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EVALUATION OF WETLAND AND LAKE CONSTRAINT SITES IN LAKE, ORANGE, OSCEOLA, SEMINOLE AND VOLUSIA COUNTIES

Technical Memorandum

Evaluation of Wetland and Lake Constraint Sites in Lake, Orange, Osceola, Seminole and Volusia Counties

Prepared for

St. Johns River Water Management District

September 2005

CH2MHILL
Gainesville, Florida

Contents

Introduction

Background and Purpose

The St. Johns River Water Management District (SJRWMD) manages water supply primarily through its Water Supply Planning, Minimum Flows and Levels (MFLs), and Consumptive Use Permitting (CUP) programs. These programs are based on the premise that sustainable water sources must be able to supply the needed amounts, as defined by projected demands, without incurring unacceptable, adverse impacts to the water resource, the natural systems dependent upon the resource, and existing legal users. These restrictions are termed water resource withdrawal constraints.

The objective of this Constraint Site Evaluation is to assess the condition of selected constraint wetlands and water bodies used in the east-central Florida (ECF) ground water optimization model. SJRWMD proposes to use the results of this evaluation to determine if these constraint wetlands and water bodies continue to have value as indicators of unacceptable impacts. The work effort consisted of the following activities:

1. Develop plan for a systematic inspection of 25 selected constraint wetlands in the ECF model domain.
2. Develop a data sheet for summarizing field observations.
3. Inspect each wetland and assess the relative value and hydrologic condition of the wetland, including landuse impacts.
4. Compile a summary report noting exceptions to a wetland status of good functional value; include the field data sheets as an appendix.

This Technical Memorandum (TM) is organized as follows:

- Methods and Approach—development of the list of sites, and the field data sheet.
- Results of Site Inspections
- Discussion of Findings
- Recommendations

Methods and Approach

Site Selection

25 sites associated with groundwater model grid cells were selected for their high marginal value in the ECF optimization model by SJRWMD staff for this field verification effort. The 25 sites are distributed across four counties (Lake, Orange, Osceola, Seminole and Volusia counties).

Field Data Sheet

A four page field data sheet was developed to provide a means for rapid assessment and characterization of each wetland or lake site. It was anticipated that the data sheet could be completed in approximately 30 minutes from the time the observer arrived at the site.

The data sheet allows for assessment of the following:

- Structure and composition of the vegetative community
- Plant community health and vigor
- Condition of hydric soils
- Hydrologic conditions
- Wildlife observations

The data sheet also allows for characterization of the range of general site conditions, as addressed by the following questions:

- **Habitat gradient**—How much of a full habitat gradient is present at the site from aquatic and/or wetland habitat up gradient to and including adjacent native upland habitat?

- **Habitat qualities**—Are the habitats present in relatively natural condition in terms of plant species composition and structure?

- **Hydrology and landscape position**—Has surface hydrology been significantly altered? Is the site hydrologically isolated (is not a flow-through system), or does it have a high-water level outflow?

- **Stormwater inflows and outflows**—Are there any signs of significant adverse effects to habitat, hydrologic regime, or water quality due to inflows of urban or suburban stormwater?

- **Shoreline development**—What percentage of the shoreline is cleared or altered for agricultural, residential or commercial development?

- **Land protection**—Is the wetland or lake on publicly-owned land, or does some other form of land use protection exist?

- **Site Disturbance**—Are there signs of recent land disturbance either within the wetland or water body, or on the adjacent upland perimeter?

- **Drainage Alteration**— Are there signs of recent drainage alteration either within the wetland or water body, or on the adjacent upland perimeter?

To the extent possible, observations relating to the above listed eight site characteristics were recorded. Also, whenever possible the water level at the time of the site visit was related to an indicator of high water level, such as lichen lines or water stains on dock supports or pilings. Also, one or more photos were taken at each site. Spatial coordinates (latitude and longitude) for each site were obtained either with a hand-held Global Positioning System (GPS) or from digital topographic quadrangle maps.

Several other location-related characteristics were noted for each site, such as whether the site has one or more of the following features: 1) located in SJRWMD or South Florida Water Management District (SFWMD), 2) site is monitoring site under a current consumptive use permit (CUP), 3) site is a wetland or water body for which minimum flows and levels (MFLs) are established or are scheduled to be established, 4) site location relative to CONSERV I & II.

Results and Discussion

The 25 lake and wetland sites were spread across four counties (Lake, Orange, Osceola, and Seminole) (Exhibit 1). All site inspections were done by Bill Dunn of CH2M HILL with the assistance of Robert Fewster, an environmental scientist with SJRWMD. All 25 sites were visited over the course of 4 days, August 10th, 11th, 23rd, and 24th. This TM provides the general characteristics of each site (Exhibit 2), an aerial photograph of each site (Appendix A), and the field data sheets for each site (Appendix B).

General Site Conditions

Sites were generally found to be good candidates for continued use as constraint points in the ECF ground water optimization model. All sites were found to be of sufficient habitat quality and function such that if the area were significantly, adversely impacted by a groundwater or surface water activity, then mitigation would be required.

Site Specific Conditions

General categories of sites are described as follows.

CUP Monitoring Sites and MFL Sites

Fourteen of the 25 sites are being monitored either as an MFL site, or as part of special condition of a CUP (Exhibit 2). Eight of the twenty five sites are CUP monitoring sites, and 11 have established MFLs or are scheduled to have MFLs set in the near future. Five of the sites are both CUP monitoring sites and MFL sites: Trout Lake (No. 50), Gleason (No. 53), Sylvan Lake (No. 75), Crystal Lake (No. 87) and Lake Lucy (No. 136). A number of sites were included in the Sentinel Site Survey (CH2M HILL 2004).

CONSERV Area

Sawgrass Lake (No. 170) in SE Lake County is in a CONSERV grove irrigation area. CONSERV I and CONSERV II are areas within Orange County receiving recycled water discharged into either rapid infiltration basins (RIBs), or as citrus grove irrigation water, both of which result in some level of groundwater recharge. More importantly, however, irrigation and RIBs also augment levels in the surficial aquifer system (SAS) locally, and thus can affect levels within adjacent lakes and wetlands, and the use of the site as a constraint.

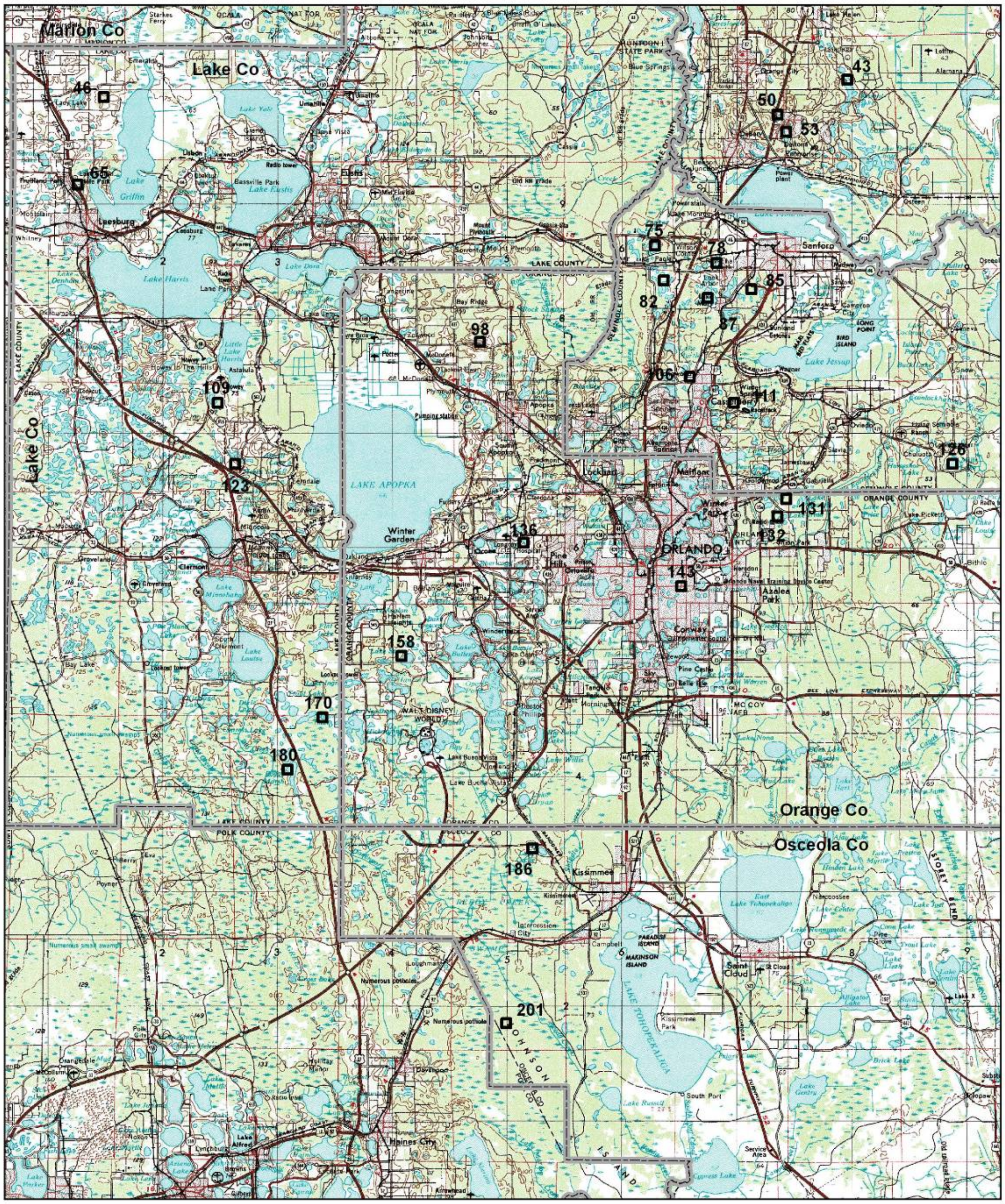
Isolated Versus Flow-through Systems

Dead River Marsh (No. 65) is a lobe on the west side of Lake Griffin, thus it is part of the complex of large connected lakes in the upper Ocklawaha River basin and is thus less sensitive as a constraint site.

Water Quality impairments

Most sites showed little to no obvious signs of water quality impairment from stormwater inflows. One site, the Lake Cecile Wetland (No. 186) did show signs of adverse impacts from urban stormwater inflows. Stormwater inflow zones at this site contained a great deal of trash and debris, and in general the water body appeared eutrophic with dense stands of cattail, floating mats of filamentous algae, and other nuisance species.

Exhibit 1. Wetland and Lake Constrain Sites in East Central Florida



EXHBIT 2
Summary of Constraint Wetland and Lake Sites

Site Name	Site No.	County	System Type	Monitoring Site or MFL Site	Surrounding Land Use	Comments
1) Lady Lake Wetland	46	Lake	Small depressional marsh with open water areas		Rural, mix of residences, pasture, planted pine and citrus groves	
2) Dead River Marsh @ Lake Griffin	65	Lake	Dead River marsh is mosaic of cypress-mixed hardwood swamp, shrub swamp and emergent marsh		At Lake Griffin State Park, connected to Lake Griffin, this site is surrounded by urban and suburban development	Wetland is part of a very large flow through system of connected lakes in the upper Ocklawaha River basin.
3) Fisher Lake Wetland	109	Lake	Wetland and lake mosaic composed of many interconnected depressions		Rural, mix of residences, pasture, planted pine and citrus groves	
4) Horseshoe Lake	123	Lake	Small depressional lake with littoral marsh		Rural, mix of residences, pasture, planted pine and citrus groves	
5) Sawgrass Lake	170	Lake	Lake with extensive mosaic forested and emergent wetlands, and floating mats	MFL site	Residential areas border east side, remaining shoreline surrounded by citrus groves.	Surrounding uplands are citrus groves most of which are irrigated with reclaimed water under the CONSERV reuse project.
6) Boggy Marsh	180	Lake	Lake with extensive mosaic forested and emergent wetlands, and floating mats	MFL site	Rural, mix of residences, pasture, planted pine and citrus groves	
7) Wolf Lake	98	Orange	Small depressional lake with littoral marsh	CUP monitoring site, City of Apopka Permit No. 3217.	Surrounded by pasture and planted pine, residential development occurring nearby	Wolf Lake is connected to other nearby lakes under high water conditions.
8) Lake Lucy	136	Orange	Small lake with mosaic of emergent and aquatic vegetation	CUP monitoring site, Orange County Permit No. 3317, MFL site	Surrounded by residential development and roadways	
9) Wetland near Lake Speer	158	Orange	Small, isolated wet prairie near the northwest corner of Lake Speer		Open flatwoods adjacent to new residential development	
10) Lake Pearl	131	Orange	Lake with fringing wetlands on 25% of border	MFL site	Surrounded by residential development and roadways	
11) Lake Irma	132	Orange	Lake with fringing wetlands on south side	MFL site	Surrounded by residential development and roadways	
12) Lake Como	143	Orange	Small circular lake, lacks fringing wetlands		Small neighbor hood park, surrounded by residential and urban development, south of East-West Expressway	It appears that herbicides are used within the lake to control growth of aquatic macrophytes.
13) Lake Cecile Wetland	186	Osceola	Mosaic of forested and emergent wetland and open water		Urban, borders US 192	Wetland is connected to Lake Cecile. Water quality and habitat conditions in the lake are affected by stormwater inflows.
14) Poinciana Cypress Dome	201	Osceola	Cypress dome		Pine plantation adjacent to residential areas in Poinciana	
15) Lake Sylvan	75	Seminole	Lake with fringing wetlands along 50% of shoreline	CUP monitoring site, Seminole County Permit No. 8230, MFL site	Suburban, park borders west side	
16) New Uppsala Wetland	78	Seminole	Emergent marsh and open water	CUP monitoring site, Seminole County Permit No. 8230.	Urban, suburban	Wetland edges are nearly linear due to encroachment by development on all four sides

17) Island Lake @ Heathrow	**82**	**Seminole**	**Lake with littoral fringe**	**CUP monitoring site, Seminole County Permit No. 8230.**	**Suburban, surrounded by residential neighborhoods**	**Lake is connected to other nearby lakes under high water conditions.**
18) Hidden Lake Wetland	**85**	**Seminole**	**Forested wetland**		**Suburban, surrounded by residential neighborhoods**	
19) Crystal Lake	**87**	**Seminole**	**Lake with extensive marsh areas, and some fringing swamp**	**CUP monitoring site, Seminole County Permit No. 8230, MFL site**	**Suburban, small parks border east & west sides**	
20) Wetland	**106**	**Seminole**	**Forested wetland**		**Urban, suburban**	
21) Wetland	**111**	**Seminole**	**Forested wetland**		**Suburban, surrounded by residential neighborhoods**	
22) Lake Mills	**126**	**Seminole**	**Lake with forested fringe on 50% of shoreline**	**MFL site**	**Suburban, Lake Mills park borders west side**	**Lake has inflow and outflow, Mills Creek, which is tributary to the Econ River.**
23) Three Island Lake	**43**	**Volusia**	**Lake with forested fringe on 50% of shoreline**	**MFL site**	**Surrounded by low to moderate density residential**	**Lake is connected to other small lakes nearby under high water conditions.**
24) Trout Lake	**50**	**Volusia**	**Lake with some areas of emergent marsh**	**CUP monitoring site, Volusia County Permit No. 50157, MFL site**	**Park on west side, surrounded by residential neighborhoods**	
25) Lake Gleason	**53**	**Volusia**	**Lake with some areas of emergent marsh, and floating-leaf aquatics**	**CUP monitoring site, Volusia County Permit No. 50157, MFL site**	**Urban, west side borders I-4**	

Landscape Setting –Urban, Suburban, or Rural

None of the sites is located in a pristine setting, that is they are not surrounded by undisturbed native upland habitat. Nine sites are in rural areas or areas with low density residential development (Exhibit 2). The remaining 16 sites are in urban or suburban settings with moderate to high density residential areas, commercial and retail business areas, and busy, multilane roadways. All of the rural areas had significant land development activities going on nearby to them and are expected to be surrounded by residential and commercial development in the near future.

Access to Sites

For the purpose of monitoring hydrological and ecological conditions at these sites in the future, access is needed for both installation of monitoring equipment and for ongoing data collection. As already noted 14 of the sites are already part of a CUP monitoring program or are current or future MFL sites. Two of the remaining sites, Dead River Marsh (No. 65) and Lake Como (No. 143) are parks (Exhibit 2) and therefore it is assumed that the SJRWMD could arrange for access. Access to the remaining 9 sites would have to be arranged with adjacent property owners. Access to some of these 9 sites may be available from adjacent permitted stormwater management facilities.

Summary and Recommendations

The 25 sites meet the requirements for continued use as Constraint Sites for the ECF optimization model and District's ongoing regional water supply planning efforts. Fourteen of the sites are already being monitored for hydrological and ecological conditions, or are scheduled to be monitored as an MFL site or as a condition of a CUP. Most sites are in either urban or suburban landscapes. Those sites that are still in rural areas are likely to be surrounded by residential and commercial development in the future. Even with development, the wetland and lake sites retain high value in terms of the water resource, habitat and socioeconomic benefits that they provide.

Many of the sites are hydrologically isolated, others are connected to other nearby lakes or wetlands, and a few are a part of flowing water systems. Constraint sites that lie within major flowing water systems are likely to be less sensitive than hydrologically isolated systems to the effects of groundwater withdrawals. Dead River Marsh in particular should be evaluated in this regard, as it is part of Lake Griffin in the upper Ocklawaha chain of lakes.

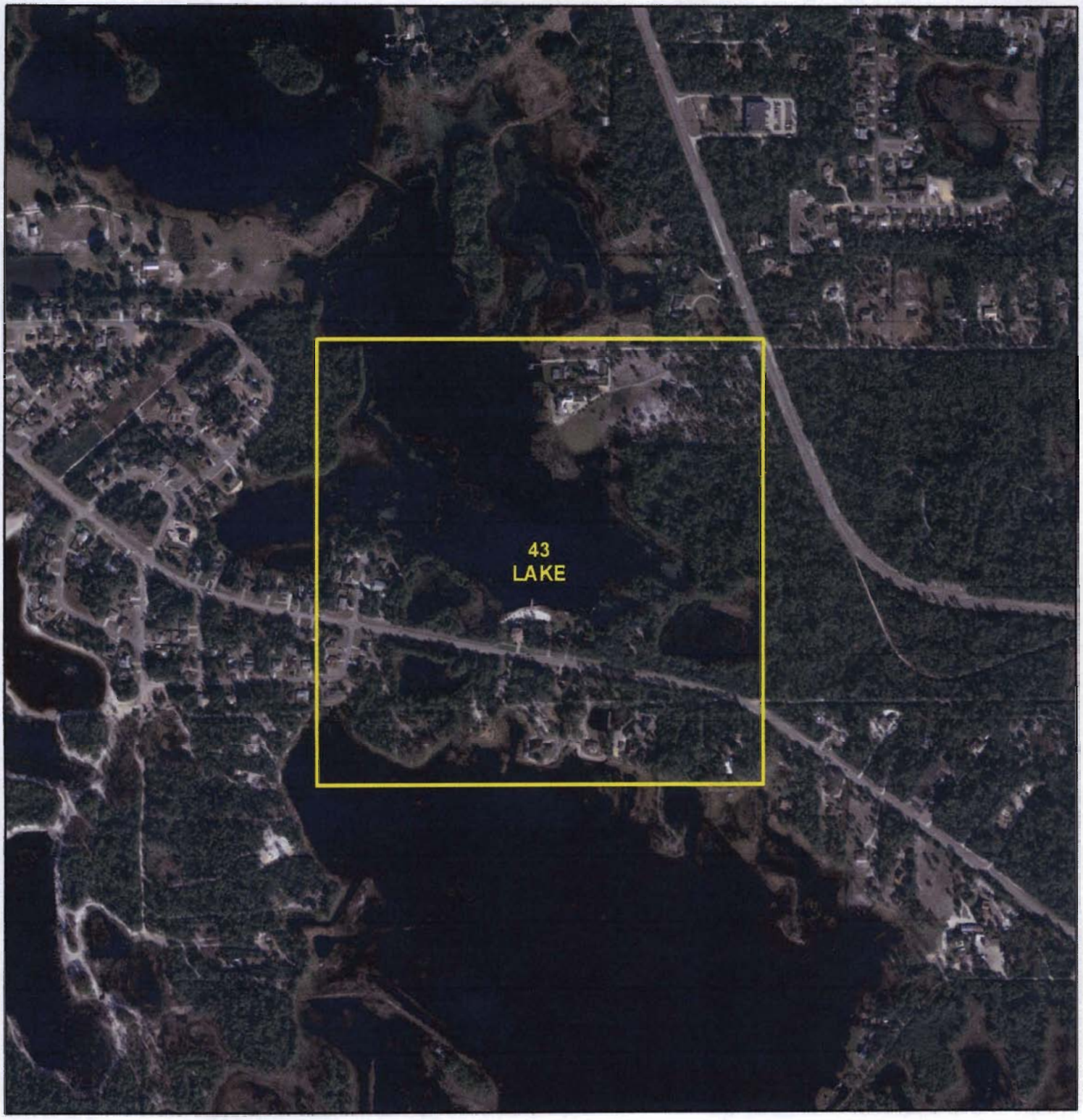
If all sites need to be monitored in the future, then access to many of the sites will have to be negotiated by the District. This TM assumes that for the fourteen sites that are either CUP or MFL sites, the District has already secured access. For the remaining sites access, if needed, will have to be negotiated with one or more of the adjacent property owners.

References

CH2M HILL. 2004. Inventory and Ranking of Candidate Sentinel Monitoring Sites in East Central Florida (ECF) for SJRWMD's Adaptive Management Monitoring Network Project. Technical Memorandum prepared for St. Johns River Water Management District, Palatka, FL.

Appendix A

Aerial Photographs of Constraint Sites in Lake, Orange, Osceola, Seminole and Volusia Counties



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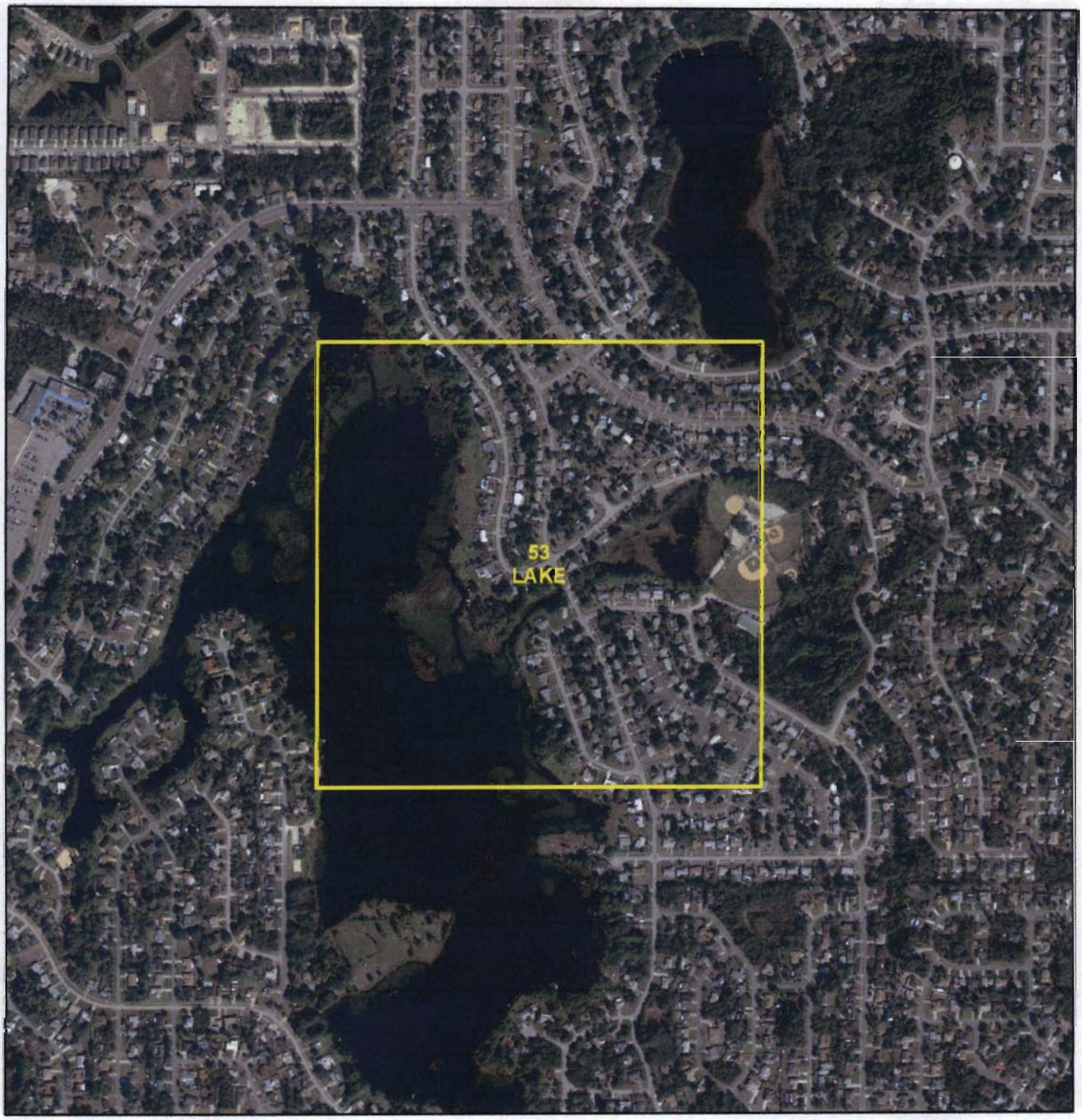

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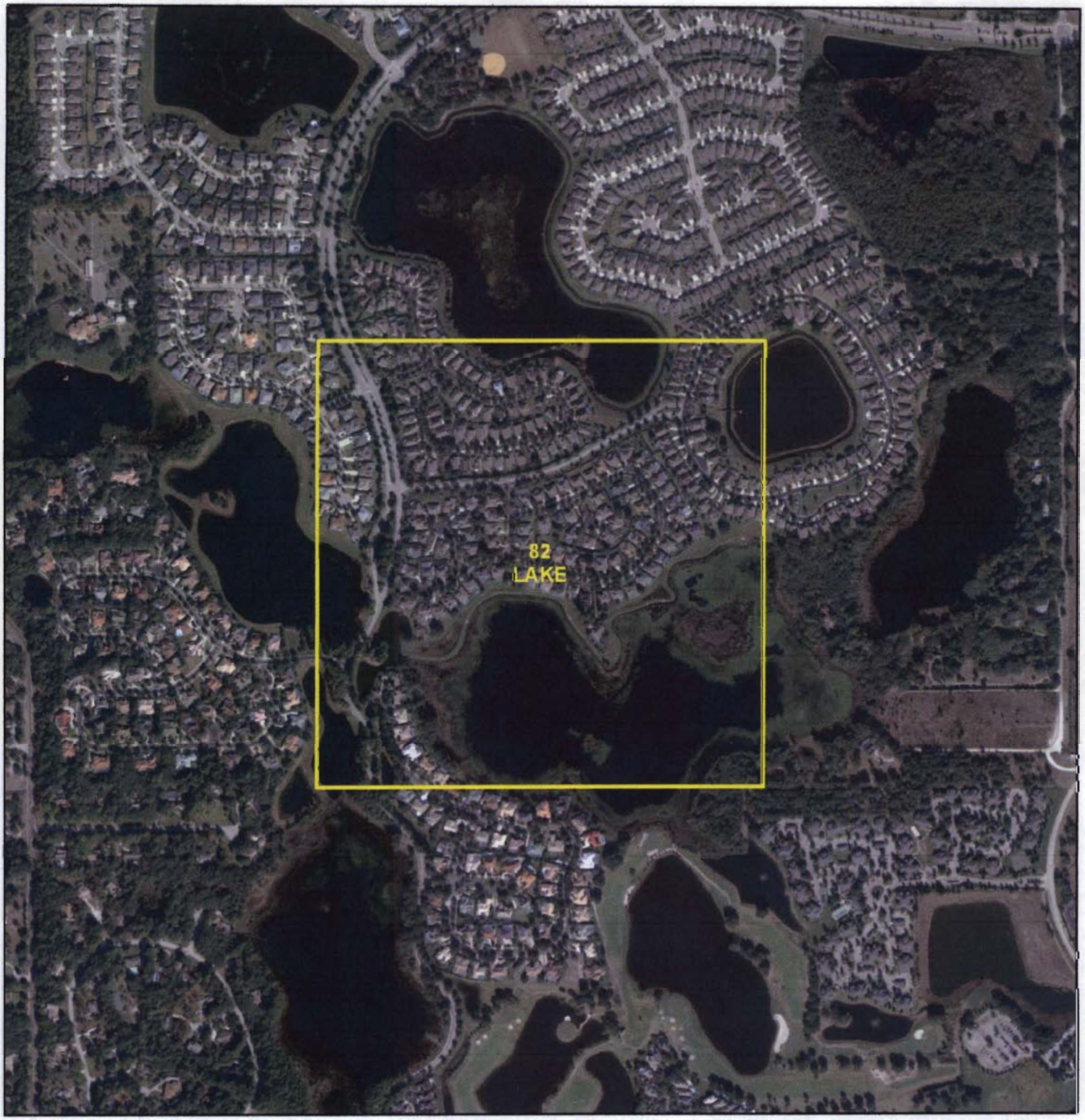

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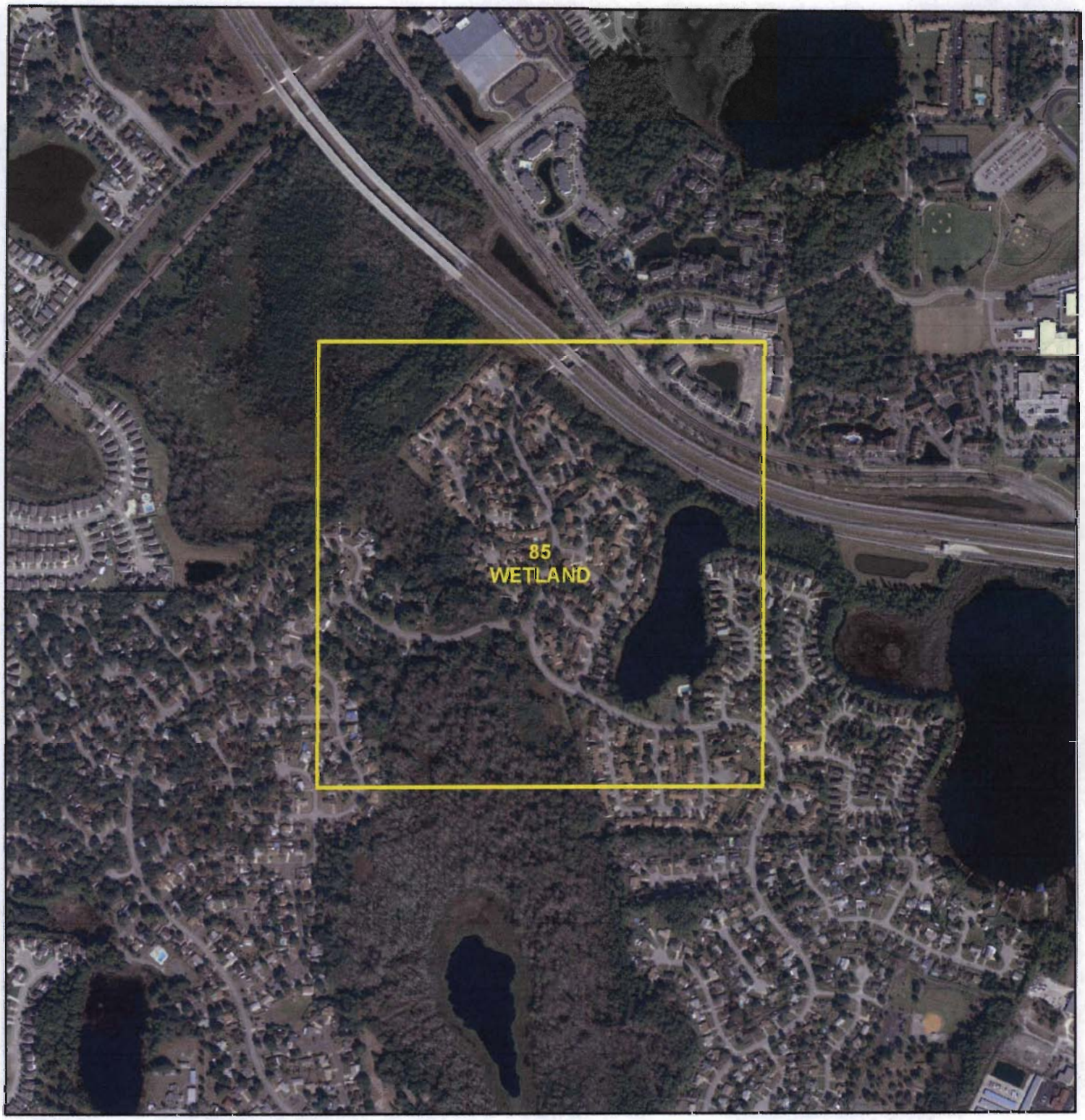

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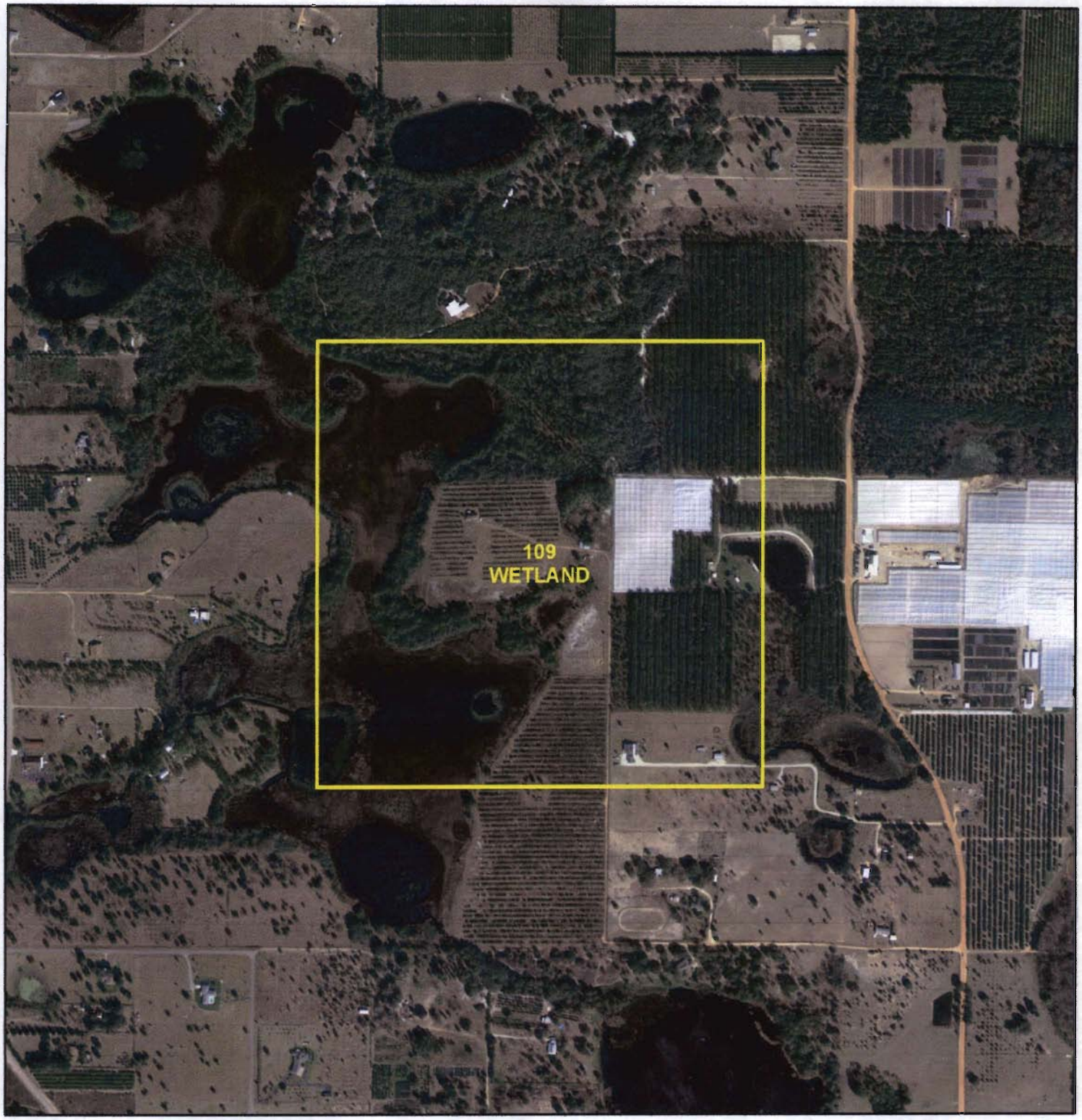

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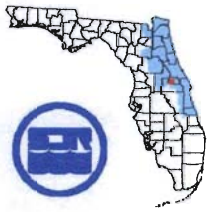

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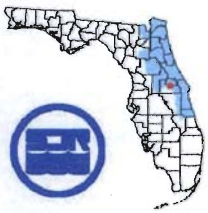

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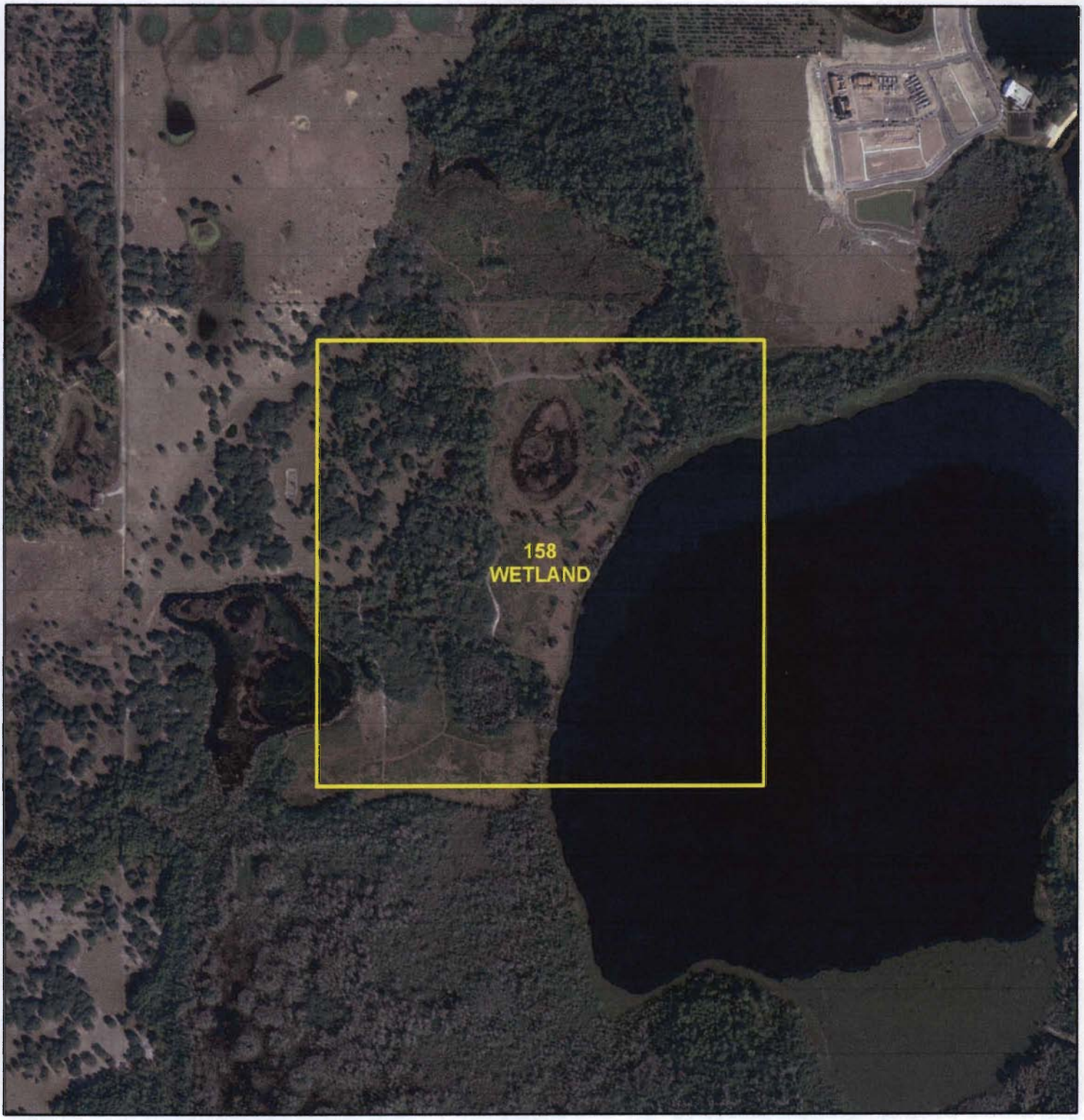

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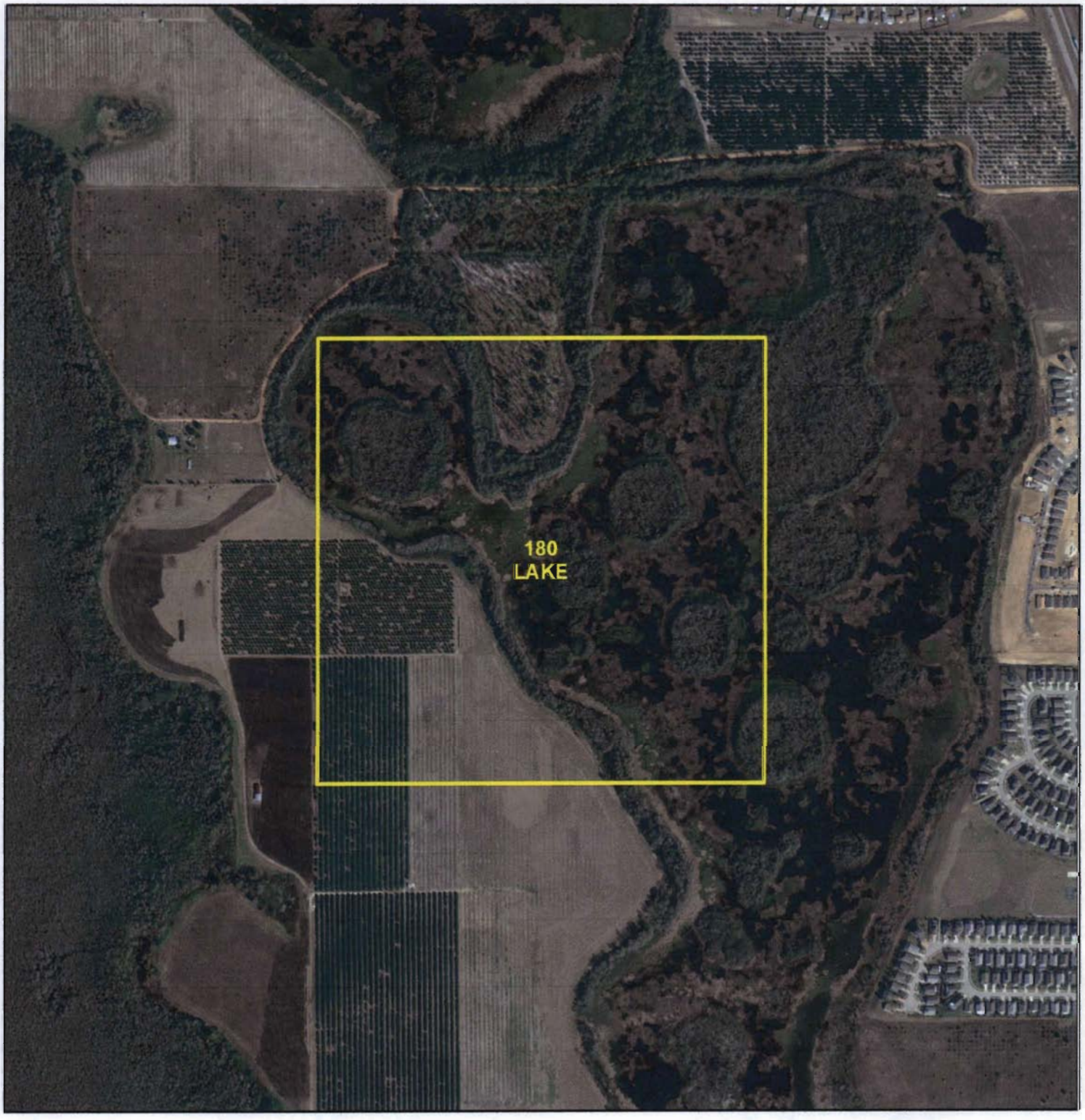

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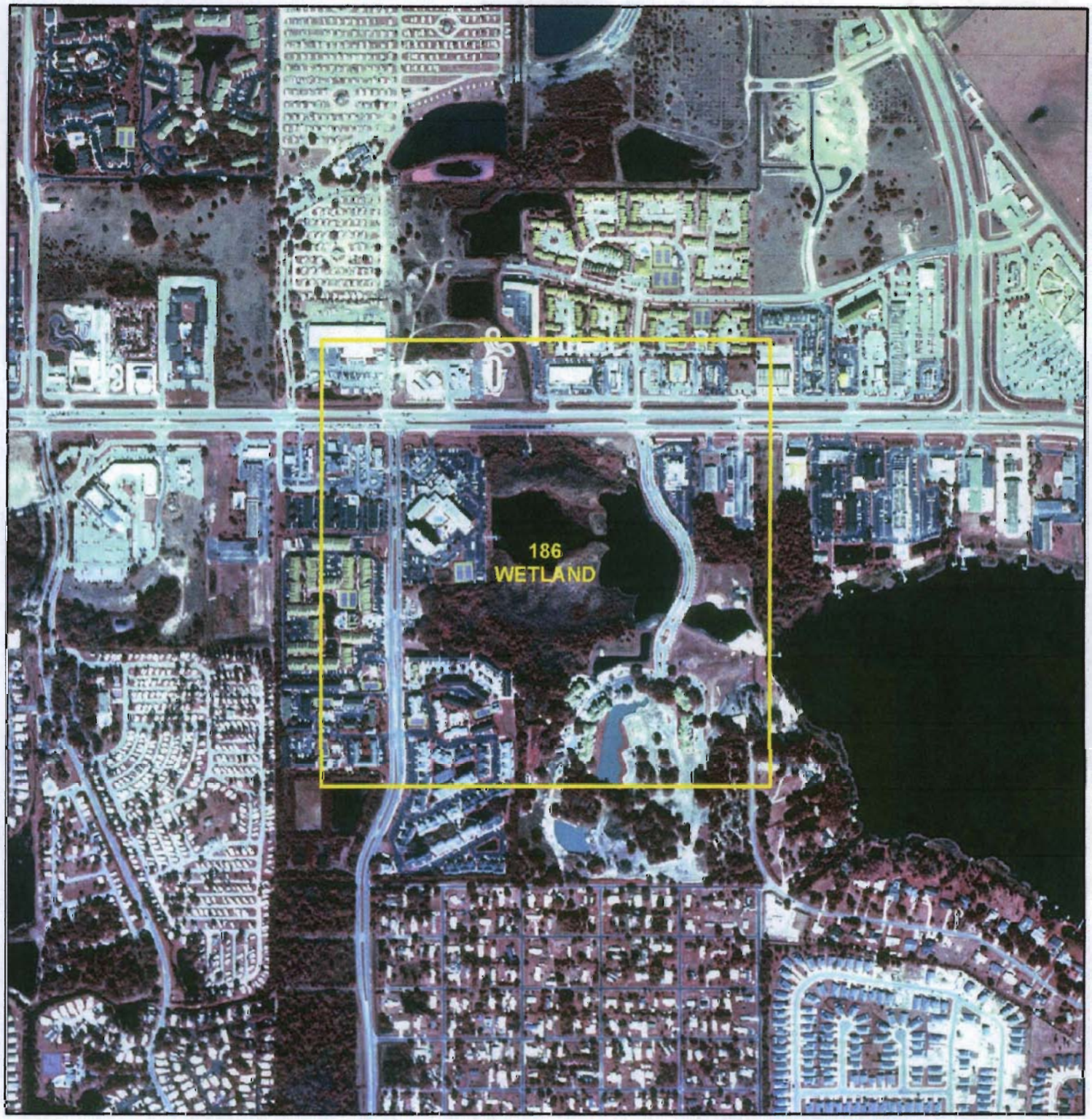

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Appendix B
Field Data Forms

Wetland Assessment Field Form--SJRWMD Constraint Wetland Project

PROJECT: Three Island Lake **SJRWMD SITE ID:** #43 **COUNTY:** Volusia

OTHER LOCATION NOTES: **enter at Glen Lock Court cul de sac**

PERSONNEL : Bill Dunn and Bob Fewster **DATE**: 8/10/05 **TIME:** 9:00

GPS COORDINATES: Latitude : **N 28 56.233** **Longitude:** **W 81 12.678**

PHOTOGRAPHY

Roll: _new_____ Photo Frame #s: 1-5 pan of lake

Description of photo(s): lake w/emergent and aquatic zones, but mostly open water

WATER LEVEL:

Water Depth: up to lower edge of pines Staff Gage or Piezometer Level (if present): ___

VEGETATION……lake with other zones

Major Vegetation Zones Present in Wetland or Water Body: ____forested, ____shrub scrub, _X___marsh, _X___aquatic, _____pond, ___X___lake, _____other (list):_____

HERBACEOUS GROUNDCOVER (% cover of OBL and/or FACW species to nearest 10%)

Zone 1: Composition: _____ **Zone 2: Composition**: _____

Dominant Groundcover Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1:_____ Zone 2:_____

Total % Groundcover:_____ Total % Cover _____

Species/1/2/3/4/5:____ Maidencane _____ _____

Species/1/2/3/4/5:_____ Polygonum _____ _____

Species/1/2/3/4/5:_____ Salvinia _____ _____

Species/1/2/3/4/5:_____ Spartina bakerii _____ _____

Species/1/2/3/4/5:_____ Eleocharis _____ _____

Groundcover Species Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal groundcover zonation; 2) Somewhat abnormal zonation – some signs of abnormal groundcover zonation mainly limited to the wetland edge; 3) Normal groundcover zonation.

Additional Comments on Groundcover _____

NUISANCE/WEEDY GROUNDCOVER

Composition--Circle the appropriate category: 1) > 50% of all groundcover species cover is weeds; 2) > 10% and < 50% of all groundcover species cover is weeds (either dispersed throughout wetland or in dense localized patches); 3)< 10% of all groundcover species cover is weeds or weeds are absent.

Additional Comments on Weedy Species _____little to none_____

SHRUB….transition zone mainly

Composition _____ % cover OBL and/or FACW shrub species to nearest 10%

Dominant Shrub Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1:_____ Zone 2:_____

Total % Shrub cover:_____ Total % Cover_____

Species/1/2/3/4/5:__Myrica _____ _____

Species/1/2/3/4/5:__Cephalanthus _____ _____

Species/1/2/3/4/5:__Hypericum fasciculatum _____ _____

Species/1/2/3/4/5:_____ _____

Shrub and Small Tree Species Zonation--Circle the appropriate category: 1) Abnormal zonation – many signs of abnormal shrub and tree zonation; 2) Somewhat abnormal zonation -some signs of abnormal shrub and tree zonation mainly limited to the wetland edge; 3) Normal shrub and tree zonation.

Additional Comments on Shrubs_____

WEEDY SHRUB

Composition --Circle the appropriate category: 1) > 50% of all shrub species cover is weeds; 2) > 10% and < 50% of all shrub species cover is (either dispersed throughout the wetland or in dense localized patches); 3) < 10% of all shrub species cover is weeds or weeds are absent.

Additional Comments on Weedy Shrubs___little to none_____

CANOPY (TREE)...pine forest border in sections

Dominant Canopy Species Cover Classes 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Canopy Cover: _____ Total % Cover _____

Species/1/2/3/4/5: ___slash pine_____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: ___cabbage palm_____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Tree Zonation--Circle the appropriate category: 1) Abnormal zonation – multiple signs of abnormal distribution and cover; 2) Somewhat abnormal zonation with moderately abnormal distribution and cover; 3) Normal zonation with normal distribution and cover.

Additional Comments on Tree Species_____

AQUATIC

Dominant Aquatic Species % Cover Categories: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Aquatic Plant Cover:_____ Total % Cover_____

Species/1/2/3/4/5: __Nuphar_____ _____

Species/1/2/3/4/5: __Nymphaea _____ _____

Species/1/2/3/4/5: __Nymphoides_____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Aquatic Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal plant zonation; 2) Somewhat abnormal zonation - some signs of abnormal zonation; 3) Normal aquatic plant zonation

Additional Comments on Aquatic Species: __large grove of dead pines directly across the lake @ large home (see photo in the middle of pan)_____

PLANT COMMUNITY HEALTH

Does community show unusual signs of stress? not in lake or wetland **Visually estimate % of wetland zone exhibiting signs of stress;**_____

Type of stress observed (e.g., dead or dying plants, discolored foliage, wilted or rolled leaves, premature leaf fall or senescence, etc.):_____

Does stress appear moisture related, or is there sign of disease or insect injury? _____

Overall Condition of Plant Community is:

Circle Appropriate Category: **1)** Plants are dead or dying; **2)** poor vigor with obvious decline (foliage discolored, wilted, premature leaf fall) ; **3)** fair vigor, some signs of stress or decline; **4)** medium vigor, some yellow-green foliage, or signs of leaf wilt or leaf curling; **5)** appearance good, foliage green but foliage thin, less than normal growth for the season; **6)** excellent vigor, foliage green in color, normal growth for the season.

Additional Comments on Health: ***some pine trees dead along edges***_____

HYDIC SOILS

Look for signs of subsidence, oxidation or abnormal desiccation and select the category which best describes the current conditions of the wetland soils. This assessment may not be applicable (NA) if site is inundated.

Circle Appropriate Category: **1)** Substantial subsidence/oxidation; **2)** Moderate subsidence/oxidation; **3)** Little or no evidence of subsidence/oxidation

Circle Appropriate Soil Condition: **1)** Inundated, **2)** Saturated, **3)** Moist, **4)** Dry

Additional Comments on Soil_____

_____

HYDROLOGY

Current Water Level Indicators (e.g., mosses, lichens, stains, pine edge)

Estimated depth of water relative to high water marks or indicators: pine line-water w/ 0.0-0.5 of tree line; describe type of indicator:_____

Circle the Appropriate Category: **1)** None of these indicators are present or indicators are at ground level; **2)** Indicators present; however, indistinct or abnormally low in comparison to the historic normal pool; **3)** Indicators are distinct and at the appropriate level for the season.

Additional Comments on Hydrology_____

_____

WILDLIFE AND LISTED SPECIES

Listed Flora and Fauna Observed (Include activity information for fauna)

Wetland-Dependent Fauna Observed:

Activity codes (M = mating, F = foraging, FT = flyover/traveling; N = nesting, OT = other)

Observation codes (O = observed, S = sign [scat, tracks, call or other signs of presence])

GENERAL SITE DESCRIPTION CATEGORIES

Habitat Gradient

Circle Appropriate Category: **1)** full habitat gradient present from aquatic/wetland up gradient to native upland habitat; **2)** native upland habitat is present along 50-75% of perimeter; **3)** native upland habitat is present along 25-50% of perimeter; **4)** native upland habitat is present along less than 25% of perimeter.

Additional Comments on Habitat Gradient **50% - 2.5**

Habitat Quality

Circle Appropriate Category: **1)** habitats present are in relatively natural condition in terms of community structure and plant species composition; **2)** habitats are in degraded condition in terms of community structure and plant species composition ; **3)** habitats are in severely degraded condition in terms of community structure and plant species composition.

Additional Comments on Habitat Quality _____

Hydrology and Landscape Position

Circle Appropriate Category: **1)** wetland/aquatic system is isolated, with no regular surface water inflow or outflow; **2)** system has surface water inflow or outflow only at high water condition; **3)** system is flow-through with surface water inflow and outflow.

Additional Comments on Landscape Position: **inter-connected to other nearby lakes**

Storm Water Inflows and Outflows

Circle Appropriate Category: **1)** no significant adverse effects to habitat, hydrologic regime, or water quality due to inflow of stormwater system; **2)** habitat conditions are generally good, but adverse effects to habitat, hydrologic regime, or water quality are evident due to inflow stormwater inflows; **3))** habitat conditions are degraded by adverse effects of stormwater inflows.

Additional Comments on Surface Water _____

Shoreline Development

Circle Appropriate Category: **1)** less than 10% **of** shoreline/perimeter is developed; **2)** 10 to 30% of shoreline/perimeter is developed; **3)** 30 to 60% of shoreline/perimeter is developed; **4)** greater than 60% of shoreline/perimeter is developed.

Additional Comments on Shoreline: _____

Land Protection

Circle Appropriate Category: **1)** site and surrounding lands are in public ownership, or land use is limited to conservation/preservation; **2)** some but not all site and surrounding lands are in public ownership, or protected by easement ; **3)** site and surrounding lands are in not public ownership, nor protected by easement.

Additional Comments on Land Protection _____

Site Disturbance

Circle Appropriate Category: **1)** less than 10% wetland/water body recent land clearance or disturbance; **2)** 10 to 30% of wetland/water body is affected by recent land disturbance; **3)** 30 to 60% of wetland/water body is affected by recent land disturbance; **4)** greater than 60% of wetland/water body is affected by recent land disturbance.

Circle Appropriate Category: **1)** less than 10% uplands adjacent wetland/water body affected by recent land clearance or disturbance; **2)** 10 to 30% of upland is affected by recent land disturbance; **3)** 30 to 60% of upland is affected by recent land disturbance; **4)** greater than 60% of upland is affected by recent land disturbance.

Additional Comments on Land Disturbance_____

Drainage Alteration

Are significant drainage features present on the site? No If yes, describe:_____

_____

Are there significant drainage features on lands bordering the wetland/water body? No If yes, describe:_____

photo's_____

Additional Comments on Drainage _____

Wetland Assessment Field Form--SJRWMD Constraint Wetland Project

PROJECT: Wetland near Lady Lake **SJRWMD SITE ID:** #46 **COUNTY:** Lake

OTHER LOCATION NOTES: on Richardson Rd, off Lake Griffin Rd

PERSONNEL : Bill Dunn and Bob Fewster **DATE**: 8/25/05 **TIME:** 10:00

GPS COORDINATES: Latitude : N 28 55.536 **Longitude:** W 81 52.487

PHOTOGRAPHY

Roll: _____ Photo Frame #s: 3

Description of photo(s):

WATER LEVEL

Water Depth: _____ Staff Gage or Piezometer Level (if present): _____

VEGETATION

Major Vegetation Zones Present in Wetland or Water Body: _____forested, _____shrub scrub, ___X__marsh, _____aquatic, __X____pond, _____lake, _____other (list):_____

HERBACEOUS GROUNDCOVER (% cover of OBL and/or FACW species to nearest 10%)

Zone 1: Composition: _____ **Zone 2: Composition**: _____

Dominant Groundcover Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1:_____ Zone 2:_____

Total % Groundcover:_____ Total % Cover _____

Species/1/2/3/4/5: Dogfennel _____

Species/1/2/3/4/5: Pontederia _____

Species/1/2/3/4/5: Maidencane _____

Species/1/2/3/4/5: Rhynchospora corniculata _____

Species/1/2/3/4/5:_____ _____

Groundcover Species Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal groundcover zonation; 2) Somewhat abnormal zonation – some signs of abnormal groundcover zonation mainly limited to the wetland edge; 3) Normal groundcover zonation.

Additional Comments on Groundcover _____

NUISANCE/WEEDY GROUNDCOVER

Composition--Circle the appropriate category: 1) > 50% of all groundcover species cover is weeds; 2) > 10% and < 50% of all groundcover species cover is weeds (either dispersed throughout wetland or in dense localized patches); 3)< 10% of all groundcover species cover is weeds or weeds are absent.

Additional Comments on Weedy Species _____

SHRUB --NOT APPLICABLE

Composition _____ % cover OBL and/or FACW shrub species to nearest 10%

Dominant Shrub Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1:_____ Zone 2:_____

Total % Shrub cover:_____ Total % Cover_____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Shrub and Small Tree Species Zonation--Circle the appropriate category: 1) Abnormal zonation – many signs of abnormal shrub and tree zonation; 2) Somewhat abnormal zonation -some signs of abnormal shrub and tree zonation mainly limited to the wetland edge; 3) Normal shrub and tree zonation.

Additional Comments on Shrubs_____

WEEDY SHRUB

Composition --Circle the appropriate category: 1) > 50% of all shrub species cover is weeds; 2) > 10% and < 50% of all shrub species cover is (either dispersed throughout the wetland or in dense localized patches); 3) < 10% of all shrub species cover is weeds or weeds are absent.

Additional Comments on Weedy Shrubs_____

CANOPY (TREE) --NOT APPLICABLE

Dominant Canopy Species Cover Classes 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Canopy Cover: _____ Total % Cover _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Tree Zonation--Circle the appropriate category: 1) Abnormal zonation – multiple signs of abnormal distribution and cover; 2) Somewhat abnormal zonation with moderately abnormal distribution and cover; 3) Normal zonation with normal distribution and cover.

Additional Comments on Tree Species_____

AQUATIC

Dominant Aquatic Species % Cover Categories: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Aquatic Plant Cover: 10% -15% Total % Cover_____

Species/1/2/3/4/5: Nymphaea _____ _____

Species/1/2/3/4/5: Nuphar _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Aquatic Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal plant zonation; 2) Somewhat abnormal zonation - some signs of abnormal zonation; 3) Normal aquatic plant zonation

Additional Comments on Aquatic Species:

_____

PLANT COMMUNITY HEALTH

Does community show unusual signs of stress? No. **Visually estimate % of wetland zone exhibiting signs of stress;**_____

Type of stress observed (e.g., dead or dying plants, discolored foliage, wilted or rolled leaves, premature leaf fall or senescence, etc.):_____

Does stress appear moisture related, or is there sign of disease or insect injury? _____

Overall Condition of Plant Community is:

Circle Appropriate Category: **1)** Plants are dead or dying; **2)** poor vigor with obvious decline (foliage discolored, wilted, premature leaf fall) ; **3)** fair vigor, some signs of stress or decline; **4)** medium vigor, some yellow-green foliage, or signs of leaf wilt or leaf curling; **5)** appearance good, foliage green but foliage thin, less than normal growth for the season; **6)** excellent vigor, foliage green in color, normal growth for the season.

Additional Comments on Health _____

HYDIC SOILS

Look for signs of subsidence, oxidation or abnormal desiccation and select the category which best describes the current conditions of the wetland soils. This assessment may not be applicable (NA) if site is inundated.

Circle Appropriate Category: **1)** Substantial subsidence/oxidation; **2)** Moderate subsidence/oxidation; **3)** Little or no evidence of subsidence/oxidation

Circle Appropriate Soil Condition: **1)** Inundated, **2)** Saturated, **3)** Moist, **4)** Dry

Additional Comments on Soil_____

_____

HYDROLOGY

Current Water Level Indicators (e.g., mosses, lichens, stains)

Estimated depth of water relative to high water marks or indicators:_____; describe type of indicator:_____

Circle the Appropriate Category: **1)** None of these indicators are present or indicators are at ground level; **2)** Indicators present; however, indistinct or abnormally low in comparison to the historic normal pool; **3)** Indicators are distinct and at the appropriate level for the season.

Additional Comments on Hydrology Water level is high, within 0.5 ft of edge of pasture

WILDLIFE AND LISTED SPECIES

Listed Flora and Fauna Observed (Include activity information for fauna)

Wetland-Dependent Fauna Observed:

Activity codes (M = mating, F = foraging, FT = flyover/traveling; N = nesting, OT = other)

Observation codes (O = observed, S = sign [scat, tracks, call or other signs of presence])

GENERAL SITE DESCRIPTION CATEGORIES

Habitat Gradient

Circle Appropriate Category: **1)** full habitat gradient present from aquatic/wetland up gradient to native upland habitat; **2)** native upland habitat is present along 50-75% of perimeter; **3)** native upland habitat is present along 25-50% of perimeter; **4)** native upland habitat is present along less than 25% of perimeter.

Additional Comments on Habitat Gradient __**Surrounded by pasture**_____

Habitat Quality……..in wetland /pond

Circle Appropriate Category: **1)** habitats present are in relatively natural condition in terms of community structure and plant species composition; **2)** habitats are in degraded condition in terms of community structure and plant species composition ; **3)** habitats are in severely degraded condition in terms of community structure and plant species composition.

Additional Comments on Habitat Quality _____

Hydrology and Landscape Position

Circle Appropriate Category: **1)** wetland/aquatic system is isolated, with no regular surface water inflow or outflow; **2)** system has surface water inflow or outflow only at high water condition; **3)** system is flow-through with surface water inflow and outflow.

Additional Comments on Landscape Position _____

Storm Water Inflows and Outflows

Circle Appropriate Category: **1)** no significant adverse effects to habitat, hydrologic regime, or water quality due to inflow of stormwater system; **2)** habitat conditions are generally good, but adverse effects to habitat, hydrologic regime, or water quality are evident due to inflow stormwater inflows; **3))** habitat conditions are degraded by adverse effects of stormwater inflows.

Additional Comments on Surface Water _____

Shoreline Development

Circle Appropriate Category: **1)** less than 10% **of** shoreline/perimeter is developed; **2)** 10 to 30% of shoreline/perimeter is developed; **3)** 30 to 60% of shoreline/perimeter is developed; **4)** greater than 60% of shoreline/perimeter is developed.

Additional Comments on Shoreline _____**pasture**_____

Land Protection

Circle Appropriate Category: **1)** site and surrounding lands are in public ownership, or land use is limited to conservation/preservation; **2)** some but not all site and surrounding lands are in public ownership, or protected by easement ; **3)** site and surrounding lands are in not public ownership, nor protected by easement.

Additional Comments on Land Protection _____

Site Disturbance

Circle Appropriate Category: **1)** less than 10% wetland/water body recent land clearance or disturbance; **2)** 10 to 30% of wetland/water body is affected by recent land disturbance; **3)** 30 to 60% of wetland/water body is affected by recent land disturbance; **4)** greater than 60% of wetland/water body is affected by recent land disturbance.

Circle Appropriate Category: **1)** less than 10% uplands adjacent wetland/water body affected by recent land clearance or disturbance; **2)** 10 to 30% of upland is affected by recent land disturbance; **3)** 30 to 60% of upland is affected by recent land disturbance; **4)** greater than 60% of upland is affected by recent land disturbance.

Additional Comments on Land Disturbance_____

Drainage Alteration

Are significant drainage features present on the site?__No___ If yes, describe:_____

_____

Are there significant drainage features on lands bordering the wetland/water body?__No_____ If yes, describe:_____

_____

Additional Comments on Drainage _____

Wetland Assessment Field Form--SJRWMD Constraint Wetland Project

PROJECT: Trout Lake **SJRWMD SITE ID:** #50 **COUNTY:** Volusia

OTHER LOCATION NOTES: **Trout lake, east side, enter @ back end of Albertson's parking lot**

PERSONNEL : Bill Dunn and Bob Fewster **DATE**: 8/10/05 **TIME:** 9:30a

GPS COORDINATES: Latitude : **N 28 54.525** **Longitude:** **W 81 16.019**

PHOTOGRAPHY

Roll: _____ Photo Frame #s: pan of 4 shots

Description of photo(s): I-4 visible on far side, Albertson's Parking Lot

WATER LEVEL

Water Depth: high, up to upland edge Staff Gage or Piezometer Level (if present): _____

VEGETATION ……lake w/ emergent and aquatic zones

Major Vegetation Zones Present in Wetland or Water Body: ____forested, ____shrub scrub, __X__marsh, __X____aquatic, _____pond, __X____lake, _____other (list):_____

HERBACEOUS GROUNDCOVER (% cover of OBL and/or FACW species to nearest 10%)

Zone 1: Composition: _____ **Zone 2: Composition**: _____

Dominant Groundcover Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: littoral fringe Zone 2:_____

Total % Groundcover:_____ Total % Cover _____

Species/1/2/3/4/5: Spartina bakerii _____

Species/1/2/3/4/5: Maidencane _____

Species/1/2/3/4/5: Muhlenbergia sp. _____

Species/1/2/3/4/5: Carex lupulina _____

Species/1/2/3/4/5:_____ _____

Groundcover Species Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal groundcover zonation; 2) Somewhat abnormal zonation – some signs of abnormal groundcover zonation mainly limited to the wetland edge; 3) Normal groundcover zonation.

Additional Comments on Groundcover _____

NUISANCE/WEEDY GROUNDCOVER

Composition--Circle the appropriate category: 1) > 50% of all groundcover species cover is weeds; 2) > 10% and < 50% of all groundcover species cover is weeds (either dispersed throughout wetland or in dense localized patches); 3)< 10% of all groundcover species cover is weeds or weeds are absent.

Additional Comments on Weedy Species _____

SHRUB

Composition _____ % cover OBL and/or FACW shrub species to nearest 10%

Dominant Shrub Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1:_____ Zone 2:_____

Total % Shrub cover: 5% Total % Cover_____

Species/1/2/3/4/5: Myrica _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Shrub and Small Tree Species Zonation--Circle the appropriate category: 1) Abnormal zonation – many signs of abnormal shrub and tree zonation; 2) Somewhat abnormal zonation -some signs of abnormal shrub and tree zonation mainly limited to the wetland edge; 3) Normal shrub and tree zonation.

Additional Comments on Shrubs_____

WEEDY SHRUB

Composition --Circle the appropriate category: 1) > 50% of all shrub species cover is weeds; 2) > 10% and < 50% of all shrub species cover is (either dispersed throughout the wetland or in dense localized patches); 3) < 10% of all shrub species cover is weeds or weeds are absent.

Additional Comments on Weedy Shrubs_____

CANOPY (TREE)……pines come down to edge, with some live oak

Dominant Canopy Species Cover Classes 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:scattered bands of trees__ Zone 2:_____

Total % Canopy Cover: _____ Total % Cover _____

Species/1/2/3/4/5: * No forested wetlands_____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Tree Zonation--Circle the appropriate category: 1) Abnormal zonation – multiple signs of abnormal distribution and cover; 2) Somewhat abnormal zonation with moderately abnormal distribution and cover; 3) Normal zonation with normal distribution and cover.

Additional Comments on Tree Species__some pines dying back, see photo's, live oak also_____

AQUATIC……patches of water lily

Dominant Aquatic Species % Cover Categories: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Aquatic Plant Cover:__5%_____ Total % Cover_____

Species/1/2/3/4/5: Nymphaea_____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Aquatic Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal plant zonation; 2) Somewhat abnormal zonation - some signs of abnormal zonation; 3) Normal aquatic plant zonation

Additional Comments on Aquatic Species:

_____

PLANT COMMUNITY HEALTH

Does community show unusual signs of stress? No. **Visually estimate % of wetland zone exhibiting signs of stress;**_____

Type of stress observed (e.g., dead or dying plants, discolored foliage, wilted or rolled leaves, premature leaf fall or senescence, etc.):_____

Does stress appear moisture related, or is there sign of disease or insect injury? _____

Overall Condition of Plant Community is:

Circle Appropriate Category: **1)** Plants are dead or dying; **2)** poor vigor with obvious decline (foliage discolored, wilted, premature leaf fall) ; **3)** fair vigor, some signs of stress or decline; **4)** medium vigor, some yellow-green foliage, or signs of leaf wilt or leaf curling; **5)** appearance good, foliage green but foliage thin, less than normal growth for the season; **6)** excellent vigor, foliage green in color, normal growth for the season.

Additional Comments on Health __**encroaching wax myrtle and pines on edge are stressed**_____

HYDIC SOILS

Look for signs of subsidence, oxidation or abnormal desiccation and select the category which best describes the current conditions of the wetland soils. This assessment may not be applicable (NA) if site is inundated.

Circle Appropriate Category: **1)** Substantial subsidence/oxidation; **2)** Moderate subsidence/oxidation; **3)** Little or no evidence of subsidence/oxidation

Circle Appropriate Soil Condition: **1)** Inundated, **2)** Saturated, **3)** Moist, **4)** Dry

Additional Comments on Soil_____

_____

HYDROLOGY

Current Water Level Indicators (e.g., mosses, lichens, stains)

Estimated depth of water relative to high water marks or indicators:_up to pine edge__; describe type of indicator:_____

Circle the Appropriate Category: **1)** None of these indicators are present or indicators are at ground level; **2)** Indicators present; however, indistinct or abnormally low in comparison to the historic normal pool; **3)** Indicators are distinct and at the appropriate level for the season.

Additional Comments on Hydrology_____w/in 0.0' to 0.5'_____

_____

WILDLIFE AND LISTED SPECIES

Listed Flora and Fauna Observed (Include activity information for fauna)

Wetland-Dependent Fauna Observed:

Activity codes (M = mating, F = foraging, FT = flyover/traveling; N = nesting, OT = other)

Observation codes (O = observed, S = sign [scat, tracks, call or other signs of presence])

GENERAL SITE DESCRIPTION CATEGORIES

Habitat Gradient

Circle Appropriate Category: **1)** full habitat gradient present from aquatic/wetland up gradient to native upland habitat; **2)** native upland habitat is present along 50-75% of perimeter; **3)** native upland habitat is present along 25-50% of perimeter; **4)** native upland habitat is present along less than 25% of perimeter.

Additional Comments on Habitat Gradient _some pine flatwood edge (narrow) in place_____

Habitat Quality

Circle Appropriate Category: **1)** habitats present are in relatively natural condition in terms of community structure and plant species composition; **2)** habitats are in degraded condition in terms of community structure and plant species composition ; **3)** habitats are in severely degraded condition in terms of community structure and plant species composition.

Additional Comments on Habitat Quality _stress shown on encroaching species_____

Hydrology and Landscape Position

Circle Appropriate Category: **1)** wetland/aquatic system is isolated, with no regular surface water inflow or outflow; **2)** system has surface water inflow or outflow only at high water condition; **3)** system is flow-through with surface water inflow and outflow.

Additional Comments on Landscape Position: _____

Storm Water Inflows and Outflows

Circle Appropriate Category: **1)** no significant adverse effects to habitat, hydrologic regime, or water quality due to inflow of stormwater system; **2)** habitat conditions are generally good, but adverse effects to habitat, hydrologic regime, or water quality are evident due to inflow stormwater inflows; **3))** habitat conditions are degraded by adverse effects of stormwater inflows.

Additional Comments on Surface Water _____

Shoreline Development = 60%

Circle Appropriate Category: **1)** less than 10% **of** shoreline/perimeter is developed; **2)** 10 to 30% of shoreline/perimeter is developed; **3)** 30 to 60% of shoreline/perimeter is developed; **4)** greater than 60% of shoreline/perimeter is developed.

Additional Comments on Shoreline _I-4 on east, major road (Graves) on North_____

Land Protection

Circle Appropriate Category: **1)** site and surrounding lands are in public ownership, or land use is limited to conservation/preservation; **2)** some but not all site and surrounding lands are in public ownership, or protected by easement ; **3)** site and surrounding lands are in not public ownership, nor protected by easement.

Additional Comments on Land Protection _____

Site Disturbance

Circle Appropriate Category: **1)** less than 10% wetland/water body recent land clearance or disturbance; **2)** 10 to 30% of wetland/water body is affected by recent land disturbance; **3)** 30 to 60% of wetland/water body is affected by recent land disturbance; **4)** greater than 60% of wetland/water body is affected by recent land disturbance.

Circle Appropriate Category: **1)** less than 10% uplands adjacent wetland/water body affected by recent land clearance or disturbance; **2)** 10 to 30% of upland is affected by recent land disturbance; **3)** 30 to 60% of upland is affected by recent land disturbance; **4)** greater than 60% of upland is affected by recent land disturbance.

Additional Comments on Land Disturbance_____some development ongoing_____

Drainage Alteration

Are significant drainage features present on the site?__No___ If yes, describe:_____
_____

Are there significant drainage features on lands bordering the wetland/water body?__No_____ If yes, describe: none observed, check aerial photo's_____

Additional Comments on Drainage _____

Wetland Assessment Field Form--SJRWMD Constraint Wetland Project

PROJECT: Lake Gleason **SJRWMD SITE ID:** #53 **COUNTY:** Volusia

OTHER LOCATION NOTES:

PERSONNEL : Bill Dunn and Bob Fewster **DATE**: 8/10/05 **TIME:** 10:30

GPS COORDINATES: Latitude : N 28 53.457 **Longitude:** W 81 16.020

PHOTOGRAPHY

Roll: _____ Photo Frame #s: pan of 4 from the boat ramp

Description of photo(s): park on the SW side, mostly open water (see photos)

WATER LEVEL:

Water Depth: w/in 0.5' of water stains on fence post @ boat ramp Staff Gage or Piezometer Level (if present): ___

VEGETATION……lake with emergent border

Major Vegetation Zones Present in Wetland or Water Body: ____forested, ____shrub scrub, _X_ marsh, _X_ aquatic, _____pond, __X____lake, _____other (list):

HERBACEOUS GROUNDCOVER (% cover of OBL and/or FACW species to nearest 10%)

Zone 1: Composition: _____ **Zone 2: Composition**: _____ emergent zone edge of lake

Dominant Groundcover Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: Zone 2:

Total % Groundcover: 90% in littoral zone Total % Cover _____

Species/1/2/3/4/5: Panicum sp

Species/1/2/3/4/5: Torpedo grass

Species/1/2/3/4/5: Maidencane

Species/1/2/3/4/5: Pickered weed

Species/1/2/3/4/5: Cattail

Groundcover Species Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal groundcover zonation; 2) Somewhat abnormal zonation – some signs of abnormal groundcover zonation mainly limited to the wetland edge; 3) Normal groundcover zonation.

Additional Comments on Groundcover _____

NUISANCE/WEEDY GROUNDCOVER

Composition--Circle the appropriate category: 1) > 50% of all groundcover species cover is weeds; 2) > 10% and < 50% of all groundcover species cover is weeds (either dispersed throughout wetland or in dense localized patches); 3)< 10% of all groundcover species cover is weeds or weeds are absent.

Additional Comments on Weedy Species _____

SHRUB….sparse and scattered shrub zone up of emergent

Composition _____ % cover OBL and/or FACW shrub species to nearest 10%

Dominant Shrub Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: Zone 2:

Total % Shrub cover: 25-50% Total % Cover_____

Species/1/2/3/4/5: Button Bush scattered, isolated small stands

Species/1/2/3/4/5: Ludwig peruviana

Species/1/2/3/4/5: Willow

Species/1/2/3/4/5:

Shrub and Small Tree Species Zonation--Circle the appropriate category: 1) Abnormal zonation – many signs of abnormal shrub and tree zonation; 2) Somewhat abnormal zonation -some signs of abnormal shrub and tree zonation mainly limited to the wetland edge; 3) Normal shrub and tree zonation.

Additional Comments on Shrubs_____

WEEDY SHRUB

Composition --Circle the appropriate category: 1) > 50% of all shrub species cover is weeds; 2) > 10% and < 50% of all shrub species cover is (either dispersed throughout the wetland or in dense localized patches); 3) < 10% of all shrub species cover is weeds or weeds are absent.

Additional Comments on Weedy Shrubs_____

CANOPY (TREE)...slash pine flatwoods edge in a few places

Dominant Canopy Species Cover Classes 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Canopy Cover: _____ Total % Cover _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Tree Zonation--Circle the appropriate category: 1) Abnormal zonation – multiple signs of abnormal distribution and cover; 2) Somewhat abnormal zonation with moderately abnormal distribution and cover; 3) Normal zonation with normal distribution and cover.

Additional Comments on Tree Species_____no forested wetland border observed_____

AQUATIC……..floating

Dominant Aquatic Species % Cover Categories: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Aquatic Plant Cover:_____ Total % Cover_____

Species/1/2/3/4/5: _Nymphaea_____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Aquatic Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal plant zonation; 2) Somewhat abnormal zonation - some signs of abnormal zonation; 3) Normal aquatic plant zonation

Additional Comments on Aquatic Species: _Not as many dead pines around this lake, as compared to the last 2 visited today…Three Island and Trout lakes_____

PLANT COMMUNITY HEALTH

Does community show unusual signs of stress? No . **Visually estimate % of wetland zone exhibiting signs of stress;**_____

Type of stress observed (e.g., dead or dying plants, discolored foliage, wilted or rolled leaves, premature leaf fall or senescence, etc.):_____

Does stress appear moisture related, or is there sign of disease or insect injury? _____

Overall Condition of Plant Community is:

Circle Appropriate Category: **1)** Plants are dead or dying; **2)** poor vigor with obvious decline (foliage discolored, wilted, premature leaf fall) ; **3)** fair vigor, some signs of stress or decline; **4)** medium vigor, some yellow-green foliage, or signs of leaf wilt or leaf curling; **5)** appearance good, foliage green but foliage thin, less than normal growth for the season; **6)** excellent vigor, foliage green in color, normal growth for the season.

Additional Comments on Health: **no dead pines observed**

HYDIC SOILS

Look for signs of subsidence, oxidation or abnormal desiccation and select the category which best describes the current conditions of the wetland soils. This assessment may not be applicable (NA) if site is inundated.

Circle Appropriate Category: **1)** Substantial subsidence/oxidation; **2)** Moderate subsidence/oxidation; **3)** Little or no evidence of subsidence/oxidation

Circle Appropriate Soil Condition: **1)** Inundated, **2)** Saturated, **3)** Moist, **4)** Dry

Additional Comments on Soil_____

_____

HYDROLOGY

Current Water Level Indicators (e.g., mosses, lichens, stains)

Estimated depth of water relative to high water marks or indicators:_____; describe type of indicator:_____

Circle the Appropriate Category: **1)** None of these indicators are present or indicators are at ground level; **2)** Indicators present; however, indistinct or abnormally low in comparison to the historic normal pool; **3)** Indicators are distinct and at the appropriate level for the season.

Additional Comments on Hydrology water marks on fence post @ boat ramp w/ 0.5' of HW marks

_____

WILDLIFE AND LISTED SPECIES

Listed Flora and Fauna Observed (Include activity information for fauna)

Wetland-Dependent Fauna Observed:

Activity codes (M = mating, F = foraging, FT = flyover/traveling; N = nesting, OT = other)

Observation codes (O = observed, S = sign [scat, tracks, call or other signs of presence])

GENERAL SITE DESCRIPTION CATEGORIES

Habitat Gradient

Circle Appropriate Category: **1)** full habitat gradient present from aquatic/wetland up gradient to native upland habitat; **2)** native upland habitat is present along 50-75% of perimeter; **3)** native upland habitat is present along 25-50% of perimeter; **4)** native upland habitat is present along less than 25% of perimeter.

Additional Comments on Habitat Gradient ___mostly developed edge_____

Habitat Quality

Circle Appropriate Category: **1)** habitats present are in relatively natural condition in terms of community structure and plant species composition; **2)** habitats are in degraded condition in terms of community structure and plant species composition ; **3)** habitats are in severely degraded condition in terms of community structure and plant species composition.

Additional Comments on Habitat Quality _____

Hydrology and Landscape Position

Circle Appropriate Category: **1)** wetland/aquatic system is isolated, with no regular surface water inflow or outflow; **2)** system has surface water inflow or outflow only at high water condition; **3)** system is flow-through with surface water inflow and outflow.

Additional Comments on Landscape Position: ____check_____

Storm Water Inflows and Outflows

Circle Appropriate Category: **1)** no significant adverse effects to habitat, hydrologic regime, or water quality due to inflow of stormwater system; **2)** habitat conditions are generally good, but adverse effects to habitat, hydrologic regime, or water quality are evident due to inflow stormwater inflows; **3))** habitat conditions are degraded by adverse effects of stormwater inflows.

Additional Comments on Surface Water _____

Shoreline Development

Circle Appropriate Category: **1)** less than 10% **of** shoreline/perimeter is developed; **2)** 10 to 30% of shoreline/perimeter is developed; **3)** 30 to 60% of shoreline/perimeter is developed; **4)** greater than 60% of shoreline/perimeter is developed.

Additional Comments on Shoreline: _____

Land Protection

Circle Appropriate Category: **1)** site and surrounding lands are in public ownership, or land use is limited to conservation/preservation; **2)** some but not all site and surrounding lands are in public ownership, or protected by easement ; **3)** site and surrounding lands are in not public ownership, nor protected by easement.

Additional Comments on Land Protection _____park on SW side_____

Site Disturbance

Circle Appropriate Category: **1)** less than 10% wetland/water body recent land clearance or disturbance; **2)** 10 to 30% of wetland/water body is affected by recent land disturbance; **3)** 30 to 60% of wetland/water body is affected by recent land disturbance; **4)** greater than 60% of wetland/water body is affected by recent land disturbance.

Circle Appropriate Category: **1)** less than 10% uplands adjacent wetland/water body affected by recent land clearance or disturbance; **2)** 10 to 30% of upland is affected by recent land disturbance; **3)** 30 to 60% of upland is affected by recent land disturbance; **4)** greater than 60% of upland is affected by recent land disturbance.

Additional Comments on Land Disturbance____no observed disturbance (recent) in lake or on the edge_____

Drainage Alteration

Are significant drainage features present on the site?_No__ If yes, describe:_____

_____

Are there significant drainage features on lands bordering the wetland/water body?__No_____ If yes, describe:_____ photo's_____

Additional Comments on Drainage _____closed system_____

Wetland Assessment Field Form--SJRWMD Constraint Wetland Project

PROJECT: Dead River Marsh **SJRWMD SITE ID:** #65 **COUNTY:** Lake

OTHER LOCATION NOTES: **at boat ramp in Lake Griffin State Park**

PERSONNEL : Bill Dunn and Bob Fewster **DATE**: 8/25/05 **TIME:** 9:20

GPS COORDINATES: Latitude : **N 28 51.461** **Longitude:** **W 81 54.003**

PHOTOGRAPHY

Roll: _____ Photo Frame #s: 7 photos

Description of photo(s): large mosaic of forested, shrub and marsh

WATER LEVEL

Water Depth: _____ Staff Gage or Piezometer Level (if present): 58.9 ft

VEGETATION

Major Vegetation Zones Present in Wetland or Water Body: X forested, X shrub scrub, X marsh, _____aquatic, _____pond, _____lake, _____other (list):____* mostly forested & shrub at this location

HERBACEOUS GROUNDCOVER (% cover of OBL and/or FACW species to nearest 10%)

Zone 1: Composition: _____ **Zone 2: Composition**: _____

Dominant Groundcover Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: some Zone 2: _____

Total % Groundcover: _____ Total % Cover _____

Species/1/2/3/4/5: Sagittaria _____

Species/1/2/3/4/5: Maidencane _____

Species/1/2/3/4/5: Sawgrass _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Groundcover Species Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal groundcover zonation; 2) Somewhat abnormal zonation – some signs of abnormal groundcover zonation mainly limited to the wetland edge; 3) Normal groundcover zonation.

Additional Comments on Groundcover _____

NUISANCE/WEEDY GROUNDCOVER

Composition--Circle the appropriate category: 1) > 50% of all groundcover species cover is weeds; 2) > 10% and < 50% of all groundcover species cover is weeds (either dispersed throughout wetland or in dense localized patches); 3)< 10% of all groundcover species cover is weeds or weeds are absent.

Additional Comments on Weedy Species _____

SHRUB……shrub swamp i

Composition _____ % cover OBL and/or FACW shrub species to nearest 10%

Dominant Shrub Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: _____ Zone 2: _____

Total % Shrub cover: _____ Total % Cover _____

Species/1/2/3/4/5: Willow _____

Species/1/2/3/4/5: Ludwigia peruviana _____

Species/1/2/3/4/5: Cephalanthus occidentalis _____

Species/1/2/3/4/5: _____ _____

Shrub and Small Tree Species Zonation--Circle the appropriate category: 1) Abnormal zonation – many signs of abnormal shrub and tree zonation; 2) Somewhat abnormal zonation -some signs of abnormal shrub and tree zonation mainly limited to the wetland edge; 3) Normal shrub and tree zonation. Most of the Wetland here is successional shrub swamp

Additional Comments on Shrubs_____Most of the wetland here is successional willow/maple_____

WEEDY SHRUB

Composition --Circle the appropriate category: 1) > 50% of all shrub species cover is weeds; 2) > 10% and < 50% of all shrub species cover is (either dispersed throughout the wetland or in dense localized patches); 3) < 10% of all shrub species cover is weeds or weeds are absent.

Additional Comments on Weedy Shrubs_____

CANOPY (TREE)

Dominant Canopy Species Cover Classes 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Canopy Cover: 50 – 90%_ Total % Cover _____

Species/1/2/3/4/5: Taxodium distichum_____ _____

Species/1/2/3/4/5: Acer rubrum_____ _____

Species/1/2/3/4/5: Ilex cassine_____ _____

Species/1/2/3/4/5: Nyssa biflora_____ _____

Species/1/2/3/4/5: __Willow_____ _____

Tree Zonation--Circle the appropriate category: 1) Abnormal zonation – multiple signs of abnormal distribution and cover; 2) Somewhat abnormal zonation with moderately abnormal distribution and cover; 3) Normal zonation with normal distribution and cover.

Additional Comments on Tree Species_____

AQUATIC……CANAL CHANNEL

Dominant Aquatic Species % Cover Categories: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Aquatic Plant Cover:___100% in canal Total % Cover_____

Species/1/2/3/4/5: Nymphaea <1%_____ _____

Species/1/2/3/4/5: 100% Salvinia_____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Aquatic Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal plant zonation; 2) Somewhat abnormal zonation - some signs of abnormal zonation; 3) Normal aquatic plant zonation

Additional Comments on Aquatic Species:

_____

Mature forest and successional forest mixed in with areas of emergent marsh

PLANT COMMUNITY HEALTH

Does community show unusual signs of stress? No. **Visually estimate % of wetland zone exhibiting signs of stress;**_____

Type of stress observed (e.g., dead or dying plants, discolored foliage, wilted or rolled leaves, premature leaf fall or senescence, etc.):_____

Does stress appear moisture related, or is there sign of disease or insect injury? _____

Overall Condition of Plant Community is:

Circle Appropriate Category: **1)** Plants are dead or dying; **2)** poor vigor with obvious decline (foliage discolored, wilted, premature leaf fall) ; **3)** fair vigor, some signs of stress or decline; **4)** medium vigor, some yellow-green foliage, or signs of leaf wilt or leaf curling; **5)** appearance good, foliage green but foliage thin, less than normal growth for the season; **6)** excellent vigor, foliage green in color, normal growth for the season.

Additional Comments on Health _____

HYDIC SOILS

Look for signs of subsidence, oxidation or abnormal desiccation and select the category which best describes the current conditions of the wetland soils. This assessment may not be applicable (NA) if site is inundated.

Circle Appropriate Category: **1)** Substantial subsidence/oxidation; **2)** Moderate subsidence/oxidation; **3)** Little or no evidence of subsidence/oxidation

Circle Appropriate Soil Condition: **1)** Inundated, **2)** Saturated, **3)** Moist, **4)** Dry

Additional Comments on Soil_____

_____

HYDROLOGY

Current Water Level Indicators (e.g., mosses, lichens, stains)

Estimated depth of water relative to high water marks or indicators:_____; describe type of indicator:_____

Circle the Appropriate Category: **1)** None of these indicators are present or indicators are at ground level; **2)** Indicators present; however, indistinct or abnormally low in comparison to the historic normal pool; **3)** Indicators are distinct and at the appropriate level for the season.

Additional Comments on Hydrology_____water marks for pilings @ staff gage are @ + 0.5_____

_____

WILDLIFE AND LISTED SPECIES

Listed Flora and Fauna Observed (Include activity information for fauna)

Wetland-Dependent Fauna Observed:

Activity codes (M = mating, F = foraging, FT = flyover/traveling; N = nesting, OT = other)

Observation codes (O = observed, S = sign [scat, tracks, call or other signs of presence])

GENERAL SITE DESCRIPTION CATEGORIES

Habitat Gradient

Circle Appropriate Category: **1)** full habitat gradient present from aquatic/wetland up gradient to native upland habitat; **2)** native upland habitat is present along 50-75% of perimeter; **3)** native upland habitat is present along 25-50% of perimeter; **4)** native upland habitat is present along less than 25% of perimeter.

Additional Comments on Habitat Gradient **good in the park; live oak & pine uplands**

Habitat Quality

Circle Appropriate Category: **1)** habitats present are in relatively natural condition in terms of community structure and plant species composition; **2)** habitats are in degraded condition in terms of community structure and plant species composition ; **3)** habitats are in severely degraded condition in terms of community structure and plant species composition.

Additional Comments on Habitat Quality _____

Hydrology and Landscape Position

Circle Appropriate Category: **1)** wetland/aquatic system is isolated, with no regular surface water inflow or outflow; **2)** system has surface water inflow or outflow only at high water condition; **3)** system is flow-through with surface water inflow and outflow.

Additional Comments on Landscape Position **Part of Lake Griffin**

Storm Water Inflows and Outflows

Circle Appropriate Category: **1)** no significant adverse effects to habitat, hydrologic regime, or water quality due to inflow of stormwater system; **2)** habitat conditions are generally good, but adverse effects to habitat, hydrologic regime, or water quality are evident due to inflow stormwater inflows; **3))** habitat conditions are degraded by adverse effects of stormwater inflows.

Additional Comments on Surface Water _____

Shoreline Development = 50%

Circle Appropriate Category: **1)** less than 10% **of** shoreline/perimeter is developed; **2)** 10 to 30% of shoreline/perimeter is developed; **3)** 30 to 60% of shoreline/perimeter is developed; **4)** greater than 60% of shoreline/perimeter is developed.

Additional Comments on Shoreline _____

Land Protection

Circle Appropriate Category: **1)** site and surrounding lands are in public ownership, or land use is limited to conservation/preservation; **2)** some but not all site and surrounding lands are in public ownership, or protected by easement ; **3)** site and surrounding lands are in not public ownership, nor protected by easement.

Additional Comments on Land Protection **in park**

Site Disturbance

Circle Appropriate Category: **1)** less than 10% wetland/water body recent land clearance or disturbance; **2)** 10 to 30% of wetland/water body is affected by recent land disturbance; **3)** 30 to 60% of wetland/water body is affected by recent land disturbance; **4)** greater than 60% of wetland/water body is affected by recent land disturbance.

Circle Appropriate Category: **1)** less than 10% uplands adjacent wetland/water body affected by recent land clearance or disturbance; **2)** 10 to 30% of upland is affected by recent land disturbance; **3)** 30 to 60% of upland is affected by recent land disturbance; **4)** greater than 60% of upland is affected by recent land disturbance.

Additional Comments on Land Disturbance 0%

Drainage Alteration

Are significant drainage features present on the site? No If yes, describe:_____

Are there significant drainage features on lands bordering the wetland/water body? No If yes, describe:_____

Additional Comments on Drainage _____

Wetland Assessment Field Form--SJRWMD Constraint Wetland Project

PROJECT: Lake Sylvan **SJRWMD SITE ID:** #75 **COUNTY:** Seminole

OTHER LOCATION NOTES:

PERSONNEL : Bill Dunn and Bob Fewster **DATE**: 8/11/05 **TIME:** 3:45

GPS COORDINATES: Latitude : **N 28 48.241** **Longitude:** **W 81 23.001**

PHOTOGRAPHY

Roll: _____ Photo Frame #s: pan of 6 shots from board walk lake near flood stage, board walk

Description of photo(s):

WATER LEVEL—lake @ flood stage

Water Depth: _____ Staff Gage or Piezometer Level (if present): _____

VEGETATION

Major Vegetation Zones Present in Wetland or Water Body: _X___forested, __X__shrub scrub, _X__marsh, __X____aquatic, _____pond, ___X__lake, _____other (list):____wetlands border parts of lake

HERBACEOUS GROUNDCOVER (% cover of OBL and/or FACW species to nearest 10%)

Zone 1: Composition: _____ **Zone 2: Composition**: _____

Dominant Groundcover Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1:_80+% cover_____ Zone 2:_____

Total % Groundcover:__Littoral fringe_____ Total % Cover _____

Species/1/2/3/4/5:_____Maidencane_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Groundcover Species Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal groundcover zonation; 2) Somewhat abnormal zonation – some signs of abnormal groundcover zonation mainly limited to the wetland edge; 3) Normal groundcover zonation.

Additional Comments on Groundcover _____

NUISANCE/WEEDY GROUNDCOVER

Composition--Circle the appropriate category: 1) > 50% of all groundcover species cover is weeds; 2) > 10% and < 50% of all groundcover species cover is weeds (either dispersed throughout wetland or in dense localized patches); 3)< 10% of all groundcover species cover is weeds or weeds are absent.

Additional Comments on Weedy Species _____

SHRUB

Composition _____ % cover OBL and/or FACW shrub species to nearest 10%

Dominant Shrub Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: _____ Zone 2:_____

Total % Shrub cover:_____ Total % Cover_____

Species/1/2/3/4/5: button bush scattered_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Shrub and Small Tree Species Zonation--Circle the appropriate category: 1) Abnormal zonation – many signs of abnormal shrub and tree zonation; 2) Somewhat abnormal zonation -some signs of abnormal shrub and tree zonation mainly limited to the wetland edge; 3) Normal shrub and tree zonation.

Additional Comments on Shrubs_____ _____

WEEDY SHRUB

Composition --Circle the appropriate category: 1) > 50% of all shrub species cover is weeds; 2) > 10% and < 50% of all shrub species cover is (either dispersed throughout the wetland or in dense localized patches); 3) < 10% of all shrub species cover is weeds or weeds are absent.

Additional Comments on Weedy Shrubs_____

CANOPY (TREE)—forested border present around 50% of lake

Dominant Canopy Species Cover Classes 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

	Zone 1:_____	Zone 2:_____
Total % Canopy Cover:	_____	Total % Cover _____
Species/1/2/3/4/5:	Red maple	_____
Species/1/2/3/4/5:	Bald cypress	_____
Species/1/2/3/4/5:	Water oak	_____
Species/1/2/3/4/5:	_____	_____
Species/1/2/3/4/5:	_____	_____

Tree Zonation--Circle the appropriate category: 1) Abnormal zonation – multiple signs of abnormal distribution and cover; 2) Somewhat abnormal zonation with moderately abnormal distribution and cover; 3) Normal zonation with normal distribution and cover.

Additional Comments on Tree Species_____

AQUATIC

Dominant Aquatic Species % Cover Categories: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

	Zone 1:_____	Zone 2:_____
Total % Aquatic Plant	_____	Total % Cover_____
Species/1/2/3/4/5:	_____	_____
Species/1/2/3/4/5:	_____	_____
Species/1/2/3/4/5:	_____	_____
Species/1/2/3/4/5:	_____	_____
Species/1/2/3/4/5:	_____	_____

Aquatic Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal plant zonation; 2) Somewhat abnormal zonation - some signs of abnormal zonation; 3) Normal aquatic plant zonation

Additional Comments on Aquatic Species: large wetland area on east side and west (park), less on North & South….See aerial photo_____

PLANT COMMUNITY HEALTH

Does community show unusual signs of stress?__No___. **Visually estimate % of wetland zone exhibiting signs of stress;**_____

Type of stress observed (e.g., dead or dying plants, discolored foliage, wilted or rolled leaves, premature leaf fall or senescence, etc.):_____

Does stress appear moisture related, or is there sign of disease or insect injury? _____

Overall Condition of Plant Community is:

Circle Appropriate Category: **1)** Plants are dead or dying; **2)** poor vigor with obvious decline (foliage discolored, wilted, premature leaf fall) ; **3)** fair vigor, some signs of stress or decline; **4)** medium vigor, some yellow-green foliage, or signs of leaf wilt or leaf curling; **5)** appearance good, foliage green but foliage thin, less than normal growth for the season; **6)** excellent vigor, foliage green in color, normal growth for the season.

Additional Comments on Health _____

HYDIC SOILS

Look for signs of subsidence, oxidation or abnormal desiccation and select the category which best describes the current conditions of the wetland soils. This assessment may not be applicable (NA) if site is inundated.

Circle Appropriate Category: **1)** Substantial subsidence/oxidation; **2)** Moderate subsidence/oxidation; **3)** Little or no evidence of subsidence/oxidation

Circle Appropriate Soil Condition: **1)** Inundated, **2)** Saturated, **3)** Moist, **4)** Dry

Additional Comments on Soil_____

_____

HYDROLOGY

Current Water Level Indicators (e.g., mosses, lichens, stains)

Estimated depth of water relative to high water marks or indicators:_____; describe type of indicator:_____

Circle the Appropriate Category: **1)** None of these indicators are present or indicators are at ground level; **2)** Indicators present; however, indistinct or abnormally low in comparison to the historic normal pool; **3)** Indicators are distinct and at the appropriate level for the season.

Additional Comments on Hydrology___lake @ flood stage _____

WILDLIFE AND LISTED SPECIES

Listed Flora and Fauna Observed (Include activity information for fauna)

Wetland-Dependent Fauna Observed:

Activity codes (M = mating, F = foraging, FT = flyover/traveling; N = nesting, OT = other)

Observation codes (O = observed, S = sign [scat, tracks, call or other signs of presence])

GENERAL SITE DESCRIPTION CATEGORIES

Habitat Gradient

Circle Appropriate Category: **1)** full habitat gradient present from aquatic/wetland up gradient to native upland habitat; **2)** native upland habitat is present along 50-75% of perimeter; **3)** native upland habitat is present along 25-50% of perimeter; **4)** native upland habitat is present along less than 25% of perimeter.

Additional Comments on Habitat Gradient _____

Habitat Quality

Circle Appropriate Category: **1)** habitats present are in relatively natural condition in terms of community structure and plant species composition; **2)** habitats are in degraded condition in terms of community structure and plant species composition ; **3)** habitats are in severely degraded condition in terms of community structure and plant species composition.

Additional Comments on Habitat Quality ____**except logging in flatwoods on North**_____

Hydrology and Landscape Position

Circle Appropriate Category: **1)** wetland/aquatic system is isolated, with no regular surface water inflow or outflow; **2)** system has surface water inflow or outflow only at high water condition; **3)** system is flow-through with surface water inflow and outflow.

Additional Comments on Landscape Position: **check; BF says that Sonny Hall says outflow rare** _____

Storm Water Inflows and Outflows……1.5

Circle Appropriate Category: **1)** no significant adverse effects to habitat, hydrologic regime, or water quality due to inflow of stormwater system; **2)** habitat conditions are generally good, but adverse effects to habitat, hydrologic regime, or water quality are evident due to inflow stormwater inflows; **3))** habitat conditions are degraded by adverse effects of stormwater inflows.

Additional Comments on Surface Water _____

Shoreline Development

Circle Appropriate Category: **1)** less than 10% **of** shoreline/perimeter is developed; **2)** 10 to 30% of shoreline/perimeter is developed; **3)** 30 to 60% of shoreline/perimeter is developed; **4)** greater than 60% of shoreline/perimeter is developed.

Additional Comments on Shoreline 50%_____

Land Protection

Circle Appropriate Category: **1)** site and surrounding lands are in public ownership, or land use is limited to conservation/preservation; **2)** some but not all site and surrounding lands are in public ownership, or protected by easement ; **3)** site and surrounding lands are in not public ownership, nor protected by easement.

Additional Comments on Land Protection _____

Site Disturbance

Circle Appropriate Category: **1)** less than 10% wetland/water body recent land clearance or disturbance; **2)** 10 to 30% of wetland/water body is affected by recent land disturbance; **3)** 30 to 60% of wetland/water body is affected by recent land disturbance; **4)** greater than 60% of wetland/water body is affected by recent land disturbance.

Circle Appropriate Category: **1)** less than 10% uplands adjacent wetland/water body affected by recent land clearance or disturbance; **2)** 10 to 30% of upland is affected by recent land disturbance; **3)** 30 to 60% of upland is affected by recent land disturbance; **4)** greater than 60% of upland is affected by recent land disturbance.

Additional Comments on Land Disturbance: _____

Drainage Alteration

Are significant drainage features present on the site?__No___ If yes, describe:_____

_____

Are there significant drainage features on lands bordering the wetland/water body?__No_____ If yes, describe:_____

_____

Additional Comments on Drainage _____

Wetland Assessment Field Form--SJRWMD Constraint Wetland Project

PROJECT: Wetland in New Upsala **SJRWMD SITE ID:** #78 **COUNTY:** Seminole

OTHER LOCATION NOTES: **Wetland disturbed, Brush Creek Dr.**

PERSONNEL : Bill Dunn and Bob Fewster **DATE**: 8/11/05 **TIME:** 14:45

GPS COORDINATES: Latitude : **N 28 47.687** **Longitude:** **W 81 19.329**

PHOTOGRAPHY

Roll: _____ Photo Frame #s: 8 photos

Description of photo(s): floating mats & open water

WATER LEVEL

Water Depth: *water level high w/ 0.5 of HW* Staff Gage or Piezometer Level (if present): _____

VEGETATION--marsh & open water

Major Vegetation Zones Present in Wetland or Water Body: ____forested, __X__shrub scrub, __X__marsh, ___X___aquatic, _____pond, _____lake, _____other (list):_____

HERBACEOUS GROUNDCOVER (% cover of OBL and/or FACW species to nearest 10%)

Zone 1: Composition: _____ **Zone 2: Composition**: _____

Dominant Groundcover Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1:_____ Zone 2:_____

Total % Groundcover:_____ Total % Cover _____

Species/1/2/3/4/5: Limnobium spongia _____

Species/1/2/3/4/5: Hydrocotyle _____

Species/1/2/3/4/5: Pickerelweed _____

Species/1/2/3/4/5: Nymphaea _____

Species/1/2/3/4/5: Salvinia _____

Groundcover Species Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal groundcover zonation; 2) Somewhat abnormal zonation – some signs of abnormal groundcover zonation mainly limited to the wetland edge; 3) Normal groundcover zonation.

Additional Comments on Groundcover _____

NUISANCE/WEEDY GROUNDCOVER

Composition--Circle the appropriate category: 1) > 50% of all groundcover species cover is weeds; 2) > 10% and < 50% of all groundcover species cover is weeds (either dispersed throughout wetland or in dense localized patches); 3)< 10% of all groundcover species cover is weeds or weeds are absent.

Additional Comments on Weedy Species _____

SHRUB--<1%

Composition _____ % cover OBL and/or FACW shrub species to nearest 10%

Dominant Shrub Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1:_____ Zone 2:_____

Total % Shrub cover:_____ Total % Cover_____

Species/1/2/3/4/5:_____

Species/1/2/3/4/5:_____

Species/1/2/3/4/5:_____

Species/1/2/3/4/5:_____

Shrub and Small Tree Species Zonation--Circle the appropriate category: 1) Abnormal zonation – many signs of abnormal shrub and tree zonation; 2) Somewhat abnormal zonation -some signs of abnormal shrub and tree zonation mainly limited to the wetland edge; 3) Normal shrub and tree zonation.

Additional Comments on Shrubs_____

WEEDY SHRUB

Composition --Circle the appropriate category: 1) > 50% of all shrub species cover is weeds; 2) > 10% and < 50% of all shrub species cover is (either dispersed throughout the wetland or in dense localized patches); 3) < 10% of all shrub species cover is weeds or weeds are absent.

Additional Comments on Weedy Shrubs_____

CANOPY (TREE)…….not in this area, but adjacent areas to the NE

Dominant Canopy Species Cover Classes 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:scattered bands of trees__ Zone 2:_____

Total % Canopy Cover: _____ Total % Cover _____

Species/1/2/3/4/5: Maple _____

Species/1/2/3/4/5: Willow _____

Species/1/2/3/4/5: Sweetgum _____

Species/1/2/3/4/5: _____

Species/1/2/3/4/5: _____

Tree Zonation--Circle the appropriate category: 1) Abnormal zonation – multiple signs of abnormal distribution and cover; 2) Somewhat abnormal zonation with moderately abnormal distribution and cover; 3) Normal zonation with normal distribution and cover.

Additional Comments on Tree Species_____

AQUATIC

Dominant Aquatic Species % Cover Categories: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Aquatic Plant Cover:_____ Total % Cover_____

Species/1/2/3/4/5: floating mats see herb list _____

Species/1/2/3/4/5: _____

Species/1/2/3/4/5: _____

Species/1/2/3/4/5: _____

Species/1/2/3/4/5: _____

Aquatic Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal plant zonation; 2) Somewhat abnormal zonation - some signs of abnormal zonation; 3) Normal aquatic plant zonation

Additional Comments on Aquatic Species:

_____

PLANT COMMUNITY HEALTH

Does community show unusual signs of stress?__No__. **Visually estimate % of wetland zone exhibiting signs of stress;**_____

Type of stress observed (e.g., dead or dying plants, discolored foliage, wilted or rolled leaves, premature leaf fall or senescence, etc.):_____

Does stress appear moisture related, or is there sign of disease or insect injury? _____

Overall Condition of Plant Community is:

Circle Appropriate Category: **1)** Plants are dead or dying; **2)** poor vigor with obvious decline (foliage discolored, wilted, premature leaf fall) ; **3)** fair vigor, some signs of stress or decline; **4)** medium vigor, some yellow-green foliage, or signs of leaf wilt or leaf curling; **5)** appearance good, foliage green but foliage thin, less than normal growth for the season; **6)** excellent vigor, foliage green in color, normal growth for the season.

Additional Comments on Health __**encroaching maples @ NE may be dead/dying**_____

HYDIC SOILS

Look for signs of subsidence, oxidation or abnormal desiccation and select the category which best describes the current conditions of the wetland soils. This assessment may not be applicable (NA) if site is inundated.

Circle Appropriate Category: **1)** Substantial subsidence/oxidation; **2)** Moderate subsidence/oxidation; **3)** Little or no evidence of subsidence/oxidation

Circle Appropriate Soil Condition: **1)** Inundated, **2)** Saturated, **3)** Moist, **4)** Dry

Additional Comments on Soil_____can not tell_____

_____

HYDROLOGY

Current Water Level Indicators (e.g., mosses, lichens, stains)

Estimated depth of water relative to high water marks or indicators:_____; describe type of indicator:_____

Circle the Appropriate Category: **1)** None of these indicators are present or indicators are at ground level; **2)** Indicators present; however, indistinct or abnormally low in comparison to the historic normal pool; **3)** Indicators are distinct and at the appropriate level for the season.

Additional Comments on Hydrology____within 0.5 ft of HW_____

_____

WILDLIFE AND LISTED SPECIES

Listed Flora and Fauna Observed (Include activity information for fauna)

Wetland-Dependent Fauna Observed: great blue heron, snowy egret

Activity codes (M = mating, F = foraging, FT = flyover/traveling; N = nesting, OT = other)

Observation codes (O = observed, S = sign [scat, tracks, call or other signs of presence])

GENERAL SITE DESCRIPTION CATEGORIES

Habitat Gradient

Circle Appropriate Category: **1)** full habitat gradient present from aquatic/wetland up gradient to native upland habitat; **2)** native upland habitat is present along 50-75% of perimeter; **3)** native upland habitat is present along 25-50% of perimeter; **4)** native upland habitat is present along less than 25% of perimeter.

Additional Comments on Habitat Gradient ___**little upland present, surrounded by urban and suburban development**_____

Habitat Quality

Circle Appropriate Category: **1)** habitats present are in relatively natural condition in terms of community structure and plant species composition; **2)** habitats are in degraded condition in terms of community structure and plant species composition ; **3)** habitats are in severely degraded condition in terms of community structure and plant species composition.

Additional Comments on Habitat Quality _**Edges of wetland are linear due to encroachment on all four sides**_____

Hydrology and Landscape Position

Circle Appropriate Category: **1)** wetland/aquatic system is isolated, with no regular surface water inflow or outflow; **2)** system has surface water inflow or outflow only at high water condition; **3)** system is flow-through with surface water inflow and outflow.

Additional Comments on Landscape Position: **check maps and photo's**_____

Storm Water Inflows and Outflows

Circle Appropriate Category: **1)** no significant adverse effects to habitat, hydrologic regime, or water quality due to inflow of stormwater system; **2)** habitat conditions are generally good, but adverse effects to habitat, hydrologic regime, or water quality are evident due to inflow stormwater inflows; **3))** habitat conditions are degraded by adverse effects of stormwater inflows.

Additional Comments on Surface Water _____

Shoreline Development

Circle Appropriate Category: **1)** less than 10% **of** shoreline/perimeter is developed; **2)** 10 to 30% of shoreline/perimeter is developed; **3)** 30 to 60% of shoreline/perimeter is developed; **4)** greater than 60% of shoreline/perimeter is developed.

Additional Comments on Shoreline: _____

Land Protection

Circle Appropriate Category: **1)** site and surrounding lands are in public ownership, or land use is limited to conservation/preservation; **2)** some but not all site and surrounding lands are in public ownership, or protected by easement ; **3)** site and surrounding lands are in not public ownership, nor protected by easement.

Additional Comments on Land Protection _____

Site Disturbance

Circle Appropriate Category: **1)** less than 10% wetland/water body recent land clearance or disturbance; **2)** 10 to 30% of wetland/water body is affected by recent land disturbance; **3)** 30 to 60% of wetland/water body is affected by recent land disturbance; **4)** greater than 60% of wetland/water body is affected by recent land disturbance.

Circle Appropriate Category: **1)** less than 10% uplands adjacent wetland/water body affected by recent land clearance or disturbance; **2)** 10 to 30% of upland is affected by recent land disturbance; **3)** 30 to 60% of upland is affected by recent land disturbance; **4)** greater than 60% of upland is affected by recent land disturbance.

Additional Comments on Land Disturbance_____

Drainage Alteration

Are significant drainage features present on the site?__No__ If yes, describe:_____

_____

Are there significant drainage features on lands bordering the wetland/water body?___No_____ If yes, describe:_____

photo's_____

Additional Comments on Drainage _____

Wetland Assessment Field Form--SJRWMD Constraint Wetland Project

PROJECT: Island Lake **SJRWMD SITE ID:** #82 **COUNTY:** Seminole

OTHER LOCATION NOTES: Lake Como Park off of Bumby

PERSONNEL : Bill Dunn and Bob Fewster **DATE**: 8/11/05 **TIME:** 16:30

GPS COORDINATES: Latitude : N 28 46.605 **Longitude:** W 81 22.417

PHOTOGRAPHY

Roll: _____ Photo Frame #s-- pan of 5 shots lake with mostly open water patches of water lilies, shoreline mostly developed

Description of photo(s):

WATER LEVEL

Water Depth: w/in 0.5' of H.W, Staff Gage or Piezometer Level (if present): _____

VEGETATION

Major Vegetation Zones Present in Wetland or Water Body: ____forested, ____shrub scrub, __X_marsh, _____aquatic, _____pond, ___X__lake, _____other (list):___littoral edge

HERBACEOUS GROUNDCOVER (% cover of OBL and/or FACW species to nearest 10%)-No significant marsh areas

Zone 1: Composition: _____ **Zone 2: Composition**: _____

Dominant Groundcover Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1:_____ Zone 2:_____

Total % Groundcover:_____ Total % Cover _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Groundcover Species Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal groundcover zonation; 2) Somewhat abnormal zonation – some signs of abnormal groundcover zonation mainly limited to the wetland edge; 3) Normal groundcover zonation.

Additional Comments on Groundcover _____

NUISANCE/WEEDY GROUNDCOVER

Composition--Circle the appropriate category: 1) > 50% of all groundcover species cover is weeds; 2) > 10% and < 50% of all groundcover species cover is weeds (either dispersed throughout wetland or in dense localized patches); 3)< 10% of all groundcover species cover is weeds or weeds are absent.

Additional Comments on Weedy Species _____

SHRUB-- No significant shrub areas

Composition _____ % cover OBL and/or FACW shrub species to nearest 10%

Dominant Shrub Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: _____ Zone 2:_____

Total % Shrub cover:_____ Total % Cover_____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Shrub and Small Tree Species Zonation--Circle the appropriate category: 1) Abnormal zonation – many signs of abnormal shrub and tree zonation; 2) Somewhat abnormal zonation -some signs of abnormal shrub and tree zonation mainly limited to the wetland edge; 3) Normal shrub and tree zonation.

Additional Comments on Shrubs_____

WEEDY SHRUB

Composition --Circle the appropriate category: 1) > 50% of all shrub species cover is weeds; 2) > 10% and < 50% of all shrub species cover is (either dispersed throughout the wetland or in dense localized patches); 3) < 10% of all shrub species cover is weeds or weeds are absent.

Additional Comments on Weedy Shrubs_____

CANOPY (TREE)-- No significant forested areas

Dominant Canopy Species Cover Classes 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Canopy Cover: _____ Total % Cover _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Tree Zonation--Circle the appropriate category: 1) Abnormal zonation – multiple signs of abnormal distribution and cover; 2) Somewhat abnormal zonation with moderately abnormal distribution and cover; 3) Normal zonation with normal distribution and cover.

Additional Comments on Tree Species: _____

AQUATIC

Dominant Aquatic Species % Cover Categories: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Aquatic Plant ___15%_____ Total % Cover_____

Species/1/2/3/4/5: ___Water lilies_____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Aquatic Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal plant zonation; 2) Somewhat abnormal zonation - some signs of abnormal zonation; 3) Normal aquatic plant zonation

Additional Comments on Aquatic Species:

_____

PLANT COMMUNITY HEALTH

Does community show unusual signs of stress? No . **Visually estimate % of wetland zone exhibiting signs of stress;**_____

Type of stress observed (e.g., dead or dying plants, discolored foliage, wilted or rolled leaves, premature leaf fall or senescence, etc.):_____

Does stress appear moisture related, or is there sign of disease or insect injury? _____

Overall Condition of Plant Community is:

Circle Appropriate Category: **1)** Plants are dead or dying; **2)** poor vigor with obvious decline (foliage discolored, wilted, premature leaf fall) ; **3)** fair vigor, some signs of stress or decline; **4)** medium vigor, some yellow-green foliage, or signs of leaf wilt or leaf curling; **5)** appearance good, foliage green but foliage thin, less than normal growth for the season; **6)** excellent vigor, foliage green in color, normal growth for the season.

Additional Comments on Health _____

HYDIC SOILS

Look for signs of subsidence, oxidation or abnormal desiccation and select the category which best describes the current conditions of the wetland soils. This assessment may not be applicable (NA) if site is inundated.

Circle Appropriate Category: **1)** Substantial subsidence/oxidation; **2)** Moderate subsidence/oxidation; **3)** Little or no evidence of subsidence/oxidation

Circle Appropriate Soil Condition: **1)** Inundated, **2)** Saturated, **3)** Moist, **4)** Dry

Additional Comments on Soil_____

_____

HYDROLOGY

Current Water Level Indicators (e.g., mosses, lichens, stains)

Estimated depth of water relative to high water marks or indicators:_____; describe type of indicator:_____

Circle the Appropriate Category: **1)** None of these indicators are present or indicators are at ground level; **2)** Indicators present; however, indistinct or abnormally low in comparison to the historic normal pool; **3)** Indicators are distinct and at the appropriate level for the season.

Additional Comments on Hydrology_____**within 0.5-1.0 ft of high water**_____

WILDLIFE AND LISTED SPECIES

Listed Flora and Fauna Observed (Include activity information for fauna)

Wetland-Dependent Fauna Observed:

Activity codes (M = mating, F = foraging, FT = flyover/traveling; N = nesting, OT = other)

Observation codes (O = observed, S = sign [scat, tracks, call or other signs of presence])

GENERAL SITE DESCRIPTION CATEGORIES

Habitat Gradient

Circle Appropriate Category: **1)** full habitat gradient present from aquatic/wetland up gradient to native upland habitat; **2)** native upland habitat is present along 50-75% of perimeter; **3)** native upland habitat is present along 25-50% of perimeter; **4)** native upland habitat is present along less than 25% of perimeter.

Additional Comments on Habitat Gradient **< 25%**

Habitat Quality

Circle Appropriate Category: **1)** habitats present are in relatively natural condition in terms of community structure and plant species composition; **2)** habitats are in degraded condition in terms of community structure and plant species composition ; **3)** habitats are in severely degraded condition in terms of community structure and plant species composition.

Additional Comments on Habitat Quality **whole edge is gone, remaining is ok**

Hydrology and Landscape Position

Circle Appropriate Category: **1)** wetland/aquatic system is isolated, with no regular surface water inflow or outflow; **2)** system has surface water inflow or outflow only at high water condition; **3)** system is flow-through with surface water inflow and outflow.

Additional Comments on Landscape Position: **connected to other lakes**

Storm Water Inflows and Outflows

Circle Appropriate Category: **1)** no significant adverse effects to habitat, hydrologic regime, or water quality due to inflow of stormwater system; **2)** habitat conditions are generally good, but adverse effects to habitat, hydrologic regime, or water quality are evident due to inflow stormwater inflows; **3)** habitat conditions are degraded by adverse effects of stormwater inflows.

Additional Comments on Surface Water **swales w/ pop off**

Shoreline Development

Circle Appropriate Category: **1)** less than 10% **of** shoreline/perimeter is developed; **2)** 10 to 30% of shoreline/perimeter is developed; **3)** 30 to 60% of shoreline/perimeter is developed; **4)** greater than 60% of shoreline/perimeter is developed.

Additional Comments on Shoreline **>80%**

Land Protection

Circle Appropriate Category: **1)** site and surrounding lands are in public ownership, or land use is limited to conservation/preservation; **2)** some but not all site and surrounding lands are in public ownership, or protected by easement ; **3)** site and surrounding lands are in not public ownership, nor protected by easement.

Additional Comments on Land Protection **full development**

Site Disturbance

Circle Appropriate Category: **1)** less than 10% wetland/water body recent land clearance or disturbance; **2)** 10 to 30% of wetland/water body is affected by recent land disturbance; **3)** 30 to 60% of wetland/water body is affected by recent land disturbance; **4)** greater than 60% of wetland/water body is affected by recent land disturbance.

Circle Appropriate Category: **1)** less than 10% uplands adjacent wetland/water body affected by recent land clearance or disturbance; **2)** 10 to 30% of upland is affected by recent land disturbance; **3)** 30 to 60% of upland is affected by recent land disturbance; **4)** greater than 60% of upland is affected by recent land disturbance.

Additional Comments on Land Disturbance: land already developed

Drainage Alteration

Are significant drainage features present on the site? No If yes, describe:

Are there significant drainage features on lands bordering the wetland/water body? No If yes, describe:

Additional Comments on Drainage

Wetland Assessment Field Form--SJRWMD Constraint Wetland Project

PROJECT: Hidden Lake Wetland **SJRWMD SITE ID:** #85 **COUNTY:** Seminole

OTHER LOCATION NOTES: Hidden Lake wetland, enter from SE side of swamp @ stormwater pond

PERSONNEL : Bill Dunn and Bob Fewster **DATE**: 8/11/05 **TIME:** 13:45

GPS COORDINATES: Latitude : N 28 45.599 **Longitude:** W 81 17.489

PHOTOGRAPHY

Roll: __ Photo Frame #s: 4 photo's of maple swamp

Description of photo(s):

WATER LEVEL:

Water Depth: 0.5' @ upland edge Staff Gage or Piezometer Level (if present): _____

VEGETATION –forested wetland, red maple swamp

Major Vegetation Zones Present in Wetland or Water Body: X forested, ____shrub scrub, X marsh, X aquatic, _____pond, X lake, _____other (list):_____

HERBACEOUS GROUNDCOVER (% cover of OBL and/or FACW species to nearest 10%)

Zone 1: Composition: _____ **Zone 2: Composition**: hummock swamp

Dominant Groundcover Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: 10% Zone 2:_____

Total % Groundcover:_____ Total % Cover _____

Species/1/2/3/4/5: Osmunda regalis _____ _____

Species/1/2/3/4/5: Osmunda cinnamomea _____ _____

Species/1/2/3/4/5: Poison ivy (Toxicodendron radicans) _____

Species/1/2/3/4/5: Nettled Chain Fern _____ _____

Species/1/2/3/4/5:_____ _____

Groundcover Species Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal groundcover zonation; 2) Somewhat abnormal zonation – some signs of abnormal groundcover zonation mainly limited to the wetland edge; 3) Normal groundcover zonation.

Additional Comments on Groundcover _____

NUISANCE/WEEDY GROUNDCOVER

Composition--Circle the appropriate category: 1) > 50% of all groundcover species cover is weeds; 2) > 10% and < 50% of all groundcover species cover is weeds (either dispersed throughout wetland or in dense localized patches); 3)< 10% of all groundcover species cover is weeds or weeds are absent.

Additional Comments on Weedy Species _____

SHRUB

Composition _____ % cover OBL and/or FACW shrub species to nearest 10%

Dominant Shrub Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1:_____ Zone 2:_____

Total % Shrub cover: 60% Total % Cover_____

Species/1/2/3/4/5: Itea virginica Magnolia virginiana

Species/1/2/3/4/5: Myrica cerifera _____

Species/1/2/3/4/5: Red maple _____

Species/1/2/3/4/5: Cephalanthus occidentalis _____

Shrub and Small Tree Species Zonation--Circle the appropriate category: 1) Abnormal zonation – many signs of abnormal shrub and tree zonation; 2) Somewhat abnormal zonation -some signs of abnormal shrub and tree zonation mainly limited to the wetland edge; 3) Normal shrub and tree zonation.

Additional Comments on Shrubs_____dense air potato on fringe_____

WEEDY SHRUB

Composition --Circle the appropriate category: 1) > 50% of all shrub species cover is weeds; 2) > 10% and < 50% of all shrub species cover is (either dispersed throughout the wetland or in dense localized patches); 3) < 10% of all shrub species cover is weeds or weeds are absent.

Additional Comments on Weedy Shrubs_____

CANOPY (TREE)

Dominant Canopy Species Cover Classes 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Canopy Cover: ___50%_____ Total % Cover _____

Species/1/2/3/4/5: ___Red maple_____ _____

Species/1/2/3/4/5: __Quercus nigra_____ _____

Species/1/2/3/4/5: __Magnolia virg._____ _____

Species/1/2/3/4/5: ___Nyssa biflora_____ _____

Species/1/2/3/4/5: _____ _____

Tree Zonation--Circle the appropriate category: 1) Abnormal zonation – multiple signs of abnormal distribution and cover; 2) Somewhat abnormal zonation with moderately abnormal distribution and cover; 3) Normal zonation with normal distribution and cover.

Additional Comments on Tree Species_____

AQUATIC….80-90% standing water Vs. ?

Dominant Aquatic Species % Cover Categories: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:___95%_____ Zone 2:_____

Total % Aquatic Plant Cover:_____ Total % Cover_____

Species/1/2/3/4/5: __Salvinia_____ _____

Species/1/2/3/4/5: ___Lemna americana_____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Aquatic Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal plant zonation; 2) Somewhat abnormal zonation - some signs of abnormal zonation; 3) Normal aquatic plant zonation

Additional Comments on Aquatic Species: _____

PLANT COMMUNITY HEALTH

Does community show unusual signs of stress? No **Visually estimate % of wetland zone exhibiting signs of stress;**_____

Type of stress observed (e.g., dead or dying plants, discolored foliage, wilted or rolled leaves, premature leaf fall or senescence, etc.):_____

Does stress appear moisture related, or is there sign of disease or insect injury? storm (hurricane) damage to maples

Overall Condition of Plant Community is:

Circle Appropriate Category: **1)** Plants are dead or dying; **2)** poor vigor with obvious decline (foliage discolored, wilted, premature leaf fall) ; **3)** fair vigor, some signs of stress or decline; **4)** medium vigor, some yellow-green foliage, or signs of leaf wilt or leaf curling; **5)** appearance good, foliage green but foliage thin, less than normal growth for the season; **6)** excellent vigor, foliage green in color, normal growth for the season.

Additional Comments on Health: **Storm damage only**

HYDIC SOILS

Look for signs of subsidence, oxidation or abnormal desiccation and select the category which best describes the current conditions of the wetland soils. This assessment may not be applicable (NA) if site is inundated.

Circle Appropriate Category: **1)** Substantial subsidence/oxidation; **2)** Moderate subsidence/oxidation; **3)** Little or no evidence of subsidence/oxidation

Circle Appropriate Soil Condition: **1)** Inundated, **2)** Saturated, **3)** Moist, **4)** Dry

Additional Comments on Soil_____

_____

HYDROLOGY

Current Water Level Indicators (e.g., mosses, lichens, stains)

Estimated depth of water relative to high water marks or indicators: within 1.0 ft. of water marks on trees

Circle the Appropriate Category: **1)** None of these indicators are present or indicators are at ground level; **2)** Indicators present; however, indistinct or abnormally low in comparison to the historic normal pool; **3)** Indicators are distinct and at the appropriate level for the season.

Additional Comments on Hydrology_____

_____

WILDLIFE AND LISTED SPECIES

Listed Flora and Fauna Observed (Include activity information for fauna)

Wetland-Dependent Fauna Observed:

Activity codes (M = mating, F = foraging, FT = flyover/traveling; N = nesting, OT = other)

Observation codes (O = observed, S = sign [scat, tracks, call or other signs of presence])

GENERAL SITE DESCRIPTION CATEGORIES

Habitat Gradient

Circle Appropriate Category: **1)** full habitat gradient present from aquatic/wetland up gradient to native upland habitat; **2)** native upland habitat is present along 50-75% of perimeter; **3)** native upland habitat is present along 25-50% of perimeter; **4)** native upland habitat is present along less than 25% of perimeter.

Additional Comments on Habitat Gradient __**little to no upland, narrow band of pine woods in some places**_____

Habitat Quality

Circle Appropriate Category: **1)** habitats present are in relatively natural condition in terms of community structure and plant species composition; **2)** habitats are in degraded condition in terms of community structure and plant species composition ; **3)** habitats are in severely degraded condition in terms of community structure and plant species composition.

Additional Comments on Habitat Quality ___**referring to wetland**_____

Hydrology and Landscape Position

Circle Appropriate Category: **1)** wetland/aquatic system is isolated, with no regular surface water inflow or outflow; **2)** system has surface water inflow or outflow only at high water condition; **3)** system is flow-through with surface water inflow and outflow.

Additional Comments on Landscape Position: __**check landscape connectivity on maps**_____

Storm Water Inflows and Outflows

Circle Appropriate Category: **1)** no significant adverse effects to habitat, hydrologic regime, or water quality due to inflow of stormwater system; **2)** habitat conditions are generally good, but adverse effects to habitat, hydrologic regime, or water quality are evident due to inflow stormwater inflows; **3))** habitat conditions are degraded by adverse effects of stormwater inflows.

Additional Comments on Surface Water _____

Shoreline Development

Circle Appropriate Category: **1)** less than 10% **of** shoreline/perimeter is developed; **2)** 10 to 30% of shoreline/perimeter is developed; **3)** 30 to 60% of shoreline/perimeter is developed; **4)** greater than 60% of shoreline/perimeter is developed.

Additional Comments on Shoreline: _____

Land Protection

Circle Appropriate Category: **1)** site and surrounding lands are in public ownership, or land use is limited to conservation/preservation; **2)** some but not all site and surrounding lands are in public ownership, or protected by easement ; **3)** site and surrounding lands are in not public ownership, nor protected by easement.

Additional Comments on Land Protection _____

Site Disturbance

Circle Appropriate Category: **1)** less than 10% wetland/water body recent land clearance or disturbance; **2)** 10 to 30% of wetland/water body is affected by recent land disturbance; **3)** 30 to 60% of wetland/water body is affected by recent land disturbance; **4)** greater than 60% of wetland/water body is affected by recent land disturbance.

Circle Appropriate Category: **1)** less than 10% uplands adjacent wetland/water body affected by recent land clearance or disturbance; **2)** 10 to 30% of upland is affected by recent land disturbance; **3)** 30 to 60% of upland is affected by recent land disturbance; **4)** greater than 60% of upland is affected by recent land disturbance.

Additional Comments on Land Disturbance_____no evidence of recent disturbance_____

Drainage Alteration

Are significant drainage features present on the site?__**No**__ If yes, describe:_____
_____

Are there significant drainage features on lands bordering the wetland/water body?___**No**____ If yes, describe:_____
photo's_____

Additional Comments on Drainage _____

Wetland Assessment Field Form--SJRWMD Constraint Wetland Project

PROJECT: Crystal Lake @ community center **SJRWMD SITE ID:** #87 **COUNTY:** _____

OTHER LOCATION NOTES: **Site visited previously during Sentinel Site Survey**

PERSONNEL : Bill Dunn and Bob Fewster **DATE**: 8/11/05 **TIME:** 13:00

GPS COORDINATES: Latitude : **N 28 45.724** **Longitude:** **W 81 19.424**

PHOTOGRAPHY

Roll: _____ Photo Frame #s: 3 pan on east, 4 pan on west

Description of photo(s): ***lake is monitored by Seminole County; park on west side 28 45.559, 81 19.991

WATER LEVE…….gage at park on west side

Water Depth: up to the edge of maintained lawn at community center Staff Gage or Piezometer Level (if present): 43.25 ft

VEGETATION ---complex mosaic of wetland and aquatic habitat

Major Vegetation Zones Present in Wetland or Water Body: X forested, X shrub scrub, X marsh, X aquatic, _____pond, X lake, _____other (list):_____

HERBACEOUS GROUNDCOVER (% cover of OBL and/or FACW species to nearest 10%)

Zone 1: Composition: _____ **Zone 2: Composition**: _____littoral zone

Dominant Groundcover Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1:_____ Zone 2:_____

Total % Groundcover:_____ Total % Cover _____

Species/1/2/3/4/5: Ludwigia peruviana _____ _____

Species/1/2/3/4/5: Torpedograss (Panicum repens) _____ _____

Species/1/2/3/4/5: Pontederia cordata _____ _____

Species/1/2/3/4/5: Cattail _____ _____

Species/1/2/3/4/5: Polygonum punctatum _____ _____

Groundcover Species Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal groundcover zonation; 2) Somewhat abnormal zonation – some signs of abnormal groundcover zonation mainly limited to the wetland edge; 3) Normal groundcover zonation.

Additional Comments on Groundcover _____

NUISANCE/WEEDY GROUNDCOVER……..for the zone

Composition--Circle the appropriate category: 1) > 50% of all groundcover species cover is weeds; 2) > 10% and < 50% of all groundcover species cover is weeds (either dispersed throughout wetland or in dense localized patches); 3)< 10% of all groundcover species cover is weeds or weeds are absent.

Additional Comments on Weedy Species _____

SHRUB……shrubby border in places

Composition _____ % cover OBL and/or FACW shrub species to nearest 10%

Dominant Shrub Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1:_____ Zone 2:_____

Total % Shrub cover:_____ Total % Cover_____

Species/1/2/3/4/5: Willow _____ _____

Species/1/2/3/4/5: Lugwigia peruviana _____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Shrub and Small Tree Species Zonation--Circle the appropriate category: 1) Abnormal zonation – many signs of abnormal shrub and tree zonation; 2) Somewhat abnormal zonation -some signs of abnormal shrub and tree zonation mainly limited to the wetland edge; 3) Normal shrub and tree zonation.

Additional Comments on Shrubs_____

WEEDY SHRUB

Composition --Circle the appropriate category: 1) > 50% of all shrub species cover is weeds; 2) > 10% and < 50% of all shrub species cover is (either dispersed throughout the wetland or in dense localized patches); 3) < 10% of all shrub species cover is weeds or weeds are absent.

Additional Comments on Weedy Shrubs_____

CANOPY (TREE)…….on fringe and on island

Dominant Canopy Species Cover Classes 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Canopy Cover: _____ Total % Cover _____

Species/1/2/3/4/5: Acer rubrum _____ _____

Species/1/2/3/4/5: Salix caroliniana _____ _____

Species/1/2/3/4/5: Pinus elliottii _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Tree Zonation--Circle the appropriate category: 1) Abnormal zonation – multiple signs of abnormal distribution and cover; 2) Somewhat abnormal zonation with moderately abnormal distribution and cover; 3) Normal zonation with normal distribution and cover.

Additional Comments on Tree Species_____

AQUATIC

Dominant Aquatic Species % Cover Categories: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Aquatic Plant Cover:_____ Total % Cover_____

Species/1/2/3/4/5: Nymphaea odorata _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Aquatic Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal plant zonation; 2) Somewhat abnormal zonation - some signs of abnormal zonation; 3) Normal aquatic plant zonation

Additional Comments on Aquatic Species: Lake is mostly open water

PLANT COMMUNITY HEALTH

Does community show unusual signs of stress? No . **Visually estimate % of wetland zone exhibiting signs of stress;**_____

Type of stress observed (e.g., dead or dying plants, discolored foliage, wilted or rolled leaves, premature leaf fall or senescence, etc.):_____

Does stress appear moisture related, or is there sign of disease or insect injury? None

Overall Condition of Plant Community is:

Circle Appropriate Category: **1)** Plants are dead or dying; **2)** poor vigor with obvious decline (foliage discolored, wilted, premature leaf fall) ; **3)** fair vigor, some signs of stress or decline; **4)** medium vigor, some yellow-green foliage, or signs of leaf wilt or leaf curling; **5)** appearance good, foliage green but foliage thin, less than normal growth for the season; **6)** excellent vigor, foliage green in color, normal growth for the season.

Additional Comments on Health: young maples on island looked to be stressed after colonizing during drought

HYDIC SOILS

Look for signs of subsidence, oxidation or abnormal desiccation and select the category which best describes the current conditions of the wetland soils. This assessment may not be applicable (NA) if site is inundated.

Circle Appropriate Category: **1)** Substantial subsidence/oxidation; **2)** Moderate subsidence/oxidation; **3)** Little or no evidence of subsidence/oxidation

Circle Appropriate Soil Condition: **1)** Inundated, **2)** Saturated, **3)** Moist, **4)** Dry

Additional Comments on Soil can not tell due to high level of water

HYDROLOGY

Current Water Level Indicators (e.g., mosses, lichens, stains)

Estimated depth of water relative to high water marks or indicators: within 0.5 ft of high ; describe type of indicator:_____

Circle the Appropriate Category: **1)** None of these indicators are present or indicators are at ground level; **2)** Indicators present; however, indistinct or abnormally low in comparison to the historic normal pool; **3)** Indicators are distinct and at the appropriate level for the season.

Additional Comments on Hydrology current level is close to high water, up to edge of lawn at community center

WILDLIFE AND LISTED SPECIES

Listed Flora and Fauna Observed (Include activity information for fauna)

Wetland-Dependent Fauna Observed:

Activity codes (M = mating, F = foraging, FT = flyover/traveling; N = nesting, OT = other)

Observation codes (O = observed, S = sign [scat, tracks, call or other signs of presence])

GENERAL SITE DESCRIPTION CATEGORIES

Habitat Gradient

Circle Appropriate Category: **1)** full habitat gradient present from aquatic/wetland up gradient to native upland habitat; **2)** native upland habitat is present along 50-75% of perimeter; **3)** native upland habitat is present along 25-50% of perimeter; **4)** native upland habitat is present along less than 25% of perimeter.

Additional Comments on Habitat Gradient _____

Habitat Quality

Circle Appropriate Category: **1)** habitats present are in relatively natural condition in terms of community structure and plant species composition; **2)** habitats are in degraded condition in terms of community structure and plant species composition ; **3)** habitats are in severely degraded condition in terms of community structure and plant species composition.

Additional Comments on Habitat Quality _1.5 primrose willow on the border_____

Hydrology and Landscape Position

Circle Appropriate Category: **1)** wetland/aquatic system is isolated, with no regular surface water inflow or outflow; **2)** system has surface water inflow or outflow only at high water condition; **3)** system is flow-through with surface water inflow and outflow.

Additional Comments on Landscape Position: _____check aerial photos_____

Storm Water Inflows and Outflows

Circle Appropriate Category: **1)** no significant adverse effects to habitat, hydrologic regime, or water quality due to inflow of stormwater system; **2)** habitat conditions are generally good, but adverse effects to habitat, hydrologic regime, or water quality are evident due to inflow stormwater inflows; **3))** habitat conditions are degraded by adverse effects of stormwater inflows.

Additional Comments on Surface Water _____

Shoreline Development

Circle Appropriate Category: **1)** less than 10% **of** shoreline/perimeter is developed; **2)** 10 to 30% of shoreline/perimeter is developed; **3)** 30 to 60% of shoreline/perimeter is developed; **4)** greater than 60% of shoreline/perimeter is developed.

Additional Comments on Shoreline: _____

Land Protection

Circle Appropriate Category: **1)** site and surrounding lands are in public ownership, or land use is limited to conservation/preservation; **2)** some but not all site and surrounding lands are in public ownership, or protected by easement ; **3)** site and surrounding lands are in not public ownership, nor protected by easement.

Additional Comments on Land Protection _____small parks on east and west sides of lake_____

Site Disturbance……..none

Circle Appropriate Category: **1)** less than 10% wetland/water body recent land clearance or disturbance; **2)** 10 to 30% of wetland/water body is affected by recent land disturbance; **3)** 30 to 60% of wetland/water body is affected by recent land disturbance; **4)** greater than 60% of wetland/water body is affected by recent land disturbance.

Circle Appropriate Category: **1)** less than 10% uplands adjacent wetland/water body affected by recent land clearance or disturbance; **2)** 10 to 30% of upland is affected by recent land disturbance; **3)** 30 to 60% of upland is affected by recent land disturbance; **4)** greater than 60% of upland is affected by recent land disturbance.

Additional Comments on Land Disturbance_____

Drainage Alteration

Are significant drainage features present on the site?_No___ If yes, describe:_____
_____

Are there significant drainage features on lands bordering the wetland/water body?____No_____ If yes, describe:_____
photo's_____

Additional Comments on Drainage _____

Wetland Assessment Field Form--SJRWMD Constraint Wetland Project

PROJECT: Wolf Lake **SJRWMD SITE ID:** #98 **COUNTY:** Orange

OTHER LOCATION NOTES: entered from Ponka Road

PERSONNEL : Bill Dunn and Bob Fewster **DATE**: 8/23/05 **TIME:** 15:45

GPS COORDINATES: Latitude : N 28 43.653 **Longitude:** W 81 31.996

PHOTOGRAPHY

Roll: _____ Photo Frame #s: pan of 3

Description of photo(s): NE corner of lake from Ponka Road

WATER LEVEL

Water Depth: _____ Staff Gage or Piezometer Level (if present): _____

VEGETATION--lake w/ several lobes w/ mix of marsh and fringing trees

Major Vegetation Zones Present in Wetland or Water Body: ____forested, ____shrub scrub, ____marsh, _____aquatic, _____pond, _____lake, __X____other (list):____open water 80%

HERBACEOUS GROUNDCOVER (% cover of OBL and/or FACW species to nearest 10%)

Zone 1: Composition: _____ **Zone 2: Composition**: _____

Dominant Groundcover Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: 15-20 Zone 2: _____

Total % Groundcover: _____ Total % Cover _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: Maidencane _____

Species/1/2/3/4/5: Pontederia _____

Species/1/2/3/4/5: Dog fennel _____

Species/1/2/3/4/5: _____ _____

Groundcover Species Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal groundcover zonation; 2) Somewhat abnormal zonation – some signs of abnormal groundcover zonation mainly limited to the wetland edge; 3) Normal groundcover zonation.

Additional Comments on Groundcover _____

NUISANCE/WEEDY GROUNDCOVER

Composition--Circle the appropriate category: 1) > 50% of all groundcover species cover is weeds; 2) > 10% and < 50% of all groundcover species cover is weeds (either dispersed throughout wetland or in dense localized patches); 3)< 10% of all groundcover species cover is weeds or weeds are absent.

Additional Comments on Weedy Species _____

SHRUB

Composition _____ % cover OBL and/or FACW shrub species to nearest 10%

Dominant Shrub Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: scattered Zone 2: _____

Total % Shrub cover: 5% Total % Cover _____

Species/1/2/3/4/5: Cephalanthus occidentalis _____

Species/1/2/3/4/5: Rubus _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Shrub and Small Tree Species Zonation--Circle the appropriate category: 1) Abnormal zonation – many signs of abnormal shrub and tree zonation; 2) Somewhat abnormal zonation -some signs of abnormal shrub and tree zonation mainly limited to the wetland edge; 3) Normal shrub and tree zonation.

Additional Comments on Shrubs_____ _____

WEEDY SHRUB

Composition --Circle the appropriate category: 1) > 50% of all shrub species cover is weeds; 2) > 10% and < 50% of all shrub species cover is (either dispersed throughout the wetland or in dense localized patches); 3) < 10% of all shrub species cover is weeds or weeds are absent.

Additional Comments on Weedy Shrubs_____

CANOPY (TREE)—no canopy stratum

Dominant Canopy Species Cover Classes 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Canopy Cover: _____ Total % Cover _____

Species/1/2/3/4/5: _____ _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Tree Zonation--Circle the appropriate category: 1) Abnormal zonation – multiple signs of abnormal distribution and cover; 2) Somewhat abnormal zonation with moderately abnormal distribution and cover; 3) Normal zonation with normal distribution and cover.

Additional Comments on Tree Species_____

AQUATIC—no aquatic zone

Dominant Aquatic Species % Cover Categories: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Aquatic Plant Cover:_____ Total % Cover_____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Aquatic Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal plant zonation; 2) Somewhat abnormal zonation - some signs of abnormal zonation; 3) Normal aquatic plant zonation

Additional Comments on Aquatic Species:

Pasture_____

PLANT COMMUNITY HEALTH

Does community show unusual signs of stress? No. **Visually estimate % of wetland zone exhibiting signs of stress;**_____

Type of stress observed (e.g., dead or dying plants, discolored foliage, wilted or rolled leaves, premature leaf fall or senescence, etc.):_____

Does stress appear moisture related, or is there sign of disease or insect injury? _____

Overall Condition of Plant Community is:

Circle Appropriate Category: **1)** Plants are dead or dying; **2)** poor vigor with obvious decline (foliage discolored, wilted, premature leaf fall) ; **3)** fair vigor, some signs of stress or decline; **4)** medium vigor, some yellow-green foliage, or signs of leaf wilt or leaf curling; **5)** appearance good, foliage green but foliage thin, less than normal growth for the season; **6)** excellent vigor, foliage green in color, normal growth for the season.

Additional Comments on Health _____

HYDIC SOILS

Look for signs of subsidence, oxidation or abnormal desiccation and select the category which best describes the current conditions of the wetland soils. This assessment may not be applicable (NA) if site is inundated.

Circle Appropriate Category: **1)** Substantial subsidence/oxidation; **2)** Moderate subsidence/oxidation; **3)** Little or no evidence of subsidence/oxidation

Circle Appropriate Soil Condition: **1)** Inundated, **2)** Saturated, **3)** Moist, **4)** Dry

Additional Comments on Soil_____

_____

HYDROLOGY

Current Water Level Indicators (e.g., mosses, lichens, stains)

Estimated depth of water relative to high water marks or indicators:_____; describe type of indicator:_____

Circle the Appropriate Category: **1)** None of these indicators are present or indicators are at ground level; **2)** Indicators present; however, indistinct or abnormally low in comparison to the historic normal pool; **3)** Indicators are distinct and at the appropriate level for the season.

Additional Comments on Hydrology_____Water level significantly higher than previous visit w/in 1.0' of HW, live oak line is 3-4' higher _____

_____

WILDLIFE AND LISTED SPECIES

Listed Flora and Fauna Observed (Include activity information for fauna)

Wetland-Dependent Fauna Observed:

Activity codes (M = mating, F = foraging, FT = flyover/traveling; N = nesting, OT = other)

Observation codes (O = observed, S = sign [scat, tracks, call or other signs of presence])

GENERAL SITE DESCRIPTION CATEGORIES

Habitat Gradient

Circle Appropriate Category: **1)** full habitat gradient present from aquatic/wetland up gradient to native upland habitat; **2)** native upland habitat is present along 50-75% of perimeter; **3)** native upland habitat is present along 25-50% of perimeter; **4)** native upland habitat is present along less than 25% of perimeter.

Additional Comments on Habitat Gradient _oak forest in places_____

Habitat Quality

Circle Appropriate Category: **1)** habitats present are in relatively natural condition in terms of community structure and plant species composition; **2)** habitats are in degraded condition in terms of community structure and plant species composition ; **3)** habitats are in severely degraded condition in terms of community structure and plant species composition.

Additional Comments on Habitat Quality _____

Hydrology and Landscape Position

Circle Appropriate Category: **1)** wetland/aquatic system is isolated, with no regular surface water inflow or outflow; **2)** system has surface water inflow or outflow only at high water condition; **3)** system is flow-through with surface water inflow and outflow.

Additional Comments on Landscape Position:

Storm Water Inflows and Outflows

Circle Appropriate Category: **1)** no significant adverse effects to habitat, hydrologic regime, or water quality due to inflow of stormwater system; **2)** habitat conditions are generally good, but adverse effects to habitat, hydrologic regime, or water quality are evident due to inflow stormwater inflows; **3))** habitat conditions are degraded by adverse effects of stormwater inflows.

Additional Comments on Surface Water _____

Shoreline Development

Circle Appropriate Category: **1)** less than 10% **of** shoreline/perimeter is developed; **2)** 10 to 30% of shoreline/perimeter is developed; **3)** 30 to 60% of shoreline/perimeter is developed; **4)** greater than 60% of shoreline/perimeter is developed.

Additional Comments on Shoreline __pasture _____

Land Protection

Circle Appropriate Category: **1)** site and surrounding lands are in public ownership, or land use is limited to conservation/preservation; **2)** some but not all site and surrounding lands are in public ownership, or protected by easement ; **3)** site and surrounding lands are in not public ownership, nor protected by easement.

Additional Comments on Land Protection _____

Site Disturbance

Circle Appropriate Category: **1)** less than 10% wetland/water body recent land clearance or disturbance; **2)** 10 to 30% of wetland/water body is affected by recent land disturbance; **3)** 30 to 60% of wetland/water body is affected by recent land disturbance; **4)** greater than 60% of wetland/water body is affected by recent land disturbance.

Circle Appropriate Category: **1)** less than 10% uplands adjacent wetland/water body affected by recent land clearance or disturbance; **2)** 10 to 30% of upland is affected by recent land disturbance; **3)** 30 to 60% of upland is affected by recent land disturbance; **4)** greater than 60% of upland is affected by recent land disturbance.

Additional Comments on Land Disturbance_____0%_____

Drainage Alteration

Are significant drainage features present on the site?_No____ If yes, describe:_____

_____

Are there significant drainage features on lands bordering the wetland/water body?__No_____ If yes, describe:_____

_____

Additional Comments on Drainage _____

Wetland Assessment Field Form--SJRWMD Constraint Wetland Project

PROJECT: Wetland No. 106 **SJRWMD SITE ID:** #106 **COUNTY:** Seminole

OTHER LOCATION NOTES: **enter @ stormwater pond at southeast corner**

PERSONNEL : Bill Dunn and Bob Fewster **DATE**: 8/11/05 **TIME:** 11:10

GPS COORDINATES: Latitude : **N ?** **Longitude:** **W ?**

PHOTOGRAPHY

Roll: __ Photo Frame #s: 2 photo's of wetland edge @ pond, 2 photo's of swamp interior **Bob F. says that this is a monitoring site for Orange Co.

Description of photo(s):

WATER LEVEL:

Water Depth: 0.25 ft in shallows Staff Gage or Piezometer Level (if present): _____

VEGETATION—forested wetland

Major Vegetation Zones Present in Wetland or Water Body: X forested, ____shrub scrub, ____marsh, ____aquatic, ____pond, ____lake, ____other (list):

HERBACEOUS GROUNDCOVER (% cover of OBL and/or FACW species to nearest 10%)

Zone 1: Composition: _____ **Zone 2: Composition**: _____

Dominant Groundcover Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1:_____ Zone 2:_____

Total % Groundcover: 50% Total % Cover _____

Species/1/2/3/4/5: Osmunda regalis _____

Species/1/2/3/4/5: Osmunda cinnamomea _____

Species/1/2/3/4/5: Peltanda virginica _____

Species/1/2/3/4/5: Boehmeria _____

Species/1/2/3/4/5:_____ _____

Groundcover Species Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal groundcover zonation; 2) Somewhat abnormal zonation – some signs of abnormal groundcover zonation mainly limited to the wetland edge; 3) Normal groundcover zonation.

Additional Comments on Groundcover _____

NUISANCE/WEEDY GROUNDCOVER

Composition--Circle the appropriate category: 1) > 50% of all groundcover species cover is weeds; 2) > 10% and < 50% of all groundcover species cover is weeds (either dispersed throughout wetland or in dense localized patches); 3)< 10% of all groundcover species cover is weeds or weeds are absent.

Additional Comments on Weedy Species _____

SHRUB

Composition _____ % cover OBL and/or FACW shrub species to nearest 10%

Dominant Shrub Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: 90% Zone 2:_____

Total % Shrub cover: 90% Total % Cover_____

Species/1/2/3/4/5: Rubus _____ Dioscorea _____

Species/1/2/3/4/5: Acer _____

Species/1/2/3/4/5: Magnolia _____ Quercus virginiana _____

Species/1/2/3/4/5: Myrica _____

Shrub and Small Tree Species Zonation--Circle the appropriate category: 1) Abnormal zonation – many signs of abnormal shrub and tree zonation; 2) Somewhat abnormal zonation -some signs of abnormal shrub and tree zonation mainly limited to the wetland edge; 3) Normal shrub and tree zonation.

Additional Comments on Shrubs_____

WEEDY SHRUB

Composition --Circle the appropriate category: 1) > 50% of all shrub species cover is weeds; 2) > 10% and < 50% of all shrub species cover is (either dispersed throughout the wetland or in dense localized patches); 3) < 10% of all shrub species cover is weeds or weeds are absent.

Additional Comments on Weedy Shrubs_____little, camphor_____

CANOPY (TREE)

Dominant Canopy Species Cover Classes 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____50%_____ Zone 2:_____

Total % Canopy Cover: _____ Total % Cover _____

Species/1/2/3/4/5: ___Acer_____ _____

Species/1/2/3/4/5: ___Magnolia_____ _____

Species/1/2/3/4/5: ___Quercus nigra_____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Tree Zonation--Circle the appropriate category: 1) Abnormal zonation – multiple signs of abnormal distribution and cover; 2) Somewhat abnormal zonation with moderately abnormal distribution and cover; 3) Normal zonation with normal distribution and cover.

Additional Comments on Tree Species____some canopy opening due to storm (hurricane)_____

AQUATIC….not present

Dominant Aquatic Species % Cover Categories: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Aquatic Plant Cover:_____ Total % Cover_____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Aquatic Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal plant zonation; 2) Somewhat abnormal zonation - some signs of abnormal zonation; 3) Normal aquatic plant zonation

Additional Comments on Aquatic Species: _____

PLANT COMMUNITY HEALTH

Does community show unusual signs of stress?__No____ **Visually estimate % of wetland zone exhibiting signs of stress;**_____

Type of stress observed (e.g., dead or dying plants, discolored foliage, wilted or rolled leaves, premature leaf fall or senescence, etc.):_____

Does stress appear moisture related, or is there sign of disease or insect injury? _____

Overall Condition of Plant Community is:

Circle Appropriate Category: **1)** Plants are dead or dying; **2)** poor vigor with obvious decline (foliage discolored, wilted, premature leaf fall) ; **3)** fair vigor, some signs of stress or decline; **4)** medium vigor, some yellow-green foliage, or signs of leaf wilt or leaf curling; **5)** appearance good, foliage green but foliage thin, less than normal growth for the season; **6)** excellent vigor, foliage green in color, normal growth for the season.

Additional Comments on Health:____**some storm damage, from hurricane**_____

HYDIC SOILS

Look for signs of subsidence, oxidation or abnormal desiccation and select the category which best describes the current conditions of the wetland soils. This assessment may not be applicable (NA) if site is inundated.

Circle Appropriate Category: **1)** Substantial subsidence/oxidation; **2)** Moderate subsidence/oxidation; **3)** Little or no evidence of subsidence/oxidation

Circle Appropriate Soil Condition: **1)** Inundated, **2)** Saturated, **3)** Moist, **4)** Dry

Additional Comments on Soil_____

_____

HYDROLOGY

Current Water Level Indicators (e.g., mosses, lichens, stains)

Estimated depth of water relative to high water marks or indicators:__= 1.0 ft___; describe type of indicator:__lichens_____

Circle the Appropriate Category: **1)** None of these indicators are present or indicators are at ground level; **2)** Indicators present; however, indistinct or abnormally low in comparison to the historic normal pool; **3)** Indicators are distinct and at the appropriate level for the season.

Additional Comments on Hydrology_____

_____

WILDLIFE AND LISTED SPECIES

Listed Flora and Fauna Observed (Include activity information for fauna)

Wetland-Dependent Fauna Observed:

Activity codes (M = mating, F = foraging, FT = flyover/traveling; N = nesting, OT = other)

Observation codes (O = observed, S = sign [scat, tracks, call or other signs of presence])

GENERAL SITE DESCRIPTION CATEGORIES

Habitat Gradient

Circle Appropriate Category: **1)** full habitat gradient present from aquatic/wetland up gradient to native upland habitat; **2)** native upland habitat is present along 50-75% of perimeter; **3)** native upland habitat is present along 25-50% of perimeter; **4)** native upland habitat is present along less than 25% of perimeter.

Additional Comments on Habitat Gradient __houses surrounding_____

Habitat Quality

Circle Appropriate Category: **1)** habitats present are in relatively natural condition in terms of community structure and plant species composition; **2)** habitats are in degraded condition in terms of community structure and plant species composition ; **3)** habitats are in severely degraded condition in terms of community structure and plant species composition.

Additional Comments on Habitat Quality _____

Hydrology and Landscape Position

Circle Appropriate Category: **1)** wetland/aquatic system is isolated, with no regular surface water inflow or outflow; **2)** system has surface water inflow or outflow only at high water condition; **3)** system is flow-through with surface water inflow and outflow.

Additional Comments on Landscape Position: need to check map_____

Storm Water Inflows and Outflows

Circle Appropriate Category: **1)** no significant adverse effects to habitat, hydrologic regime, or water quality due to inflow of stormwater system; **2)** habitat conditions are generally good, but adverse effects to habitat, hydrologic regime, or water quality are evident due to inflow stormwater inflows; **3))** habitat conditions are degraded by adverse effects of stormwater inflows.

Additional Comments on Surface Water _____**stormwater basin next to where we parked**_____

Shoreline Development

Circle Appropriate Category: **1)** less than 10% **of** shoreline/perimeter is developed; **2)** 10 to 30% of shoreline/perimeter is developed; **3)** 30 to 60% of shoreline/perimeter is developed; **4)** greater than 60% of shoreline/perimeter is developed.

Additional Comments on Shoreline: _____

Land Protection

Circle Appropriate Category: **1)** site and surrounding lands are in public ownership, or land use is limited to conservation/preservation; **2)** some but not all site and surrounding lands are in public ownership, or protected by easement ; **3)** site and surrounding lands are in not public ownership, nor protected by easement.

Additional Comments on Land Protection __may be monitoring site for Orange County_____

Site Disturbance

Circle Appropriate Category: **1)** less than 10% wetland/water body recent land clearance or disturbance; **2)** 10 to 30% of wetland/water body is affected by recent land disturbance; **3)** 30 to 60% of wetland/water body is affected by recent land disturbance; **4)** greater than 60% of wetland/water body is affected by recent land disturbance.

Circle Appropriate Category: **1)** less than 10% uplands adjacent wetland/water body affected by recent land clearance or disturbance; **2)** 10 to 30% of upland is affected by recent land disturbance; **3)** 30 to 60% of upland is affected by recent land disturbance; **4)** greater than 60% of upland is affected by recent land disturbance.

Additional Comments on Land Disturbance_____no observable disturbance in wetland_____

Drainage Alteration

Are significant drainage features present on the site?_No__ If yes, describe:_____

_____

Are there significant drainage features on lands bordering the wetland/water body?___No____ If yes, describe:_____
stormwater system on uplands_____

Additional Comments on Drainage _____

Wetland Assessment Field Form--SJRWMD Constraint Wetland Project

PROJECT: Fisher Lake Wetland **SJRWMD SITE ID:** #109 **COUNTY:** Lake

OTHER LOCATION NOTES: **entered from Spanish Oak Dr on North end**

PERSONNEL : Bill Dunn and Bob Fewster **DATE**: 8/25/05 **TIME:** 8:35

GPS COORDINATES: Latitude : **N 28 41.269** **Longitude:** **W 81 46.602**

PHOTOGRAPHY

Roll: _____ Photo Frame #s: pan of 3

Description of photo(s): large forested wetland system

WATER LEVEL

Water Depth: _____ Staff Gage or Piezometer Level (if present): _____

VEGETATION ……lake w/ several lobes w/ mix of marsh and fringing trees

Major Vegetation Zones Present in Wetland or Water Body: ____forested, ____shrub scrub, ____marsh, _____aquatic, _____pond, _____lake, _____other (list):_____

HERBACEOUS GROUNDCOVER (% cover of OBL and/or FACW species to nearest 10%)

Zone 1: Composition: _____ **Zone 2: Composition**: _____

Dominant Groundcover Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: littoral zone Zone 2:_____

Total % Groundcover:_____ Total % Cover _____

Species/1/2/3/4/5: Maidencane _____

Species/1/2/3/4/5: Nymphaea _____

Species/1/2/3/4/5: Pontederia _____

Species/1/2/3/4/5: Sagittaria latifolia _____

Species/1/2/3/4/5:_____ _____

Groundcover Species Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal groundcover zonation; 2) Somewhat abnormal zonation – some signs of abnormal groundcover zonation mainly limited to the wetland edge; 3) Normal groundcover zonation.

Additional Comments on Groundcover _____

NUISANCE/WEEDY GROUNDCOVER

Composition--Circle the appropriate category: 1) > 50% of all groundcover species cover is weeds; 2) > 10% and < 50% of all groundcover species cover is weeds (either dispersed throughout wetland or in dense localized patches); 3)< 10% of all groundcover species cover is weeds or weeds are absent.

Additional Comments on Weedy Species _____

SHRUB

Composition _____ % cover OBL and/or FACW shrub species to nearest 10%

Dominant Shrub Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1:_____ Zone 2:_____

Total % Shrub cover: in narrow littoral area Total % Cover_____

Species/1/2/3/4/5: Hypericum _____

Species/1/2/3/4/5: Myrica _____

Species/1/2/3/4/5: Ilex cassine _____

_____

Species/1/2/3/4/5:_____ _____

Shrub and Small Tree Species Zonation--Circle the appropriate category: 1) Abnormal zonation – many signs of abnormal shrub and tree zonation; 2) Somewhat abnormal zonation -some signs of abnormal shrub and tree zonation mainly limited to the wetland edge; 3) Normal shrub and tree zonation. Most of the Wetland here is suc

Additional Comments on Shrubs_____ _____

WEEDY SHRUB

Composition --Circle the appropriate category: 1) > 50% of all shrub species cover is weeds; 2) > 10% and < 50% of all shrub species cover is (either dispersed throughout the wetland or in dense localized patches); 3) < 10% of all shrub species cover is weeds or weeds are absent.

Additional Comments on Weedy Shrubs_____

CANOPY (TREE)

Dominant Canopy Species Cover Classes 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1: scattered bands of trees__ Zone 2:_____

Total % Canopy Cover: _____ Total % Cover _____

Species/1/2/3/4/5: Bald Cypress_____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Tree Zonation--Circle the appropriate category: 1) Abnormal zonation – multiple signs of abnormal distribution and cover; 2) Somewhat abnormal zonation with moderately abnormal distribution and cover; 3) Normal zonation with normal distribution and cover.

Additional Comments on Tree Species_____

AQUATIC……patches of water lily

Dominant Aquatic Species % Cover Categories: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Aquatic Plant Cover:_____ Total % Cover_____

Species/1/2/3/4/5: Nymphaea_____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Aquatic Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal plant zonation; 2) Somewhat abnormal zonation - some signs of abnormal zonation; 3) Normal aquatic plant zonation

Additional Comments on Aquatic Species:

_____

PLANT COMMUNITY HEALTH

Does community show unusual signs of stress? No. **Visually estimate % of wetland zone exhibiting signs of stress;**_____

Type of stress observed (e.g., dead or dying plants, discolored foliage, wilted or rolled leaves, premature leaf fall or senescence, etc.):_____

Does stress appear moisture related, or is there sign of disease or insect injury? _____

Overall Condition of Plant Community is:

Circle Appropriate Category: **1)** Plants are dead or dying; **2)** poor vigor with obvious decline (foliage discolored, wilted, premature leaf fall) ; **3)** fair vigor, some signs of stress or decline; **4)** medium vigor, some yellow-green foliage, or signs of leaf wilt or leaf curling; **5)** appearance good, foliage green but foliage thin, less than normal growth for the season; **6)** excellent vigor, foliage green in color, normal growth for the season.

Additional Comments on Health _____

HYDIC SOILS

Look for signs of subsidence, oxidation or abnormal desiccation and select the category which best describes the current conditions of the wetland soils. This assessment may not be applicable (NA) if site is inundated.

Circle Appropriate Category: **1)** Substantial subsidence/oxidation; **2)** Moderate subsidence/oxidation; **3)** Little or no evidence of subsidence/oxidation

Circle Appropriate Soil Condition: **1)** Inundated, **2)** Saturated, **3)** Moist, **4)** Dry

Additional Comments on Soil Water is high

_____

HYDROLOGY

Current Water Level Indicators (e.g., mosses, lichens, stains)

Estimated depth of water relative to high water marks or indicators:_____; describe type of indicator:_____

Circle the Appropriate Category: **1)** None of these indicators are present or indicators are at ground level; **2)** Indicators present; however, indistinct or abnormally low in comparison to the historic normal pool; **3)** Indicators are distinct and at the appropriate level for the season.

Additional Comments on Hydrology Water is high; looks to be w/in 0.5' of edge of pines

_____

WILDLIFE AND LISTED SPECIES

Listed Flora and Fauna Observed (Include activity information for fauna)

Wetland-Dependent Fauna Observed:

Activity codes (M = mating, F = foraging, FT = flyover/traveling; N = nesting, OT = other)

Observation codes (O = observed, S = sign [scat, tracks, call or other signs of presence])

GENERAL SITE DESCRIPTION CATEGORIES

Habitat Gradient

Circle Appropriate Category: **1)** full habitat gradient present from aquatic/wetland up gradient to native upland habitat; **2)** native upland habitat is present along 50-75% of perimeter; **3)** native upland habitat is present along 25-50% of perimeter; **4)** native upland habitat is present along less than 25% of perimeter.

Additional Comments on Habitat Gradient **pine forest on east side**

Habitat Quality

Circle Appropriate Category: **1)** habitats present are in relatively natural condition in terms of community structure and plant species composition; **2)** habitats are in degraded condition in terms of community structure and plant species composition ; **3)** habitats are in severely degraded condition in terms of community structure and plant species composition.

Additional Comments on Habitat Quality _____

Hydrology and Landscape Position…….mostly isolated

Circle Appropriate Category: **1)** wetland/aquatic system is isolated, with no regular surface water inflow or outflow; **2)** system has surface water inflow or outflow only at high water condition; **3)** system is flow-through with surface water inflow and outflow.

Additional Comments on Landscape Position: high water connects to other ponds/lake

Storm Water Inflows and Outflows

Circle Appropriate Category: **1)** no significant adverse effects to habitat, hydrologic regime, or water quality due to inflow of stormwater system; **2)** habitat conditions are generally good, but adverse effects to habitat, hydrologic regime, or water quality are evident due to inflow stormwater inflows; **3))** habitat conditions are degraded by adverse effects of stormwater inflows.

Additional Comments on Surface Water _____

Shoreline Development = 60%

Circle Appropriate Category: **1)** less than 10% **of** shoreline/perimeter is developed; **2)** 10 to 30% of shoreline/perimeter is developed; **3)** 30 to 60% of shoreline/perimeter is developed; **4)** greater than 60% of shoreline/perimeter is developed.

Additional Comments on Shoreline **60 %pasture or grove**_____

Land Protection

Circle Appropriate Category: **1)** site and surrounding lands are in public ownership, or land use is limited to conservation/preservation; **2)** some but not all site and surrounding lands are in public ownership, or protected by easement ; **3)** site and surrounding lands are in not public ownership, nor protected by easement.

Additional Comments on Land Protection _____

Site Disturbance

Circle Appropriate Category: **1)** less than 10% wetland/water body recent land clearance or disturbance; **2)** 10 to 30% of wetland/water body is affected by recent land disturbance; **3)** 30 to 60% of wetland/water body is affected by recent land disturbance; **4)** greater than 60% of wetland/water body is affected by recent land disturbance.

Circle Appropriate Category: **1)** less than 10% uplands adjacent wetland/water body affected by recent land clearance or disturbance; **2)** 10 to 30% of upland is affected by recent land disturbance; **3)** 30 to 60% of upland is affected by recent land disturbance; **4)** greater than 60% of upland is affected by recent land disturbance.

Additional Comments on Land Disturbance_____0%_____

Drainage Alteration

Are significant drainage features present on the site? No If yes, describe:_____

_____

Are there significant drainage features on lands bordering the wetland/water body? No If yes, describe:_____

_____

Additional Comments on Drainage _____

Wetland Assessment Field Form--SJRWMD Constraint Wetland Project

PROJECT: Wetland @ Panama Circle **SJRWMD SITE ID:** #111 **COUNTY:** Seminole

OTHER LOCATION NOTES:

PERSONNEL : Bill Dunn and Bob Fewster **DATE**: 8/11/05 **TIME:** 10:30

GPS COORDINATES: Latitude : N 28 40.880 **Longitude:** W 81 18.782

PHOTOGRAPHY

Roll: ___ Photo Frame #s: 3

Description of photo(s): 3 shots of swamp inside of oak hammock

WATER LEVEL:

Water Depth: 0.5' in wetland Staff Gage or Piezometer Level (if present): ___

VEGETATION

Major Vegetation Zones Present in Wetland or Water Body: X forested, ____shrub scrub, ____marsh, ____aquatic, _____pond, _____lake, _____other (list):

HERBACEOUS GROUNDCOVER (% cover of OBL and/or FACW species to nearest 10%)

Zone 1: Composition: _____ **Zone 2: Composition**: _____

Dominant Groundcover Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: 10% except L Zone 2:

Total % Groundcover: Total % Cover

Species/1/2/3/4/5: Osmunda cinnamomea Peltandra

Species/1/2/3/4/5: Blechnum

Species/1/2/3/4/5: Osmunda regalis

Species/1/2/3/4/5: duck weed

Species/1/2/3/4/5: poison ivy

Groundcover Species Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal groundcover zonation; 2) Somewhat abnormal zonation – some signs of abnormal groundcover zonation mainly limited to the wetland edge; 3) Normal groundcover zonation.

Additional Comments on Groundcover _____

NUISANCE/WEEDY GROUNDCOVER

Composition--Circle the appropriate category: 1) > 50% of all groundcover species cover is weeds; 2) > 10% and < 50% of all groundcover species cover is weeds (either dispersed throughout wetland or in dense localized patches); 3)< 10% of all groundcover species cover is weeds or weeds are absent.

Additional Comments on Weedy Species _____none

SHRUB

Composition _____ % cover OBL and/or FACW shrub species to nearest 10%

Dominant Shrub Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: 75% Zone 2:

Total % Shrub cover: Total % Cover

Species/1/2/3/4/5: Button bush

Species/1/2/3/4/5: Salix Cornus foemina _____vitis

Species/1/2/3/4/5: Acer

Species/1/2/3/4/5: Liquidambar

Shrub and Small Tree Species Zonation--Circle the appropriate category: 1) Abnormal zonation – many signs of abnormal shrub and tree zonation; 2) Somewhat abnormal zonation -some signs of abnormal shrub and tree zonation mainly limited to the wetland edge; 3) Normal shrub and tree zonation.

Additional Comments on Shrubs_____

WEEDY SHRUB

Composition --Circle the appropriate category: 1) > 50% of all shrub species cover is weeds; 2) > 10% and < 50% of all shrub species cover is (either dispersed throughout the wetland or in dense localized patches); 3) < 10% of all shrub species cover is weeds or weeds are absent.

Additional Comments on Weedy Shrubs_____

CANOPY (TREE)

Dominant Canopy Species Cover Classes 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1: 50% Zone 2:_____

Total % Canopy Cover: _____ Total % Cover _____

Species/1/2/3/4/5: Taxodium distichum _____

Species/1/2/3/4/5: Sabal _____

Species/1/2/3/4/5: Acer _____

Species/1/2/3/4/5: Nyssa _____

Species/1/2/3/4/5: _____

Tree Zonation--Circle the appropriate category: 1) Abnormal zonation – multiple signs of abnormal distribution and cover; 2) Somewhat abnormal zonation with moderately abnormal distribution and cover; 3) Normal zonation with normal distribution and cover.

Additional Comments on Tree Species_____

AQUATIC—surface water covered with duckweed

Dominant Aquatic Species % Cover Categories: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1: 80% Zone 2:_____

Total % Aquatic Plant Cover:_____ Total % Cover_____

Species/1/2/3/4/5: *Lemna* _____

Species/1/2/3/4/5: _____

Species/1/2/3/4/5: _____

Species/1/2/3/4/5: _____

Species/1/2/3/4/5: _____

Aquatic Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal plant zonation; 2) Somewhat abnormal zonation - some signs of abnormal zonation; 3) Normal aquatic plant zonation

Additional Comments on Aquatic Species: _____

PLANT COMMUNITY HEALTH

Does community show unusual signs of stress? Yes **Visually estimate % of wetland zone exhibiting signs of stress;**_____

Type of stress observed (e.g., dead or dying plants, discolored foliage, wilted or rolled leaves, premature leaf fall or senescence, etc.):_____

Does stress appear moisture related, or is there sign of disease or insect injury? _storm damage to maples_____

Overall Condition of Plant Community is:

Circle Appropriate Category: **1)** Plants are dead or dying; **2)** poor vigor with obvious decline (foliage discolored, wilted, premature leaf fall) ; **3)** fair vigor, some signs of stress or decline; **4)** medium vigor, some yellow-green foliage, or signs of leaf wilt or leaf curling; **5)** appearance good, foliage green but foliage thin, less than normal growth for the season; **6)** excellent vigor, foliage green in color, normal growth for the season.

Additional Comments on Health: Maples have been injureded by hurricanes_____

HYDIC SOILS

Look for signs of subsidence, oxidation or abnormal desiccation and select the category which best describes the current conditions of the wetland soils. This assessment may not be applicable (NA) if site is inundated.

Circle Appropriate Category: **1)** Substantial subsidence/oxidation; **2)** Moderate subsidence/oxidation; **3)** Little or no evidence of subsidence/oxidation

Circle Appropriate Soil Condition: **1)** Inundated, **2)** Saturated, **3)** Moist, **4)** Dry

Additional Comments on Soil___exposed root crown, 6-9" , Triplet lake wetland site nearby_____

_____

HYDROLOGY

Current Water Level Indicators (e.g., mosses, lichens, stains)

Estimated depth of water relative to high water marks or indicators:_6-9" describe type of indicator:_____

Circle the Appropriate Category: **1)** None of these indicators are present or indicators are at ground level; **2)** Indicators present; however, indistinct or abnormally low in comparison to the historic normal pool; **3)** Indicators are distinct and at the appropriate level for the season.

Additional Comments on Hydrology__current high water = 6-9" above current_____

_____

WILDLIFE AND LISTED SPECIES

Listed Flora and Fauna Observed (Include activity information for fauna)

Wetland-Dependent Fauna Observed:

Activity codes (M = mating, F = foraging, FT = flyover/traveling; N = nesting, OT = other)

Observation codes (O = observed, S = sign [scat, tracks, call or other signs of presence])

GENERAL SITE DESCRIPTION CATEGORIES

Habitat Gradient

Circle Appropriate Category: **1)** full habitat gradient present from aquatic/wetland up gradient to native upland habitat; **2)** native upland habitat is present along 50-75% of perimeter; **3)** native upland habitat is present along 25-50% of perimeter; **4)** native upland habitat is present along less than 25% of perimeter.

Additional Comments on Habitat Gradient ___**oak hammock 100+ m wide**_____

Habitat Quality

Circle Appropriate Category: **1)** habitats present are in relatively natural condition in terms of community structure and plant species composition; **2)** habitats are in degraded condition in terms of community structure and plant species composition ; **3)** habitats are in severely degraded condition in terms of community structure and plant species composition.

Additional Comments on Habitat Quality _____

Hydrology and Landscape Position

Circle Appropriate Category: **1)** wetland/aquatic system is isolated, with no regular surface water inflow or outflow; **2)** system has surface water inflow or outflow only at high water condition; **3)** system is flow-through with surface water inflow and outflow.

Additional Comments on Landscape Position: _____

Storm Water Inflows and Outflows

Circle Appropriate Category: **1)** no significant adverse effects to habitat, hydrologic regime, or water quality due to inflow of stormwater system; **2)** habitat conditions are generally good, but adverse effects to habitat, hydrologic regime, or water quality are evident due to inflow stormwater inflows; **3))** habitat conditions are degraded by adverse effects of stormwater inflows.

Additional Comments on Surface Water _____

Shoreline Development

Circle Appropriate Category: **1)** less than 10% **of** shoreline/perimeter is developed; **2)** 10 to 30% of shoreline/perimeter is developed; **3)** 30 to 60% of shoreline/perimeter is developed; **4)** greater than 60% of shoreline/perimeter is developed.

Additional Comments on Shoreline: ___**oak hammock**_____

Land Protection

Circle Appropriate Category: **1)** site and surrounding lands are in public ownership, or land use is limited to conservation/preservation; **2)** some but not all site and surrounding lands are in public ownership, or protected by easement ; **3)** site and surrounding lands are in not public ownership, nor protected by easement.

Additional Comments on Land Protection _____

Site Disturbance

Circle Appropriate Category: **1)** less than 10% wetland/water body recent land clearance or disturbance; **2)** 10 to 30% of wetland/water body is affected by recent land disturbance; **3)** 30 to 60% of wetland/water body is affected by recent land disturbance; **4)** greater than 60% of wetland/water body is affected by recent land disturbance.

Circle Appropriate Category: **1)** less than 10% uplands adjacent wetland/water body affected by recent land clearance or disturbance; **2)** 10 to 30% of upland is affected by recent land disturbance; **3)** 30 to 60% of upland is affected by recent land disturbance; **4)** greater than 60% of upland is affected by recent land disturbance.

Additional Comments on Land Disturbance_____

Drainage Alteration

Are significant drainage features present on the site?_no__ If yes, describe:_____
_____

Are there significant drainage features on lands bordering the wetland/water body?___No____ If yes, describe:_____
photo's_____

Additional Comments on Drainage _____

Wetland Assessment Field Form--SJRWMD Constraint Wetland Project

PROJECT: Horseshoe Lake **SJRWMD SITE ID:** #123 **COUNTY:** Orange

OTHER LOCATION NOTES: **@ bend in County Road 561**

PERSONNEL : Bill Dunn and Bob Fewster **DATE**: 8/24/05 **TIME:** 15:00

GPS COORDINATES: Latitude : **N 28 38.253** **Longitude:** **W 81 44.881 @road**

PHOTOGRAPHY

Roll: _____ Photo Frame #s: 2 from road

Description of photo(s): NE corner of lake from Ponka Road

WATER LEVEL

Water Depth: _____ Staff Gage or Piezometer Level (if present): _____

VEGETATION …….complex of marsh and open water

Major Vegetation Zones Present in Wetland or Water Body: ____forested, ____shrub scrub, _X__marsh, _____aquatic, _____pond, ___X__lake, _____other (list):____open water 70%

HERBACEOUS GROUNDCOVER (% cover of OBL and/or FACW species to nearest 10%)

Zone 1: Composition: _____ **Zone 2: Composition**: _____

Dominant Groundcover Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: **20 – 25%** Zone 2:_____

Total % Groundcover:_____ Total % Cover _____

Species/1/2/3/4/5: Maidencane _____ _____

Species/1/2/3/4/5: Red Root _____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Groundcover Species Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal groundcover zonation; 2) Somewhat abnormal zonation – some signs of abnormal groundcover zonation mainly limited to the wetland edge; 3) Normal groundcover zonation.

Additional Comments on Groundcover _____

NUISANCE/WEEDY GROUNDCOVER

Composition--Circle the appropriate category: 1) > 50% of all groundcover species cover is weeds; 2) > 10% and < 50% of all groundcover species cover is weeds (either dispersed throughout wetland or in dense localized patches); 3)< 10% of all groundcover species cover is weeds or weeds are absent.

Additional Comments on Weedy Species _____

SHRUB

Composition _____ % cover OBL and/or FACW shrub species to nearest 10%

Dominant Shrub Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: **5%** Zone 2:_____

Total % Shrub cover:_scattered shrub Total % Cover_____

Species/1/2/3/4/5: Cephalanthus occidentalis _____ _____

Species/1/2/3/4/5: Hypericum fasciculatum _____ _____

Species/1/2/3/4/5: Ilex cassine _____ _____

Species/1/2/3/4/5: dead Hypericum water level came up _____ _____

Shrub and Small Tree Species Zonation--Circle the appropriate category: 1) Abnormal zonation – many signs of abnormal shrub and tree zonation; 2) Somewhat abnormal zonation -some signs of abnormal shrub and tree zonation mainly limited to the wetland edge; 3) Normal shrub and tree zonation.

Additional Comments on Shrubs_____ _____

WEEDY SHRUB

Composition --Circle the appropriate category: 1) > 50% of all shrub species cover is weeds; 2) > 10% and < 50% of all shrub species cover is (either dispersed throughout the wetland or in dense localized patches); 3) < 10% of all shrub species cover is weeds or weeds are absent.

Additional Comments on Weedy Shrubs_____

CANOPY (TREE)

Dominant Canopy Species Cover Classes 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Canopy Cover: Scattered trees on edge Total % Cover _____

Species/1/2/3/4/5: _____ _____ _____

Species/1/2/3/4/5: Willow _____ _____

Species/1/2/3/4/5: Ilex cassine _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Tree Zonation--Circle the appropriate category: 1) Abnormal zonation – multiple signs of abnormal distribution and cover; 2) Somewhat abnormal zonation with moderately abnormal distribution and cover; 3) Normal zonation with normal distribution and cover.

Additional Comments on Tree Species_____

AQUATIC……not applicable, no aquatic zone present

Dominant Aquatic Species % Cover Categories: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Aquatic Plant Cover:_____ Total % Cover_____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Aquatic Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal plant zonation; 2) Somewhat abnormal zonation - some signs of abnormal zonation; 3) Normal aquatic plant zonation

Additional Comments on Aquatic Species:

Pasture_____

PLANT COMMUNITY HEALTH

Does community show unusual signs of stress? No . **Visually estimate % of wetland zone exhibiting signs of stress;**_____

Type of stress observed (e.g., dead or dying plants, discolored foliage, wilted or rolled leaves, premature leaf fall or senescence, etc.):_____

Does stress appear moisture related, or is there sign of disease or insect injury? _____

Overall Condition of Plant Community is:

Circle Appropriate Category: **1)** Plants are dead or dying; **2)** poor vigor with obvious decline (foliage discolored, wilted, premature leaf fall) ; **3)** fair vigor, some signs of stress or decline; **4)** medium vigor, some yellow-green foliage, or signs of leaf wilt or leaf curling; **5)** appearance good, foliage green but foliage thin, less than normal growth for the season; **6)** excellent vigor, foliage green in color, normal growth for the season.

Additional Comments on Health _____**Hypericum die back with water level rise**_____

HYDIC SOILS

Look for signs of subsidence, oxidation or abnormal desiccation and select the category which best describes the current conditions of the wetland soils. This assessment may not be applicable (NA) if site is inundated.

Circle Appropriate Category: **1)** Substantial subsidence/oxidation; **2)** Moderate subsidence/oxidation; **3)** Little or no evidence of subsidence/oxidation

Circle Appropriate Soil Condition: **1)** Inundated, **2)** Saturated, **3)** Moist, **4)** Dry

Additional Comments on Soil_____

_____

HYDROLOGY

Current Water Level Indicators (e.g., mosses, lichens, stains)

Estimated depth of water relative to high water marks or indicators:_____; describe type of indicator:_____

Circle the Appropriate Category: **1)** None of these indicators are present or indicators are at ground level; **2)** Indicators present; however, indistinct or abnormally low in comparison to the historic normal pool; **3)** Indicators are distinct and at the appropriate level for the season.

Additional Comments on Hydrology_____recent rise in level of water has stressed the Hypericum; water w/in 1' of high

_____

WILDLIFE AND LISTED SPECIES

Listed Flora and Fauna Observed (Include activity information for fauna)

Wetland-Dependent Fauna Observed:

Activity codes (M = mating, F = foraging, FT = flyover/traveling; N = nesting, OT = other)

Observation codes (O = observed, S = sign [scat, tracks, call or other signs of presence])

GENERAL SITE DESCRIPTION CATEGORIES

Habitat Gradient

Circle Appropriate Category: **1)** full habitat gradient present from aquatic/wetland up gradient to native upland habitat; **2)** native upland habitat is present along 50-75% of perimeter; **3)** native upland habitat is present along 25-50% of perimeter; **4)** native upland habitat is present along less than 25% of perimeter.

Additional Comments on Habitat Gradient _____

Habitat Quality

Circle Appropriate Category: **1)** habitats present are in relatively natural condition in terms of community structure and plant species composition; **2)** habitats are in degraded condition in terms of community structure and plant species composition ; **3)** habitats are in severely degraded condition in terms of community structure and plant species composition.

Additional Comments on Habitat Quality _____

Hydrology and Landscape Position

Circle Appropriate Category: **1)** wetland/aquatic system is isolated, with no regular surface water inflow or outflow; **2)** system has surface water inflow or outflow only at high water condition; **3)** system is flow-through with surface water inflow and outflow.

Additional Comments on Landscape Position: **high water connected to other lake**

Storm Water Inflows and Outflows

Circle Appropriate Category: **1)** no significant adverse effects to habitat, hydrologic regime, or water quality due to inflow of stormwater system; **2)** habitat conditions are generally good, but adverse effects to habitat, hydrologic regime, or water quality are evident due to inflow stormwater inflows; **3))** habitat conditions are degraded by adverse effects of stormwater inflows.

Additional Comments on Surface Water _____

Shoreline Development

Circle Appropriate Category: **1)** less than 10% **of** shoreline/perimeter is developed; **2)** 10 to 30% of shoreline/perimeter is developed; **3)** 30 to 60% of shoreline/perimeter is developed; **4)** greater than 60% of shoreline/perimeter is developed.

Additional Comments on Shoreline **__pasture on part**_____

Land Protection

Circle Appropriate Category: **1)** site and surrounding lands are in public ownership, or land use is limited to conservation/preservation; **2)** some but not all site and surrounding lands are in public ownership, or protected by easement ; **3)** site and surrounding lands are in not public ownership, nor protected by easement.

Additional Comments on Land Protection _____

Site Disturbance

Circle Appropriate Category: **1)** less than 10% wetland/water body recent land clearance or disturbance; **2)** 10 to 30% of wetland/water body is affected by recent land disturbance; **3)** 30 to 60% of wetland/water body is affected by recent land disturbance; **4)** greater than 60% of wetland/water body is affected by recent land disturbance.

Circle Appropriate Category: **1)** less than 10% uplands adjacent wetland/water body affected by recent land clearance or disturbance; **2)** 10 to 30% of upland is affected by recent land disturbance; **3)** 30 to 60% of upland is affected by recent land disturbance; **4)** greater than 60% of upland is affected by recent land disturbance.

Additional Comments on Land Disturbance_____0%_____

Drainage Alteration

Are significant drainage features present on the site?__No____ If yes, describe:_____

_____

Are there significant drainage features on lands bordering the wetland/water body?__No_____ If yes, describe:_____

_____

Additional Comments on Drainage _____

Wetland Assessment Field Form--SJRWMD Constraint Wetland Project

PROJECT: Lake Mills **SJRWMD SITE ID:** #126 **COUNTY:** Seminole

OTHER LOCATION NOTES: **At the swimming beach at Lake Mills Park**

PERSONNEL : Bill Dunn and Bob Fewster **DATE**: 8/10/05 **TIME:** 13:40

GPS COORDINATES: Latitude : **N 28 37.958** **Longitude:** **W 81 07.306**

PHOTOGRAPHY

Roll: _____ Photo Frame #s: 2 shots @ edge of beach

Description of photo(s): Same site visited w/ Lorne Malo

WATER LEVEL

Water Depth: _____ Staff Gage or Piezometer Level (if present): _____

VEGETATION …….mostly open water w/cypress forest fringe

Major Vegetation Zones Present in Wetland or Water Body: **X** **forested,** ____ **shrub scrub,** ____ **marsh,** _____ **aquatic,** _____ **pond,** **X** ____ **lake,** _____ **other (list):** _____

HERBACEOUS GROUNDCOVER (% cover of OBL and/or FACW species to nearest 10%)

Zone 1: Composition: _____ **Zone 2: Composition**: _____

Dominant Groundcover Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: little Zone 2: _____

Total % Groundcover: _____ Total % Cover _____

Species/1/2/3/4/5: Torpedo grass _____

Species/1/2/3/4/5: Typha latifolia _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Groundcover Species Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal groundcover zonation; 2) Somewhat abnormal zonation – some signs of abnormal groundcover zonation mainly limited to the wetland edge; 3) Normal groundcover zonation.

Additional Comments on Groundcover scattered areas w/ fringe of emergents

NUISANCE/WEEDY GROUNDCOVER

Composition--Circle the appropriate category: 1) > 50% of all groundcover species cover is weeds; 2) > 10% and < 50% of all groundcover species cover is weeds (either dispersed throughout wetland or in dense localized patches); 3)< 10% of all groundcover species cover is weeds or weeds are absent.

Additional Comments on Weedy Species _____

SHRUB

Composition _____ % cover OBL and/or FACW shrub species to nearest 10%

Dominant Shrub Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: _____ Zone 2: _____

Total % Shrub cover: _____ Total % Cover _____

Species/1/2/3/4/5: Myrica cerifera _____

Species/1/2/3/4/5: Toxicodendron _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Shrub and Small Tree Species Zonation--Circle the appropriate category: 1) Abnormal zonation – many signs of abnormal shrub and tree zonation; 2) Somewhat abnormal zonation -some signs of abnormal shrub and tree zonation mainly limited to the wetland edge; 3) Normal shrub and tree zonation.

Additional Comments on Shrubs_____

WEEDY SHRUB

Composition --Circle the appropriate category: 1) > 50% of all shrub species cover is weeds; 2) > 10% and < 50% of all shrub species cover is (either dispersed throughout the wetland or in dense localized patches); 3) < 10% of all shrub species cover is weeds or weeds are absent.

Additional Comments on Weedy Shrubs_____

CANOPY (TREE)

Dominant Canopy Species Cover Classes 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:scattered bands of trees__ Zone 2:_____

Total % Canopy Cover: _____ Total % Cover _____

Species/1/2/3/4/5: _____Bald cypress fringe on parts of lake _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Tree Zonation--Circle the appropriate category: 1) Abnormal zonation – multiple signs of abnormal distribution and cover; 2) Somewhat abnormal zonation with moderately abnormal distribution and cover; 3) Normal zonation with normal distribution and cover.

Additional Comments on Tree Species__upland pine oak present as upland in the park_____

AQUATIC—none visible

Dominant Aquatic Species % Cover Categories: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Aquatic Plant Cover:_____ Total % Cover_____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Aquatic Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal plant zonation; 2) Somewhat abnormal zonation - some signs of abnormal zonation; 3) Normal aquatic plant zonation

Additional Comments on Aquatic Species:

_____

PLANT COMMUNITY HEALTH

Does community show unusual signs of stress? No . **Visually estimate % of wetland zone exhibiting signs of stress;**_____

Type of stress observed (e.g., dead or dying plants, discolored foliage, wilted or rolled leaves, premature leaf fall or senescence, etc.):_____

Does stress appear moisture related, or is there sign of disease or insect injury? _____

Overall Condition of Plant Community is:

Circle Appropriate Category: **1)** Plants are dead or dying; **2)** poor vigor with obvious decline (foliage discolored, wilted, premature leaf fall) ; **3)** fair vigor, some signs of stress or decline; **4)** medium vigor, some yellow-green foliage, or signs of leaf wilt or leaf curling; **5)** appearance good, foliage green but foliage thin, less than normal growth for the season; **6)** excellent vigor, foliage green in color, normal growth for the season.

Additional Comments on Health __**No signs of stress**_____

HYDIC SOILS

Look for signs of subsidence, oxidation or abnormal desiccation and select the category which best describes the current conditions of the wetland soils. This assessment may not be applicable (NA) if site is inundated.

Circle Appropriate Category: **1)** Substantial subsidence/oxidation; **2)** Moderate subsidence/oxidation; **3)** Little or no evidence of subsidence/oxidation

Circle Appropriate Soil Condition: **1)** Inundated, **2)** Saturated, **3)** Moist, **4)** Dry

Additional Comments on Soil_____

_____

HYDROLOGY

Current Water Level Indicators (e.g., mosses, lichens, stains)

Estimated depth of water relative to high water marks or indicators:_____; describe type of indicator:_____

Circle the Appropriate Category: **1)** None of these indicators are present or indicators are at ground level; **2)** Indicators present; however, indistinct or abnormally low in comparison to the historic normal pool; **3)** Indicators are distinct and at the appropriate level for the season.

Additional Comments on Hydrology_____ high water marks @ 0.5 below normal high_____

_____

WILDLIFE AND LISTED SPECIES

Listed Flora and Fauna Observed (Include activity information for fauna)

Wetland-Dependent Fauna Observed:

Activity codes (M = mating, F = foraging, FT = flyover/traveling; N = nesting, OT = other)

Observation codes (O = observed, S = sign [scat, tracks, call or other signs of presence])

GENERAL SITE DESCRIPTION CATEGORIES

Habitat Gradient

Circle Appropriate Category: **1)** full habitat gradient present from aquatic/wetland up gradient to native upland habitat; **2)** native upland habitat is present along 50-75% of perimeter; **3)** native upland habitat is present along 25-50% of perimeter; **4)** native upland habitat is present along less than 25% of perimeter.

Additional Comments on Habitat Gradient ___**check the aerial photos**_____

Habitat Quality

Circle Appropriate Category: **1)** habitats present are in relatively natural condition in terms of community structure and plant species composition; **2)** habitats are in degraded condition in terms of community structure and plant species composition ; **3)** habitats are in severely degraded condition in terms of community structure and plant species composition.

Additional Comments on Habitat Quality _____

Hydrology and Landscape Position

Circle Appropriate Category: **1)** wetland/aquatic system is isolated, with no regular surface water inflow or outflow; **2)** system has surface water inflow or outflow only at high water condition; **3)** system is flow-through with surface water inflow and outflow.

Additional Comments on Landscape Position: **inflow & outflow**_____

Storm Water Inflows and Outflows

Circle Appropriate Category: **1)** no significant adverse effects to habitat, hydrologic regime, or water quality due to inflow of stormwater system; **2)** habitat conditions are generally good, but adverse effects to habitat, hydrologic regime, or water quality are evident due to inflow stormwater inflows; **3))** habitat conditions are degraded by adverse effects of stormwater inflows.

Additional Comments on Surface Water _____

Shoreline Development

Circle Appropriate Category: **1)** less than 10% **of** shoreline/perimeter is developed; **2)** 10 to 30% of shoreline/perimeter is developed; **3)** 30 to 60% of shoreline/perimeter is developed; **4)** greater than 60% of shoreline/perimeter is developed.

Additional Comments on Shoreline: **check aerial**_____

Land Protection

Circle Appropriate Category: **1)** site and surrounding lands are in public ownership, or land use is limited to conservation/preservation; **2)** some but not all site and surrounding lands are in public ownership, or protected by easement ; **3)** site and surrounding lands are in not public ownership, nor protected by easement.

Additional Comments on Land Protection ___**Lake Mills Park**_____

Site Disturbance

Circle Appropriate Category: **1)** less than 10% wetland/water body recent land clearance or disturbance; **2)** 10 to 30% of wetland/water body is affected by recent land disturbance; **3)** 30 to 60% of wetland/water body is affected by recent land disturbance; **4)** greater than 60% of wetland/water body is affected by recent land disturbance.

Circle Appropriate Category: **1)** less than 10% uplands adjacent wetland/water body affected by recent land clearance or disturbance; **2)** 10 to 30% of upland is affected by recent land disturbance; **3)** 30 to 60% of upland is affected by recent land disturbance; **4)** greater than 60% of upland is affected by recent land disturbance.

Additional Comments on Land Disturbance___some new development adjacent to park_____

Drainage Alteration

Are significant drainage features present on the site?__No__ If yes, describe:_____
_____

Are there significant drainage features on lands bordering the wetland/water body?___No_____ If yes, describe:_____
photo's_____

Additional Comments on Drainage _____

Wetland Assessment Field Form--SJRWMD Constraint Wetland Project

PROJECT: Lake Pearl **SJRWMD SITE ID:** #131 **COUNTY:** Orange

OTHER LOCATION NOTES: Site visited

PERSONNEL : Bill Dunn and Bob Fewster **DATE**: 8/10/05 **TIME:** 12:30

GPS COORDINATES: Latitude : N 28 36.105 **Longitude:** W 81 16.017

PHOTOGRAPHY

Roll: _____ Photo Frame #s: 5 shots: 1-boat ramp, 4-panarama

Description of photo(s): dock & boardwalks just barely out of water

WATER LEVEL:

Water Depth: water @ high water mark Staff Gage or Piezometer Level (if present): 10.16

VEGETATION……mostly open water

Major Vegetation Zones Present in Wetland or Water Body: ____forested, ____shrub scrub, ____marsh, _____aquatic, _____pond, __X____lake, _____other (list):_____

HERBACEOUS GROUNDCOVER (% cover of OBL and/or FACW species to nearest 10%)

Zone 1: Composition: _____ **Zone 2: Composition**: _____lit zone

Dominant Groundcover Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1:_____ Zone 2:_____

Total % Groundcover: narrow littoral fringe Total % Cover _____

Species/1/2/3/4/5: Torpedograss Typha latifolia

Species/1/2/3/4/5: Colocasia _____

Species/1/2/3/4/5: Nuphar _____

Species/1/2/3/4/5: Nymphaea _____

Species/1/2/3/4/5: Sagittaria _____

Groundcover Species Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal groundcover zonation; 2) Somewhat abnormal zonation – some signs of abnormal groundcover zonation mainly limited to the wetland edge; 3) Normal groundcover zonation.

Additional Comments on Groundcover _____

NUISANCE/WEEDY GROUNDCOVER

Composition--Circle the appropriate category: 1) > 50% of all groundcover species cover is weeds; 2) > 10% and < 50% of all groundcover species cover is weeds (either dispersed throughout wetland or in dense localized patches); 3)< 10% of all groundcover species cover is weeds or weeds are absent.

Additional Comments on Weedy Species _____

SHRUB--shrub scattered in emergent littoral zone

Composition _____ % cover OBL and/or FACW shrub species to nearest 10%

Dominant Shrub Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1:_____ Zone 2:_____

Total % Shrub cover:_____ Total % Cover_____

Species/1/2/3/4/5: Lugwigia peruviana _____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Shrub and Small Tree Species Zonation--Circle the appropriate category: 1) Abnormal zonation – many signs of abnormal shrub and tree zonation; 2) Somewhat abnormal zonation -some signs of abnormal shrub and tree zonation mainly limited to the wetland edge; 3) Normal shrub and tree zonation.

Additional Comments on Shrubs_____

WEEDY SHRUB

Composition --Circle the appropriate category: 1) > 50% of all shrub species cover is weeds; 2) > 10% and < 50% of all shrub species cover is (either dispersed throughout the wetland or in dense localized patches); 3) < 10% of all shrub species cover is weeds or weeds are absent.

Additional Comments on Weedy Shrubs_____

CANOPY (TREE)--no wetland treed border, residual stretch of pine (see photo)

Dominant Canopy Species Cover Classes 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Canopy Cover: _____ Total % Cover _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Tree Zonation--Circle the appropriate category: 1) Abnormal zonation – multiple signs of abnormal distribution and cover; 2) Somewhat abnormal zonation with moderately abnormal distribution and cover; 3) Normal zonation with normal distribution and cover.

Additional Comments on Tree Species_____

AQUATIC……..litt fringe

Dominant Aquatic Species % Cover Categories: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Aquatic Plant Cover:_____ Total % Cover_____

Species/1/2/3/4/5: Nymphaea _____ _____

Species/1/2/3/4/5: Nuphar _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Aquatic Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal plant zonation; 2) Somewhat abnormal zonation - some signs of abnormal zonation; 3) Normal aquatic plant zonation

Additional Comments on Aquatic Species: _____

PLANT COMMUNITY HEALTH

Does community show unusual signs of stress?____. Visually estimate % of wetland zone exhibiting signs of stress;_____

Type of stress observed (e.g., dead or dying plants, discolored foliage, wilted or rolled leaves, premature leaf fall or senescence, etc.):_____

Does stress appear moisture related, or is there sign of disease or insect injury? _____

Overall Condition of Plant Community is:

Circle Appropriate Category: **1)** Plants are dead or dying; **2)** poor vigor with obvious decline (foliage discolored, wilted, premature leaf fall) ; **3)** fair vigor, some signs of stress or decline; **4)** medium vigor, some yellow-green foliage, or signs of leaf wilt or leaf curling; **5)** appearance good, foliage green but foliage thin, less than normal growth for the season; **6)** excellent vigor, foliage green in color, normal growth for the season.

Additional Comments on Health: ___scattering of dead pines, many tall____

HYDIC SOILS

Look for signs of subsidence, oxidation or abnormal desiccation and select the category which best describes the current conditions of the wetland soils. This assessment may not be applicable (NA) if site is inundated.

Circle Appropriate Category: **1)** Substantial subsidence/oxidation; **2)** Moderate subsidence/oxidation; **3)** Little or no evidence of subsidence/oxidation

Circle Appropriate Soil Condition: **1)** Inundated, **2)** Saturated, **3)** Moist, **4)** Dry

Additional Comments on Soil_____

_____

HYDROLOGY…….water stains – water @ high level, many docks just above water

Current Water Level Indicators (e.g., mosses, lichens, stains)—staff gage

Estimated depth of water relative to high water marks or indicators:_____; describe type of indicator:_____

Circle the Appropriate Category: **1)** None of these indicators are present or indicators are at ground level; **2)** Indicators present; however, indistinct or abnormally low in comparison to the historic normal pool; **3)** Indicators are distinct and at the appropriate level for the season.

Additional Comments on Hydrology__stain lines on docks barely out of water, staff gage @ 10.16._____

WILDLIFE AND LISTED SPECIES

Listed Flora and Fauna Observed (Include activity information for fauna)

Wetland-Dependent Fauna Observed:

Activity codes (M = mating, F = foraging, FT = flyover/traveling; N = nesting, OT = other)

Observation codes (O = observed, S = sign [scat, tracks, call or other signs of presence])

GENERAL SITE DESCRIPTION CATEGORIES

Habitat Gradient

Circle Appropriate Category: **1)** full habitat gradient present from aquatic/wetland up gradient to native upland habitat; **2)** native upland habitat is present along 50-75% of perimeter; **3)** native upland habitat is present along 25-50% of perimeter; **4)** native upland habitat is present along less than 25% of perimeter.

Additional Comments on Habitat Gradient _____

Habitat Quality

Circle Appropriate Category: **1)** habitats present are in relatively natural condition in terms of community structure and plant species composition; **2)** habitats are in degraded condition in terms of community structure and plant species composition ; **3)** habitats are in severely degraded condition in terms of community structure and plant species composition.

Additional Comments on Habitat Quality _some large patches of weedy, exotic_____

Hydrology and Landscape Position

Circle Appropriate Category: **1)** wetland/aquatic system is isolated, with no regular surface water inflow or outflow; **2)** system has surface water inflow or outflow only at high water condition; **3)** system is flow-through with surface water inflow and outflow.

Additional Comments on Landscape Position: _____

Storm Water Inflows and Outflows

Circle Appropriate Category: **1)** no significant adverse effects to habitat, hydrologic regime, or water quality due to inflow of stormwater system; **2)** habitat conditions are generally good, but adverse effects to habitat, hydrologic regime, or water quality are evident due to inflow stormwater inflows; **3))** habitat conditions are degraded by adverse effects of stormwater inflows.

Additional Comments on Surface Water _____

Shoreline Development

Circle Appropriate Category: **1)** less than 10% **of** shoreline/perimeter is developed; **2)** 10 to 30% of shoreline/perimeter is developed; **3)** 30 to 60% of shoreline/perimeter is developed; **4)** greater than 60% of shoreline/perimeter is developed.

Additional Comments on Shoreline: _____

Land Protection

Circle Appropriate Category: **1)** site and surrounding lands are in public ownership, or land use is limited to conservation/preservation; **2)** some but not all site and surrounding lands are in public ownership, or protected by easement ; **3)** site and surrounding lands are in not public ownership, nor protected by easement.

Additional Comments on Land Protection _____

Site Disturbance……..none

Circle Appropriate Category: **1)** less than 10% wetland/water body recent land clearance or disturbance; **2)** 10 to 30% of wetland/water body is affected by recent land disturbance; **3)** 30 to 60% of wetland/water body is affected by recent land disturbance; **4)** greater than 60% of wetland/water body is affected by recent land disturbance.

Circle Appropriate Category: **1)** less than 10% uplands adjacent wetland/water body affected by recent land clearance or disturbance; **2)** 10 to 30% of upland is affected by recent land disturbance; **3)** 30 to 60% of upland is affected by recent land disturbance; **4)** greater than 60% of upland is affected by recent land disturbance.

Additional Comments on Land Disturbance_____

Drainage Alteration

Are significant drainage features present on the site?_No___ If yes, describe:_____
_____

Are there significant drainage features on lands bordering the wetland/water body?__No_____ If yes, describe:_____
photo's_____

Additional Comments on Drainage _____

Wetland Assessment Field Form--SJRWMD Constraint Wetland Project

PROJECT: Lake Irma **SJRWMD SITE ID:** #132 **COUNTY:** Orange

OTHER LOCATION NOTES: **From Econ Trail on East side of lake**

PERSONNEL : Bill Dunn and Bob Fewster **DATE**: 8/10/05 **TIME:** 13:00

GPS COORDINATES: Latitude : **N 28 35.697** **Longitude:** **W 81 15.705**

PHOTOGRAPHY

Roll: _____ Photo Frame #s: pan of 3 shots

Description of photo(s): floating mats & open water

WATER LEVEL

Water Depth: w/in 0.5-1.0' of top of boat docks Staff Gage or Piezometer Level (if present): _____

VEGETATION ……lake, open water mostly

Major Vegetation Zones Present in Wetland or Water Body: ____forested, ____shrub scrub, ____marsh, _____aquatic, _____pond, ___X___lake, _____other (list):_____

HERBACEOUS GROUNDCOVER (% cover of OBL and/or FACW species to nearest 10%)

Zone 1: Composition: _____ **Zone 2: Composition**: _____littoral fringe

Dominant Groundcover Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1:_____ Zone 2:_____

Total % Groundcover: Littoral zone Total % Cover _____

Species/1/2/3/4/5: Maidencane Eleocharis sp.

Species/1/2/3/4/5: Torpedograss Pickerelweed

Species/1/2/3/4/5: Scirpus validus Typha latifolia

Species/1/2/3/4/5: Thalia genic. _____

Species/1/2/3/4/5: Ludwiga peruviana _____

Groundcover Species Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal groundcover zonation; 2) Somewhat abnormal zonation – some signs of abnormal groundcover zonation mainly limited to the wetland edge; 3) Normal groundcover zonation.

Additional Comments on Groundcover occasional thick stands of cattail

NUISANCE/WEEDY GROUNDCOVER

Composition--Circle the appropriate category: 1) > 50% of all groundcover species cover is weeds; 2) > 10% and < 50% of all groundcover species cover is weeds (either dispersed throughout wetland or in dense localized patches); 3)< 10% of all groundcover species cover is weeds or weeds are absent.

Additional Comments on Weedy Species see above

SHRUB—not present

Composition _____ % cover OBL and/or FACW shrub species to nearest 10%

Dominant Shrub Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1:_____ Zone 2:_____

Total % Shrub cover:_____ Total % Cover_____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Shrub and Small Tree Species Zonation--Circle the appropriate category: 1) Abnormal zonation – many signs of abnormal shrub and tree zonation; 2) Somewhat abnormal zonation -some signs of abnormal shrub and tree zonation mainly limited to the wetland edge; 3) Normal shrub and tree zonation.

Additional Comments on Shrubs_____

WEEDY SHRUB

Composition --Circle the appropriate category: 1) > 50% of all shrub species cover is weeds; 2) > 10% and < 50% of all shrub species cover is (either dispersed throughout the wetland or in dense localized patches); 3) < 10% of all shrub species cover is weeds or weeds are absent.

Additional Comments on Weedy Shrubs_____

CANOPY (TREE)…….little to no forested, patch on South end as visible in aerial

Dominant Canopy Species Cover Classes 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Canopy Cover: _____ Total % Cover _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Tree Zonation--Circle the appropriate category: 1) Abnormal zonation – multiple signs of abnormal distribution and cover; 2) Somewhat abnormal zonation with moderately abnormal distribution and cover; 3) Normal zonation with normal distribution and cover.

Additional Comments on Tree Species_____

AQUATIC…….some water lily beds

Dominant Aquatic Species % Cover Categories: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Aquatic Plant Cover:_____ Total % Cover_____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Aquatic Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal plant zonation; 2) Somewhat abnormal zonation - some signs of abnormal zonation; 3) Normal aquatic plant zonation

Additional Comments on Aquatic Species:

_____

PLANT COMMUNITY HEALTH

Does community show unusual signs of stress? No. **Visually estimate % of wetland zone exhibiting signs of stress;**_____

Type of stress observed (e.g., dead or dying plants, discolored foliage, wilted or rolled leaves, premature leaf fall or senescence, etc.):_____

Does stress appear moisture related, or is there sign of disease or insect injury? _____

Overall Condition of Plant Community is:

Circle Appropriate Category: **1)** Plants are dead or dying; **2)** poor vigor with obvious decline (foliage discolored, wilted, premature leaf fall) ; **3)** fair vigor, some signs of stress or decline; **4)** medium vigor, some yellow-green foliage, or signs of leaf wilt or leaf curling; **5)** appearance good, foliage green but foliage thin, less than normal growth for the season; **6)** excellent vigor, foliage green in color, normal growth for the season.

Additional Comments on Health: **do not see much dead pine on edge**

HYDIC SOILS

Look for signs of subsidence, oxidation or abnormal desiccation and select the category which best describes the current conditions of the wetland soils. This assessment may not be applicable (NA) if site is inundated.

Circle Appropriate Category: **1)** Substantial subsidence/oxidation; **2)** Moderate subsidence/oxidation; **3)** Little or no evidence of subsidence/oxidation

Circle Appropriate Soil Condition: **1)** Inundated, **2)** Saturated, **3)** Moist, **4)** Dry

Additional Comments on Soil_____

_____

HYDROLOGY

Current Water Level Indicators (e.g., mosses, lichens, stains)

Estimated depth of water relative to high water marks or indicators:_____; describe type of indicator:_____

Circle the Appropriate Category: **1)** None of these indicators are present or indicators are at ground level; **2)** Indicators present; however, indistinct or abnormally low in comparison to the historic normal pool; **3)** Indicators are distinct and at the appropriate level for the season.

Additional Comments on Hydrology_____within 0.5-1.0 of top of boat docks and lawns_____

_____

WILDLIFE AND LISTED SPECIES

Listed Flora and Fauna Observed (Include activity information for fauna)

Wetland-Dependent Fauna Observed:

Activity codes (M = mating, F = foraging, FT = flyover/traveling; N = nesting, OT = other)

Observation codes (O = observed, S = sign [scat, tracks, call or other signs of presence])

GENERAL SITE DESCRIPTION CATEGORIES

Habitat Gradient

Circle Appropriate Category: **1)** full habitat gradient present from aquatic/wetland up gradient to native upland habitat; **2)** native upland habitat is present along 50-75% of perimeter; **3)** native upland habitat is present along 25-50% of perimeter; **4)** native upland habitat is present along less than 25% of perimeter.

Additional Comments on Habitat Gradient ___**only at south end (see aerial photo) <<25%**_____

Habitat Quality

Circle Appropriate Category: **1)** habitats present are in relatively natural condition in terms of community structure and plant species composition; **2)** habitats are in degraded condition in terms of community structure and plant species composition ; **3)** habitats are in severely degraded condition in terms of community structure and plant species composition.

Additional Comments on Habitat Quality _____

Hydrology and Landscape Position

Circle Appropriate Category: **1)** wetland/aquatic system is isolated, with no regular surface water inflow or outflow; **2)** system has surface water inflow or outflow only at high water condition; **3)** system is flow-through with surface water inflow and outflow.

Additional Comments on Landscape Position: _____

Storm Water Inflows and Outflows

Circle Appropriate Category: **1)** no significant adverse effects to habitat, hydrologic regime, or water quality due to inflow of stormwater system; **2)** habitat conditions are generally good, but adverse effects to habitat, hydrologic regime, or water quality are evident due to inflow stormwater inflows; **3))** habitat conditions are degraded by adverse effects of stormwater inflows.

Additional Comments on Surface Water _____

Shoreline Development

Circle Appropriate Category: **1)** less than 10% **of** shoreline/perimeter is developed; **2)** 10 to 30% of shoreline/perimeter is developed; **3)** 30 to 60% of shoreline/perimeter is developed; **4)** greater than 60% of shoreline/perimeter is developed.

Additional Comments on Shoreline: _____

Land Protection

Circle Appropriate Category: **1)** site and surrounding lands are in public ownership, or land use is limited to conservation/preservation; **2)** some but not all site and surrounding lands are in public ownership, or protected by easement ; **3)** site and surrounding lands are in not public ownership, nor protected by easement.

Additional Comments on Land Protection _____

Site Disturbance

Circle Appropriate Category: **1)** less than 10% wetland/water body recent land clearance or disturbance; **2)** 10 to 30% of wetland/water body is affected by recent land disturbance; **3)** 30 to 60% of wetland/water body is affected by recent land disturbance; **4)** greater than 60% of wetland/water body is affected by recent land disturbance.

Circle Appropriate Category: **1)** less than 10% uplands adjacent wetland/water body affected by recent land clearance or disturbance; **2)** 10 to 30% of upland is affected by recent land disturbance; **3)** 30 to 60% of upland is affected by recent land disturbance; **4)** greater than 60% of upland is affected by recent land disturbance.

Additional Comments on Land Disturbance_____

Drainage Alteration

Are significant drainage features present on the site?_No___ If yes, describe:_____
_____

Are there significant drainage features on lands bordering the wetland/water body?___No_____ If yes, describe:_____
photo's_____

Additional Comments on Drainage _____

Wetland Assessment Field Form--SJRWMD Constraint Wetland Project

PROJECT: Lake Lucy **SJRWMD SITE ID:** #136 **COUNTY:** Orange

OTHER LOCATION NOTES:

PERSONNEL : Bill Dunn and Bob Fewster **DATE**: 8/24/05 **TIME:** 10:25

GPS COORDINATES: Latitude : N 28 34.346 **Longitude:** W 81 29.827

PHOTOGRAPHY

Roll: _____ Photo Frame #s: pan of 6

Description of photo(s):

WATER LEVEL:

Water Depth: w/in 0.5' of highest water Staff Gage or Piezometer Level (if present): ___

VEGETATION

Major Vegetation Zones Present in Wetland or Water Body: ____forested, __X__shrub scrub, __X___marsh, ___X___aquatic, _____pond, __X____lake, _____other (list):

HERBACEOUS GROUNDCOVER (% cover of OBL and/or FACW species to nearest 10%)

Zone 1: Composition: _____ **Zone 2: Composition**: _____lit zone

Dominant Groundcover Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1:_____ Zone 2:_____

Total % Groundcover: 100% in littoral zone Total % Cover _____

Species/1/2/3/4/5: Cattail – scattered dense stands _____

Species/1/2/3/4/5: Maidencane _____

Species/1/2/3/4/5: Sagittaria _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Groundcover Species Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal groundcover zonation; 2) Somewhat abnormal zonation – some signs of abnormal groundcover zonation mainly limited to the wetland edge; 3) Normal groundcover zonation.

Additional Comments on Groundcover _____

NUISANCE/WEEDY GROUNDCOVER

Composition--Circle the appropriate category: 1) > 50% of all groundcover species cover is weeds; 2) > 10% and < 50% of all groundcover species cover is weeds (either dispersed throughout wetland or in dense localized patches); 3)< 10% of all groundcover species cover is weeds or weeds are absent.

Additional Comments on Weedy Species _____

SHRUB—isolated patches

Composition _____ % cover OBL and/or FACW shrub species to nearest 10%

Dominant Shrub Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1:_____ Zone 2:_____

Total % Shrub cover:_____ Total % Cover_____

Species/1/2/3/4/5: Button Bush scattered, isolated small stands _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Shrub and Small Tree Species Zonation--Circle the appropriate category: 1) Abnormal zonation – many signs of abnormal shrub and tree zonation; 2) Somewhat abnormal zonation -some signs of abnormal shrub and tree zonation mainly limited to the wetland edge; 3) Normal shrub and tree zonation.

Additional Comments on Shrubs_____

WEEDY SHRUB

Composition --Circle the appropriate category: 1) > 50% of all shrub species cover is weeds; 2) > 10% and < 50% of all shrub species cover is (either dispersed throughout the wetland or in dense localized patches); 3) < 10% of all shrub species cover is weeds or weeds are absent.

Additional Comments on Weedy Shrubs_____

CANOPY (TREE)

Dominant Canopy Species Cover Classes 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Canopy Cover: _____ Total % Cover _____

Species/1/2/3/4/5: Willow scattered, isolated in littoral fringe _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Tree Zonation--Circle the appropriate category: 1) Abnormal zonation – multiple signs of abnormal distribution and cover; 2) Somewhat abnormal zonation with moderately abnormal distribution and cover; 3) Normal zonation with normal distribution and cover.

Additional Comments on Tree Species_____

AQUATIC—patches scattered along littoral fringe

Dominant Aquatic Species % Cover Categories: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Aquatic Plant Cover:_____ Total % Cover_____

Species/1/2/3/4/5: Nymphaea on lake 15-20% _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Aquatic Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal plant zonation; 2) Somewhat abnormal zonation - some signs of abnormal zonation; 3) Normal aquatic plant zonation

Additional Comments on Aquatic Species: _____

PLANT COMMUNITY HEALTH

Does community show unusual signs of stress? No. **Visually estimate % of wetland zone exhibiting signs of stress;**_____

Type of stress observed (e.g., dead or dying plants, discolored foliage, wilted or rolled leaves, premature leaf fall or senescence, etc.):_____

Does stress appear moisture related, or is there sign of disease or insect injury? _____

Overall Condition of Plant Community is:

Circle Appropriate Category: **1)** Plants are dead or dying; **2)** poor vigor with obvious decline (foliage discolored, wilted, premature leaf fall) ; **3)** fair vigor, some signs of stress or decline; **4)** medium vigor, some yellow-green foliage, or signs of leaf wilt or leaf curling; **5)** appearance good, foliage green but foliage thin, less than normal growth for the season; **6)** excellent vigor, foliage green in color, normal growth for the season.

Additional Comments on Health: _____

HYDIC SOILS

Look for signs of subsidence, oxidation or abnormal desiccation and select the category which best describes the current conditions of the wetland soils. This assessment may not be applicable (NA) if site is inundated.

Circle Appropriate Category: **1)** Substantial subsidence/oxidation; **2)** Moderate subsidence/oxidation; **3)** Little or no evidence of subsidence/oxidation

Circle Appropriate Soil Condition: **1)** Inundated, **2)** Saturated, **3)** Moist, **4)** Dry

Additional Comments on Soil_____

_____

HYDROLOGY

Current Water Level Indicators (e.g., mosses, lichens, stains)

Estimated depth of water relative to high water marks or indicators:_____; describe type of indicator:_____

Circle the Appropriate Category: **1)** None of these indicators are present or indicators are at ground level; **2)** Indicators present; however, indistinct or abnormally low in comparison to the historic normal pool; **3)** Indicators are distinct and at the appropriate level for the season.

Additional Comments on Hydrology water levels up significantly from previous visits

_____

WILDLIFE AND LISTED SPECIES

Listed Flora and Fauna Observed (Include activity information for fauna)

Wetland-Dependent Fauna Observed:

Activity codes (M = mating, F = foraging, FT = flyover/traveling; N = nesting, OT = other)

Observation codes (O = observed, S = sign [scat, tracks, call or other signs of presence])

GENERAL SITE DESCRIPTION CATEGORIES

Habitat Gradient

Circle Appropriate Category: **1)** full habitat gradient present from aquatic/wetland up gradient to native upland habitat; **2)** native upland habitat is present along 50-75% of perimeter; **3)** native upland habitat is present along 25-50% of perimeter; **4)** native upland habitat is present along less than 25% of perimeter.

Additional Comments on Habitat Gradient ___**mostly lawns bordering**_____

Habitat Quality

Circle Appropriate Category: **1)** habitats present are in relatively natural condition in terms of community structure and plant species composition; **2)** habitats are in degraded condition in terms of community structure and plant species composition ; **3)** habitats are in severely degraded condition in terms of community structure and plant species composition.

Additional Comments on Habitat Quality _**excluding uplands**_____

Hydrology and Landscape Position

Circle Appropriate Category: **1)** wetland/aquatic system is isolated, with no regular surface water inflow or outflow; **2)** system has surface water inflow or outflow only at high water condition; **3)** system is flow-through with surface water inflow and outflow.

Additional Comments on Landscape Position: _____

Storm Water Inflows and Outflows

Circle Appropriate Category: **1)** no significant adverse effects to habitat, hydrologic regime, or water quality due to inflow of stormwater system; **2)** habitat conditions are generally good, but adverse effects to habitat, hydrologic regime, or water quality are evident due to inflow stormwater inflows; **3))** habitat conditions are degraded by adverse effects of stormwater inflows.

Additional Comments on Surface Water _____

Shoreline Development

Circle Appropriate Category: **1)** less than 10% **of** shoreline/perimeter is developed; **2)** 10 to 30% of shoreline/perimeter is developed; **3)** 30 to 60% of shoreline/perimeter is developed; **4)** greater than 60% of shoreline/perimeter is developed.

Additional Comments on Shoreline: ___**roads on 3 sides, Good Homes Road, Silver Star Blvd.**_____

Land Protection

Circle Appropriate Category: **1)** site and surrounding lands are in public ownership, or land use is limited to conservation/preservation; **2)** some but not all site and surrounding lands are in public ownership, or protected by easement ; **3)** site and surrounding lands are in not public ownership, nor protected by easement.

Additional Comments on Land Protection _____**none**_____

Site Disturbance

Circle Appropriate Category: **1)** less than 10% wetland/water body recent land clearance or disturbance; **2)** 10 to 30% of wetland/water body is affected by recent land disturbance; **3)** 30 to 60% of wetland/water body is affected by recent land disturbance; **4)** greater than 60% of wetland/water body is affected by recent land disturbance.

Circle Appropriate Category: **1)** less than 10% uplands adjacent wetland/water body affected by recent land clearance or disturbance; **2)** 10 to 30% of upland is affected by recent land disturbance; **3)** 30 to 60% of upland is affected by recent land disturbance; **4)** greater than 60% of upland is affected by recent land disturbance.

Additional Comments on Land Disturbance____no recent_____

Drainage Alteration

Are significant drainage features present on the site?__no__ If yes, describe:_____

_____

Are there significant drainage features on lands bordering the wetland/water body?__no_____ If yes, describe:_____

photo's_____

Additional Comments on Drainage _____closed system_____

Wetland Assessment Field Form--SJRWMD Constraint Wetland Project

PROJECT: Lake Como **SJRWMD SITE ID:** #143 **COUNTY:** Orange

OTHER LOCATION NOTES: Lake Como Park off of Bumby Road

PERSONNEL : Bill Dunn and Bob Fewster **DATE**: 8/24/05 **TIME:** 9:55

GPS COORDINATES: Latitude : **N 28 32.171** **Longitude:** **W 81 21.147**

PHOTOGRAPHY

Roll: _____ Photo Frame #s photo of sign (1), pan of lake (4)

Description of photo(s):

WATER LEVEL

Water Depth: _____ Staff Gage or Piezometer Level (if present): **91.5**

VEGETATION—lake surrounded by grassed parkland

Major Vegetation Zones Present in Wetland or Water Body: ____forested, ____shrub scrub, ___marsh, _____aquatic, __X____pond, ___X__lake, _____other (list):____border of grass

HERBACEOUS GROUNDCOVER (% cover of OBL and/or FACW species to nearest 10%)—**No significant marsh areas**

Zone 1: Composition: _____ **Zone 2: Composition**: _____

Dominant Groundcover Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1:_80+% cover_____ Zone 2:_____

Total % Groundcover:_____ Total % Cover _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Groundcover Species Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal groundcover zonation; 2) Somewhat abnormal zonation – some signs of abnormal groundcover zonation mainly limited to the wetland edge; 3) Normal groundcover zonation.

Additional Comments on Groundcover _____

NUISANCE/WEEDY GROUNDCOVER

Composition--Circle the appropriate category: 1) > 50% of all groundcover species cover is weeds; 2) > 10% and < 50% of all groundcover species cover is weeds (either dispersed throughout wetland or in dense localized patches); 3)< 10% of all groundcover species cover is weeds or weeds are absent.

Additional Comments on Weedy Species _____

SHRUB-- No significant shrub areas

Composition _____ % cover OBL and/or FACW shrub species to nearest 10%

Dominant Shrub Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: _____ Zone 2:_____

Total % Shrub cover:_____ Total % Cover_____

Species/1/2/3/4/5: no shrub_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Shrub and Small Tree Species Zonation--Circle the appropriate category: 1) Abnormal zonation – many signs of abnormal shrub and tree zonation; 2) Somewhat abnormal zonation -some signs of abnormal shrub and tree zonation mainly limited to the wetland edge; 3) Normal shrub and tree zonation.

Additional Comments on Shrubs_____ _____

WEEDY SHRUB

Composition --Circle the appropriate category: 1) > 50% of all shrub species cover is weeds; 2) > 10% and < 50% of all shrub species cover is (either dispersed throughout the wetland or in dense localized patches); 3) < 10% of all shrub species cover is weeds or weeds are absent.

Additional Comments on Weedy Shrubs_____

CANOPY (TREE)-- No significant forested areas

Dominant Canopy Species Cover Classes 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Canopy Cover: _____ Total % Cover _____

Species/1/2/3/4/5: __Taxodium ascendens_____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Tree Zonation--Circle the appropriate category: 1) Abnormal zonation – multiple signs of abnormal distribution and cover; 2) Somewhat abnormal zonation with moderately abnormal distribution and cover; 3) Normal zonation with normal distribution and cover.

Additional Comments on Tree Species: ___scattered fringe of cypress, see photo_____

AQUATIC

Dominant Aquatic Species % Cover Categories: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Aquatic Plant _____ Total % Cover_____

Species/1/2/3/4/5: __**little to none**_____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Aquatic Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal plant zonation; 2) Somewhat abnormal zonation - some signs of abnormal zonation; 3) Normal aquatic plant zonation

Additional Comments on Aquatic Species: _____Looks like herbicides are applied to control aquatic macrophytes_____

PLANT COMMUNITY HEALTH…….little to no vegetation, artificial conditions

Does community show unusual signs of stress?_____. **Visually estimate % of wetland zone exhibiting signs of stress;**_____

Type of stress observed (e.g., dead or dying plants, discolored foliage, wilted or rolled leaves, premature leaf fall or senescence, etc.):_____

Does stress appear moisture related, or is there sign of disease or insect injury? _____

Overall Condition of Plant Community is:

Circle Appropriate Category: **1)** Plants are dead or dying; **2)** poor vigor with obvious decline (foliage discolored, wilted, premature leaf fall) ; **3)** fair vigor, some signs of stress or decline; **4)** medium vigor, some yellow-green foliage, or signs of leaf wilt or leaf curling; **5)** appearance good, foliage green but foliage thin, less than normal growth for the season; **6)** excellent vigor, foliage green in color, normal growth for the season.

Additional Comments on Health _____

HYDIC SOILS

Look for signs of subsidence, oxidation or abnormal desiccation and select the category which best describes the current conditions of the wetland soils. This assessment may not be applicable (NA) if site is inundated.

Circle Appropriate Category: **1)** Substantial subsidence/oxidation; **2)** Moderate subsidence/oxidation; **3)** Little or no evidence of subsidence/oxidation

Circle Appropriate Soil Condition: **1)** Inundated, **2)** Saturated, **3)** Moist, **4)** Dry

Additional Comments on Soil_____

_____

HYDROLOGY

Current Water Level Indicators (e.g., mosses, lichens, stains)

Estimated depth of water relative to high water marks or indicators:_____; describe type of indicator:_____

Circle the Appropriate Category: **1)** None of these indicators are present or indicators are at ground level; **2)** Indicators present; however, indistinct or abnormally low in comparison to the historic normal pool; **3)** Indicators are distinct and at the appropriate level for the season.

Additional Comments on Hydrology water marks or pipes and staff @ + 0.5' of stain marks

WILDLIFE AND LISTED SPECIES

Listed Flora and Fauna Observed (Include activity information for fauna)

Wetland-Dependent Fauna Observed:

Activity codes (M = mating, F = foraging, FT = flyover/traveling; N = nesting, OT = other)

Observation codes (O = observed, S = sign [scat, tracks, call or other signs of presence])

GENERAL SITE DESCRIPTION CATEGORIES

Habitat Gradient

Circle Appropriate Category: **1)** full habitat gradient present from aquatic/wetland up gradient to native upland habitat; **2)** native upland habitat is present along 50-75% of perimeter; **3)** native upland habitat is present along 25-50% of perimeter; **4)** native upland habitat is present along less than 25% of perimeter.

Additional Comments on Habitat Gradient **urban park with grass**

Habitat Quality…….almost no native habitat

Circle Appropriate Category: **1)** habitats present are in relatively natural condition in terms of community structure and plant species composition; **2)** habitats are in degraded condition in terms of community structure and plant species composition ; **3)** habitats are in severely degraded condition in terms of community structure and plant species composition.

Additional Comments on Habitat Quality **urban park, vegetation ,managed, altered**

Hydrology and Landscape Position

Circle Appropriate Category: **1)** wetland/aquatic system is isolated, with no regular surface water inflow or outflow; **2)** system has surface water inflow or outflow only at high water condition; **3)** system is flow-through with surface water inflow and outflow.

Additional Comments on Landscape Position: **stormwater inflow**

Storm Water Inflows and Outflows

Circle Appropriate Category: **1)** no significant adverse effects to habitat, hydrologic regime, or water quality due to inflow of stormwater system; **2)** habitat conditions are generally good, but adverse effects to habitat, hydrologic regime, or water quality are evident due to inflow stormwater inflows; **3))** habitat conditions are degraded by adverse effects of stormwater inflows.

Additional Comments on Surface Water **aerators in lake**

Shoreline Development

Circle Appropriate Category: **1)** less than 10% **of** shoreline/perimeter is developed; **2)** 10 to 30% of shoreline/perimeter is developed; **3)** 30 to 60% of shoreline/perimeter is developed; **4)** greater than 60% of shoreline/perimeter is developed.

Additional Comments on Shoreline **100% in park bordered by residential**

Land Protection

Circle Appropriate Category: **1)** site and surrounding lands are in public ownership, or land use is limited to conservation/preservation; **2)** some but not all site and surrounding lands are in public ownership, or protected by easement ; **3)** site and surrounding lands are in not public ownership, nor protected by easement.

Additional Comments on Land Protection **park surrounds lake**

Site Disturbance

Circle Appropriate Category: **1)** less than 10% wetland/water body recent land clearance or disturbance; **2)** 10 to 30% of wetland/water body is affected by recent land disturbance; **3)** 30 to 60% of wetland/water body is affected by recent land disturbance; **4)** greater than 60% of wetland/water body is affected by recent land disturbance.

Circle Appropriate Category: **1)** less than 10% uplands adjacent wetland/water body affected by recent land clearance or disturbance; **2)** 10 to 30% of upland is affected by recent land disturbance; **3)** 30 to 60% of upland is affected by recent land disturbance; **4)** greater than 60% of upland is affected by recent land disturbance.

Additional Comments on Land Disturbance: _____

Drainage Alteration

Are significant drainage features present on the site? No If yes, describe:_____

_____

Are there significant drainage features on lands bordering the wetland/water body? No _____ If yes, describe:_____

_____

Additional Comments on Drainage _____

Wetland Assessment Field Form--SJRWMD Constraint Wetland Project

PROJECT: Wetland near Lake Speer **SJRWMD SITE ID:** #158 **COUNTY:** Orange

OTHER LOCATION NOTES:entered from edge of subdivision under construction due E, logging road runs E-W around top of lake and this wetland.

PERSONNEL : Bill Dunn and Bob Fewster **DATE**: 8/24/05 **TIME:** 11:20

GPS COORDINATES: Latitude : N 28 29.049 **Longitude:** W 81 36.248

PHOTOGRAPHY

Roll: _____ Photo Frame #s: 2 from outside Marsh

Description of photo(s): pan

WATER LEVEL

Water Depth: _____ Staff Gage or Piezometer Level (if present): _____

VEGETATION—wet prairie

Major Vegetation Zones Present in Wetland or Water Body: ____forested, ____shrub scrub, _X__marsh, _____aquatic, _____pond, _____lake, _____other (list):_____

HERBACEOUS GROUNDCOVER (% cover of OBL and/or FACW species to nearest 10%)

Zone 1: Composition: _____ **Zone 2: Composition**: _____

Dominant Groundcover Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: 80+% cover Zone 2:_____

Total % Groundcover:_____ Total % Cover _____

Species/1/2/3/4/5: Red root 5% Nymphaea 5%

Species/1/2/3/4/5: Cladium 15% Proserpinaca 1%

Species/1/2/3/4/5: Maidencane 60% Xyris 1%

Species/1/2/3/4/5: Rhynchospora 5% _____

Species/1/2/3/4/5: Rhexia 5% _____

Groundcover Species Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal groundcover zonation; 2) Somewhat abnormal zonation – some signs of abnormal groundcover zonation mainly limited to the wetland edge; 3) Normal groundcover zonation.

Additional Comments on Groundcover ____stand of Cladium in center

NUISANCE/WEEDY GROUNDCOVER

Composition--Circle the appropriate category: 1) > 50% of all groundcover species cover is weeds; 2) > 10% and < 50% of all groundcover species cover is weeds (either dispersed throughout wetland or in dense localized patches); 3)< 10% of all groundcover species cover is weeds or weeds are absent.

Additional Comments on Weedy Species _____

SHRUB…….narrow band of wax myrtle

Composition _____ % cover OBL and/or FACW shrub species to nearest 10%

Dominant Shrub Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: _____ Zone 2:_____

Total % Shrub cover:_____ Total % Cover_____

Species/1/2/3/4/5: button bush scattered _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Shrub and Small Tree Species Zonation--Circle the appropriate category: 1) Abnormal zonation – many signs of abnormal shrub and tree zonation; 2) Somewhat abnormal zonation -some signs of abnormal shrub and tree zonation mainly limited to the wetland edge; 3) Normal shrub and tree zonation.

Additional Comments on Shrubs_____ _____

WEEDY SHRUB

Composition --Circle the appropriate category: 1) > 50% of all shrub species cover is weeds; 2) > 10% and < 50% of all shrub species cover is (either dispersed throughout the wetland or in dense localized patches); 3) < 10% of all shrub species cover is weeds or weeds are absent.

Additional Comments on Weedy Shrubs_____

CANOPY (TREE)……. N/A

Dominant Canopy Species Cover Classes 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Canopy Cover: _____ Total % Cover _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Tree Zonation--Circle the appropriate category: 1) Abnormal zonation – multiple signs of abnormal distribution and cover; 2) Somewhat abnormal zonation with moderately abnormal distribution and cover; 3) Normal zonation with normal distribution and cover.

Additional Comments on Tree Species_____

AQUATIC.....N/A

Dominant Aquatic Species % Cover Categories: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Aquatic Plant _____ Total % Cover_____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Aquatic Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal plant zonation; 2) Somewhat abnormal zonation - some signs of abnormal zonation; 3) Normal aquatic plant zonation

Additional Comments on Aquatic Species:

_____

PLANT COMMUNITY HEALTH

Does community show unusual signs of stress? No . **Visually estimate % of wetland zone exhibiting signs of stress;**_____

Type of stress observed (e.g., dead or dying plants, discolored foliage, wilted or rolled leaves, premature leaf fall or senescence, etc.):_____

Does stress appear moisture related, or is there sign of disease or insect injury? _____

Overall Condition of Plant Community is:

Circle Appropriate Category: **1)** Plants are dead or dying; **2)** poor vigor with obvious decline (foliage discolored, wilted, premature leaf fall) ; **3)** fair vigor, some signs of stress or decline; **4)** medium vigor, some yellow-green foliage, or signs of leaf wilt or leaf curling; **5)** appearance good, foliage green but foliage thin, less than normal growth for the season; **6)** excellent vigor, foliage green in color, normal growth for the season.

Additional Comments on Health _____**excellent**_____

HYDIC SOILS

Look for signs of subsidence, oxidation or abnormal desiccation and select the category which best describes the current conditions of the wetland soils. This assessment may not be applicable (NA) if site is inundated.

Circle Appropriate Category: **1)** Substantial subsidence/oxidation; **2)** Moderate subsidence/oxidation; **3)** Little or no evidence of subsidence/oxidation

Circle Appropriate Soil Condition: **1)** Inundated, **2)** Saturated, **3)** Moist, **4)** Dry

Additional Comments on Soil_____No evidence_____

_____

HYDROLOGY

Current Water Level Indicators (e.g., mosses, lichens, stains)

Estimated depth of water relative to high water marks or indicators:_____; describe type of indicator:_____

Circle the Appropriate Category: **1)** None of these indicators are present or indicators are at ground level; **2)** Indicators present; however, indistinct or abnormally low in comparison to the historic normal pool; **3)** Indicators are distinct and at the appropriate level for the season.

Additional Comments on Hydrology___Water level high, young encroaching pines in the water now; lichen line @ +0.25_____

WILDLIFE AND LISTED SPECIES

Listed Flora and Fauna Observed (Include activity information for fauna)

Wetland-Dependent Fauna Observed:

Activity codes (M = mating, F = foraging, FT = flyover/traveling; N = nesting, OT = other)

Observation codes (O = observed, S = sign [scat, tracks, call or other signs of presence])

GENERAL SITE DESCRIPTION CATEGORIES

Habitat Gradient

Circle Appropriate Category: **1)** full habitat gradient present from aquatic/wetland up gradient to native upland habitat; **2)** native upland habitat is present along 50-75% of perimeter; **3)** native upland habitat is present along 25-50% of perimeter; **4)** native upland habitat is present along less than 25% of perimeter.

Additional Comments on Habitat Gradient __**intact now, but development coming**_____

Habitat Quality

Circle Appropriate Category: **1)** habitats present are in relatively natural condition in terms of community structure and plant species composition; **2)** habitats are in degraded condition in terms of community structure and plant species composition ; **3)** habitats are in severely degraded condition in terms of community structure and plant species composition.

Additional Comments on Habitat Quality ____**except logging in flatwoods on North**_____

Hydrology and Landscape Position

Circle Appropriate Category: **1)** wetland/aquatic system is isolated, with no regular surface water inflow or outflow; **2)** system has surface water inflow or outflow only at high water condition; **3)** system is flow-through with surface water inflow and outflow.

Additional Comments on Landscape Position: _____

Storm Water Inflows and Outflows

Circle Appropriate Category: **1)** no significant adverse effects to habitat, hydrologic regime, or water quality due to inflow of stormwater system; **2)** habitat conditions are generally good, but adverse effects to habitat, hydrologic regime, or water quality are evident due to inflow stormwater inflows; **3))** habitat conditions are degraded by adverse effects of stormwater inflows.

Additional Comments on Surface Water __**none yet**_____

Shoreline Development

Circle Appropriate Category: **1)** less than 10% **of** shoreline/perimeter is developed; **2)** 10 to 30% of shoreline/perimeter is developed; **3)** 30 to 60% of shoreline/perimeter is developed; **4)** greater than 60% of shoreline/perimeter is developed.

Additional Comments on Shoreline 0%_____

Land Protection

Circle Appropriate Category: **1)** site and surrounding lands are in public ownership, or land use is limited to conservation/preservation; **2)** some but not all site and surrounding lands are in public ownership, or protected by easement ; **3)** site and surrounding lands are in not public ownership, nor protected by easement.

Additional Comments on Land Protection ____**none**_____

Site Disturbance

Circle Appropriate Category: **1)** less than 10% wetland/water body recent land clearance or disturbance; **2)** 10 to 30% of wetland/water body is affected by recent land disturbance; **3)** 30 to 60% of wetland/water body is affected by recent land disturbance; **4)** greater than 60% of wetland/water body is affected by recent land disturbance.

Circle Appropriate Category: **1)** less than 10% uplands adjacent wetland/water body affected by recent land clearance or disturbance; **2)** 10 to 30% of upland is affected by recent land disturbance; **3)** 30 to 60% of upland is affected by recent land disturbance; **4)** greater than 60% of upland is affected by recent land disturbance.

Additional Comments on Land Disturbance: development coming_____

Drainage Alteration

Are significant drainage features present on the site?__No___ If yes, describe:_____

_____

Are there significant drainage features on lands bordering the wetland/water body?_No_____ If yes, describe:_____

_____

Additional Comments on Drainage _____

Wetland Assessment Field Form--SJRWMD Constraint Wetland Project

PROJECT: Sawgrass Lake **SJRWMD SITE ID:** #170 **COUNTY:** Lake

OTHER LOCATION NOTES: **@ end of Shell Pond Rd**

PERSONNEL : Bill Dunn and Bob Fewster **DATE**: 8/24/05 **TIME:** 14:20

GPS COORDINATES: Latitude : **N 28 26.214** **Longitude:** **W 81 41.128**

PHOTOGRAPHY

Roll: _____ Photo Frame #s: pan of 6, same location as visited previously w/Lorne Malo; Conserv area

Description of photo(s):

WATER LEVEL

Water Depth: _____ Staff Gage or Piezometer Level (if present): _____

VEGETATIONcomplex mosaic of open water, wetlands and floating plants

Major Vegetation Zones Present in Wetland or Water Body: X forested, ____shrub scrub, X marsh, X aquatic, _____pond, X lake, _____other (list):_____

HERBACEOUS GROUNDCOVER (% cover of OBL and/or FACW species to nearest 10%)

Zone 1: Composition: _____ **Zone 2: Composition**: _____

Dominant Groundcover Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: 20 – 25% Zone 2:_____

Total % Groundcover: narrow littoral fringe Total % Cover _____

Species/1/2/3/4/5: Torpedo grass _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Groundcover Species Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal groundcover zonation; 2) Somewhat abnormal zonation – some signs of abnormal groundcover zonation mainly limited to the wetland edge; 3) Normal groundcover zonation.

Additional Comments on Groundcover _____

NUISANCE/WEEDY GROUNDCOVER

Composition--Circle the appropriate category: 1) > 50% of all groundcover species cover is weeds; 2) > 10% and < 50% of all groundcover species cover is weeds (either dispersed throughout wetland or in dense localized patches); 3)< 10% of all groundcover species cover is weeds or weeds are absent.

Additional Comments on Weedy Species _____

SHRUB

Composition _____ % cover OBL and/or FACW shrub species to nearest 10%

Dominant Shrub Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: 5% Zone 2:_____

Total % Shrub cover: scattered shrub Total % Cover_____

Species/1/2/3/4/5: Primrose willow _____

Species/1/2/3/4/5: Willow _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Shrub and Small Tree Species Zonation--Circle the appropriate category: 1) Abnormal zonation – many signs of abnormal shrub and tree zonation; 2) Somewhat abnormal zonation -some signs of abnormal shrub and tree zonation mainly limited to the wetland edge; 3) Normal shrub and tree zonation.

Additional Comments on Shrubs_____ _____

WEEDY SHRUB

Composition --Circle the appropriate category: 1) > 50% of all shrub species cover is weeds; 2) > 10% and < 50% of all shrub species cover is (either dispersed throughout the wetland or in dense localized patches); 3) < 10% of all shrub species cover is weeds or weeds are absent.

Additional Comments on Weedy Shrubs_____

CANOPY (TREE)

Dominant Canopy Species Cover Classes 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Canopy Cover: narrow fringe_____ Total % Cover _____

Species/1/2/3/4/5: Bald cypress_____ _____

Species/1/2/3/4/5: Maple_____ _____

Species/1/2/3/4/5: Willow_____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Tree Zonation--Circle the appropriate category: 1) Abnormal zonation – multiple signs of abnormal distribution and cover; 2) Somewhat abnormal zonation with moderately abnormal distribution and cover; 3) Normal zonation with normal distribution and cover.

Additional Comments on Tree Species_____

AQUATIC.....extensive floating mats

Dominant Aquatic Species % Cover Categories: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Aquatic Plant Cover: floating mats of Hyacinth_____ Total % Cover_____

Species/1/2/3/4/5: ____Hyacinth_____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Aquatic Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal plant zonation; 2) Somewhat abnormal zonation - some signs of abnormal zonation; 3) Normal aquatic plant zonation

Additional Comments on Aquatic Species:

Pasture_____

PLANT COMMUNITY HEALTH

Does community show unusual signs of stress? No . **Visually estimate % of wetland zone exhibiting signs of stress;**_____

Type of stress observed (e.g., dead or dying plants, discolored foliage, wilted or rolled leaves, premature leaf fall or senescence, etc.):_____

Does stress appear moisture related, or is there sign of disease or insect injury? _____

Overall Condition of Plant Community is:

Circle Appropriate Category: **1)** Plants are dead or dying; **2)** poor vigor with obvious decline (foliage discolored, wilted, premature leaf fall) ; **3)** fair vigor, some signs of stress or decline; **4)** medium vigor, some yellow-green foliage, or signs of leaf wilt or leaf curling; **5)** appearance good, foliage green but foliage thin, less than normal growth for the season; **6)** excellent vigor, foliage green in color, normal growth for the season.

Additional Comments on Health _____

HYDIC SOILS

Look for signs of subsidence, oxidation or abnormal desiccation and select the category which best describes the current conditions of the wetland soils. This assessment may not be applicable (NA) if site is inundated.

Circle Appropriate Category: **1)** Substantial subsidence/oxidation; **2)** Moderate subsidence/oxidation; **3)** Little or no evidence of subsidence/oxidation

Circle Appropriate Soil Condition: **1)** Inundated, **2)** Saturated, **3)** Moist, **4)** Dry

Additional Comments on Soil_____

_____

HYDROLOGY

Current Water Level Indicators (e.g., mosses, lichens, stains)

Estimated depth of water relative to high water marks or indicators:_____; describe type of indicator:_____

Circle the Appropriate Category: **1)** None of these indicators are present or indicators are at ground level; **2)** Indicators present; however, indistinct or abnormally low in comparison to the historic normal pool; **3)** Indicators are distinct and at the appropriate level for the season.

Additional Comments on Hydrology_____water up to grassed edge of groves (see photo) within 0.5-1.0' HW; lake is adjacent to CONSERV irrigated groves_____

WILDLIFE AND LISTED SPECIES

Listed Flora and Fauna Observed (Include activity information for fauna)

Wetland-Dependent Fauna Observed:

Activity codes (M = mating, F = foraging, FT = flyover/traveling; N = nesting, OT = other)

Observation codes (O = observed, S = sign [scat, tracks, call or other signs of presence])

GENERAL SITE DESCRIPTION CATEGORIES

Habitat Gradient

Circle Appropriate Category: **1)** full habitat gradient present from aquatic/wetland up gradient to native upland habitat; **2)** native upland habitat is present along 50-75% of perimeter; **3)** native upland habitat is present along 25-50% of perimeter; **4)** native upland habitat is present along less than 25% of perimeter.

Additional Comments on Habitat Gradient ___**Groves adjacent at this location**_____

Habitat Quality

Circle Appropriate Category: **1)** habitats present are in relatively natural condition in terms of community structure and plant species composition; **2)** habitats are in degraded condition in terms of community structure and plant species composition ; **3)** habitats are in severely degraded condition in terms of community structure and plant species composition.

Additional Comments on Habitat Quality _____

Hydrology and Landscape Position

Circle Appropriate Category: **1)** wetland/aquatic system is isolated, with no regular surface water inflow or outflow; **2)** system has surface water inflow or outflow only at high water condition; **3)** system is flow-through with surface water inflow and outflow.

Additional Comments on Landscape Position: **check grove irrigation area**_____

Storm Water Inflows and Outflows

Circle Appropriate Category: **1)** no significant adverse effects to habitat, hydrologic regime, or water quality due to inflow of stormwater system; **2)** habitat conditions are generally good, but adverse effects to habitat, hydrologic regime, or water quality are evident due to inflow stormwater inflows; **3))** habitat conditions are degraded by adverse effects of stormwater inflows.

Additional Comments on Surface Water _____

Shoreline Development

Circle Appropriate Category: **1)** less than 10% **of** shoreline/perimeter is developed; **2)** 10 to 30% of shoreline/perimeter is developed; **3)** 30 to 60% of shoreline/perimeter is developed; **4)** greater than 60% of shoreline/perimeter is developed.

Additional Comments on Shoreline groves_____

Land Protection

Circle Appropriate Category: **1)** site and surrounding lands are in public ownership, or land use is limited to conservation/preservation; **2)** some but not all site and surrounding lands are in public ownership, or protected by easement ; **3)** site and surrounding lands are in not public ownership, nor protected by easement.

Additional Comments on Land Protection _____

Site Disturbance

Circle Appropriate Category: **1)** less than 10% wetland/water body recent land clearance or disturbance; **2)** 10 to 30% of wetland/water body is affected by recent land disturbance; **3)** 30 to 60% of wetland/water body is affected by recent land disturbance; **4)** greater than 60% of wetland/water body is affected by recent land disturbance.

Circle Appropriate Category: **1)** less than 10% uplands adjacent wetland/water body affected by recent land clearance or disturbance; **2)** 10 to 30% of upland is affected by recent land disturbance; **3)** 30 to 60% of upland is affected by recent land disturbance; **4)** greater than 60% of upland is affected by recent land disturbance.

Additional Comments on Land Disturbance_____0%_____

Drainage Alteration

Are significant drainage features present on the site?_No____ If yes, describe:_____

_____

Are there significant drainage features on lands bordering the wetland/water body?_No_____ If yes, describe:_____

_____

Additional Comments on Drainage _____

Wetland Assessment Field Form--SJRWMD Constraint Wetland Project

PROJECT: Boggy Marsh **SJRWMD SITE ID:** #180 **COUNTY:** Lake

OTHER LOCATION NOTES

PERSONNEL : Bill Dunn and Bob Fewster **DATE**: 8/24/05 **TIME:** 13:48

GPS COORDINATES: Latitude : N 28 23.821 **Longitude:** W 81 41.845

PHOTOGRAPHY

Roll: _____ Photo Frame #s: staff (2) @ SJRWMD Staff Gage #1 datum @112.51 ft

Description of photo(s): pan 3-4 shots

WATER LEVEL

Water Depth: _____ Staff Gage or Piezometer Level (if present): 5.20 ft

VEGETATION ……complex mosaic of wetland and aquatic habitat

Major Vegetation Zones Present in Wetland or Water Body: X forested, X shrub scrub, X marsh, X aquatic, _____pond, _____lake, _____other (list):

HERBACEOUS GROUNDCOVER (% cover of OBL and/or FACW species to nearest 10%)

Zone 1: Composition: _____ **Zone 2: Composition**: _____

Dominant Groundcover Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: 20 – 25% Zone 2: _____

Total % Groundcover: _____ Total % Cover _____

Species/1/2/3/4/5: Saggittaria latifolia _____

Species/1/2/3/4/5: Sawgrass _____

Species/1/2/3/4/5: Maidencane _____

Species/1/2/3/4/5: Scirpus cubensis _____

Species/1/2/3/4/5: _____

Groundcover Species Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal groundcover zonation; 2) Somewhat abnormal zonation – some signs of abnormal groundcover zonation mainly limited to the wetland edge; 3) Normal groundcover zonation.

Additional Comments on Groundcover _____

NUISANCE/WEEDY GROUNDCOVER

Composition--Circle the appropriate category: 1) > 50% of all groundcover species cover is weeds; 2) > 10% and < 50% of all groundcover species cover is weeds (either dispersed throughout wetland or in dense localized patches); 3)< 10% of all groundcover species cover is weeds or weeds are absent.

Additional Comments on Weedy Species _____

SHRUB

Composition _____ % cover OBL and/or FACW shrub species to nearest 10%

Dominant Shrub Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: _____ Zone 2: _____

Total % Shrub cover: _____ Total % Cover _____

Species/1/2/3/4/5: Wax myrtle _____

Species/1/2/3/4/5: Ludwigia peruviana _____

Species/1/2/3/4/5: Buttonbush _____

Species/1/2/3/4/5: Hypericum fasciculatum _____

Shrub and Small Tree Species Zonation--Circle the appropriate category: 1) Abnormal zonation – many signs of abnormal shrub and tree zonation; 2) Somewhat abnormal zonation -some signs of abnormal shrub and tree zonation mainly limited to the wetland edge; 3) Normal shrub and tree zonation.

Additional Comments on Shrubs_____ _____

WEEDY SHRUB

Composition --Circle the appropriate category: 1) > 50% of all shrub species cover is weeds; 2) > 10% and < 50% of all shrub species cover is (either dispersed throughout the wetland or in dense localized patches); 3) < 10% of all shrub species cover is weeds or weeds are absent.

Additional Comments on Weedy Shrubs_____

CANOPY (TREE)

Dominant Canopy Species Cover Classes 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Canopy Cover: 80% + in tree islands Total % Cover _____

Species/1/2/3/4/5: Acer rubrum _____

Species/1/2/3/4/5: Ilex cassine _____

Species/1/2/3/4/5: Salix caroliniana _____

Species/1/2/3/4/5: Magnolia virginica _____

Species/1/2/3/4/5: _____ _____

Tree Zonation--Circle the appropriate category: 1) Abnormal zonation – multiple signs of abnormal distribution and cover; 2) Somewhat abnormal zonation with moderately abnormal distribution and cover; 3) Normal zonation with normal distribution and cover.

Additional Comments on Tree Species_____

AQUATIC.....None at this location

Dominant Aquatic Species % Cover Categories: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Aquatic Plant _____ Total % Cover_____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Aquatic Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal plant zonation; 2) Somewhat abnormal zonation - some signs of abnormal zonation; 3) Normal aquatic plant zonation

Additional Comments on Aquatic Species:

_____

PLANT COMMUNITY HEALTH

Does community show unusual signs of stress? No . **Visually estimate % of wetland zone exhibiting signs of stress;**_____

Type of stress observed (e.g., dead or dying plants, discolored foliage, wilted or rolled leaves, premature leaf fall or senescence, etc.):_____

Does stress appear moisture related, or is there sign of disease or insect injury? None

Overall Condition of Plant Community is:

Circle Appropriate Category: **1)** Plants are dead or dying; **2)** poor vigor with obvious decline (foliage discolored, wilted, premature leaf fall) ; **3)** fair vigor, some signs of stress or decline; **4)** medium vigor, some yellow-green foliage, or signs of leaf wilt or leaf curling; **5)** appearance good, foliage green but foliage thin, less than normal growth for the season; **6)** excellent vigor, foliage green in color, normal growth for the season.

Additional Comments on Health **some hurricane damage, some wax myrtles stressed by high water after evaluation**

HYDIC SOILS

Look for signs of subsidence, oxidation or abnormal desiccation and select the category which best describes the current conditions of the wetland soils. This assessment may not be applicable (NA) if site is inundated.

Circle Appropriate Category: **1)** Substantial subsidence/oxidation; **2)** Moderate subsidence/oxidation; **3)** Little or no evidence of subsidence/oxidation

Circle Appropriate Soil Condition: **1)** Inundated, **2)** Saturated, **3)** Moist, **4)** Dry

Additional Comments on Soil_____

_____

HYDROLOGY

Current Water Level Indicators (e.g., mosses, lichens, stains)

Estimated depth of water relative to high water marks or indicators: see comment below ; describe type of indicator: stain marks

Circle the Appropriate Category: **1)** None of these indicators are present or indicators are at ground level; **2)** Indicators present; however, indistinct or abnormally low in comparison to the historic normal pool; **3)** Indicators are distinct and at the appropriate level for the season.

Additional Comments on Hydrology Water is high within 1.0' of high stain marks on staff (@6.2')

WILDLIFE AND LISTED SPECIES

Listed Flora and Fauna Observed (Include activity information for fauna)

Wetland-Dependent Fauna Observed:

Activity codes (M = mating, F = foraging, FT = flyover/traveling; N = nesting, OT = other)

Observation codes (O = observed, S = sign [scat, tracks, call or other signs of presence])

GENERAL SITE DESCRIPTION CATEGORIES

Habitat Gradient…….grove, pasture, and residential areas surrounding

Circle Appropriate Category: **1)** full habitat gradient present from aquatic/wetland up gradient to native upland habitat; **2)** native upland habitat is present along 50-75% of perimeter; **3)** native upland habitat is present along 25-50% of perimeter; **4)** native upland habitat is present along less than 25% of perimeter.

Additional Comments on Habitat Gradient _____

Habitat Quality……..wetlands

Circle Appropriate Category: **1)** habitats present are in relatively natural condition in terms of community structure and plant species composition; **2)** habitats are in degraded condition in terms of community structure and plant species composition ; **3)** habitats are in severely degraded condition in terms of community structure and plant species composition.

Additional Comments on Habitat Quality ____**good natural mosaic**_____

Hydrology and Landscape Position

Circle Appropriate Category: **1)** wetland/aquatic system is isolated, with no regular surface water inflow or outflow; **2)** system has surface water inflow or outflow only at high water condition; **3)** system is flow-through with surface water inflow and outflow.

Additional Comments on Landscape Position: **head water but connected**_____

Storm Water Inflows and Outflows

Circle Appropriate Category: **1)** no significant adverse effects to habitat, hydrologic regime, or water quality due to inflow of stormwater system; **2)** habitat conditions are generally good, but adverse effects to habitat, hydrologic regime, or water quality are evident due to inflow stormwater inflows; **3))** habitat conditions are degraded by adverse effects of stormwater inflows.

Additional Comments on Surface Water ___**no effect**_____

Shoreline Development

Circle Appropriate Category: **1)** less than 10% **of** shoreline/perimeter is developed; **2)** 10 to 30% of shoreline/perimeter is developed; **3)** 30 to 60% of shoreline/perimeter is developed; **4)** greater than 60% of shoreline/perimeter is developed.

Additional Comments on Shoreline **groves, agricultural or residential**_____

Land Protection

Circle Appropriate Category: **1)** site and surrounding lands are in public ownership, or land use is limited to conservation/preservation; **2)** some but not all site and surrounding lands are in public ownership, or protected by easement ; **3)** site and surrounding lands are in not public ownership, nor protected by easement.

Additional Comments on Land Protection _____**does not appear to be**_____

Site Disturbance

Circle Appropriate Category: **1)** less than 10% wetland/water body recent land clearance or disturbance; **2)** 10 to 30% of wetland/water body is affected by recent land disturbance; **3)** 30 to 60% of wetland/water body is affected by recent land disturbance; **4)** greater than 60% of wetland/water body is affected by recent land disturbance.

Circle Appropriate Category: **1)** less than 10% uplands adjacent wetland/water body affected by recent land clearance or disturbance; **2)** 10 to 30% of upland is affected by recent land disturbance; **3)** 30 to 60% of upland is affected by recent land disturbance; **4)** greater than 60% of upland is affected by recent land disturbance.

Additional Comments on Land Disturbance_____0%_____

Drainage Alteration

Are significant drainage features present on the site?__**No**___ If yes, describe:_____

_____

Are there significant drainage features on lands bordering the wetland/water body?___**No**_____ If yes, describe:_____

_____

Additional Comments on Drainage _____

Wetland Assessment Field Form--SJRWMD Constraint Wetland Project

PROJECT: Lake Cecile wetland @ Ramada Inn on US 192 **SJRWMD SITE ID:** #186 **COUNTY:** Osceola

OTHER LOCATION NOTES:

PERSONNEL : Bill Dunn and Bob Fewster **DATE**: 8/10/05 **TIME:** 17:15

GPS COORDINATES: Latitude : N 28 19.879 **Longitude:** W 81 29.283

PHOTOGRAPHY

Roll: _____ Photo Frame #s 4 photos

Description of photo(s):

WATER LEVEL

Water Depth: _____ Staff Gage or Piezometer Level (if present): _____

VEGETATION

Major Vegetation Zones Present in Wetland or Water Body: X forested, X shrub scrub, X marsh, _____aquatic, _____pond, X lake, _____other (list): lake with dense emergent zones

HERBACEOUS GROUNDCOVER (% cover of OBL and/or FACW species to nearest 10%)

Zone 1: Composition: _____ **Zone 2: Composition**: _____

Dominant Groundcover Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1:_____ Zone 2:_____

Total % Groundcover: littoral areas, floating mats Total % Cover _____

Species/1/2/3/4/5: Scirpus _____

Species/1/2/3/4/5: Typha (floating mats) _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Groundcover Species Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal groundcover zonation; 2) Somewhat abnormal zonation – some signs of abnormal groundcover zonation mainly limited to the wetland edge; 3) Normal groundcover zonation.

Additional Comments on Groundcover _____

NUISANCE/WEEDY GROUNDCOVER

Composition--Circle the appropriate category: 1) > 50% of all groundcover species cover is weeds; 2) > 10% and < 50% of all groundcover species cover is weeds (either dispersed throughout wetland or in dense localized patches); 3)< 10% of all groundcover species cover is weeds or weeds are absent.

Additional Comments on Weedy Species _____

SHRUB

Composition _____ % cover OBL and/or FACW shrub species to nearest 10%

Dominant Shrub Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1: _____ Zone 2:_____

Total % Shrub cover:_____ Total % Cover_____

Species/1/2/3/4/5: Ludwigia peruviana _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Shrub and Small Tree Species Zonation--Circle the appropriate category: 1) Abnormal zonation – many signs of abnormal shrub and tree zonation; 2) Somewhat abnormal zonation -some signs of abnormal shrub and tree zonation mainly limited to the wetland edge; 3) Normal shrub and tree zonation.

Additional Comments on Shrubs___Shrub emergent zone _____

WEEDY SHRUB

Composition --Circle the appropriate category: 1) > 50% of all shrub species cover is weeds; 2) > 10% and < 50% of all shrub species cover is (either dispersed throughout the wetland or in dense localized patches); 3) < 10% of all shrub species cover is weeds or weeds are absent.

Additional Comments on Weedy Shrubs_____

CANOPY (TREE)

Dominant Canopy Species Cover Classes 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

	Zone 1:_____	Zone 2:_____
Total % Canopy Cover: _100%_____		Total % Cover _____
Species/1/2/3/4/5: ___Acer _____		_____
Species/1/2/3/4/5: ___Taxodium_____		_____
Species/1/2/3/4/5: ___Salix_____		_____
Species/1/2/3/4/5: _____		_____
Species/1/2/3/4/5: _____		_____

Tree Zonation--Circle the appropriate category: 1) Abnormal zonation – multiple signs of abnormal distribution and cover; 2) Somewhat abnormal zonation with moderately abnormal distribution and cover; 3) Normal zonation with normal distribution and cover.

Additional Comments on Tree Species: ___forested border on N & S_____

AQUATIC

Dominant Aquatic Species % Cover Categories: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

	Zone 1:_____	Zone 2:_____
Total % Aquatic Plant __deep water areas covered		Total % Cover_____
Species/1/2/3/4/5: ___Algal mats_____		_____
Species/1/2/3/4/5: ___Salvinia_____		_____
Species/1/2/3/4/5: ___Duckweed_____		_____
Species/1/2/3/4/5: _____		_____
Species/1/2/3/4/5: _____		_____

Aquatic Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal plant zonation; 2) Somewhat abnormal zonation - some signs of abnormal zonation; 3) Normal aquatic plant zonation

Additional Comments on Aquatic Species:

_____

PLANT COMMUNITY HEALTH

Does community show unusual signs of stress? Some . **Visually estimate % of wetland zone exhibiting signs of stress;**_____

Type of stress observed (e.g., dead or dying plants, discolored foliage, wilted or rolled leaves, premature leaf fall or senescence, etc.):_____

Does stress appear moisture related, or is there sign of disease or insect injury? _____

Overall Condition of Plant Community is:

Circle Appropriate Category: **1)** Plants are dead or dying; **2)** poor vigor with obvious decline (foliage discolored, wilted, premature leaf fall) ; **3)** fair vigor, some signs of stress or decline; **4)** medium vigor, some yellow-green foliage, or signs of leaf wilt or leaf curling; **5)** appearance good, foliage green but foliage thin, less than normal growth for the season; **6)** excellent vigor, foliage green in color, normal growth for the season.

Additional Comments on Health **5.5 some maples @ S look stressed due to higher water**

HYDIC SOILS

Look for signs of subsidence, oxidation or abnormal desiccation and select the category which best describes the current conditions of the wetland soils. This assessment may not be applicable (NA) if site is inundated.

Circle Appropriate Category: **1)** Substantial subsidence/oxidation; **2)** Moderate subsidence/oxidation; **3)** Little or no evidence of subsidence/oxidation

Circle Appropriate Soil Condition: **1)** Inundated, **2)** Saturated, **3)** Moist, **4)** Dry

Additional Comments on Soil_____

_____

HYDROLOGY

Current Water Level Indicators (e.g., mosses, lichens, stains)

Estimated depth of water relative to high water marks or indicators:_____; describe type of indicator:_____

Circle the Appropriate Category: **1)** None of these indicators are present or indicators are at ground level; **2)** Indicators present; however, indistinct or abnormally low in comparison to the historic normal pool; **3)** Indicators are distinct and at the appropriate level for the season.

Additional Comments on Hydrology within 0.5 ft of high

WILDLIFE AND LISTED SPECIES

Listed Flora and Fauna Observed (Include activity information for fauna)

Wetland-Dependent Fauna Observed:

Activity codes (M = mating, F = foraging, FT = flyover/traveling; N = nesting, OT = other)

Observation codes (O = observed, S = sign [scat, tracks, call or other signs of presence])

GENERAL SITE DESCRIPTION CATEGORIES

Habitat Gradient

Circle Appropriate Category: **1)** full habitat gradient present from aquatic/wetland up gradient to native upland habitat; **2)** native upland habitat is present along 50-75% of perimeter; **3)** native upland habitat is present along 25-50% of perimeter; **4)** native upland habitat is present along less than 25% of perimeter.

Additional Comments on Habitat Gradient _____

Habitat Quality

Circle Appropriate Category: **1)** habitats present are in relatively natural condition in terms of community structure and plant species composition; **2)** habitats are in degraded condition in terms of community structure and plant species composition ; **3)** habitats are in severely degraded condition in terms of community structure and plant species composition.

Additional Comments on Habitat Quality **whole edge is gone, remaining is ok**

Hydrology and Landscape Position

Circle Appropriate Category: **1)** wetland/aquatic system is isolated, with no regular surface water inflow or outflow; **2)** system has surface water inflow or outflow only at high water condition; **3)** system is flow-through with surface water inflow and outflow.

Additional Comments on Landscape Position: _____

Storm Water Inflows and Outflows

Circle Appropriate Category: **1)** no significant adverse effects to habitat, hydrologic regime, or water quality due to inflow of stormwater system; **2)** habitat conditions are generally good, but adverse effects to habitat, hydrologic regime, or water quality are evident due to inflow stormwater inflows; **3)** habitat conditions are degraded by adverse effects of stormwater inflows.

Additional Comments on Surface Water **floating fern, duckweed, algal matter on surface, dense cattail**

Shoreline Development

Circle Appropriate Category: **1)** less than 10% **of** shoreline/perimeter is developed; **2)** 10 to 30% of shoreline/perimeter is developed; **3)** 30 to 60% of shoreline/perimeter is developed; **4)** greater than 60% of shoreline/perimeter is developed.

Additional Comments on Shoreline **no adjacent uplands**

Land Protection

Circle Appropriate Category: **1)** site and surrounding lands are in public ownership, or land use is limited to conservation/preservation; **2)** some but not all site and surrounding lands are in public ownership, or protected by easement ; **3)** site and surrounding lands are in not public ownership, nor protected by easement.

Additional Comments on Land Protection _____

Site Disturbance

Circle Appropriate Category: **1)** less than 10% wetland/water body recent land clearance or disturbance; **2)** 10 to 30% of wetland/water body is affected by recent land disturbance; **3)** 30 to 60% of wetland/water body is affected by recent land disturbance; **4)** greater than 60% of wetland/water body is affected by recent land disturbance.

Circle Appropriate Category: **1)** less than 10% uplands adjacent wetland/water body affected by recent land clearance or disturbance; **2)** 10 to 30% of upland is affected by recent land disturbance; **3)** 30 to 60% of upland is affected by recent land disturbance; **4)** greater than 60% of upland is affected by recent land disturbance.

Additional Comments on Land Disturbance: no current, recent dirt

Drainage Alteration

Are significant drainage features present on the site? No If yes, describe:_____

Are there significant drainage features on lands bordering the wetland/water body? No If yes, describe:_____

Additional Comments on Drainage _____

Wetland Assessment Field Form--SJRWMD Constraint Wetland Project

PROJECT: Poinciana Wetland **SJRWMD SITE ID:** #201 **COUNTY:** Osceola

OTHER LOCATION NOTES:

PERSONNEL : Bill Dunn and Bob Fewster **DATE**: 8/10/05 **TIME:** 16:00

GPS COORDINATES: Latitude : N 28 11.563 **Longitude:** W 81 30.583

PHOTOGRAPHY

Roll: __ Photo Frame #s: 4 shots of interior, 3 from outside @ road cypress dome

Description of photo(s):

WATER LEVEL:

Water Depth: within 0.25' of HW @ south end Staff Gage or Piezometer Level (if present): _____

VEGETATION—Cypress Dome

Major Vegetation Zones Present in Wetland or Water Body: _X_ forested, ____shrub scrub, ____marsh, ____aquatic, _____pond, _____lake, _____other (list):

HERBACEOUS GROUNDCOVER (% cover of OBL and/or FACW species to nearest 10%)

Zone 1: Composition: _____ **Zone 2: Composition**: _____hammock swamp

Dominant Groundcover Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1:_____ Zone 2:_____

Total % Groundcover: 100% Total % Cover _____

Species/1/2/3/4/5: Woodwardia Unknown sedges

Species/1/2/3/4/5: Ryhnchospora corniculata Arundinaria

Species/1/2/3/4/5: Maidencane Sacciolepis striata

Species/1/2/3/4/5: Bacopa _____

Species/1/2/3/4/5: Eriocaulon _____

Groundcover Species Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal groundcover zonation; 2) Somewhat abnormal zonation – some signs of abnormal groundcover zonation mainly limited to the wetland edge; 3) Normal groundcover zonation.

Additional Comments on Groundcover _____

NUISANCE/WEEDY GROUNDCOVER

Composition--Circle the appropriate category: 1) > 50% of all groundcover species cover is weeds; 2) > 10% and < 50% of all groundcover species cover is weeds (either dispersed throughout wetland or in dense localized patches); 3)< 10% of all groundcover species cover is weeds or weeds are absent.

Additional Comments on Weedy Species _____

SHRUB

Composition _____ % cover OBL and/or FACW shrub species to nearest 10%

Dominant Shrub Species Cover Classes: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5)> 80%

Zone 1:_____ Zone 2:_____

Total % Shrub cover: <5% Total % Cover_____

Species/1/2/3/4/5: Myrica _____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Species/1/2/3/4/5:_____ _____

Shrub and Small Tree Species Zonation--Circle the appropriate category: 1) Abnormal zonation – many signs of abnormal shrub and tree zonation; 2) Somewhat abnormal zonation -some signs of abnormal shrub and tree zonation mainly limited to the wetland edge; 3) Normal shrub and tree zonation.

Additional Comments on Shrubs_____

WEEDY SHRUB

Composition --Circle the appropriate category: 1) > 50% of all shrub species cover is weeds; 2) > 10% and < 50% of all shrub species cover is (either dispersed throughout the wetland or in dense localized patches); 3) < 10% of all shrub species cover is weeds or weeds are absent.

Additional Comments on Weedy Shrubs_____

CANOPY (TREE)……..open canopy

Dominant Canopy Species Cover Classes 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Canopy Cover: ___80%_____ Total % Cover _____

Species/1/2/3/4/5: ___Pond cypress_____ _____

Species/1/2/3/4/5: ___Slash pine_____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Tree Zonation--Circle the appropriate category: 1) Abnormal zonation – multiple signs of abnormal distribution and cover; 2) Somewhat abnormal zonation with moderately abnormal distribution and cover; 3) Normal zonation with normal distribution and cover.

Additional Comments on Tree Species_____

AQUATIC--no aquatic zone @ south end

Dominant Aquatic Species % Cover Categories: 1) < 5%; 2) 5% < 25%; 3) 25% < 50%; 4) 50% - 80%; 5) >80%

Zone 1:_____ Zone 2:_____

Total % Aquatic Plant Cover:_____ Total % Cover_____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Species/1/2/3/4/5: _____ _____

Aquatic Zonation--Circle the appropriate category: 1) Abnormal zonation - many signs of abnormal plant zonation; 2) Somewhat abnormal zonation - some signs of abnormal zonation; 3) Normal aquatic plant zonation

Additional Comments on Aquatic Species: _____

PLANT COMMUNITY HEALTH

Does community show unusual signs of stress? No **Visually estimate % of wetland zone exhibiting signs of stress;**_____

Type of stress observed (e.g., dead or dying plants, discolored foliage, wilted or rolled leaves, premature leaf fall or senescence, etc.):_____

Does stress appear moisture related, or is there sign of disease or insect injury? _storm damage to maples_____

Overall Condition of Plant Community is:

Circle Appropriate Category: **1)** Plants are dead or dying; **2)** poor vigor with obvious decline (foliage discolored, wilted, premature leaf fall) ; **3)** fair vigor, some signs of stress or decline; **4)** medium vigor, some yellow-green foliage, or signs of leaf wilt or leaf curling; **5)** appearance good, foliage green but foliage thin, less than normal growth for the season; **6)** excellent vigor, foliage green in color, normal growth for the season.

Additional Comments on Health:_____

HYDIC SOILS

Look for signs of subsidence, oxidation or abnormal desiccation and select the category which best describes the current conditions of the wetland soils. This assessment may not be applicable (NA) if site is inundated.

Circle Appropriate Category: **1)** Substantial subsidence/oxidation; **2)** Moderate subsidence/oxidation; **3)** Little or no evidence of subsidence/oxidation……****mostly mineral soil here

Circle Appropriate Soil Condition: **1)** Inundated, **2)** Saturated, **3)** Moist, **4)** Dry

Additional Comments on Soil_____slightly inundated_____

_____

HYDROLOGY--elevation of base of pines w/in 0.5' of soil surface

Current Water Level Indicators (e.g., mosses, lichens, stains)

Estimated depth of water relative to high water marks or indicators: 1.0 ft ; describe type of indicator:_____

Circle the Appropriate Category: **1)** None of these indicators are present or indicators are at ground level; **2)** Indicators present; however, indistinct or abnormally low in comparison to the historic normal pool; **3)** Indicators are distinct and at the appropriate level for the season.

Additional Comments on Hydrology_____moss line and lichen line indicate that this end of ? is very shallowly flooded_____

_____

WILDLIFE AND LISTED SPECIES

Listed Flora and Fauna Observed (Include activity information for fauna)

Wetland-Dependent Fauna Observed:

Activity codes (M = mating, F = foraging, FT = flyover/traveling; N = nesting, OT = other)

Observation codes (O = observed, S = sign [scat, tracks, call or other signs of presence])

GENERAL SITE DESCRIPTION CATEGORIES

Habitat Gradient

Circle Appropriate Category: **1)** full habitat gradient present from aquatic/wetland up gradient to native upland habitat; **2)** native upland habitat is present along 50-75% of perimeter; **3)** native upland habitat is present along 25-50% of perimeter; **4)** native upland habitat is present along less than 25% of perimeter.

Additional Comments on Habitat Gradient __**flatwoods adjacent is re-growing, following clear cut**_____

Habitat Quality

Circle Appropriate Category: **1)** habitats present are in relatively natural condition in terms of community structure and plant species composition; **2)** habitats are in degraded condition in terms of community structure and plant species composition ; **3)** habitats are in severely degraded condition in terms of community structure and plant species composition.

Additional Comments on Habitat Quality _____

Hydrology and Landscape Position

Circle Appropriate Category: **1)** wetland/aquatic system is isolated, with no regular surface water inflow or outflow; **2)** system has surface water inflow or outflow only at high water condition; **3)** system is flow-through with surface water inflow and outflow.

Additional Comments on Landscape Position: **very slight HW connection 1.5**_____

Storm Water Inflows and Outflows

Circle Appropriate Category: **1)** no significant adverse effects to habitat, hydrologic regime, or water quality due to inflow of stormwater system; **2)** habitat conditions are generally good, but adverse effects to habitat, hydrologic regime, or water quality are evident due to inflow stormwater inflows; **3))** habitat conditions are degraded by adverse effects of stormwater inflows.

Additional Comments on Surface Water _____**no stormwater**_____

Shoreline Development

Circle Appropriate Category: **1)** less than 10% **of** shoreline/perimeter is developed; **2)** 10 to 30% of shoreline/perimeter is developed; **3)** 30 to 60% of shoreline/perimeter is developed; **4)** greater than 60% of shoreline/perimeter is developed.

Additional Comments on Shoreline: _____**no development**_____

Land Protection

Circle Appropriate Category: **1)** site and surrounding lands are in public ownership, or land use is limited to conservation/preservation; **2)** some but not all site and surrounding lands are in public ownership, or protected by easement ; **3)** site and surrounding lands are in not public ownership, nor protected by easement.

Additional Comments on Land Protection _____

Site Disturbance

Circle Appropriate Category: **1)** less than 10% wetland/water body recent land clearance or disturbance; **2)** 10 to 30% of wetland/water body is affected by recent land disturbance; **3)** 30 to 60% of wetland/water body is affected by recent land disturbance; **4)** greater than 60% of wetland/water body is affected by recent land disturbance.

Circle Appropriate Category: **1)** less than 10% uplands adjacent wetland/water body affected by recent land clearance or disturbance; **2)** 10 to 30% of upland is affected by recent land disturbance; **3)** 30 to 60% of upland is affected by recent land disturbance; **4)** greater than 60% of upland is affected by recent land disturbance.

Additional Comments on Land Disturbance_____no disturbance, except pine harvest in upland_____

Drainage Alteration

Are significant drainage features present on the site?__No__ If yes, describe:_____
_____

Are there significant drainage features on lands bordering the wetland/water body?__No_____ If yes, describe:_____
photo's_____

Additional Comments on Drainage _____