Northern Tampa Bay Phase II

Local Technical Peer Review Group Meeting

December 6, 2000
Cypress Creek Well Field Facility

Overheads Used in the Wetlands Presentation

Wetlands Data Collection and MFLs

- Tampa Bay Water wetland data will be used to supplement SWFWMD data, therefore its important that all data needed for the MFL process be collected as part of the EMP program

- However, we are not really interested in reinventing the EMP process

Our projected scheme → Similar to previous work, perform an analysis of biologic assessments versus hydrology to assess minimum levels, while developing a tool to gage health trends

Information needed for the development of MFL methodologies:

1. Wetland Classifications
2. Biologic Assessments
3. Hydrologic Data
4. Normal Pool Elevations

BRIEF DEFINITIONS OF FLUCCS TYPES FOUND IN NTB AREA

FLUCCS #	Wetland Type	Description
610	Wetland Hardwood Forests	> 66% dominated by hardwood species
611	Bay Swamps	dominated by loblolly bay, sweetbay, swamp bay
615	Stream and Lake Swamps	hardwoods, cypress, pines
620	Wetland Coniferous Forests	> 66% dominated by coniferous species
621	Cypress	pond or bald cypress pure or predominant
630	Wetland Forested Mixed	neither hardwoods nor conifers achieve 66 dominance
641	Freshwater Marshes	open wetlands with < 10% trees — may have various dominant species
643	Wet Prairies	dominated by grassy vegetation, less water & shorter herbage

ATTACHMENT B.
Florida Land Use, Cover and Forms Classification System
and Florida Natural Areas Inventory Cross-Reference Table

Community Type Community Group	**Nearest FLUCFCS Code**
WET FLATWOODS	
Hydric Hammock	630
Wet Prairie	643
FLOODPLAIN WETLANDS	
Bottomland Forest	615
Floodplain Forest	621/613/617
Floodplain Marsh	641
Floodplain Swamp	615
Strand Swamp	621/615
BASIN WETLANDS	
Basin Marsh	641/643
Basin Swamp	621/613
Depression Marsh	641
Dome Swamp	621
Wetland Coniferous Forests	620
LACUSTRINE	
Flatwoods/Prairie Lake	523
Sandhill Upland Lake	523
Inland Ponds and Sloughs	616
RIVERINE	
Alluvial Stream	510/NA
Blackwater Stream	510
Seepage Stream	510/NA
Spring-run Stream	510

Potential regional wetland subclasses in relation to geomorphic setting, dominant water source and hydrodynamics.

			Potential Regional Wetland Subclasses	
Geomorphic Setting	**Dominant Water Source**	**Dominant Hydrodynamics**	**Eastern US**	**Western US/ Alaska**
Depression	groundwater or interflow	vertical	prairie pothole marshes, Carolina bays	California vernal pools
Fringe (tidal)	ocean	bidirectional, horizontal	Chesapeake Bay and Gulf of Mexico tidal marshes	San Francisco Bay marshes
Fringe (lacustrine)	lake	bidirectional, horizontal	Great Lakes marshes	Flathead Lake marshes
Slope	groundwater	unidirectional, horizontal	fens	avalanche chutes
Flat (mineral soil)	precipitation	vertical	wet pine flatwoods	large playas
Flat (organic soil)	precipitation	vertical	peat bogs; portions of Everglades	peatlands over permafrost
Riverine	overbank flow from channels	unidirectional, horizontal	bottomland hardwood forests	riparian wetlands

HABITAT TYPE EXAMPLES

Abstracted from Table 15 of CYPRESS BRIDGE WELLFIELD HYDROBIOLOGICAL MONITORING REPORT — WY-99 — June 2000

Permittee ID No.	Habitat Type
3	Mixed Tupelo / Cypress Swamp
5	Mixed Swamp
9	Ash Swamp
18	Mixed Hardwood / Coniferous Swamp
19	Cypress Strand
22	Bottomland Hardwoods
23	Herbaceous / Forested Wetland
26	Riverine Swamp
33	Cypress Swamp
36	Cypress / Freshwater Marsh

"MEETING SUMMARY"

December 19, 1996 MFL Wetland Subcommittee Meeting

Attendees: Jim Bays / CH2M HILL
Shirley Denton / BRA
Manny Lopez / SWFWMD
Ross McWilliams / Hillsborough Co.
Ted Rochow / SWFWMD
Richard Schultz /SWFWMD
Chris Shea / WCRWSA
Patty Fesmire / WCRWSA
Scott Emery / Hillsborough Co.
Clark Hull / SWFWMD

..... "Sites will be classified using the following general wetland type categories:"

- **CYPRESS ISOLATED**
- **HARDWOOD**
- **MARSH**
- **CYPRESS MARSH**
- **CYPRESS STRAND**
- **HARDWOOD CONTIGUOUS**

"**Wet prairies** were found to be difficult to establish as a separate system, but initially for practical purposes will be classified with marshes. Wet prairie fringes surrounding cypress domes will be included with cypress."

COMPARISON OF DECEMBER 19, 1996 MFL WETLAND CLASSIFICATION METHODOLOGY WITH DECEMBER 6, 2000 RECOMMENDED CLASSIFICATION METHODOLOGY

December 19, 1996	December 6, 2000
• **CYPRESS ISOLATED**	**CYPRESS ISOLATED**
• **HARDWOOD**	**HARDWOOD ISOLATED**
• **WET PRAIRIE**	**WET PRAIRIE ISOLATED**
• **MARSH**	**MARSH ISOLATED**
• **CYPRESS MARSH**	**CYPRESS MARSH ISOLATED**
• **CYPRESS STRAND**	**CYPRESS CONTIGUOUS**
• **HARDWOOD CONTIGUOUS**	**HARDWOOD CONTIGUOUS**
	MIXED HARDWOOD/CYPRESS CONTIGUOUS

Table. Comparison of Wetland Types and Acreage in Northern Tampa Bay (NTB) and Southern Water Use Caution Area (SWUCA).

Wetland Type	FLUCCS #	NTB acres	% of total in NTB	SWUCA acres	% of total in SWUCA
Wetland Hardwood Forests	610	80	0.1	3,261	0.7
Bay Swamps	611	745	0.4	1,915	0.4
Stream and Lake Swamps	615	68,803	39.1	214,082	46.0
Wetland Coniferous Forests	620	3,618	2.1	5,085	1.1
Cypress	621	41,479	23.6	13,654	2.9
Wetland Forested Mixed	630	18,742	10.7	24,307	5.2
Freshwater Marshes	641	29,102	16.5	153,247	33.0
Wet Prairies	643	13,371	7.6	44,164	9.5
Emergent Aquatic	644	------	------	5,277	1.1
Intermittent Ponds	653	------	------	148	0.03
Sum		175,940	100	465,140	100

Biologic Assessments

Question: *Does the current WAP methodology collect all of the data needed to continue establishing and refining MFL methodologies?*

Conclusion: *It looks like the necessary data is being collected, although there are some new questions.*

Biologic Assessments

New Question: *Are all of the questions structured in such a way that correlations can be performed?*

Solutions: *Review the form of the questions - eliminate yes/no where possible*

Consider categorical analysis study

Biologic Assessments

New Question: *Is the wetland data information being consistently collected in the field?*

Solutions: *Consider conducting field tests to improve training and accuracy*

Biologic Assessments

New Question: *Are ratings being well-documented? That is, are comments relating to known historical conditions, observations not otherwise included in the rating sheets, and other comments being carefully recorded?*

Solution: *Stress documentation, possibly tested for consistency as above.*

Biologic Assessments

New Question: *How will all the data be stored once it is collected? Is the data being collected in a manner suitable for an electronic data base?*

Solution: *Evaluate data base design and review form design for electronic storage*

Biologic Assessments

New Question: *Is an overall wetlands rating method needed? If so, how do we do it?*

Solution: *Consider development of a method during future MFL studies.*

Hydrologic Data

Question: *Is hydrologic data consistently collected by SWFWMD and Tampa Bay Water?*

- Are both staff gauges and surficial wells needed in lakes and wetlands? If so, are they being installed? Where should they be placed?

- Are all wells being constructed consistently, and are all wells of reasonable quality? What surficial well installation standards should be used?

- Are all wells accurately surveyed?

- Are all wells reasonably protected from fire and other sources of harm?

- What should be the frequency of data collection for wetlands and lakes?

- What types of easements should be pursued? Since temporary easements may be terminated at any time by the landowner, with valuable data lost, should we pursue permanent easements? Should there be a mix of easement types?

- What is the status of Tampa Bay Water's database?

Normal Pool

Question: Are we all measuring normal pool consistently?

Solution: Current SWFWMD study

Other tests

Question: Does normal pool work with all types of wetlands?

Question: Are normal pools set for all wetlands?