

CENTRAL AND SOUTHERN FLORIDA PROJECT
COMPREHENSIVE EVERGLADES RESTORATION PLAN



SECTION 6.5
PRELIMINARY PLANNING AREA ALTERNATIVES –
WETLAND RESTORATION

DRAFT PROJECT IMPLEMENTATION REPORT

LAKE OKEECHOBEE WATERSHED
PROJECT



U.S. Army Corps of Engineers
Jacksonville District



South Florida
Water Management District

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The US Fish and Wildlife Service (Gina Ralph and Steve Schubert) prepared this document with assistance from the Ecological Subteam of the Lake Okeechobee Watershed Project Delivery Team and HDR Engineering, Inc. The final document will be one component of the Lake Okeechobee Project Implementation Report, which is scheduled for completion in 2005. Sections of this document are numbered according to the proposed outline for the Project Implementation Report.

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6.5 Preliminary Planning Area Alternatives

6.5.1 Introduction

The LOW Project plan formulation process began with the identification of preliminary planning area alternatives (PPAA). The watershed was divided into five planning areas based on natural drainage divides and basin boundaries of major tributaries in the watershed. PPAA were identified for each of the five planning areas, namely Lake Istokpoga Watershed, Fisheating Creek, Lake Istokpoga-Indian Prairie, Kissimmee, and Taylor Creek/Nubbin Slough.

Each PPAA was configured as a combination of one or more **management measures** to be sited at a given geographic location within a planning area. Each management measure was intended to contribute towards achieving one or more of the LOW Project purposes of improving water quality in Lake Okeechobee, providing for better management of lake water levels, and restoring hydrology of isolated wetlands in the watershed.

A management measure is a **feature** or **activity** that can be implemented at a specific site to address one or more planning objectives. Management measures, therefore, are building blocks of PPAA. Note that the Restudy uses the term **components** to denote essentially the same concept as a management measure.

A **feature** is defined as a structural element that requires construction or assembly on-site. Examples of features include:

- Wetland Restoration
- Stormwater treatment areas (STA)
- Periphyton stormwater treatment areas (PSTA)
- Reservoir-assisted stormwater treatment areas (RASTA)
- Pump stations
- Canals
- Levees
- Dams
- Reservoirs
- Chemical treatment facilities, etc.

An **activity** is defined as a non-structural action or a practice that is implemented to achieve one or more project goals. Examples of activities include:

- Best management practices (BMPs) to reduce pollution
- Reservoir operating schedules
- Modifying water releases
- Seeding, cutting, and burning vegetation

Two parallel processes were initiated to identify PPAA for the project study area. The first process was focused on formulating PPAA for meeting the project purposes of improving water quality in Lake Okeechobee and providing for better management of lake water levels. Principal management measures considered for achieving these two purposes included reservoirs (for water storage) and stormwater treatment areas (for water quality improvements).

The second process was aimed at the project purpose of restoring historic wetlands in the watershed by plugging or filling drainage ditches. This report summarizes the methodology and results from the process used for selecting suitable sites for wetland restoration.

6.5.2 Wetland Restoration

Wetland restoration in the LOW Project study area compliments the following CERP objectives:

- Increase the total spatial extent of natural areas;
- Improve habitat and functional quality;
- Improve native plant and animal species abundance and diversity; and
- Enhance economic values and social well being by reducing flood damages and providing recreational opportunities.

In addition, wetland restoration directly supports several LOW Project objectives, including:

- Improve habitat for fish and wildlife within the watershed;
- Improve water quality in the watershed;
- Enhance water supply in the watershed; and
- Enhance recreational opportunities.

Restoring historic wetlands in the LOW was not only recommended by the Restudy (Corps, 1999) but is also consistent with the recommendations of the South Florida Ecosystem Restoration Working Group's Lake Okeechobee Issue Team and the Pollution Load Reduction Goals for Lake Okeechobee developed for the Lake Okeechobee Surface Water Improvement and Management Plan (SFWMD 1997). Restored wetlands in the LOW are expected to contribute towards the overall water

quality restoration objectives and provide significant long-term water quality benefits for Lake Okeechobee.

6.5.3 Wetland Restoration Site Selection Methodology

The LOW Project study area comprises approximately 1,450,000 acres. As has been documented in the inventory of existing conditions, much of the watershed was historically covered by wetlands (approximately 580,000 acres), large portions of which were subsequently drained and converted to agricultural land uses. The guiding rule for selecting sites for wetland restoration was to focus on areas that were historically covered with wetlands since areas in the watershed, which were not historically occupied by wetlands, would inherently be unsuitable for wetland restoration projects.

The basic approach taken was to start with the entire watershed and focus on areas that were determined to be most suitable for wetland restoration based on selected screening factors. All areas identified as being most suitable for wetland restoration were then prioritized and ranked. Top-ranked areas were flagged for further consideration in the planning process.

A two-phase screening process was adopted. Phase 1 involved the use of primary screening factors, which were used as “coarse filters” to focus on areas based on desirable existing land use and soil types. A series of “fine filters” (secondary screening factors) were then applied in Phase 2 to the results of Phase 1 to further focus on areas that were deemed to be suitable. Areas determined to be suitable for wetland restoration through the application of the secondary screening factors were prioritized and ranked.

Significant steps in the wetland restoration site selection process included the following:

1. Development of siting criteria.
2. Identification and acquisition of relevant and appropriate data.
3. Identification and application of primary screening factors.
4. Identification of secondary screening factors, incorporation into a Land Suitability Model (Wetland Iteration), and application of LSM-W.
5. Site prioritization by ranking.

ArcGIS 8.3®¹ was the principal tool used to identify, characterize, analyze, evaluate, and rank potential locations within the study area.

¹ Registered trademark of Environmental Systems Research Institute, Inc., Redlands, California.

6.5.3.1 Siting Criteria

The following criteria were developed to guide the process of focusing on areas that are considered to be most suitable for siting wetland restoration projects.

1. All potential sites must be located within the project study area boundary and as such would provide benefits directly to Lake Okeechobee or its watershed including Lake Istokpoga and its drainage basins.
2. Sites with historically non-hydric soils would be avoided except in cases where these upland areas would provide a valuable habitat mosaic associated with the restored wetlands and, as such, would measurably increase the project benefits.
3. The overall performance of the LOW Project will be measured in terms of “ecological lift”. Ecological lift is defined as a predictable and measurable increase in wetland habitat units (*i.e.*, acreage of wetland habitat multiplied by a quality factor). Sites that provided greater ecological lift (*i.e.*, restoration) would be preferred. In other words restoration of impacted sites was more important than conserving or protecting existing high ecological value areas since this would result in a lower lift potential and theoretically fewer project benefits.
4. Siting wetland restoration features adjacent to public lands or areas of high ecological value increases connectivity of habitat and is therefore desirable. Refer to Site Prioritization Ranking Methodology, Public Lands Connectivity and Ecological Connectivity sections in this report for rationale.
5. “Add-on” wetlands which are likely to be associated with reservoirs and/or STAs would be screened separately from isolated, standalone, wetland restoration sites that were intended primarily for habitat restoration benefits.
6. Although no minimum size was set for potential wetland restoration sites, minimizing the number of real estate transactions per site (fewer owners) was considered desirable.
7. Restored areas cannot significantly contribute to off-site flooding.
8. Adverse impacts (*e.g.*, hydrologic alteration) on surrounding areas of high ecological value (as determined by a benefits trade-off analysis) would be avoided or minimized.

9. Adverse impacts (*e.g.*, hydrologic alteration, economic concerns, Environmental Justice) to Sovereign, Federal, State, County, or other public lands would be avoided or minimized.
10. Restoration activities shall not adversely impact (*e.g.*, degradation or loss of existing habitat) the following federally listed endangered animals or their habitats: Florida panther (*Felis concolor coryi*), Florida grasshopper sparrow (*Ammodramus savannarum floridanus*), and West Indian manatee (*Trichechus manatus*).
11. Restoration activities should minimize impacts to other federally or state listed threatened and endangered plants and animals, and their habitats.
12. Adverse impacts to other restoration projects (*e.g.*, hydrologic alteration) in the study area including: New Palm STA, Grassy Island STA, The Nature Conservancy's Florida Lands and Outstanding Waters (FLOW) projects, the Corps' Bootheel Creek 206 Project, or other South Florida Water Management District (SFWMD) projects (*e.g.*, Dairy Best Available Technology, Isolated Wetland Critical Project, Phosphorus Source Control Grants) would be avoided or minimized.
13. Impacts to cultural resources would be avoided or minimized.
14. Achieve environmental justice by avoiding or minimizing adverse impacts to Environmental and Economic Equity populations (*e.g.*, low income, minority, or Tribal).

6.5.3.2 Data Sources

Geographic Information System (GIS) data layers used for selecting and narrowing wetland restoration sites included the following:

1. **Project Area Boundary** – to ensure that only parcels located completely within the project study area were considered during the selection process.
2. **Current Land Use** – The 2003 update of the SFWMD land use data layer was used to identify current land use practices in the study area. Differing land uses are expressed in this layer as Florida Land Use, Cover and Forms Classification System (FLUCCS) Codes (Florida Department of Transportation 1999).

3. **Soils** – Soil data were obtained from the SFWMD. Layers were expressed by the differing hydric or non-hydric characteristics.
4. **Surface Water Bodies** – Data layers showing boundaries of surface water bodies such as streams, rivers, lakes, ditches, and canals were obtained from U. S. Geological Survey (USGS) and SFWMD. Smaller features such as streams and ditches were not considered to be obstacles to the restoration process and therefore, were not avoided. However, larger features such as lakes and major canals (*i.e.*, C-38, C-40, C-41, C-41A, etc) could possibly be an impediment and were therefore avoided. For example, in areas suitable for wetland restoration in which a major canal or lake would be encompassed within the potential wetland restoration site, that area was divided into two potential wetland restoration sites so that neither site encompassed the footprint of the feature. Lakes were judged to have an adequate hydroperiod; canals would be needed to maintain the existing level of flood protection.

It should be noted that data layers for ditches and canals were subsequently utilized to discern extent of impact, ecological lift potential, and costs of restoration associated with a particular wetland restoration site. From this data the length of ditches within the potential wetland restoration site could be determined and costs of restoration estimated based upon the spatial extent of ditches.

5. **Roads/Railroads** – Smaller roads and pathways were not considered as obstacles to potential wetland siting under the assumption that under-the-road culverts be used to connect adjacent wetland sites. The footprints of major roads and railroads were excluded in order to minimize construction costs, habitat fragmentation, and the higher potential for post-restoration wetland fauna road kill.
6. **Gulfstream Pipeline** – The footprint of this proposed natural gas pipeline was obtained from the SFWMD. The corridor housing the pipeline and a 50-foot buffer zone on either side was generally avoided during the siting process.
7. **Publicly Managed Lands** – It was assumed that most or all of the wetland restoration sites would be located outside of publicly managed lands. Parcels designated as Florida Forever Project (FFP) areas however, were incorporated into the selection process because they have not yet been purchased. It should be noted that for this very reason, FFP lands are not included in the LOW Project Future Without Project Conditions land use projections.

8. **Digital Orthophoto Quarter Quadrangles** – These infrared photographs were used as a background to gain a better understanding of areas, which were not clearly delineated in some of the other data layers. These photographs were particularly useful in generating site-specific information based on local knowledge of the area.

6.5.3.3 Primary Screening Factors

Land use patterns and soils were used as primary factors to delineate areas within the watershed that were considered not suitable for wetland restoration.

Land Use – Since it was not prudent or appropriate to attempt to restore wetlands in developed residential, commercial, or urban areas, therefore, with few exceptions most areas with FLUCCS codes in the 1000 (Urban, Residential & Commercial) and the 8000 (Transportation Communications & Utilities) series were blocked out from further consideration (**Table 1**). The exception to this rule included land uses such as golf courses, mobile homes, parks, and other recreational uses (**Table 2**) which were included in the analyses based upon best professional judgment. Areas removed from consideration due to the use of the land use filter are shown in black in **Figure 1**.

Soils – It is obvious that a wetland restoration project is likely to be more successful when sited on hydric soils (which are indicative of historic wetlands) as compared to non-hydric soils (indicative of non-wetland habitat types). Therefore, areas with a high percentage of non-hydric soils were identified as poor candidates for potential wetland restoration. The only exception was areas that are poorly-drained, non-hydric soils, which were historically hydric pine flatwoods or dry prairies. These areas typically had visible surface water for one to two months during the wet season and were included in the analysis.

Figure 2 shows the soils layer in which non-hydric soils (*i.e.*, “somewhat poorly drained, moderately drained, excessively drained, or mined/excavated”), which are indicative of historic upland, are grouped together and shown in red. The remainder of the project study area consists either of hydric soils (*i.e.*, “very poorly drained” and “poorly drained-hydric”) or “poorly drained non-hydric” soils both of which are considered suitable for siting wetland restoration projects.

Results from the primary screening exercise are shown in **Figure 3**. This figure illustrates areas that were found to be poor sites for potential wetland restoration due to either inappropriate land use or soils.

TABLE 1
FLUCCS CODES BLOCKED OUT FROM CONSIDERATION IN THE
SITING OF POTENTIAL WETLAND RESTORATION SITES

FLUCCS Code	FLUCCS Description	FLUCCS Code	FLUCCS Description
1100	Residential Low Density, 2 du/ac	1740	Medical and Healthcare
1110	Fixed Single Family Units, 2 du/ac	1750	Governmental
1130	Mixed Unites (Fixed and Mobile Home Units) < 2 du/ac	1751	City Halls
1190	Low Density Under Construction, 2 du/ac	1760	Correctional
1230	Mixed Units (Fixed and Mobile Home Units) 2-5 du/acre	1770	Other Institutional
1290	Medium Density Under Construction, 2-5 du/ac	1780	Commercial Child Care
1300	Residential High Density	1790	Institutional Under Construction
1310	Fixed Single Family Units, 2-5 du/ac	1830	Race Tracks
1330	Multiple Dwelling Units Low Rise	1840	Marinas and Fish Camps
1340	Multiple Dwelling Units High Rise	1841	Marinas (Basins)
1350	Mixed Units (Fixed and Mobile Home Units)	1860	Community Recreation Facilities
1390	High Density Under Construction	1870	Stadiums
1400	Commercial and Services	1880	Historical Sites
1410	Retail Sales and Services	1930	Urban Land in Transition
1411	Retail Sales and Services- Shopping Center	8000	Transportation, Communications and Utilities
1420	Wholesale Sales and Services	8100	Transportation
1423	Wholesale Sales and Services-Junkyards	8110	Airports
1430	Professional Services	8120	Railroads
1440	Cultural and Entertainment	8130	Bus and Truck Terminals
1450	Tourist Services	8140	Roads and Highways
1460	Oil and Gas Storage	8150	Port Facilities
1470	Mixed Commercial and Services	8160	Canals and Locks
1480	Cemeteries	8170	Oil, Water or Long Distance Gas Transmission
1490	Commercial and Services Under Construction	8180	Auto Parking Facilities
1500	Industrial Under Construction	8190	Transportation Facilities Under Construction
1510	Food Processing	8210	Transmission Towers
1520	Timber Processing	8213	Antenna Farms
1530	Mineral Processing	8220	Communication Facilities
1540	Oil and Gas Processing	8290	Communication Facilities under Construction
1550	Other Light Industrial	8300	Utilities Under Construction
1560	Other Heavy Industrial	8310	Electrical Power Facilities

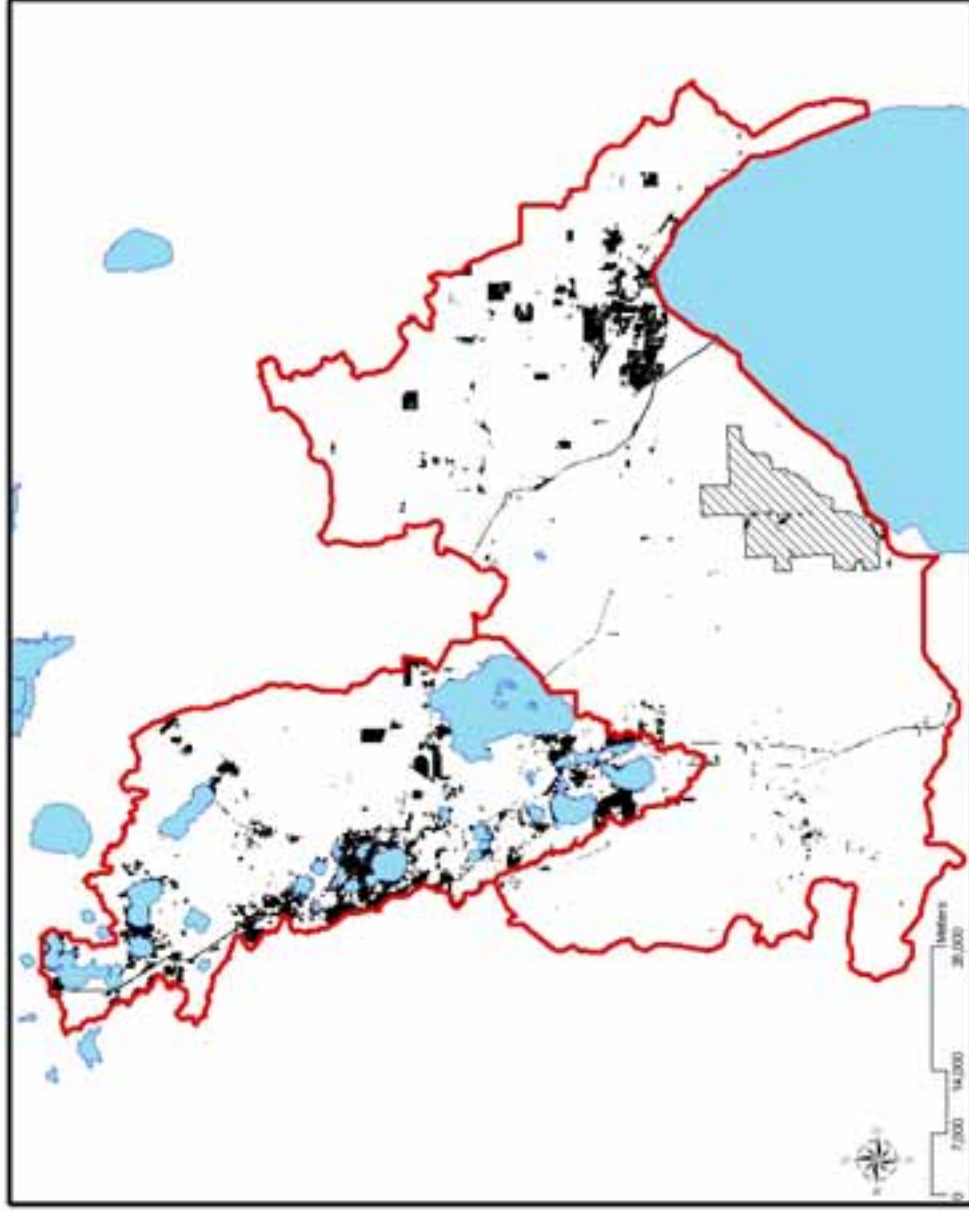
**TABLE 1
CONTINUED**

FLUCCS Code	FLUCCS Description	FLUCCS Code	FLUCCS Description
1590	Industrial Under Construction	8320	Electrical Power Transmission Lines
1640	Oil and Gas Fields	8330	Water Supply Plants
1700	Institutional Under Construction	8340	Sewage Treatment
1710	Educational Facilities	8349	Sewage Treatment
1720	Religious	8350	Solid Waste Disposal
1730	Military	8390	Utilities Under Construction

**TABLE 2
FLUCCS CODES (100 SERIES) NOT BLOCKED OUT FROM
CONSIDERATION IN THE SITING OF POTENTIAL WETLAND
RESTORATION SITES**

FLUCCS Code	FLUCCS Description
1009	Mobil Home Units Any Density
1600	Extractive
1620	Sand and Gravel Pits
1800	Recreational
1820	Golf Courses
1850	Parks and Zoos
1890	Other Recreational
1900	Open Land
1910	Undeveloped Land within Urban Areas
1920	Inactive Land with Street Pattern
1940	Other Open Land

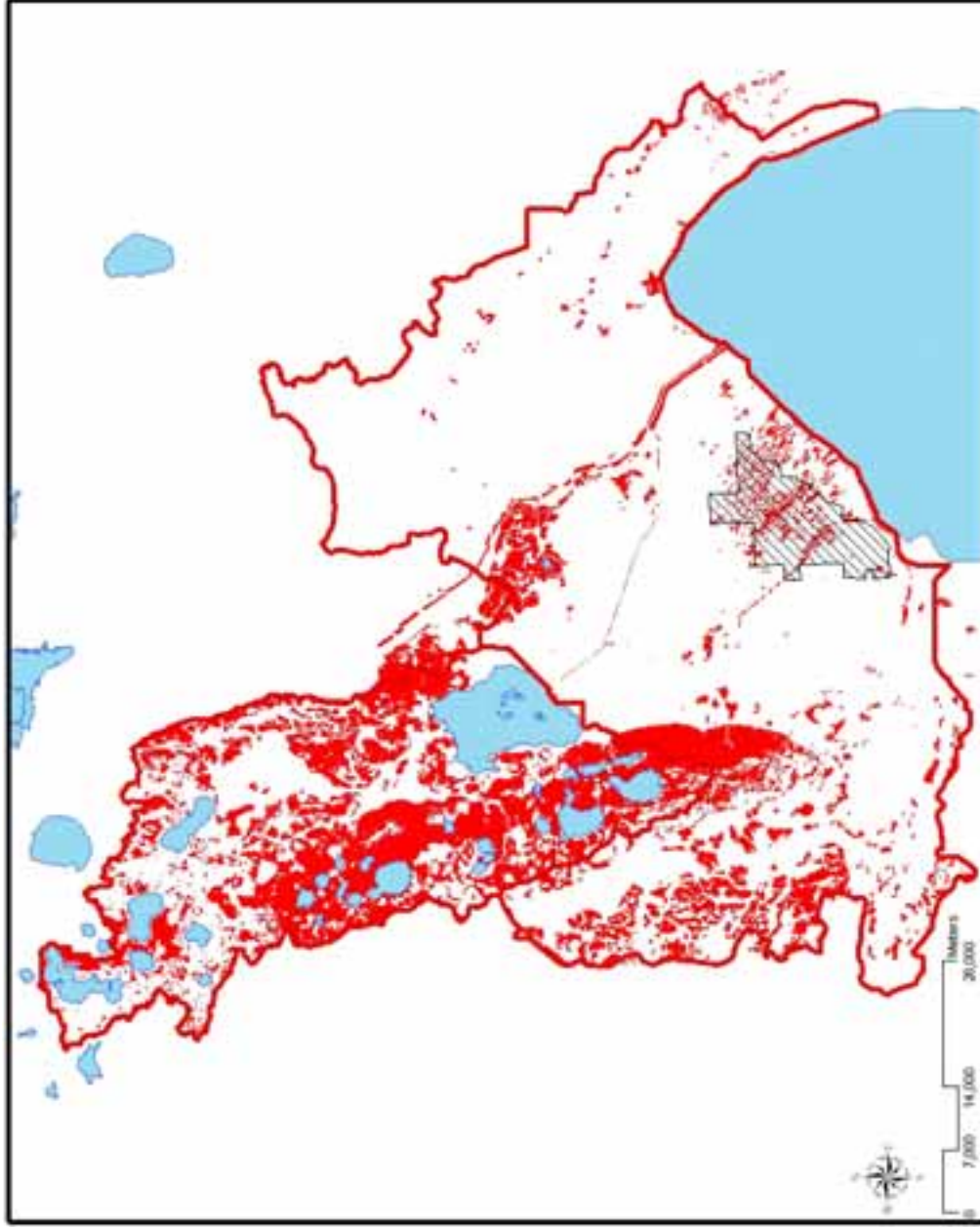
FIGURE 1. AREAS WITH POOR CHARACTERISTICS BASED UPON LAND USE



Notes:

1. Areas in black represent FLUCCS codes in the 1000 (Urban, Residential, & Commercial) and the 8000 (Transportation, Communication & Utilities) series, with few exceptions.
2. Black hatched area represents the Brighton Seminole Reservation.

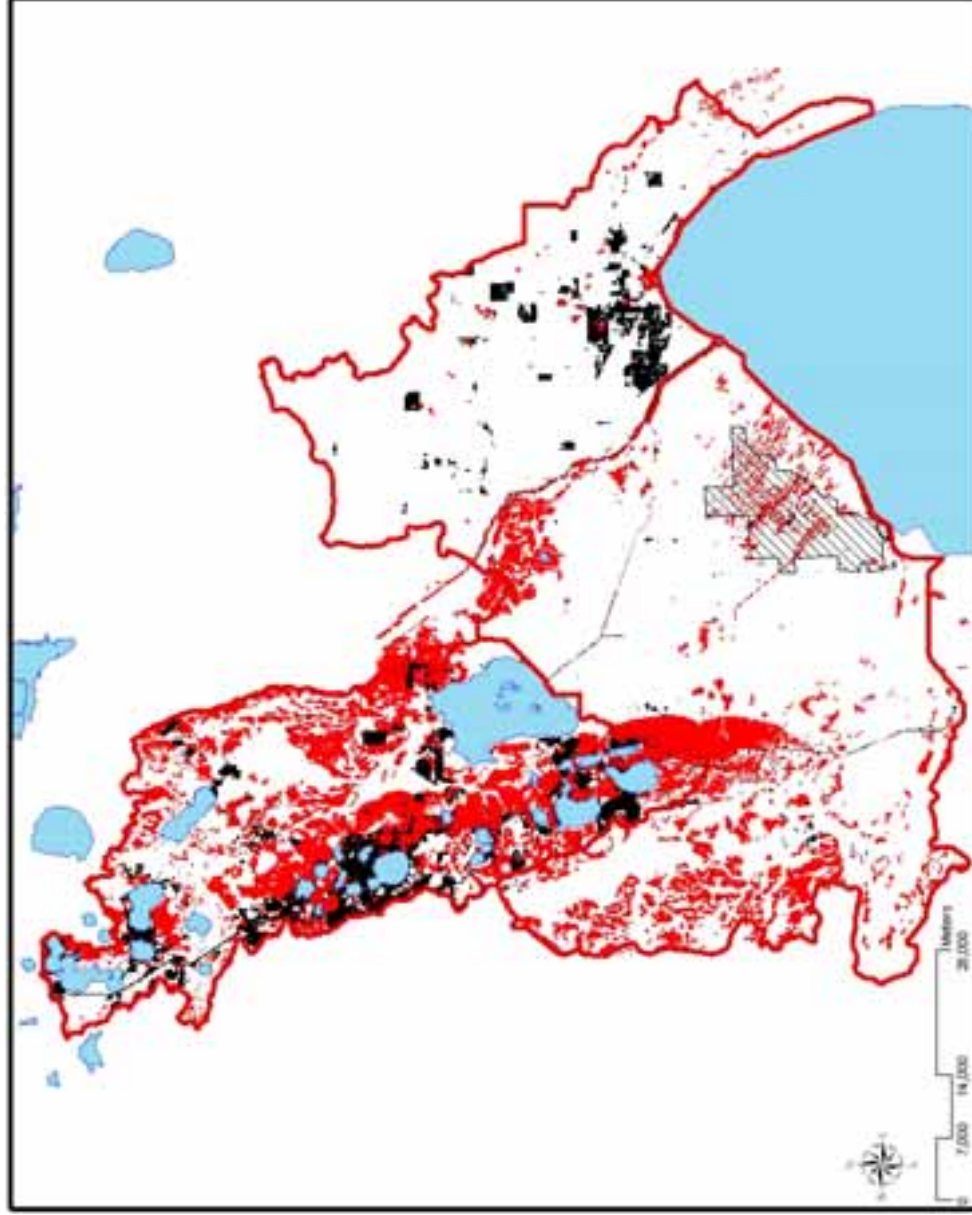
FIGURE 2. AREAS WITH SOILS TYPES THAT ARE NOT CONDUCTIVE TO WETLAND RESTORATION



Notes:

1. Areas in red represent non-hydric soils.
2. Black hatched area represents the Brighton Seminole Reservation.

FIGURE 3. AREAS THAT ARE NOT CONDUCTIVE TO WETLAND RESTORATION DUE TO LAND USE AND SOIL TYPE



Notes:

1. Black hatched area represents the Brighton Seminole Reservation.

6.5.3.4 Secondary Screening Factors

The second phase in the wetland restoration site selection process involved utilizing a series of secondary screening factors to further screen the results obtained in Phase I. Phase II methodology and results of the secondary screening are presented below.

Phase II - Methodology

Five secondary screening factors were identified and for each of the five criteria suitability attributes were developed for assigning high level of suitability (Level 1), moderate level of suitability (Level 2), and low level of suitability (Level 3). To facilitate the application of the criteria and for easy interpretation of the results, suitability attributes for each criterion were incorporated into a **Land Suitability Model – Wetland Iteration (LSM–W)**. The LSM–W was then run to identify sites in the project study area with the least amount of constraints for siting wetland restoration projects. **Table 3** lists the secondary screening criteria and the suitability attributes incorporated into the LSM–W.

Ecological Value – The rationale for selecting this criterion was based on Siting Criteria #8 (potential wetland restoration projects should avoid or minimize adverse impacts to high-quality ecological lands) and #3 (potential wetland restoration projects should target degraded areas in order to maximize lift. The input data layer for this criterion was based on FLUCCS Level 4 land use codes. Using best professional judgment, each cover type was given a score (ranging from a low of zero to a maximum of ten) based on their ecological value to fish and wildlife.

Because the primary intention was to avoid using high-quality areas for wetland restoration, FLUCCS codes with an ecological score of 0-3 were assigned a high suitability (Level 1), 4-6 were deemed to be moderately suitable (Level 2), and 7-10 were assigned low suitability (Level 3). In general, native cover types scored the highest and within these, rare ecological communities scored the highest. In contrast, impacted lands such as high-intensity agricultural lands scored the lowest.

Ecological value scores associated with various FLUCCS codes are summarized in **Appendix A**.

Land Use/Contaminants – The rationale for selecting this criterion was that wetland restoration projects were likely to be more successful on lands that were either not highly disturbed or did not have a high potential for an existing contaminant load in the soil or water.

**TABLE 3
SECONDARY CRITERIA AND SUITABILITY ATTRIBUTES**

	Suitability Criterion	Rationale	High Suitability (Level 1)	Moderate Suitability (Level 2)	Low Suitability (Level 3)	Data Source
1	Ecological Value*	Avoid high quality ecological lands	Ecological score of 0 to 3 Land uses with low or no potential for contaminant loads	Ecological score of 4 to 6 Land uses with moderate potential for contaminant loads	Ecological score of 7 to 10 Land uses with high potential for contaminant loads (intensive agriculture)	New USFWS ecological value model
2	Land Use**	Target land uses that are not highly disturbed or have high contaminants	Land uses with low economic impact/value	Land use types with moderate economic impact/value	Land use types with high economic impact/value	Best professional judgment and recent land contaminant studies for other CERP projects
3	Economic Value***	Minimize regional economic impacts and real estate costs.	Land use types with low economic impact/value	Land use types with moderate economic impact/value	Land use types with high economic impact/value	Table from Land Suitability Model
4	Cultural Resources	Avoid areas of cultural resource significance	Areas outside a 300 foot buffer zone of a culturally important structure.		Areas inside a 300 foot buffer zone of a culturally important structure.	FDHR, 2003
5	EEE	Avoid areas with EEE populations.	Areas with no concentrations of EEE populations	Areas with moderate concentrations of EEE populations.	Areas with dense concentrations of EEE populations.	SFWMD, 2003

Notes:

* Based upon Best professional Judgment as listed in Table 4.

**Using FLUCCS codes and previous experience with potential chemical contamination levels on each land use we scored each land use as high, medium, or low. Refer to Table 4 for each land use in the project area and its associated score.

*** Based on potential economic impact/value as shown Table 4.

Recent studies have shown presence of high levels of metals and/or pesticide contamination (URS Corporation 2003, Environmental Consulting and Technology, Inc. 2000) at several locations being considered for locating CERP project features. In particular, high-intensity agricultural lands such as row crops and citrus have exhibited potentially problematic levels of contaminants. Lands that are contaminated or have the potential for residual contamination would obviously be less desirable for wetland restoration due to the potential aquatic toxicity problems that could result for fish and wildlife, including federally listed species such as wood stork (*Mycteria americana*) and Everglade snail kite (*Rostrhamus sociabilis plumbeus*).

Existing land uses in the watershed were identified by FLUCCS Level 4 code. Each cover type was assigned a suitability score based on the potential for contaminants using best professional judgment (**Appendix A**). In general, FLUCCS codes representing land uses with little or no potential for contamination had the highest suitability (Level 1), those with some potential were determined to be moderately suitable (Level 2), and those with the highest potential for contamination were deemed to have low suitability (Level 3).

Economic Value – The rationale for selecting this criterion was that proposed wetland restoration projects would likely be more acceptable to stakeholders if they did not have significant adverse impacts on the regional economy: in other words, land uses associated with high economic values were to be avoided in the site selection process. Although real estate costs were not directly considered in this analysis, it should be noted that avoidance of areas with higher economic value would also be likely to reduce real estate costs as an indirect or ancillary consequence.

Existing land uses were identified by FLUCCS Level 4 code. Each cover type was assigned a suitability score for economic impact/value based on best professional judgment (**Appendix A**). In general, areas with low economic value had high suitability for wetland restoration (Level 1), areas with moderate economic value had moderate suitability (Level 2), and areas with high economic value had low suitability (Level 3).

Cultural Resources – The rationale for selecting this criterion was based on Siting Rule #13, which stated that adverse impacts to culturally significant resources were to be avoided or minimized. Data layers showing culturally significant resources in the LOW were extracted from information contained within the Florida Master Site File, maintained by the State of Florida, Division of Historical Resources. A 300-foot buffer zone was established around the perimeter of each significant resource identified in this data layer.

Suitability was determined based on whether or not the potential wetland site was within the buffer zone of the cultural resource; thus there were only two categories for this factor, high or low. Areas of high suitability were outside the 300-foot buffer (Level 1); areas of low suitability (Level 2) were located within 300 feet of a culturally significant resource.

Environmental and Economic Equity (EEE) – The rationale for selecting this criterion was based on Siting Criterion #14 which stated that siting of wetland restoration projects should achieve environmental justice by avoiding or minimizing adverse impacts to EEE populations. Data layers showing locations of EEE populations in the watershed were obtained from SFWMD. Areas with no EEE populations were considered highly suitable (Level 1) for siting wetland restoration projects, areas with moderate concentrations of EEE populations were considered as moderately suitable (Level 2), and areas with dense concentrations of EEE populations were assigned a low suitability (Level 3).

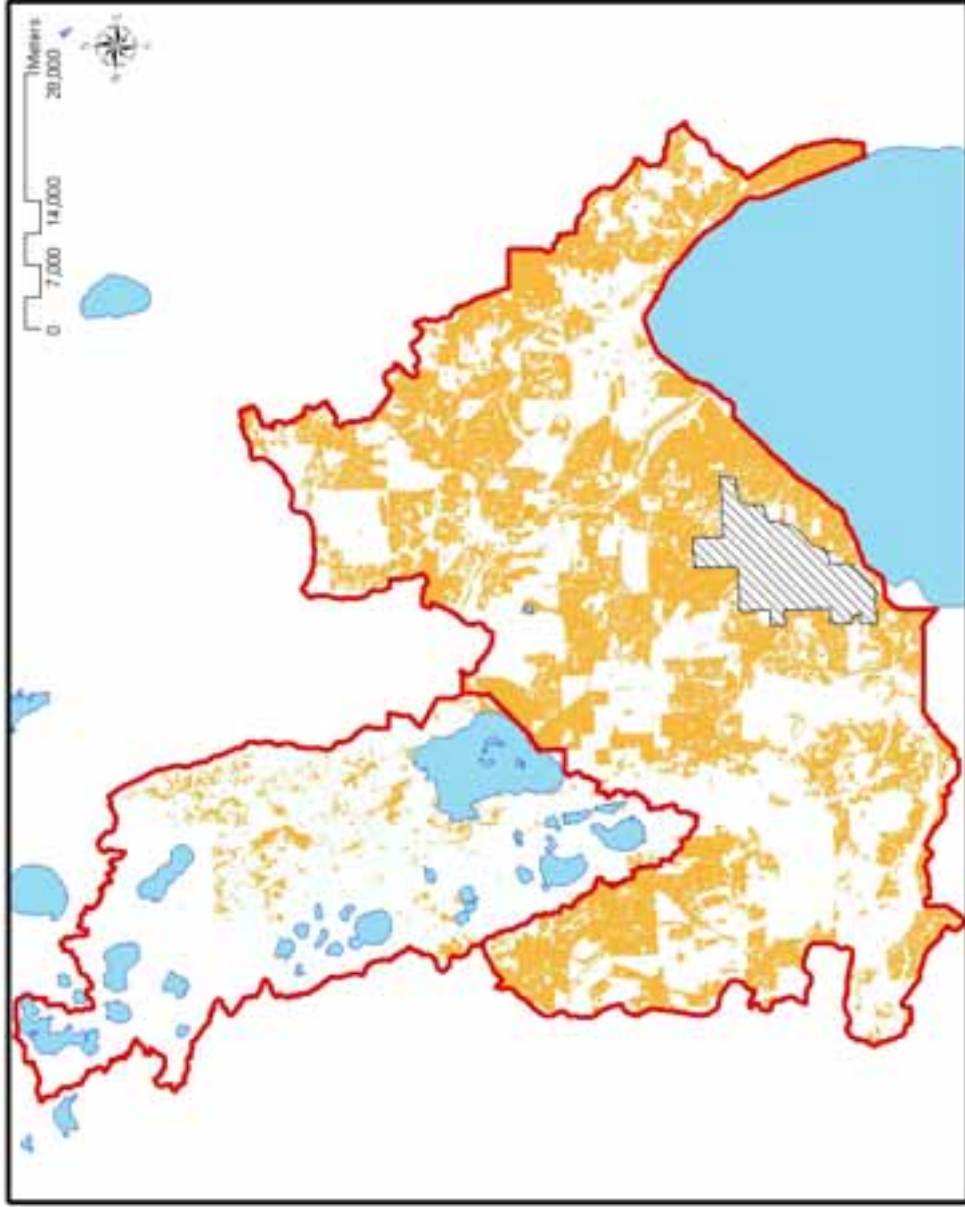
LSM-W Scoring

Based on the suitability attributes assigned for each of the secondary screening criteria, the LSM-W generated a composite summary score for each 30 m x 30 m pixel within the project study area. In essence LSM-W classified different portions of the project study area from poor (very low suitability for siting wetland restoration projects) to very good (high suitability for siting wetland restoration projects). Composite LSM-W scores ranged from 1 to 5 based on the following scale:

- Very good = All five secondary screening factors scored as Level 1;
- Good = One screening factor scored as Level 2, the rest scored as Level 1;
- Moderate = Two screening factors scored as Level 2, the rest scored as Level 1;
- Marginal = Three or more screening factors scored as Level 2, the rest scored as Level 1; and
- Poor = One or more screening factors scored as Level 3.

The LSM-W output is shown in Figure 4.

FIGURE 4. LAND SUITABILITY MODEL (WETLAND ITERATION) OUTPUT



Notes:

1. Gold colored areas represent areas determined by LSM to have the fewest number of constraints for siting wetland restoration projects, i.e. areas that received a score of 1.
2. Black hatched area represents the Brighton Seminole Reservation.

Application of Phase II Methodology

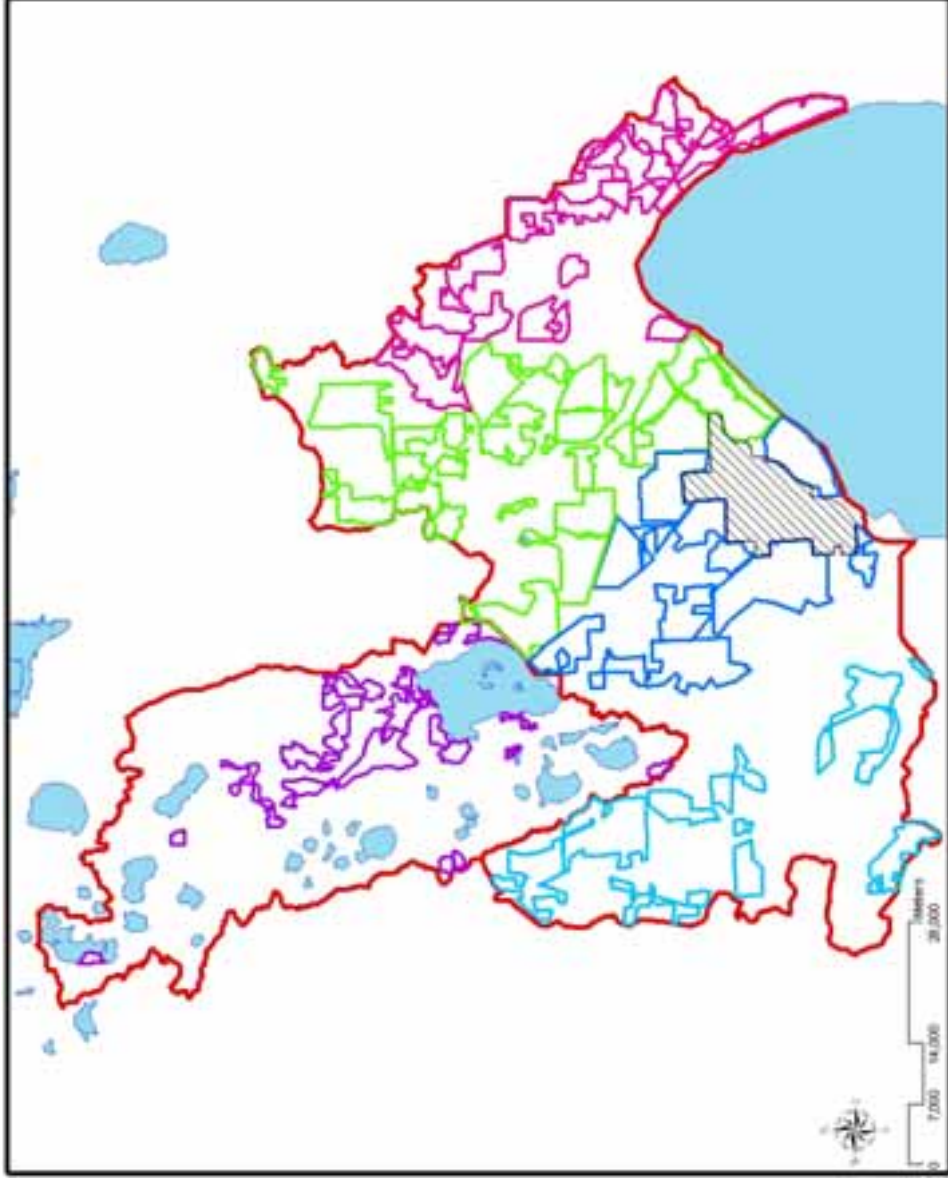
Using ArcGIS software, each 30 m x 30 m pixel was color coded based on its composite LSM–W score with the exception of those pixels within the primary screening factor for land use. Then, by displaying the soils primary screening factor simultaneously with the composite LSM–W scores, polygons were drawn around areas that had a high percentage of historic or existing wetland soils, while simultaneously avoiding or minimizing impacts to marginal or poor suitability areas based on the secondary screening factors. These polygons represented best options for siting wetland restoration projects.

In accordance with Siting Criteria #4 and #12, public lands were generally avoided during the selection process. Where possible and appropriate, polygons were drawn immediately adjacent to public areas. Areas identified by the Florida Forever Projects however, were incorporated into the polygons, wherever appropriate, because these lands have not yet been purchased.

Finally, boundaries of the polygons were modified based on local knowledge about hydrologic features and patterns such as more specific land use, flooding, elevation, property owners, and water management measures implemented, etc.

One hundred and six potential sites (**Figure 5**) were identified in the project study through the application of the secondary screening criteria to the results obtained from application of the primary screening factors.

FIGURE 5. WETLAND RESTORATION SITES IDENTIFIED THROUGH THE APPLICATION OF PRIMARY AND SECONDARY SCREENING CRITERIA



Notes:

1. Screened wetland restoration sites are color-coded by LOW Project planning areas (Light Blue = Fisheating Creek; Purple = Lake Istokpoga Watershed; Medium Blue = Lake Istokpoga-Indian Prairie; Green = Kissimmee; Pink = Taylor Creek/Nubbin Slough).
2. Black hatched area represents the Brighton Seminole Reservation.

6.5.3.5 Prioritization of Wetland Restoration Sites

The objective of the site prioritization process was to rank the 106 sites, selected through the screening process, based on additional objective criteria. Sites that received a high ranking for multiple criteria were identified as prime candidates deserving further evaluation during the planning process.

Site Prioritization Ranking Methodology

The methodology for prioritizing the sites involved developing and applying a ranking process based on selected criteria. Eight (8) ranking criteria were identified (**Table 4**) and a ranking process was developed for each criterion. All 106 polygons were ranked based on each of the 8 ranking criteria. Top-ranked sites were then selected based on how often a given polygon received a high rank.

TABLE 4
WETLAND RESTORATION SITE PRIORITIZATION CRITERIA

No.	Ranking Factor	Criteria
1	Soil type	Avoid non-hydric soils.
2	Ecological Value	Avoid or minimize impacts to high quality ecological lands.
3	Contaminants	Target land uses that are not highly disturbed or have the potential for high contaminants load in the soil or water.
4	Economic Value	Avoid or minimize impacts to the regional economy, and coincidentally lessen real estate costs.
5	Summary Score	Target areas that ranked highly across the above four categories.
6	Public Connectivity	Site wetland restoration sites near public lands.
7	Ecological Connectivity	Site wetland restoration sites near high quality ecological lands.
8	SHCA Connectivity	Site wetland restoration areas within four miles of a SHCA for wading birds.

Soils – The rationale was to avoid siting wetland restoration projects in non-hydric soils. The ArcGIS soils layer was converted to a grid and each 30 m x 30 m pixel was assigned a score based upon the following three soils characteristics derived from the National Wetlands Inventory classification:

- Hydric = very poorly drained and poorly drained hydric soils.
- Mesic = poorly drained non-hydric soils.

- Uplands = somewhat poorly drained, moderately drained, excessively drained, or mined/excavated.

Because existing wetlands were previously scored as high ecological value during the Phase II screening process, the hydric soils within the polygons represent non-functioning (*i.e.*, 100% restorable) wetlands. The ArcGIS soils layer was clipped to the individual potential wetland polygons identified through the LSM-W in order to determine the number of acres of each soil category within the potential wetland polygon. The percentage of each soil category within the potential wetland polygon was then determined and the percentages were converted to a score based on the following:

- Percentage of hydric soils divided by 100 times 3,
- Percentage of mesic soils divided by 100 times 2, and
- Percentage of uplands soils divided by 100 times 1.

Values for the three soil types were averaged into a single score that was rounded to the nearest hundredth. For example, a 1,000-acre wetland polygon with 650 acres of hydric soils, 200 acres of mesic soils, and 150 acres of upland soils was scored as follows:

Step 1

650/1000 x 100 = 65% Hydric
 200/1000 x 100 = 20% Mesic
 150/1000 x 100 = 15% Upland

Step 2

Hydric: 65/100 x 3 = 1.95
 Mesic: 20/100 x 2 = 0.40
 Upland: 15/100 x 1 = 0.15

Average soils score for the given polygon = (1.95 + 0.40 + 0.15)/3 = 0.83

Average soils scores for the 106 polygons are shown in **Appendix B**.

Ecological Value – The rationale for selecting this criterion was to avoid or minimize impacts to high quality ecological lands (Siting Rule #8). The Ecological Suitability ArcGIS layer created for the LSM-W was used to determine the ecological value score for each polygon. Lands with high ecological value were scored as having low suitability for potential wetland restoration (Siting Rule #3) – *i.e.*, more ecological lift is better. Therefore, FLUCCS codes with an ecological score of 0-3 (low ecological

value) were rated as being highly suitable for restoration, FLUCCS codes with an ecological score of 4-6 (moderate ecological value) were rated as moderately suitable for restoration, and FLUCCS codes with a score of 7-10 (high ecological value) were rated as having low restoration suitability.

This ArcGIS ecological value layer was clipped to the individual polygons and the number of acres of each of the three ecological value scores (*i.e.*, high, moderate and low) was determined. Percentages of each category within each polygon were also calculated and then converted to a score as follows:

- Percentage of polygon with high ecologic value divided by 100 times 1;
- Percentage of polygon with moderate ecological value divided by 100 times 2; and
- Percentage of polygon with low ecological value divided by 100 times 3.

Values for the three ecological types were averaged into a single score then rounded to the nearest hundredth. For example, a 1,000-acre polygon with 150 acres rated as high ecological value, 200 acres as moderate ecological value, and 650 acres as low ecological value was scored as follows:

Step 1

150/1000 x 100 = 15% High
 200/1000 x 100 = 20% Moderate
 650/1000 x 100 = 65% Low

Step 2

High: 15/100 x 1 = 0.15
 Moderate 20/100 x 2 = 0.40
 Low 65/100 x 3 = 1.95

Average ecological score for the given polygon = (0.15 + 0.40 + 1.95)/3 = 0.83

Average ecological scores of the 106 polygons are shown in **Appendix B**.

Contaminants – The objective was to target land uses that are not highly disturbed or that do not have the potential for high contaminant load in the soil or water. The Contaminant Suitability ArcGIS layer created for the LSM–W Model was used to determine the contaminant score for each polygon. This layer was clipped to the individual potential polygons and

the number of acres of each of the three contaminant suitability attribute levels (*i.e.*, high, moderate and low) was determined.

The percentage of each category within each polygon was calculated and the percentages were then converted into a score as follows:

- Percentage of polygon with high probability of contaminants divided by 100 times 1;
- Percentage of polygon with moderate probability of contaminants divided by 100 times 2;
- Percentage of polygon with low probability of contaminants divided by 100 times 3.

The three values were averaged and rounded to the nearest hundredth to come up with a mean contaminant score for each polygon. For example, a 1,000-acre polygon with 150 acres rated as having high potential for contaminants, 200 acres rated as having moderate potential for contaminants, and 650 acres rated as having low potential for contaminants was scored as follows:

Step 1

150/1000 x 100 = 15% High
 200/1000 x 100 = 20% Moderate
 650/1000 x 100 = 65% Low

Step 2

High: 15/100 x 1 = 0.15
 Moderate 20/100 x 2 = 0.40
 Low 65/100 x 3 = 1.95

Average contaminant score for the given polygon = (0.15 + 0.40 + 1.95)/3
 = 0.83

Average contaminant scores for the 106 polygons are presented in **Appendix B**.

Economic Value – The objective was to avoid or minimize impacts to the regional economy, and coincidentally lessen real estate costs. The Economic Suitability ArcGIS layer created for the LSM–W was used to determine the ecological value score for each polygon. This layer was clipped to the individual potential polygons and the number of acres within the polygon that corresponded to the three economic value attributes (*i.e.*, high, moderate and low) was calculated.

Based upon these acreage calculations, the percentage of each category within the potential wetland polygon was determined and the percentages were then converted into a score as follows:

- Percentage of polygon with high economic value divided by 100 times 1;
- Percentage of polygon with moderate economic value divided by 100 times 2; and
- Percentage of polygon with low economic value divided by 100 times 3.

The three values were averaged and rounded to the nearest hundredth to determine a mean economic value score for each polygon. For example, a 1,000-acre polygon with 150 acres rated as having high economic value, 200 acres rated as having moderate economic value, and 650 acres as having low economic value was scored as follows:

Step 1

150/1000 x 100 = 15% High
 200/1000 x 100 = 20% Moderate
 650/1000 x 100 = 65% Low

Step 2

High: 15/100 x 1 = 0.15
 Moderate 20/100 x 2 = 0.40
 Low 65/100 x 3 = 1.95

Average economic score for the given polygon = $(0.15 + 0.40 + 1.95)/3 = 0.83$

Average economic scores for the 106 polygons are shown in **Appendix B**.

Summary Scores – This score was included in order to weight the secondary screening criteria and suitability attributes within the prioritization process. Based upon the siting criteria (6.5.3.1) and BPJ these factors were determined to be significant contributing factors to successful wetland restoration. The summary score was developed for each of the 106 polygons by averaging the four mean site prioritization ranking criteria scores (*i.e.*, soils, ecological value, contaminants, and economic value). Thus a polygon with a soils score of 0.81, ecological value score of 0.82, a contaminants score of 0.84, and an economic value score of 0.85 received a summary score of $\{(0.81+0.82+0.84+0.85)/4\}$ 0.83. Summary scores for the 106 polygons are shown in **Appendix B**.

Public Lands Connectivity – The objective was to site wetland restoration sites, to the extent possible, contiguous with public lands since this would provide an ecological buffer for the proposed restoration project. Also, placing restored wetlands adjacent to public lands would lead to the formation of larger blocks of habitat that would serve as animal migration corridors and increase the likelihood that a diversity of habitat types would be available for species that have more complex lifecycles (e.g., terrestrial amphibians that spawn in water).

Corridors are thought to increase the exchange of individuals between habitat patches, promoting genetic exchange and reducing population fluctuations. In addition, corridors not only increase the exchange of animals between patches, but also facilitate two key plant-animal interactions: pollination and seed dispersal (Tewksbury *et al.* 2002). The beneficial effects of corridors extend beyond the area they add, and increased plant and animal movement through corridors have positive impacts on plant populations and community interactions in fragmented landscapes (Tewksbury *et al.* 2002).

Data sources used for this analyses included those provided by the Florida Natural Areas Inventory (Florida Managed Lands and Florida Forever layers), The Nature Conservancy (FLOW projects), Florida Fish and Wildlife Conservation Commission (mottled duck production area, wildlife management areas), and Natural Resources Conservation Service (Wetland Reserve Program easements).

Total perimeter length of each polygon and the percentage of that perimeter shared with public lands v/s non-public lands was calculated and then the percentages were converted into a public connectivity score as follows:

- Percentage of polygon adjacent to public lands divided by 100 times 1;
- Percentage of polygon not connected to public lands divided by 100 times 0.

The two values were averaged and rounded to the nearest hundredth to come up with a public connectivity score for each polygon. As an example, a polygon with a perimeter of 1,000 meters that borders 850 meters of public land and 150 meters of private land was scored as follows:

Step 1

$850/1000 \times 100 = 85\%$ Public Connectivity
 $150/1000 \times 100 = 15\%$ Private Connectivity

Step 2

Public Connectivity: $85/100 \times 1 = 0.85$

Private Connectivity: $15/100 \times 0 = 0.00$

Average public connectivity scores for the given polygon = $(0.85 + 0.00)/2$
= $0.475 = 0.48$

Average public connectivity scores for the 106 polygons are shown in **Appendix B**.

Ecological Connectivity – The goal was to site wetland restoration areas near high quality ecological lands since this would provide substantial benefits to wildlife. Habitat patches surrounded by unfavorable land uses (*i.e.*, urban, agricultural) behave like islands. These “island” populations are much more susceptible to problems associated with small population size. Furthermore, bird species diversity increases with size of the habitat patch in urban forests (Tilghman 1987) and wetlands (Brown and Dinsmore 1986).

By siting wetland restoration sites adjacent to high ecological value areas, the patch size effectively increases and the restored wetland sites are more likely to be buffered from adverse ecological impacts than if they were surrounded by areas with low ecological values. Also, the formation of larger blocks of habitat provides animal migration corridors and increases the likelihood that a diversity of habitat types is available for species that have more complex lifecycles (*e.g.*, terrestrial amphibians that spawn in water).

Spatial data coverages for high ecological value areas were taken from the LSM-W ecological value layer. Areas with high ecological value (score of 7 to 10) were converted into a new ArcGIS layer for use in determining connectivity of potential wetland restoration sites with high quality ecological areas.

For each polygon, perimeter length shared with areas of high, moderate and low ecological value was determined as a percentage of the total perimeter and the percentages were converted into an ecological connectivity score as follows:

- Percentage of polygon adjacent to high ecological value areas divided by 100 times 3;
- Percentage of polygon adjacent to moderate ecological value areas divided by 100 times 2;

- Percentage of polygon of low ecological value areas divided by 100 times 1.

The three values were averaged and rounded to the nearest hundredth to establish an ecological connectivity score for each polygon. For example: A polygon with a total perimeter of 5,000 meters of which 3,250 meters are shared with high ecological value area, 1,000 meters are shared with moderate ecological value area, and 750 meters are shared with low ecological value area was scored as follows:

Step 1

$3250/5000 \times 100 = 65\%$ High

$1000/5000 \times 100 = 20\%$ Moderate

$750/5000 \times 100 = 15\%$ Low

Step 2

High: $65/100 \times 3 = 1.95$

Moderate $20/100 \times 2 = 0.40$

Low $15/100 \times 1 = .15$

Average ecological connectivity score for the given polygon = $(1.95 + 0.40 + 0.15)/3 = 0.83$

Average ecological connectivity scores for the 106 polygons are shown in **Appendix B**.

Strategic Habitat Conservation Area (SHCA) Connectivity – The objective was to site wetland restoration areas within 4 miles of a SHCA for wading birds. One of the objectives of the CERP is to support the return of large nesting rookeries of wading birds. Wading birds (*e.g.*, herons, egrets, ibis, and storks) are symbolic of the overall health of south Florida. Wading birds, perhaps more than any other animal, assess the quality of habitats over the entire basin of south Florida wetlands, before making “decisions” about where and when, or even whether, to nest. The recovery of the wading bird colonies will be a sure sign that the entire ecosystem has made substantial progress towards recovery (Corps 1999).

ArcGIS data layer created by Cox *et al.* (1994) of SHCAs for wading birds was used as the input layer. This layer includes wetlands important to the breeding success of eight species of wading birds including wood stork, white ibis (*Eudocimus albus*), little blue heron (*Egretta caerulea*), tricolored heron (*Egretta tricolor*), snowy egret (*Egretta thula*), great egret

(*Casmerodius albus*), reddish egret (*Egretta rufescens*), and roseate spoonbill (*Ajaia ajaja*). Cox *et al.* (1994) had generated buffers around nesting colonies based upon the maximum distances that each of the eight species would travel from the colony to a foraging area (Custer and Osborn 1978, Frederick and Collopy 1988, Bancroft *et al.* 1990). These distances varied among species; for example, the majority of the wading birds would travel a distance of approximately 15 km, while wood storks would travel up to 30 km, but reddish egrets would only travel a distance of 10 km.

A four-mile buffer zone (approximately equal to the 10 km minimum distance in Cox *et al.* 1994) around each polygon was judged to be adequate for this criterion. In order to be conservative, the buffer was based upon the smallest maximum distance that a wading bird would travel from the colony to a foraging site. GIS coverages were reviewed visually to determine whether a SHCA was either within a potential wetland restoration polygon, within the 4-mile buffer, or outside the 4-mile buffer and scores were assigned to each polygon as follows:

- SHCA contained within the polygon = 3
- SHCA located within the 4-mile buffer zone = 2
- SHCA located outside the 4-mile buffer zone = 1

An “average” SHCA score was then calculated by dividing the SHCA score by 3. For example:

- SHCA contained wholly within the polygon – average score = $3/3 = 1$
- SHCA located within the 4-mile buffer zone – average score = $2/3 = 0.67$
- SHCA located outside the 4-mile buffer zone – average score = $1/3 = 0.33$

Each polygon was then ranked based on its average connectivity to the wading bird SHCA score. These ranking are shown in **Appendix B**.

Application of site prioritization ranking methodology

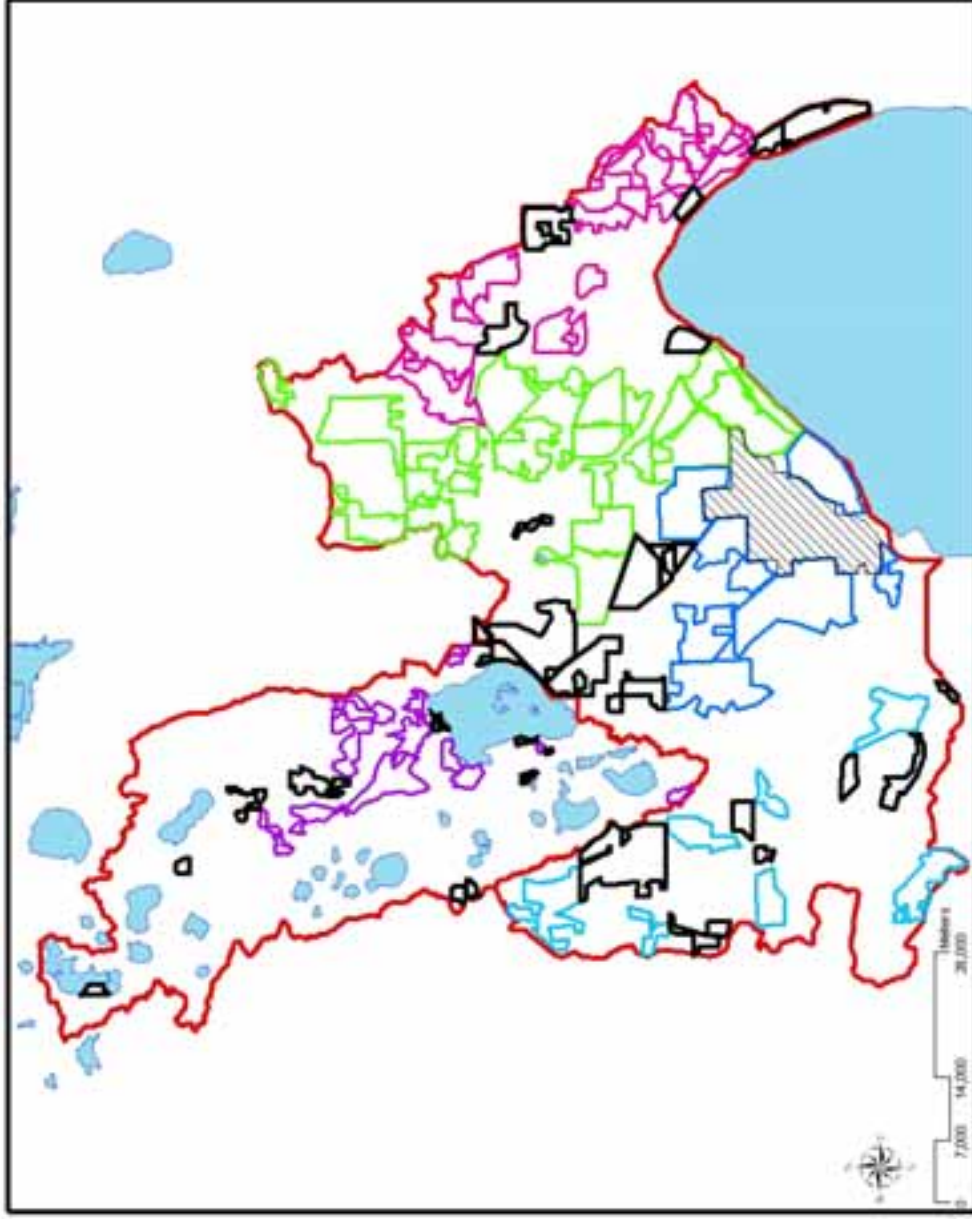
All 106 polygons were ranked by each of the eight ranking criteria described above and the rankings were tabulated in a spreadsheet. The top twenty-five ranked polygons in each of the eight categories were flagged with an “X”. The total number of flags received by each polygon was then added to obtain a final prioritization score, which ranged from 0 (not in the top 25 for any of the eight categories) to 8 (in the top 25 for all eight categories). A score of 3 or higher indicated higher suitability for

siting a wetland restoration project. The results of the site prioritization process are presented in **Appendix C**.

Of the 106 polygons ranked through this process, 32 received a score of 3 or higher (**Figure 6**) and these top-ranked potential sites will be evaluated further in the planning process.

Detailed information on each of the top-ranked 32 polygons is currently being developed. When completed this information will be included in **Appendix D**, which will be published as an addendum to this report.

FIGURE 6. TOP-RANKED WETLAND RESTORATION SITES



Notes:

1. Top ranked sites are shown in black.
2. Black hatched area represents the Brighton Seminole Reservation.

Literature Cited

Bancroft, G.T., S.D. Jewel, and A.M. Strong. 1990. Foraging and nesting ecology of herons in the Lower Everglades relative to water conditions. Final Report. Environmental Sciences Division, South Florida Water Management District. West Palm Beach, Florida.

Brown, M. and J.J. Dinsmore. 1986. Implications of marsh size and isolation for marsh bird management. *Journal of Wildlife Management* 50(3):392-397.

Cox, J., R. Kautz, M. MacLaughlin, and T. Gilbert. 1994. Closing the gaps in Florida's wildlife habitat conservation system. Office of Environmental Services, Florida Game and Freshwater Fish Commission. Tallahassee, Florida.

Custer, T.W., and R.G. Osborn. 1978. Feeding-site description of three heron species near Beaufort, North Carolina. Pages 255-360 in Sprunt, A., IV, J. C. Ogden, and S. Winckler (eds.). *Wading birds*. National Audubon Society. New York, New York.

Environmental Consulting and Technology, Inc. 2000. Environmental site assessment and ecological risk assessment for McMurrain Farms, Palm Beach County, Florida. Prepared for the South Florida Water Management District, West Palm Beach, Florida. August.

Frederick, P., and M. Collopy. 1988. Reproductive ecology of wading birds in relation to water conditions in the Florida Everglades. Technical Report No. 30. Florida Cooperative Fish and Wildlife Research Unit, School of Forest Resources and Conservation, University of Florida. Gainesville, Florida.

Florida Department of Transportation. 1999. Florida land use, cover and forms classification system. Thematic Mapping Section. Tallahassee, Florida.

South Florida Water Management District (SFWMD). 1997. Florida Surface Water Improvement and Management (SWIM) Act Plan for Lake Okeechobee. West Palm Beach, Florida.

Tewksbury, J.J., D.J. Levey, N.M. Haddad, S. Sargent, J.L. Orrock, A. Weldon, B.J. Danielson, J. Brinkerhoff, E.I. Damschen, and P. Townsend. 2002. Corridors affect plants, animals, and their interactions in fragmented landscapes. *Proceedings of the National Academy of Sciences* 99(20):12923-12926.

Tilghman, N.G. 1987. Characteristics of urban woodlands affecting winter bird diversity and abundance. *Forest Ecology and Management* 21:163-175.

URS Corporation. 2003. Berry Labelle-Congen Grove. Ecological Risk Assessment. Hendry County, Florida. Prepared for the South Florida Water Management District, West Palm Beach, Florida.

U.S. Army Corps of Engineers (Corps). 1999. Central and south Florida project comprehensive review study. Final integrated feasibility report and programmatic Environmental Impact Statement. Jacksonville District Office, Jacksonville, Florida.

Appendix A

Secondary Screening Scores

Appendix A. FLUCCS Codes and their ecological value, contaminants and economic value scores as determined by Best Professional Judgment.

FLUCCS Code	FLUCCS Code Description Category	FLUCCS Code Description	Ecological Value	Potential for Contaminants	Economic Value
1009	Residential	Mobile Home Units Any Density	1	Medium	High
1100	Residential	Residential Low Density <2 du/ac	2	Medium	High
1110	Residential	Fixed Single Family Units <2 du/ac	2	Medium	High
1120	Residential	Mobile Home Units Any Density	1	Medium	High
1130	Residential	Mixed Units (Fixed and mobile home units)<2 du	2	Medium	High
1190	Residential	Low Density Under Construction<2 du/ac	2	Medium	High
1200	Residential	Residential Medium Density 2-5 du/acre	1	Medium	High
1210	Residential	Fixed Single Family Units 2-5 du/ac	1	Medium	High
1220	Residential	Mobile Home Units	1	Medium	High
1230	Residential	Mixed Units (Fixed and mobile home units) 2-5	1	Medium	High
1290	Residential	Medium Density Under Construction 2-5 du/ac	1	Medium	High
1300	Residential	Residential High Density	0	Medium	High
1310	Residential	Fixed Single Family Units	1	Medium	High
1320	Residential	Mobile Home Units (6 or more du/acre)	1	Medium	High
1330	Residential	Multiple Dwelling Units Low Rise	0	Medium	High
1340	Residential	Multiple Dwelling Units High Rise	0	Medium	High
1350	Residential	Mixed Units <Fixed and mobile home units>	1	Medium	High
1390	Residential	High Density Under Construction	0	Medium	High
1400	Commercial & Services	Commercial and Services	0	Medium	High
1410	Commercial & Services	Retail Sales and Services	0	Medium	High
1411	Commercial & Services	Retail Sales and Services - Shopping Centers	0	Medium	High
1420	Commercial & Services	Wholesale Sales and Services	0	Medium	High
1423	Commercial & Services	Wholesale Sales and Services - Junk Yards	0	High	High
1430	Commercial & Services	Professional Services	0	Medium	High
1440	Commercial & Services	Cultural and Entertainment	0	Medium	High
1450	Commercial & Services	Tourist Services	0	Medium	High
1453	Commercial & Services	Travel Trailer Parks	0	Medium	High
1460	Commercial & Services	Oil and Gas Storage	0	High	High
1470	Commercial & Services	Mixed Commercial and Services	0	Medium	High
1480	Commercial & Services	Cemeteries	3	Medium	High
1490	Commercial & Services	Commercial and Services Under Construction	0	Medium	High
1500	Industrial	Industrial Under Construction	0	High	High

Appendix A, continued. FLUCCS Codes and their ecological value, contaminants and economic value scores as determined by Best Professional Judgment.

FLUCCS Code	FLUCCS Code Description Category	FLUCCS Code Description	Ecological Value	Potential for Contaminants	Economic Value
1510	Industrial	Food Processing	0	Medium	High
1520	Industrial	Timber Processing	0	Medium	High
1530	Industrial	Mineral Processing	0	High	High
1540	Industrial	Oil and Gas Processing	0	High	High
1550	Industrial	Other Light Industrial	0	High	High
1560	Industrial	Other Heavy Industrial	0	High	High
1590	Industrial	Industrial Under Construction	0	High	High
1600	Industrial	Extractive	0	Medium	High
1610	Industrial	Strip Mines	0	Medium	High
1620	Industrial	Sand and Gravel Pits	0	Medium	High
1630	Industrial	Rock Quarries	0	Medium	High
1640	Industrial	Oil and Gas Fields	1	High	High
1650	Industrial	Reclaimed Land	1	Medium	High
1660	Industrial	Holding Ponds	0	High	High
1700	Institutional	Institutional	1	Medium	High
1710	Institutional	Educational Facilities	1	Medium	High
1720	Institutional	Religious	1	Medium	High
1730	Institutional	Military	4	Medium	High
1740	Institutional	Medical and Health Care	0	Medium	High
1750	Institutional	Governmental	0	Medium	High
1751	Institutional	City Halls	0	Medium	High
1760	Institutional	Correctional	0	Medium	High
1761	Institutional	State Prisons	0	Medium	High
1763	Institutional	Juvenile Centers	0	Medium	High
1770	Institutional	Other Institutional	0	Medium	High
1780	Institutional	Commercial Child Care	0	Medium	High
1790	Institutional	Institutional Under Construction	0	Medium	High
1800	Recreational	Recreational	1	Medium	High
1810	Recreational	Swimming Beach	1	Medium	High
1820	Recreational	Golf Courses	2	Medium	High
1830	Recreational	Race Tracks	0	High	High
1840	Recreational	Marinas and Fish Camps	1	High	High

Appendix A, continued. FLUCCS Codes and their ecological value, contaminants and economic value scores as determined by Best Professional Judgment.

FLUCCS Code	FLUCCS Code Description Category	FLUCCS Code Description	Ecological Value	Potential for Contaminants	Economic Value
1841	Recreational	Marinas (Basins)	1	High	High
1850	Recreational	Parks and Zoos	1	Low	High
1860	Recreational	Community Recreational Facilities	1	Low	High
1870	Recreational	Stadiums	0	Medium	High
1880	Recreational	Historical Sites	2	Low	High
1890	Recreational	Other Recreational	1	Medium	High
1900	Open Land	Open Land	2	Medium	Medium
1910	Open Land	Undeveloped Land within urban areas	2	Medium	Medium
1920	Open Land	Inactive Land with street pattern	1	Medium	High
1930	Open Land	Urban Land in transition	1	Medium	High
1940	Open Land	Other Open Land	5	Medium	Medium
2100	Pastureland	Cropland and Pastureland	2	Low	Medium
2110	Pastureland	Improved Pastures	3	Low	Medium
2120	Pastureland	Unimproved Pastures	5	Low	Low
2130	Pastureland	Woodland Pastures	6	Low	Low
2140	Cropland	Row Crops	1	High	Medium
2150	Cropland	Field Crops	1	High	Medium
2156	Cropland	Field Crops - Sugar Cane	1	Low	Medium
2200	Tree Crops	Tree Crops	2	Medium	Medium
2210	Tree Crops	Citrus Groves	2	Medium	Medium
2220	Tree Crops	Fruit Orchards	2	Medium	Medium
2230	Tree Crops	Other Groves	2	Medium	Medium
2310	Feeding Operations	Cattle Feeding Operations	1	High	Medium
2320	Feeding Operations	Poultry Feeding Operations	1	High	Medium
2330	Feeding Operations	Swine Feeding Operations	1	High	Medium
2400	Nurseries & Vineyards	Nurseries and Vineyards	1	Medium	Medium
2410	Nurseries & Vineyards	Tree Nurseries	2	Medium	Medium
2420	Nurseries & Vineyards	Sod Farms	1	Medium	Medium
2430	Nurseries & Vineyards	Ornamentals	1	High	Medium
2440	Nurseries & Vineyards	Vineyards	2	Medium	Medium
2450	Nurseries & Vineyards	Floriculture	1	High	Medium
2460	Nurseries & Vineyards	Timber Nursery	4	Low	Medium

Appendix A, continued. FLUCCS Codes and their ecological value, contaminants and economic value scores as determined by Best Professional Judgment.

FLUCCS Code	FLUCCS Code Description Category	FLUCCS Code Description	Ecological Value	Potential for Contaminants	Economic Value
2500	Specialty Farms	Specialty Farms	1	Medium	Medium
2510	Specialty Farms	Horse Farms	3	Low	Medium
2520	Specialty Farms	Dairies	2	Medium	Medium
2530	Specialty Farms	Kennels	1	Medium	Medium
2540	Specialty Farms	Aquaculture	2	Medium	Medium
2590	Specialty Farms	Other	1	High	Medium
2600	Open Land	Other Open Lands Rural	3	High	Medium
2610	Cropland	Fallow Crop Land	3	High	Medium
3100	Rangeland	Herbaceous Rangeland	10	Low	Low
3200	Rangeland	Shrub and Brushland	8	Low	Low
3210	Rangeland	Palmetto Prairies	9	Low	Low
3220	Upland Forests	Coastal Scrub	10	Low	Low
3290	Rangeland	Other Shrubs and Brush	8	Low	Low
3300	Rangeland	Mixed Rangeland	8	Low	Low
4000	Upland Forests	Upland Forests	10	Low	Low
4100	Upland Forests	Upland Coniferous Forest	10	Low	Low
4110	Upland Forests	Pine Flatwoods	8	Low	Low
4119	Upland Forests	Pine Flatwoods - Melaleuca Infested	5	Low	Low
4120	Upland Forests	Longleaf Pine - Xeric Oak	10	Low	Low
4130	Upland Forests	Sand Pine	10	Low	Low
4140	Upland Forests	Pine - Mesic Oak	8	Low	Low
4190	Upland Forests	Other Pines	8	Low	Low
4200	Upland Forests	Upland Hardwood Forest	10	Low	Low
4210	Upland Forests	Xeric Oak	10	Low	Low
4220	Upland Forests	Brazilian Pepper	2	Low	Low
4230	Upland Forests	Oak - Pine - Hickory	8	Low	Low
4240	Upland Forests	Melaleuca	2	Low	Low
4250	Upland Forests	Temperate Hardwood	10	Low	Low
4260	Upland Forests	Tropical Hardwoods	10	Low	Low
4270	Upland Forests	Live Oak	8	Low	Low
4280	Upland Forests	Cabbage Palm	8	Low	Low
4290	Upland Forests	Wax Myrtle - Willow	7	Low	Low

Appendix A, continued. FLUCCS Codes and their ecological value, contaminants and economic value scores as determined by Best Professional Judgment.

FLUCCS Code	FLUCCS Code Description Category	FLUCCS Code Description	Ecological Value	Potential for Contaminants	Economic Value
4310	Upland Forests	Beech - Magnolia	10	Low	Low
4320	Upland Forests	Sand Live Oak	10	Low	Low
4330	Upland Forests	Western Everglades Hardwoods	10	Low	Low
4340	Upland Forests	Hardwood Conifer Mixed	8	Low	Low
4350	Upland Forests	Dead Trees	5	Low	Low
4360	Upland Forests	Upland Scrub, Pine and Hardwoods	10	Low	Low
4370	Upland Forests	Australian Pine	2	Low	Low
4380	Upland Forests	Mixed Hardwoods	10	Low	Low
4390	Upland Forests	Other Hardwoods	8	Low	Low
4400	Silvaculture	Tree Plantations	4	Low	Medium
4410	Silvaculture	Coniferous Plantations	4	Low	Medium
4420	Silvaculture	Hardwood Plantations	4	Low	Medium
4421	Silvaculture	Eucalyptus Plantations	2	Low	Medium
4430	Silvaculture	Forest Regeneration Areas	5	Low	Low
4440	Silvaculture	Experimental Tree Plots	3	Low	Medium
4450	Silvaculture	Seed Plantations	4	Low	Medium
5100	Open Water	Streams and Waterways	10	Low	Low
5200	Open Water	Lakes	10	Low	Low
5210	Open Water	Lakes larger than 500 acres	10	Low	Low
5220	Open Water	Lakes larger than 100 acres - less than 500 ac	10	Low	Low
5230	Open Water	Lakes Larger than 10 acres - less than 100 ac	10	Low	Low
5240	Open Water	Lakes less than 10 acres	10	Low	Low
5300	Open Water	Reservoirs	5	Low	Low
5310	Open Water	Reservoirs larger than 500 acres	5	Low	Low
5320	Open Water	Reservoirs larger than 100 acres - less than 5	5	Low	Low
5330	Open Water	Reservoirs larger than 10 acres - less than 10	5	Low	Low
5340	Open Water	Reservoirs less than 10 acres	5	Low	Low
5400	Open Water	Bays and Estuaries	10	Low	Low
5410	Open Water	Embayments opening	10	Low	Low
5420	Open Water	Embayments not opening	10	Low	Low
5500	Open Water	Major Springs	10	Low	Low
5600	Open Water	Slough Waters	6	Low	Low

Appendix A, continued. FLUCCS Codes and their ecological value, contaminants and economic value scores as determined by Best Professional Judgment.

FLUCCS Code	FLUCCS Code Description Category	FLUCCS Code Description	Ecological Value	Potential for Contaminants	Economic Value
6100	Wetlands	Wetland Hardwood Forest	10	Low	Low
6110	Wetlands	Bay Swamps	10	Low	Low
6120	Wetlands	Mangrove Swamps	10	Low	Low
6130	Wetlands	Gum Swamps	10	Low	Low
6140	Wetlands	Titi Swamps	10	Low	Low
6150	Wetlands	Stream and Lake Swamps (Bottomland)	10	Low	Low
6160	Wetlands	Inland Ponds and Sloughs	7	Low	Low
6170	Wetlands	Mixed Wetland Hardwoods	10	Low	Low
6171	Wetlands	Mixed Wetland Hardwoods - Willows	8	Low	Low
6172	Wetlands	Mixed Wetland Hardwoods - Mixed Shrubs	8	Low	Low
6200	Wetlands	Wetland Coniferous Forest	10	Low	Low
6210	Wetlands	Cypress	10	Low	Low
6218	Wetlands	Cypress - Melaleuca Infested	8	Low	Low
6219	Wetlands	Cypress - with Wet Prairies	10	Low	Low
6220	Wetlands	Pond Pine	10	Low	Low
6230	Wetlands	Atlantic White Cedar	10	Low	Low
6240	Wetlands	Cypress - Pine - Cabbage Palm	10	Low	Low
6300	Wetlands	Wetland Forested Mixed	10	Low	Low
6400	Wetlands	Vegetated Non-Forested Wetlands	7	Low	Low
6410	Wetlands	Freshwater Marshes	7	Low	Low
6411	Wetlands	Freshwater Marshes - Sawgrass	7	Low	Low
6412	Wetlands	Freshwater Marshes - Cattail	5	Low	Low
6420	Wetlands	Saltwater Marshes	10	Low	Low
6430	Wetlands	Wet Prairies	7	Low	Low
6439	Wetlands	Wet Prairies - with Pine	8	Low	Low
6440	Wetlands	Emergent Aquatic Vegetation	7	Low	Low
6450	Wetlands	Submergent Aquatic Vegetation	10	Low	Low
6510	Wetlands	Tidal Flats	10	Low	Low
6520	Wetlands	Shorelines	10	Low	Low
6530	Wetlands	Intermittent Ponds	7	Low	Low
6540	Wetlands	Oyster Bars	10	Low	Low
7100	Open Land	Beaches Other Than Swimming Beaches	10	Low	Low

Appendix A, continued. FLUCCS Codes and their ecological value, contaminants and economic value scores as determined by Best Professional Judgment.

FLUCCS Code	FLUCCS Code Description Category	FLUCCS Code Description	Ecological Value	Potential for Contaminants	Economic Value
7200	Barren Land	Sand Other Than Beaches	7	Low	Low
7310	Barren Land	Exposed Rock with Marsh Grasses	5	Low	Low
7400	Barren Land	Disturbed Land	2	Medium	Low
7410	Barren Land	Rural land in transition	2	Medium	Low
7420	Barren Land	Borrow Areas	5	Medium	Low
7430	Barren Land	Spoil Areas	1	Medium	Low
7440	Transp., Comm., & Util.	Fill Areas <Highways-Railways>	2	High	Medium
7450	Barren Land	Burned Areas	3	Medium	Low
8000	Transp., Comm., & Util.	Transportation, Communication, Utilities	0	High	High
8100	Transp., Comm., & Util.	Transportation	0	High	High
8110	Transp., Comm., & Util.	Airports	0	High	High
8120	Transp., Comm., & Util.	Railroads	0	High	High
8130	Transp., Comm., & Util.	Bus and Truck Terminals	0	High	High
8140	Transp., Comm., & Util.	Roads and Highways	0	High	High
8150	Transp., Comm., & Util.	Port Facilities	0	High	High
8160	Open Water	Canals and Locks	3	Medium	Medium
8170	Transp., Comm., & Util.	Oil Water or Gas Long Distance Transmission Li	2	High	High
8180	Transp., Comm., & Util.	Auto Parking Facilities	0	High	High
8190	Transp., Comm., & Util.	Transportation Facilities Under Construction	0	High	High
8210	Transp., Comm., & Util.	Transmission Towers	0	High	High
8213	Transp., Comm., & Util.	Antenna Farms	0	High	High
8220	Transp., Comm., & Util.	Communication Facilities	0	High	High
8290	Transp., Comm., & Util.	Communication Facilities Under Construction	0	High	High
8300	Transp., Comm., & Util.	Utilities Under Construction	0	High	High
8310	Transp., Comm., & Util.	Electrical Power Facilities	0	High	High
8320	Transp., Comm., & Util.	Electrical Power Transmission Lines	0	High	High
8330	Transp., Comm., & Util.	Water Supply Plants	0	High	High
8340	Transp., Comm., & Util.	Sewage Treatment	0	High	High
8349	Transp., Comm., & Util.	Sewage Treatment	0	High	High
8350	Transp., Comm., & Util.	Solid Waste Disposal	0	High	High
8390	Transp., Comm., & Util.	Utilities Under Construction	0	High	High

Appendix B

Site Prioritization Ranking Scores

Appendix B. Average scores across categories for potential wetland restoration sites. Table is sorted by planning area wetland identification number, (F = Fishing Creek, IP = Indian Prairie, K = Kissimmee, L1 = Lake Istokpoga, T= Taylor Creek/Nubbin Slough).

Wetland ID	Total Acres	Ave Score (Soils)	Ave Score (Eco Value)	Ave Score (Cont)	Ave Score (Econ Value)	Ave Summary Score	Ave Score (Public Connectivity)	Ave Score (High Eco Connect)	Ave Score (SHCA Waders)	Average Across Categories
F01	1843	0.85	0.75	1.00	0.81	0.85	0.05	0.60	0.20	0.64
F02	646	0.70	0.84	1.00	0.75	0.82	0.00	0.82	0.27	0.65
F03	14201	0.92	0.91	1.00	0.72	0.89	0.04	0.47	0.16	0.64
F04	8654	0.93	0.91	1.00	0.72	0.89	0.05	0.39	0.13	0.63
F05	1979	0.83	0.85	1.00	0.76	0.86	0.00	0.68	0.23	0.65
F06	2406	0.88	0.82	1.00	0.78	0.87	0.00	0.76	0.25	0.67
F07	4335	0.69	0.84	1.00	0.78	0.83	0.15	0.58	0.19	0.63
F08	2106	0.72	0.79	1.00	0.80	0.83	0.21	0.62	0.21	0.65
F09	4046	0.70	0.89	1.00	0.73	0.83	0.00	0.58	0.19	0.62
F10	1609	0.86	0.75	1.00	0.86	0.87	0.04	0.72	0.24	0.67
F11	2921	0.73	0.62	1.00	1.00	0.84	0.20	0.83	0.28	0.69
F12	6746	0.69	0.84	1.00	0.75	0.82	0.20	0.55	0.18	0.63
F13	6183	0.75	0.72	0.99	0.84	0.83	0.14	0.69	0.23	0.65
F14	446	0.80	0.48	1.00	0.77	0.76	0.31	0.71	0.24	0.63
IP01	2058	0.97	0.94	0.99	0.70	0.90	0.00	0.47	0.16	0.64
IP02	10438	0.86	0.88	1.00	0.74	0.87	0.00	0.41	0.14	0.61
IP03	6710	0.99	0.79	1.00	0.79	0.89	0.00	0.53	0.18	0.65
IP04	6391	0.97	0.99	0.98	0.68	0.91	0.04	0.37	0.12	0.63
IP05	5672	0.92	0.91	1.00	0.71	0.88	0.00	0.58	0.19	0.65
IP06	3288	0.83	0.61	0.99	0.99	0.86	0.00	0.62	0.21	0.64
IP07	7277	0.86	0.87	0.99	0.75	0.87	0.09	0.40	0.13	0.62
IP08	12230	0.84	0.86	0.99	0.75	0.86	0.05	0.65	0.22	0.65
IP09	19879	0.86	0.66	0.99	0.90	0.85	0.14	0.65	0.22	0.66
IP10	9906	0.81	0.82	0.98	0.77	0.85	0.21	0.46	0.15	0.63
IP11	3282	0.98	0.98	0.99	0.68	0.91	0.00	0.40	0.13	0.63
IP12	1945	0.67	0.83	1.00	0.77	0.82	0.34	0.52	0.17	0.64
IP13	656	0.79	0.95	1.00	0.70	0.86	0.00	0.43	0.14	0.61
K01	842	0.83	0.67	0.99	0.99	0.87	0.00	0.70	0.23	0.66
K02	9732	0.75	0.84	1.00	0.75	0.84	0.03	0.59	0.20	0.62
K03	2902	0.79	0.92	1.00	0.72	0.86	0.24	0.47	0.16	0.64
K04	10517	0.76	0.92	0.99	0.71	0.84	0.00	0.39	0.13	0.59

Appendix B, continued. Average scores across categories for potential wetland restoration sites. Table is sorted by planning area wetland identification number, (F = Fishing Creek, IP = Indian Prairie, K = Kissimmee, LI = Lake Istokpoga, T= Taylor Creek/Nubbin Slough).

Wetland ID	Total Acres	Ave Score (Soils)	Ave Score (Eco Value)	Ave Score (Cont)	Ave Score (Econ Value)	Ave Summary Score	Ave Score (Public Connectivity)	Ave Score (High Eco Connect)	Ave Score (SHCA Waders)	Average Across Categories
K05	778	0.75	0.88	1.00	0.88	0.88	0.09	0.82	0.27	0.69
K06	2929	0.74	0.87	1.00	0.74	0.84	0.00	0.77	0.26	0.65
K07	1690	0.73	0.87	1.00	0.73	0.83	0.00	0.56	0.19	0.61
K08	2465	0.74	0.91	1.00	0.71	0.84	0.23	0.51	0.17	0.64
K09	2637	0.82	0.97	0.95	0.69	0.85	0.05	0.45	0.15	0.62
K10	2455	0.84	0.96	0.99	0.69	0.87	0.12	0.48	0.16	0.64
K11	455	0.85	0.62	0.99	0.99	0.86	0.37	0.68	0.23	0.70
K12	9287	0.76	0.90	1.00	0.72	0.85	0.03	0.54	0.18	0.62
K13	7231	0.75	0.91	0.99	0.72	0.84	0.07	0.48	0.16	0.62
K14	4621	0.79	0.83	1.00	0.76	0.84	0.22	0.51	0.17	0.64
K15	5902	0.80	0.90	1.00	0.73	0.86	0.00	0.59	0.20	0.64
K16	2276	0.73	0.85	1.00	0.79	0.84	0.03	0.49	0.16	0.61
K17	7008	0.81	0.68	1.00	0.91	0.85	0.00	0.51	0.17	0.62
K18	9629	0.85	0.65	0.99	0.97	0.87	0.03	0.46	0.15	0.62
K19	10575	0.94	0.86	0.99	0.76	0.89	0.03	0.68	0.23	0.67
K20	4157	0.75	0.88	1.00	0.74	0.84	0.00	0.64	0.21	0.63
K21	5783	0.86	0.78	1.00	0.78	0.85	0.03	0.68	0.23	0.65
K22	2361	0.72	0.91	1.00	0.72	0.84	0.06	0.52	0.17	0.62
K23	10624	0.84	0.81	0.98	0.76	0.85	0.15	0.47	0.16	0.63
K24	4197	0.88	0.83	0.98	0.77	0.87	0.18	0.47	0.16	0.64
K25	3897	0.83	0.88	1.00	0.73	0.86	0.20	0.56	0.19	0.66
K26	2460	0.77	0.94	1.00	0.70	0.85	0.00	0.43	0.14	0.60
K27	2030	0.79	0.78	0.99	0.80	0.84	0.00	0.54	0.18	0.62
K28	2286	0.79	0.79	1.00	0.77	0.84	0.00	0.69	0.23	0.64
LI01	1086	1.00	0.39	1.00	0.98	0.84	0.15	0.75	0.25	0.67
LI02	1778	0.72	0.69	0.97	0.82	0.80	0.18	0.54	0.18	0.61
LI03	2589	0.95	0.76	1.00	0.79	0.87	0.20	0.71	0.24	0.69
LI04	910	0.78	0.95	0.88	0.70	0.83	0.00	0.33	0.11	0.57
LI05	2732	0.85	0.87	0.95	0.73	0.85	0.00	0.43	0.14	0.60
LI06	5640	0.71	0.84	0.96	0.75	0.82	0.03	0.40	0.13	0.58
LI07	241	0.74	0.81	0.98	0.75	0.82	0.30	0.75	0.25	0.67

Appendix B, continued. Average scores across categories for potential wetland restoration sites. Table is sorted by planning area wetland identification number, (F = Fishing Creek, IP = Indian Prairie, K = Kissimmee, LI = Lake Istokpoga, T= Taylor Creek/Nubbin Slough).

Wetland ID	Total Acres	Ave Score (Soils)	Ave Score (Eco Value)	Ave Score (Cont)	Ave Score (Econ Value)	Ave Summary Score	Ave Score (Public Connectivity)	Ave Score (High Eco Connect)	Ave Score (SHCA Waders)	Average Across Categories
LI08	673	0.86	1.00	0.68	0.67	0.80	0.25	0.43	0.14	0.60
LI09	1498	0.72	0.88	0.98	0.73	0.83	0.13	0.68	0.23	0.65
LI10	496	0.93	0.96	1.00	0.69	0.89	0.00	0.39	0.13	0.62
LI11	629	0.94	0.91	1.00	0.71	0.89	0.00	0.57	0.19	0.65
LI12	554	0.44	0.98	0.68	0.68	0.69	0.38	0.77	0.26	0.61
LI13	640	0.67	0.73	1.00	0.80	0.80	0.29	0.85	0.28	0.68
LI14	5705	0.91	0.76	0.89	0.79	0.84	0.03	0.48	0.16	0.61
LI15	1270	0.83	0.71	1.00	0.86	0.85	0.18	0.56	0.19	0.65
LI16	551	0.76	0.94	0.87	0.70	0.82	0.15	0.53	0.18	0.62
LI17	1278	0.92	0.84	0.97	0.75	0.87	0.26	0.59	0.20	0.67
LI18	396	0.94	0.42	0.97	0.96	0.82	0.24	0.69	0.23	0.66
LI19	1258	0.76	0.79	0.93	0.77	0.81	0.10	0.45	0.15	0.60
LI20	376	0.82	0.98	0.93	0.67	0.85	0.03	0.37	0.12	0.60
LI21	277	0.93	0.55	0.93	0.95	0.84	0.37	0.97	0.32	0.73
LI22	275	0.95	0.35	1.00	1.00	0.82	0.41	0.96	0.32	0.73
LI23	142	0.97	0.37	0.98	1.00	0.83	0.08	0.48	0.16	0.61
LI24	77	0.98	0.33	1.00	1.00	0.83	0.00	0.77	0.26	0.65
T01	3824	0.78	0.79	1.00	0.78	0.84	0.50	0.48	0.16	0.67
T02	1194	0.70	0.99	0.99	0.67	0.84	0.00	0.35	0.12	0.58
T03	4696	0.73	0.99	1.00	0.68	0.85	0.13	0.47	0.16	0.62
T04	895	0.69	0.81	1.00	0.76	0.81	0.00	0.42	0.14	0.58
T05	226	0.71	1.00	0.98	0.67	0.84	0.00	0.41	0.14	0.59
T06	2748	0.73	0.94	0.98	0.70	0.84	0.07	0.41	0.14	0.60
T07	363	0.70	0.98	1.00	0.68	0.84	0.00	0.57	0.19	0.62
T08	1871	0.69	0.89	1.00	0.72	0.83	0.03	0.83	0.28	0.66
T09	2406	0.69	0.89	0.93	0.72	0.81	0.00	0.79	0.26	0.64
T10	1931	0.68	0.89	1.00	0.74	0.83	0.03	0.58	0.19	0.62
T11	395	0.69	0.97	1.00	0.68	0.84	0.00	0.54	0.18	0.61
T12	3534	0.72	0.96	1.00	0.69	0.84	0.03	0.44	0.15	0.60
T13	1730	0.75	0.93	1.00	0.71	0.85	0.16	0.49	0.16	0.63
T14	1850	0.77	0.87	1.00	0.73	0.84	0.00	0.83	0.28	0.66

Appendix B, continued. Average scores across categories for potential wetland restoration sites. Table is sorted by planning area wetland identification number, (F = Fishing Creek, IP = Indian Prairie, K = Kissimmee, LI = Lake Istokpoga, T= Taylor Creek/Nubbin Slough).

Wetland ID	Total Acres	Ave Score (Soils)	Ave Score (Eco Value)	Ave Score (Cont)	Ave Score (Econ Value)	Ave Summary Score	Ave Score (Public Connectivity)	Ave Score (High Eco Connect)	Ave Score (SHCA Waders)	Average Across Categories
T15	1702	0.72	0.94	1.00	0.70	0.84	0.00	0.76	0.25	0.65
T16	2484	0.74	0.87	1.00	0.73	0.83	0.00	0.59	0.20	0.62
T17	544	0.73	0.90	0.99	0.75	0.85	0.00	0.58	0.19	0.63
T18	1351	0.87	0.87	1.00	0.73	0.87	0.19	0.54	0.18	0.66
T19	1855	0.78	0.95	1.00	0.69	0.86	0.25	0.51	0.17	0.65
T20	3386	0.86	0.96	0.96	0.69	0.87	0.00	0.38	0.13	0.61
T21	6219	0.74	0.92	1.00	0.70	0.84	0.00	0.47	0.16	0.60
T22	8496	0.74	0.91	0.99	0.71	0.84	0.03	0.65	0.22	0.63
T23	2038	0.77	0.85	1.00	0.74	0.84	0.17	0.49	0.16	0.63
T24	5472	0.74	0.91	0.99	0.72	0.84	0.08	0.40	0.13	0.60
T25	1229	0.74	0.92	0.99	0.72	0.84	0.25	0.48	0.16	0.64
T26	2350	0.99	0.97	0.99	0.69	0.91	0.16	0.49	0.16	0.67
T27	5667	0.87	0.99	1.00	0.67	0.88	0.21	0.34	0.11	0.64

Appendix C

Top-Ranked Wetland Restoration Sites

Appendix C. Top potential wetland restoration sites across categories. Wetlands are ranked by their total score across all categories, then by planning area wetland identification number.

Wetland ID	Total Acres	Soils	Eco Suit	Contaminants	Econ Suit	Summary Score	Public Connectivity	Eco Connectivity	SHCA Connectivity	Total Number Across Categories
K05	778			X	X	X		X	X	5
LJ03	2589	X			X	X	X	X		5
LJ18	396	X			X	X	X	X	X	5
LJ24	77	X		X	X	X		X	X	5
T27	5667	X	X	X		X	X			5
F03	14204	X		X		X			X	4
F06	2406	X				X		X	X	4
F08	2106			X	X		X		X	4
F10	1609			X	X	X		X		4
F11	2921			X	X		X	X		4
K19	10575	X				X		X	X	4
LJ10	496	X	X	X		X				4
LJ13	640			X	X		X			4
LJ17	1270	X				X	X		X	4
LJ21	277	X			X	X	X	X		4
LJ22	275	X			X		X	X		4
T18	1351	X		X		X	X			4
F02	646			X				X	X	3
F14	446			X				X		3
IP01	2058	X	X			X	X			3
IP03	6710	X			X	X				3
IP04	6391	X	X			X				3
IP11	3282	X	X			X				3
K01	842				X	X		X		3
LJ01	1086	X			X			X		3
LJ07	241						X	X	X	3
LJ11	629	X				X			X	3
LJ12	554		X				X			3
T03	4696		X	X					X	3
T19	1855		X	X			X			3
T20	3386	X	X	X		X				3
T26	2350	X	X			X				3
F01	1843				X				X	2

Appendix C, continued. Top potential wetland restoration sites across categories. Wetlands are ranked by their total score across all categories, then by planning area wetland identification number.

Wetland ID	Total Acres	Soils	Eco Suit	Contaminants	Econ Suit	Summary Score	Public Connectivity	Eco Connectivity	SHCA Connectivity	Total Number Across Categories
F04	8645	X				X				2
F05	1979			X					X	2
F09	4046			X					X	2
F13	6183				X			X		2
IP02	10438			X		X				2
IP05	5672	X				X	X			2
K08	2465			X						2
K10	2455		X			X				2
K11	455				X		X			2
K14	4621			X			X			2
K18	9629				X	X				2
K24	4197	X				X				2
K28	2286			X				X		2
LI08	673		X				X			2
LI09	1498							X	X	2
LI14	5705	X							X	2
LI15	1270				X				X	2
LI16	551		X						X	2
LI23	142	X			X					2
T08	1871							X	X	2
T09	2406							X	X	2
T11	395		X						X	2
T14	1850			X				X		2
T15	1702		X					X		2
F07	4335								X	1
F12	6746						X			1
IP06	3288				X					1
IP07	7277					X				1
IP08	12230								X	1
IP09	19879				X					1
IP10	9906						X			1
IP12	1945						X			1
IP13	656		X							1

Appendix C, continued. Top potential wetland restoration sites across categories. Wetlands are ranked by their total score across all categories, then by planning area wetland identification number.

Wetland ID	Total Acres	Soils	Eco Suit	Contaminants	Econ Suit	Summary Score	Public Connectivity	Eco Connectivity	SHCA Connectivity	Total Number Across Categories
K03	2902						X			1
K06	2929							X		1
K09	2637		X							1
K12	9287			X						1
K15	5902			X						1
K16	2276				X					1
K17	7008				X					1
K25	3897						X			1
K26	2460		X							1
K27	2030				X					1
L102	1778				X					1
L104	910		X							1
L105	2732								X	1
L120	376		X							1
T01	3824						X			1
T02	1194		X							1
T04	895			X						1
T05	226		X							1
T06	2748		X							1
T07	363		X							1
T12	3534		X							1
T23	2038			X						1
T25	1229						X			1
K02	9732									0
K04	10517									0
K07	1690									0
K13	7231									0
K20	4157									0
K21	5783									0
K22	2361									0
K23	10624									0
L106	5640									0
L119	1258									0

Appendix C, continued. Top potential wetland restoration sites across categories. Wetlands are ranked by their total score across all categories, then by planning area wetland identification number.

Wetland ID	Total Acres	Soils	Eco Suit	Contaminants	Econ Suit	Summary Score	Public Connectivity	Eco Connectivity	SHCA Connectivity	Total Number Across Categories
T10	1931									0
T13	1730									0
T16	2484									0
T17	544									0
T21	6219									0
T22	8496									0
T24	5472									0

Appendix D
Detailed Information on Top-Ranked Wetland
Restoration Sites

WORK IN PROGRESS