Roads and Highways(8140), Electrical
Power Transmission Lines(8320), Herbaceous(3100), Streams and
Waterways(5100)

Mitigation Drainage Basin: Lake Jesup, St. Johns River (Canaveral Marshes to Wekiva)

Special Regulatory Basin:

Final O&M Entity: Florida Department of Transportation - District 5

ERP Conservation Easements/Restrictions No
:

Interested Parties: No

Objectors: No

Authorization Statement:

Construction and operation of a surface water management system for SR 15/600 Roadway, a 84.0 acre road widening development to be constructed and operated as per plans received by the District on June 10, 2014. This permit authorizes 4.68 acres of wetland and surface water impacts.

Recommendation: Approval

Reviewers: Tonya Guadalupe; Richard Lee; Monica Sovacool

Staff Comments**Project Location and Brief Description:**

The project is located along SR 15/600 (aka US Highway 17-92) from Shepherd Road to Lake Mary Boulevard, in Winter Springs, Seminole County. The project is located in two basins, the Lake Jesup Hydrologic Basin and St. John's River (Canaveral Marshes to Wekiva) Hydrologic Basins. This project consists of widening SR 15/600 from four lanes to six lanes, adding a four foot bike lane in each direction, and the construction of a raised median, wet detention pond, French drains, retention swales, two exfiltration trench systems, and associated roadway drainage infrastructure.

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

The project is located on State Road 15/600 from Shepard Road to Lake Mary Boulevard, Seminole County. The project corridor traverses 3.65 miles through the cities of Sanford, Longwood, Winter Springs, and Lake Mary. The proposed improvements involve widening the existing roadway from four lanes to six lanes, constructing a 4 foot bike lane in each direction with a 30 foot to 22 foot wide raised median, constructing a wet detention pond, French drains, retention swales, two exfiltration trench systems, and associated roadway drainage infrastructure, to provide the required water quality treatment and attenuation of the stormwater runoff from the roadway. The proposed wet detention pond, French drains, retention swales, and exfiltration trenches will provide as much treatment and attenuation as physically possible within the established right of way.

Water Quality:

The applicant has submitted plans and calculations demonstrating that the proposed surface water management system will provide treatment and recovery of the required treatment volume pursuant to Section 8.0 A.H. Volume 2.

Flood Protection:

The applicant has submitted plans and calculations demonstrating that the proposed surface water management system will provide for attenuation of the peak rate of discharge of stormwater runoff from the mean annual and 25-year/24-hour storm events.

Special Basin Criteria:

The project is not located within any special hydrologic basins.

Environmental**Site Description:**

The limits of the proposed construction are located within and adjacent to the existing right of way of US Highway 17-92, an existing four lane roadway. Adjacent to this portion of existing roadway are 8 moderate quality forested and herbaceous wetlands. Additionally, several roadside ditches run along the eastern and western portions of the roadway. Staff has determined that these surface waters are not providing significant habitat, cover, refuge, or areas for breeding, nesting, and denning for aquatic or wetland dependent species. These ditches are located within the existing road right of way and are also periodically mowed and maintained.

Impacts: *Subsection 10.2.2, ERP A.H. Volume I, 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.*

Construction of the proposed improvements involve work in 4.68 acres of forested wetlands, herbaceous wetlands, and roadside ditches (of which 2.56 acres require mitigation).

The applicant proposes to dredge and fill 2.56 acres of moderate quality wetlands in association with the construction of the proposed wet detention pond, the road widening and sidewalk installation. The proposed removal of 2.56 acres of mixed hardwood and herbaceous wetlands will adversely affect the functions these systems provide to fish and other wildlife and will adversely affect the abundance and diversity of fish, wildlife, and their habitat. The applicant proposes to mitigate these impacts as summarized in the mitigation section, below.

Additionally, the applicant proposes to dredge and fill 2.12 acres of roadside ditches in association with the construction of the road widening and sidewalk installation. These ditches are low in function and do not provide significant habitat, cover, or food sources for fish or other wildlife, therefore the filling of these ditches, will not result in unacceptable impacts to the abundance or diversity of fish, other wildlife, or their habitat.

Secondary impacts: *Subsection 10.2.7, ERP A.H. Volume I, 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.*

Although portions of the proposed activities are to be located immediately adjacent to the remaining portions of the forested systems near the existing roadway, it is not anticipated that the proposed activities will significantly increase the existing secondary impacts resulting from the existing adjacent urban land uses. The applicant has proposed to install handrails along the portions of the sidewalk adjacent to these wetlands. Additionally, the applicant is replacing the existing triple 8 X 8 box culvert at Soliders Creek with an open span bridge to improve wildlife crossing opportunities.

However, the habitat value and wetland functions provided by a portion of Wetland A will be degraded as a result of secondary impacts from the construction of Pond A. Although the project is anticipated to result in secondary impacts to water resources, the applicant has proposed a mitigation plan that will be sufficient to offset the loss of habitat and function provided by these resources as summarized in the mitigation section below. Therefore, it has been determined that the applicant has provided reasonable assurances that the proposed activities will not result in unacceptable adverse secondary impacts, as described by Section 10.2.7(a), ERP A.H.

The proposed project does not contain upland habitats that provide significant nesting, denning, or breeding habitat for wetland dependent "listed" species, therefore, the applicant has demonstrated that the project will not cause unacceptable adverse secondary impacts, as described by Section 10.2.7(b), A.H.

Pursuant to Section 10.2.7(c), A.H., there are no known archaeological or historical resources of significance on, or adjacent to the site, that could be adversely affect by the proposed activities, as indicated by the correspondence received by the Division of Historical Resources on August 9, 2011.

Although future phases of the project are possible, available parcels adjacent to the project area contain sufficient uplands for development so that additional direct and secondary wetland impacts from future phases are not anticipated. Therefore, the project is not anticipated to cause adverse secondary impacts to wetlands, pursuant to Section 10.2.7(d), A.H.

Elimination/Reduction of Impacts: *Pursuant to subsection 10.2.1, ERP A.H. Volume I, 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".*

All of the proposed impacts are necessary to accommodate the widening of the roadway, associated pedestrian sidewalks and the stormwater management system.

There are no apparent design changes that would further reduce wetland impacts and that are also practicable, as defined in subsection 10.2.1, ERP A.H.

Mitigation:

To mitigate the impacts to the 2.56 acres of impacts to the mixed hardwood wetlands, the applicant has purchased and transferred to the District, a 18.5 acre parcel in the Black Hammock, south of Lake Jesup, known as the Joanne Logue Parcel. This parcel was initially used for mitigation for two previous projects associated with the Central Florida Commuter Rail project (#4-117-114454-1 and #40-117-114454-7) and the remaining acreage was allocated to be used for future FDOT projects within the basin. The remaining approximately 7.72 acres of the parcel will be used to offset 1.89 acres of wetland impacts proposed in this permit application. The Department has also provided funding for restoration and enhancement of the entire parcel, and long term management.

The Joanne Logue Parcel is bordered to the north and to the east by the District's Lake Jesup Conservation Area. The property consists of approximately $3\frac{1}{4}$ acres of uplands which contain two single family residences and numerous historical auxiliary buildings, and approximately $14\frac{3}{4}$ acres of mixed hardwood wetlands and wet prairie/ pasture. It is anticipated that approximately $1\frac{1}{2}$ acres of the uplands will be preserved with the existing historical buildings to remain, approximately 0.5 acre of pasture may be retained for public access, and approximately $\frac{3}{4}$ acre will be restored to mixed hardwood wetlands. It also is anticipated that the hydrology of the mixed hardwood wetland will be enhanced through the removal of an existing driveway and numerous shallow drainage swales, and that the wet prairie will be enhanced through topographic restoration. District ownership of the parcel will enhance management of the adjacent District lands.

This portion of the proposed wetland impacts and mitigation were assessed utilizing the Uniform Mitigation Assessment Method (UMAM), pursuant to 62-345, F.A.C.

The remaining 0.67 acres of direct impacts and the anticipated secondary impacts are being off set by purchasing 2.0 credits from the Lake Monroe Mitigation Bank.

The bank occurs on the east floodplain of Lake Monroe. The bank is managed to restore and enhance nearby St. Johns River floodplain resources that are comparable in function to the wetlands being impacted adjacent to US Highway 17-92. Use of a mitigation bank is an appropriate and permittable mitigation option when the mitigation bank will offset the adverse impacts of the project and on-site mitigation opportunities are not expected to have comparable long-term viability due to such factors as ecologically incompatible existing adjacent land uses or future land uses (10.4.2(a), ERP A.H Volume I).

Because the Lake Monroe Mitigation Bank has not elected to have their credits re-evaluated using the Unified Mitigation Assessment Method described in chapter 62-345,

F.A.C., the amount of mitigation needed to offset these proposed impacts was determined utilizing the methods specified in sections 10.3 and 10.4, ERP A.H. Volume I, in accordance with the provisions of subsection 62-345.100(6), F.A.C.

Cumulative Impacts: *Subsection 10.2.8, ERP A.H. Volume I, 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.*

The Logue site is located within the Lake Jesup Hydrologic Basin, the same basin as the majority of the impact wetlands. The Lake Monroe Mitigation Bank lies within the St. John's River (Canaveral marshes to Wekiva) Hydrologic Basin.

Although a portion of this mitigation is located within a different hydrologic basin that most of the impact wetlands, the project is not anticipated to have adverse cumulative impacts. A substantial amount of the mitigation for the proposed impacts has been provided within the Lake Jesup Hydrologic Basin. The functions provided by the remaining impact wetlands are likely to be provided via the adjacent mitigation basin (the St. Johns River (Canaveral marshes to Wekiva) Hydrologic Basin), and it is reasonable to anticipate "spillover" benefits from the Lake Monroe Mitigation Bank that are located in this adjacent basin.

SR 15/600 Roadway Widening Roadway

	Acres
Total Surface Water	6.641
Total Wetlands	4.436
Total OSW	2.205
Impacts that Require Mitigation	2.563
Dredged or Filled	0.466
Dredged or Filled	1.184
Dredged or Filled	0.305
Dredged or Filled	0.252
Dredged or Filled	0.124
Dredged or Filled	0.008
Dredged or Filled	0.080
Dredged or Filled	0.144
Impacts that Require No Mitigation	2.117
Dredged or Filled	0.069

Dredged or Filled	0.040
Dredged or Filled	0.183
Dredged or Filled	0.125
Dredged or Filled	0.045
Dredged or Filled	0.153
Dredged or Filled	0.095
Dredged or Filled	0.095
Dredged or Filled	0.079
Dredged or Filled	0.131
Dredged or Filled	0.073
Dredged or Filled	0.053
Dredged or Filled	0.115
Dredged or Filled	0.034
Dredged or Filled	0.102
Dredged or Filled	0.071
Dredged or Filled	0.137
Dredged or Filled	0.079
Dredged or Filled	0.048
Dredged or Filled	0.072
Dredged or Filled	0.110
Dredged or Filled	0.185
Dredged or Filled	0.023
Mitigation	19.905
On-Site	0.000
Off-Site	19.905
Enhancement	6.635
Enhancement	6.635
Enhancement	6.635
Other	Reserved
	Credits
Mitigation Bank Credits (LAKE MONROE MITIGATION BANK,18,General Wetlands)	2.000

Summary:

The applicant has provided reasonable assurance that the proposed project meets the conditions for issuance of permits specified in rules 62-330.301 and 62-330.302, F.A.C.

Conditions

1. The proposed surface water management system shall be constructed and operated in accordance with the plans received by the District on July, 2011.

2. All activities shall be implemented following the plans, specifications and performance criteria approved by this permit. Any deviations must be authorized in a permit modification in accordance with Rule 62-330.315, F.A.C. Any deviations that are not so authorized may subject the permittee to enforcement action and revocation of the permit under Chapter 373, F.S.
3. A complete copy of this permit shall be kept at the work site of the permitted activity during the construction phase, and shall be available for review at the work site upon request by the District staff. The permittee shall require the contractor to review the complete permit prior to beginning construction.
4. Activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Performance-based erosion and sediment control best management practices shall be installed immediately prior to, and be maintained during and after construction as needed, to prevent adverse impacts to the water resources and adjacent lands. Such practices shall be in accordance with the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (Florida Department of Environmental Protection and Florida Department of Transportation June 2007), and the Florida Stormwater Erosion and Sedimentation Control Inspector's Manual (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008), which are both incorporated by reference in subparagraph 62-330.050(9)(b)5, F.A.C., unless a project-specific erosion and sediment control plan is approved or other water quality control measures are required as part of the permit.
5. At least 48 hours prior to beginning the authorized activities, the permittee shall submit to the District a fully executed Form 62-330.350(1), "Construction Commencement Notice,"[10-1-13], incorporated by reference herein (<http://www.flrules.org/Gateway/reference.asp?No=Ref-02505>), indicating the expected start and completion dates. A copy of this form may be obtained from the District, as described in subsection 62-330.010(5), F.A.C. If available, an District website that fulfills this notification requirement may be used in lieu of the form.
6. Unless the permit is transferred under Rule 62-330.340, F.A.C., or transferred to an operating entity under Rule 62-330.310, F.A.C., the permittee is liable to comply with the plans, terms and conditions of the permit for the life of the project or activity.
7. Within 30 days after completing construction of the entire project, or any independent portion of the project, the permittee shall provide the following to the Agency, as applicable:
 1. For an individual, private single-family residential dwelling unit, duplex, triplex, or quadruplex — "Construction Completion and Inspection Certification for Activities Associated With a Private Single-Family Dwelling Unit" [Form 62-330.310(3)]; or

2. For all other activities — “As-Built Certification and Request for Conversion to Operational Phase” [Form 62-330.310(1)].
 3. If available, an Agency website that fulfills this certification requirement may be used in lieu of the form.
8. If the final operation and maintenance entity is a third party:
 1. Prior to sales of any lot or unit served by the activity and within one year of permit issuance, or within 30 days of as-built certification, whichever comes first, the permittee shall submit, as applicable, a copy of the operation and maintenance documents (see sections 12.3 thru 12.3.3 of Volume I) as filed with the Department of State, Division of Corporations and a copy of any easement, plat, or deed restriction needed to operate or maintain the project, as recorded with the Clerk of the Court in the County in which the activity is located.
 2. Within 30 days of submittal of the as- built certification, the permittee shall submit “Request for Transfer of Environmental Resource Permit to the Perpetual Operation Entity” [Form 62-330.310(2)] to transfer the permit to the operation and maintenance entity, along with the documentation requested in the form. If available, an Agency website that fulfills this transfer requirement may be used in lieu of the form.
9. The permittee shall notify the District in writing of changes required by any other regulatory District that require changes to the permitted activity, and any required modification of this permit must be obtained prior to implementing the changes.
10. This permit does not:
 1. Convey to the permittee any property rights or privileges, or any other rights or privileges other than those specified herein or in Chapter 62-330, F.A.C.;
 2. Convey to the permittee or create in the permittee any interest in real property;
 3. Relieve the permittee from the need to obtain and comply with any other required federal, state, and local authorization, law, rule, or ordinance; or
 4. Authorize any entrance upon or work on property that is not owned, held in easement, or controlled by the permittee.
11. Prior to conducting any activities on state-owned submerged lands or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund, the permittee must receive all necessary approvals and authorizations under Chapters 253 and 258, F.S. Written authorization that requires formal execution by the Board of Trustees of the Internal Improvement Trust Fund shall not be considered received until it has been fully executed.

12. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities that may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any project authorized by the permit.
13. The permittee shall notify the District in writing:
 1. Immediately if any previously submitted information is discovered to be inaccurate; and
 2. Within 30 days of any conveyance or division of ownership or control of the property or the system, other than conveyance via a long-term lease, and the new owner shall request transfer of the permit in accordance with Rule 62-330.340, F.A.C. This does not apply to the sale of lots or units in residential or commercial subdivisions or condominiums where the stormwater management system has been completed and converted to the operation phase.
14. Upon reasonable notice to the permittee, District staff with proper identification shall have permission to enter, inspect, sample and test the project or activities to ensure conformity with the plans and specifications authorized in the permit.
15. If any prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoes, or any other physical remains that could be associated with Native American cultures, or early colonial or American settlement are encountered at any time within the project site area, work involving subsurface disturbance in the immediate vicinity of such discoveries shall cease. The permittee or other designee shall contact the Florida Department of State, Division of Historical Resources, Compliance and Review Section, at (850) 245-6333 or (800) 847-7278, as well as the appropriate permitting agency office. Such subsurface work shall not resume without verbal or written authorization from the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and notification shall be provided in accordance with Section 872.05, F.S.
16. 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 binding unless a specific condition of this permit or a formal determination under Rule 62-330.201, F.A.C., provides otherwise.
17. The permittee shall provide routine maintenance of all components of the stormwater management system to remove trapped sediments and debris. Removed materials shall be disposed of in a landfill or other uplands in a manner that does not require a permit under Chapter 62-330, F.A.C., or cause violations of state water quality standards.
18. This permit is issued based on the applicant's submitted information that reasonably demonstrates that adverse water resource-related impacts will not be

caused by the completed permit activity. If any adverse impacts result, the District will require the permittee to eliminate the cause, obtain any necessary permit modification, and take any necessary corrective actions to resolve the adverse impacts.

19. A Recorded Notice of Environmental Resource Permit may be recorded in the county public records in accordance with Rule 62-330.090(7), F.A.C. Such notice is not an encumbrance upon the property.

20. This permit authorizes 4.68 acres of impacts to wetlands and other surface waters.

21. Mitigation to offset the 1.89 acres of wetlands and other surface waters within the Lake Jesup basin (23) authorized by this permit will be provided through the acquisition, enhancement/restoration/preservation, and donation to the District of 7.72 acres of approximately 18.5 acres of property located on Elm Street in the Black Hammock area of Seminole County owned by Joanne W. Logue and identified by parcel numbers 2520315BA181A, 2520315BA182A, 2520315BA183A, 2520315BA183B, and 2520315BA184A.

22. Prior to initiating any construction, the permittee must provide the District with documentation demonstrating that 2.0 general wetlands mitigation credits have been debited from the Lake Monroe Mitigation Bank ledger.

In the event that the permittee does not successfully complete the transaction to obtain 2.0 general wetlands mitigation credits from Lake Monroe Mitigation Bank, the permittee must obtain a permit modification to provide alternative mitigation.

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

24. 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.

25. 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 and contact information 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 30 days the entity shall submit a report electronically or in writing to the District using Form 62-330.311(1), "Operation and Maintenance Inspection

Certification,” describing the remedial actions taken to resolve the failure or deviation.

26. 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.

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UNIFORM MITIGATION ASSESSMENT WORKSHEET – PART I
Form 62-345.900(1), F.A.C. (See Section 62-345.400, F.A.C.)

Site/Project Name Central Florida Commuter Rail Transit - Phase 1		Application Number 114454-1		Assessment Area Name or Number LKJESUP(R)	
FLUCCs code 6170-Mixed Wetland Hardwoods		Further classification (optional)		Impact or Mitigation Site? Creation/Restoration	
				Assessment Area Size 0.306	
Basin/Watershed Name/Number 22-Central Indian River Lagoon		Affected Waterbody(Class) Lake Jesup		Special Classification (i.e. OFW, AP, other local/state/federal designation of importance)	
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands					
Assessment area description					
Significant nearby features			Uniqueness (considering the relative rarity in relation to the regional landscape.)		
Functions			Mitigation for previous permit/other historic use		
Anticipated Wildlife Utilization based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)			Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)		
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):					
Additional relevant factors:					
Assessment conducted by: Ralph Miller			Assessment date(s): 26-Sep-2008		

PART II - Quantification of Assessment area (impact or mitigation)
(See section 62-345.500 and .600, F.A.C.)

Site/Project name	Application Number	Assessment Area Name or Number
Central Florida Commuter Rail Transit - Phase 1	114454-1	LKJESUP(R)
Impact or Mitigation	Assessment conducted by:	Assessment date:
Creation/Restoration	Ralph Miller	26-Sep-2008

Impact or Mitigation	Optimal (10)	Moderate (7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Conditions is insufficient to provide wetland/surface water functions

.500(6)(a) location and Landscape Support w/o pres or current with 0 9	Source of upland exotic and cultivated species will be eliminated.
.500(6)(b) Water Environment (n/a for uplands) w/o pres or current with 0 9	Hydrology will match surrounding mixed hardwood wetlands. Existing septic system will be removed, thereby improving water quality.
.500(6)(c) Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current with 0 9	Area will be revegetated by natural recruitment to match surrounding mixed hardwood wetlands.

Score = sum of above scores/30 (if upland, divide by 20)	
w/o pres or current	with
0.000	0.900

Delta = [with-current]
0.900

If preservation as mitigation,	
Preservation adjustment factor = X	0.0
Adjusted mitigation delta = (DELTA X ADJUSTMENT FACTOR) 0	0.000

If mitigation	
Time lag (t-factor) = X	1.68
Risk factor = X	2.00

For impact assessment areas	
FL = delta x acres = 0	0.306
	0.000

For Mitigation assessment areas	
RFG = delta/(t-factor x risk) = 0	0.267

UNIFORM MITIGATION ASSESSMENT WORKSHEET – PART I
Form 62-345.900(1), F.A.C. (See Section 62-345.400, F.A.C.)

Site/Project Name Central Florida Commuter Rail Transit - Phase 1		Application Number 114454-1		Assessment Area Name or Number LKJESUP(E1)	
FLUCCs code 6170-Mixed Wetland Hardwoods		Further classification (optional)		Impact or Mitigation Site? Enhancement	
				Assessment Area Size 7.119	
Basin/Watershed Name/Number 23-Lake Jesup		Affected Waterbody(Class) Lake Jesup		Special Classification (i.e. OFW, AP, other local/state/federal designation of importance)	
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands					
Assessment area description					
Significant nearby features			Uniqueness (considering the relative rarity in relation to the regional landscape.)		
Functions			Mitigation for previous permit/other historic use		
Anticipated Wildlife Utilization based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)			Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)		
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):					
Additional relevant factors:					
Assessment conducted by: Ralph Miller			Assessment date(s): 26-Sep-2008		

PART II - Quantification of Assessment area (impact or mitigation)
(See section 62-345.500 and .600, F.A.C.)

Site/Project name	Application Number	Assessment Area Name or Number
Central Florida Commuter Rail Transit - Phase 1	114454-1	LKJESUP(E1)
Impact or Mitigation	Assessment conducted by:	Assessment date:
Enhancement	Ralph Miller	26-Sep-2008

Impact or Mitigation	Optimal (10)	Moderate (7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Conditions is insufficient to provide wetland/surface water functions

.500(6)(a) location and Landscape Support w/o pres or current with 9 9	Mixed hardwood wetlands within assessment area are contiguous with District-owned lands to the east and north and agricultural lands to the south and west. No significant change in adjacent land use or landscape support is anticipated from the proposed hydrologic enhancements.
.500(6)(b) Water Environment (n/a for uplands) w/o pres or current with 8 9	Shallow swales and a filled access driveway through the assessment area results in anthropogenic channelization of the historical sheet flow hydrology that would have existed in this wetland. The shallow swales serve to interconnect lower areas in which some on-site retention/percolation would have occurred. Filling of the shallow swales and removal of the access drive to adjacent grade will restore sheet flow hydrologic conditions to the assessment area.
.500(6)(c) Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current with 8 9	Some encroachment of more transitional vegetation has occurred, likely as a result of the shortened hydroperiod resulting from the above-discussed hydrologic alterations. Restoration of the sheet flow hydrology to the assessment area is expected to result in increased hydroperiod in certain areas which will return the vegetative characteristics and composition to more natural conditions.

Score = sum of above scores/30 (if upland, divide by 20)	
w/o pres or current	with
0.833	0.900

Delta = [with-current]
0.067

If preservation as mitigation,	
Preservation adjustment factor = X	0.0
Adjusted mitigation delta = (DELTA X ADJUSTMENT FACTOR) 0	0.000

If mitigation	
Time lag (t-factor) = X	1.25
Risk factor = X	1.50

For impact assessment areas	
FL = delta x acres = 0	7.119
	0.000

For Mitigation assessment areas	
RFG = delta/(t-factor x risk) = 0	0.035

UNIFORM MITIGATION ASSESSMENT WORKSHEET – PART I
Form 62-345.900(1), F.A.C. (See Section 62-345.400, F.A.C.)

Site/Project Name Central Florida Commuter Rail Transit - Phase 1		Application Number 114454-1		Assessment Area Name or Number LKJESUP(E2)	
FLUCCs code 6410-Freshwater Marshes		Further classification (optional)		Impact or Mitigation Site? Enhancement	
				Assessment Area Size 0.218	
Basin/Watershed Name/Number 23-Lake Jesup		Affected Waterbody(Class) Lake Jesup		Special Classification (i.e. OFW, AP, other local/state/federal designation of importance)	
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands					
Assessment area description					
Significant nearby features				Uniqueness (considering the relative rarity in relation to the regional landscape.)	
Functions				Mitigation for previous permit/other historic use	
Anticipated Wildlife Utilization based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)				Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)	
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):					
Additional relevant factors:					
Assessment conducted by: Ralph Miller				Assessment date(s): 26-Sep-2008	

PART II - Quantification of Assessment area (impact or mitigation)
(See section 62-345.500 and .600, F.A.C.)

Site/Project name	Application Number	Assessment Area Name or Number
Central Florida Commuter Rail Transit - Phase 1	114454-1	LKJESUP(E2)
Impact or Mitigation	Assessment conducted by:	Assessment date:
Enhancement	Ralph Miller	26-Sep-2008

Impact or Mitigation	Optimal (10)	Moderate (7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Conditions is insufficient to provide wetland/surface water functions

.500(6)(a) location and Landscape Support w/o pres or current with 9 9	The hydric pasture within assessment area is contiguous with District-owned lands to the east and north and agricultural lands to the south and west. No significant change in adjacent land use or landscape support is anticipated from the proposed hydrologic enhancements.
.500(6)(b) Water Environment (n/a for uplands) w/o pres or current with 7 9	The proposed topographic changes will increase staging and significantly increase the hydroperiod within the assessment area. It is anticipated that the assessment area will remain saturated or inundated nearly year round in the post-condition, where as the assessment area currently remains saturated and sparsely inundated during normal wetland season conditions.
.500(6)(c) Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current with 4 9	The existing mix of bahiagrass, carpet grass, sedges, and rushes will be converted to a freshwater marsh community typical of longer hydroperiod systems. It is anticipated that the enhanced hydroperiod will result in a greater diversity of desirable wetland vegetation within the assessment area.

Score = sum of above scores/30 (if upland, divide by 20)
w/o pres or current with
0.666 0.900

Delta = [with-current]
0.234

If preservation as mitigation,
Preservation adjustment factor = X 0.0
Adjusted mitigation delta = (DELTA X ADJUSTMENT FACTOR) 0 0.000

If mitigation
Time lag (t-factor) = X 1.14
Risk factor = X 1.50

For impact assessment areas
FL = delta x acres = 0 0.218
0.000

For Mitigation assessment areas
RFG = delta/(t-factor x risk) = 0 0.136

UNIFORM MITIGATION ASSESSMENT WORKSHEET – PART I
Form 62-345.900(1), F.A.C. (See Section 62-345.400, F.A.C.)

Site/Project Name Central Florida Commuter Rail Transit - Phase 1		Application Number 114454-1		Assessment Area Name or Number LKJESUP(UP)	
FLUCCs code 1100-Residential - Low Density		Further classification (optional)		Impact or Mitigation Site? Upland Preservation	
				Assessment Area Size 0.655	
Basin/Watershed Name/Number 23-Lake Jesup		Affected Waterbody(Class) Lake Jesup		Special Classification (i.e. OFW, AP, other local/state/federal designation of importance)	
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands					
Assessment area description					
Significant nearby features			Uniqueness (considering the relative rarity in relation to the regional landscape.)		
Functions			Mitigation for previous permit/other historic use		
Anticipated Wildlife Utilization based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)			Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)		
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):					
Additional relevant factors:					
Assessment conducted by: Ralph Miller			Assessment date(s): 26-Sep-2008		

PART II - Quantification of Assessment area (impact or mitigation)
(See section 62-345.500 and .600, F.A.C.)

Site/Project name	Application Number	Assessment Area Name or Number
Central Florida Commuter Rail Transit - Phase 1	114454-1	LKJESUP(UP)
Impact or Mitigation	Assessment conducted by:	Assessment date:
Upland Preservation	Ralph Miller	26-Sep-2008

Impact or Mitigation	Optimal (10)	Moderate (7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Conditions is insufficient to provide wetland/surface water functions

.500(6)(a) location and Landscape Support w/o pres or current with 3 4	Decrease in agricultural usage will allow additional landscape support to native fauna.
.500(6)(b) Water Environment (n/a for uplands) w/o pres or current with 0 0	
.500(6)(c) Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current with 4 4	Uplands are to be maintained as a historical educational facility. No significant changes to vegetation are anticipated.

Score = sum of above scores/30 (if upland, divide by 20)	
w/o pres or current	with
0.350	0.400
Delta = [with-current]	
0.050	

If preservation as mitigation,	
Preservation adjustment factor = X	0.4
Adjusted mitigation delta = (DELTA X ADJUSTMENT FACTOR) 0	0.020

For impact assessment areas	
FL = delta x acres = 0	0.655
	0.000

If mitigation	
Time lag (t-factor) = X	1.00
Risk factor = X	1.00

For Mitigation assessment areas	
RFG = delta/(t-factor x risk) = 0	0.020