FLORIDA WETLAND ACREAGE

Prepared by

U.S. FISH & WILDLIFE SERVICE

NATIONAL WETLANDS INVENTORY

9720 Executive Center Drive
Monroe Building - Suite 101
St. Petersburg, FL 33702

January 1984

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INTRODUCTION

In 1974, the U.S. Fish and Wildlife Service directed its Office of Biological Services to design and conduct an inventory of the Nation's wetlands. The mandate was to develop and disseminate technically sound and comprehensive information concerning the characteristics and extent of the Nation's wetlands. The purpose of this information is to foster the wise use of wetlands by providing the information needed to make sound resource management decisions. To accomplish this mandate, principles and methods pertaining to all major aspects of wetland inventory were assimilated and developed by the newly formed National Wetlands Inventory project.

By 1979, it was clear that two very different kinds of information were needed. First, statistics on the current status of wetlands were needed in order to provide sufficient information for modification of existing Federal programs and policies or development of new programs and policies. Secondly, wetland maps for geographic areas of concern were needed for impact assessment of site-specific decisions.

The central National Wetlands Inventory operational team located in St. Petersburg Florida, is the focal point for coordinating all related regional activities. The staff consists of Fish and Wildlife Service personnel, representatives from the U.S. Army Corp of Engineers, the U.S. Geological Survey, and the Soil Conservation Service.

In addition to this staff there are Wetland Coordinators at each of the FWS Regional Offices plus a National Coordinator in Washington, D.C..

Products available from the National Wetland Inventory project include:

1:250,000 scale wetland maps
1:100,000 scale wetland maps
1:24,000 or 1:62,500 scale wetland map or overlays
"Classification of Wetlands and Deepwater Habitats of the United States" December, 1979, Cowardin et al.
Notes to Users of NWI maps
National Wetlands Trend Analysis
List of Hydric Soils
National Wetland Plant Data Base
National Wetland Values Data Base
Mapping Conventions
Training in Wetland Classification System and Use of N.W.I. Products

Only the 1:250,000 scale wetland maps, wetland classification system and trend analysis will be discussed in this report

For information concerning the availability of N.W.I. products, contact the Central Office in St. Petersburg, Florida, or the appropriate Regional Wetland Coordinator. Attachment A.

WETLAND CLASSIFICATION

"Classification of Wetlands and Deepwater Habitats", Cowardin et al, December 1979, was used for this and all other wetland mapping efforts performed by the National Wetlands Inventory. The following nontechnical explanation is provided in order to make the data in this report useful to those not familiar with the classification system. A technical summary of the classification system is provided in Appendix A.

The hierarchial structure of the classification system is illustrated in figure 1. As noted below, the system level provides the most generalized informatin about the resource, with progressively more detail being provided at the subsystem and class levels. Water regime (hydrology) modifier is added after the class. Specific wetlands are identified by a series of letters and numbers, referred to as alpha-numerics, and these are provided in figure 1 and in the description below.

Classification Element Symbol	General, Nontechnical Description
Marine (M)	High energy system with full strength salinity. No woody or herbacious vegetation.
Estuarine (E)	Relatively low energy coastal system, frequently found at mouths of rivers, embayments and between barrier islands and mainland. Salinity usually less than full strength. Woody or herbaceous vegetation may be present.
Riverine (R)	The portion of the river channel that does not contain woody or herbaceous vegetation.
Lacustrine (L)	Lakes, generally 20 acres or larger, that do not contain perennial vegetation.
Palustrine (P)	Swamps, bogs, wet meadows and other traditional freshwater wetlands. Ponds less than 20 acres.
Subtidal	Substrate is continuously submerged.
Intertidal	Substrate exposed and flooded by tides.
Tidal	Water level (but not salinity) is influenced by tides.
Lower Perennial (2)	Relatively slow-flowing water due to gradient.

Classification Element Symbol	General, Nontechnical Description
Limnetic (1)	Lake water 2 meters or deeper
Littoral (2)	Lake water shallower than 2 meters
Aquatic Bed (AB)	Dominated by plants that grow principally on or below the water surface.
Emergent (EM)	Characterized by erect, rooted plants such as cattails in fresh water and saltwater cord grass in saltwater.
Scrub/Shrub (SS)	Woody vegetation less than 20 feet.
Forested (FO)	Woody vegetation over 20 feet.
Open Water (OW)	Surface water where vegetation is absent.
Reef	Coral reefs, mulusk reefs.
Temporal Flooded (A)	Surface water is present for brief periods during the growing season, but the water table usually lies well below the soil surface for most of the season.
Seasonally flooded (C)	Surface water is present for extended periods, especially in the growing season, but is absent by the end of the season. When surface water is absent, the water table is often near the land surface.
Semi-permanently flooded (F)	If surface water persists throughout the growing season, when surface water is absent, the water table is usually at or very near the land surface.
Permanently flooded (H)	Covers the land surface throughout the year in all years. Vegetation is composed of obligate hydrophytes.

EXAMPLE OF WETLAND CLASSIFICATION:

E 2 FO		P EM C	
System:	E = Estuarine	System:	P = Palustrine
Subsystem:	2 = Intertidal	Subsystem:	Does not exist
Class:	FO = Forested	Class:	EM = Emergent
Water Regime:	Not used	Water Regime:	C = Seasonally flooded

Wetland classes can be mixed as shown in the following example:

E2FO/EM = Estuarine Intertidal, Forested mixed with Emergent

WETLANDS AND DEEP WATER HABITATS

System	Subsystem	Class
Marine (M)	Subtidal (1)	-Aquatic Bed (AB) -Reef (RF) -Open Water (OW)
	Intertidal (2)	-Aquatic Bed (AB) -Reef (RF) -Unconsolidated Shore (US) -Open Water (OW)
Estuarine (E)	Subtidal (1)	-Aquatic Bed (AB) -Reef (RF) -Open Water (OW)
	Intertidal (2)	-Aquatic Bed (AB) -Reef (RF) -Emergent Vegetation (EM) -Scrub-Shrub Vegetation (SS) -Forestyed Vegetation (FO)
Riverine (R)	Tidal (1)	-Aquatic Bed (AB) -Unconsolidated Shore (US) -Open Water (OW)
	Lower Perennial (2)	-Aquatic Bed (AB) -Unconsolidated Shore (US) -Open Water (OW)
Lacustrine (L)	Limnetic (1)	-Aquatic Bed (AB)
	Littoral (2)	-Aquatic Bed (AB) -Emergent Vegetation (EM)
Palustrine		-Aquatic Bed (AB) -Emergent Vegetation (EM) -Scrub-Shrub Vegetation (SS) -Forested Vegetation (FO)

Fig. 1. Classification hierarchy of wetlands and deepwater habitats, showing systems, subsystems, and classes. The Palustrine System does not have a subclass or include deepwater habitats. Additional classes exist but were not used in this study.

Read alphanumeric classifications in parenthesis from left to right.

RECONNAISSANCE LEVEL MAPS

(Based on 1979-1980 Photography)

Map Preparation

This series of maps was prepared by delineating wetlands on small scale aerial photography, using the Cowardin et al. wetland classification system, and then transferring the data to U.S.G.S., 1:250,000 scale base maps. Special mapping conventions were established to prevent the maps from being overly cluttered with classification detail (mapping conventions attachment B). Black and white aerial photography at a scale of 1:80,000 flown in 1979-1980 was the principal source of data but 1971-1974 color infra red photography at a scale of 1:60,000 was also used for collateral data where available.

Where there were extensive mixes of small wetlands with uplands (non wetlands) these areas were designated as a complex. According to mapping conventions, delineations in areas that were complexed were to be based on a 60%/40% break and identified with the predominant classification first, (example, U/PFOC meant that 60% of the area was upland (U) and 40% was a PFOC wetland). This same formula was used for disagregating the acreage data presented in this report.

The largest potential error for wetland acreage data is for these aggregated areas. However, as shown in the following table, it is interesting to note that the wetland/upland and upland/wetland acreages appear to balance each other out.

	PFO/U	U/PFO	PEM/U	U/PEM	Other/U	U/Other
Aggregated	1,399,336	1,508,973	938,306	1,164,833	57,826	13,559
Disaggregated	839,602	603,589	562,984	465,933	34,696	5,424

Figure 2. Comparison of Aggregated and Disaggregated Acreage Data by Wetland Type

Wetlands on the Reconnaisance Level Maps were area measured with a computerized video area measuring system (CVAMS) which consists of a video camera, microcomputer, and a density slicing and digitizing device.

General Composition of Wetlands

Of the 12 million acres of wetlands in Florida, only half a million acres are non-vegetated. The non-vegetated wetlands consists of open water less than 20 acres in size and the shallow portion of fresh water lakes greater than 20 acres.

Ninety percent of the vegetated wetlands of Florida are freshwater Palustrine. The remaining 10% are salt or brackish wetlands.

FLORIDA WETLAND ACREAGE
GENERAL SUMMARY

Cover Type	Water Salinity		Total by Cover Type
	Fresh (P)	Salt and Brackish (E2)	
Forested (FO)	7,140,175	674,214	7,814,389
Emergent (EM)	3,213,502	383,317	3,596,819
Total Vegetated	10,353,677	1,057,552	11,411,208
Non-vegetated	272,325 [1]	437,642 [2]	443,614
Total Wetlands (Vegetated and Non-vegetated)	10,625,912	1,494,910	11,854,822

[1] includes non-vegetated shallow waters within the Lacustrine & Riverine Systems

[2] includes non-vegetated shallow waters such as unconsolidated shore.

Figure 3. General Summary of Florida Wetland Acreage

FLORIDA WETLANDS AS PERCENTAGE OF STATE

Habitat	% of State
Wetland and Deepwater	35
Wetlands total (salt and fresh)	32
Vegetated Wetlands (salt and fresh)	31
Wetlands (fresh)	28
Wetlands (salt)	4
Wetlands Vegetated	3
Forested (salt and fresh)	20
Emergent (salt and fresh)	9
Forested/Emergent	2

Figure 4 Percentage of State that is wetland or Deepwater Habitat (based on 37,478,400 acre total for Florida)

WETLANDS DATA BY SYSTEM

Palustrine Wetland Acreage

The forested class was by far the most predominant, comprising 65% of the 10.5 million wetland acres within the Palustrine system. The subclass, Palustrine Forested, with a seasonal water regime (PFOC) exceeded the total of all palustrine emergents by over one million acres (Figure 5). The smallest category of wetlands were those classified in Figure 5 as open water/other. This group which also includes the aquatic bed and unconsolidated shore classes would have had more than the 140,000 acres accounted for in this study if large scale maps had been used. This is due to the minimum mapping unit selected for this effort in order not to make the maps so cluttered that their utility would be diminished. Consequently open water, aquatic beds and shores were incorporated into more prevalent classes of Forested and Emergent vegetation.

The Palustrine wetlands with a temporary water regime are the driest encountered in this system and are considered by some to be transitional between wetland and upland. This is the category over which there are frequent disputes on whether such areas should be considered as wetlands. It is interesting to note that only 8% of the Palustrine wetlands were identified to have a temporary water regime. The reason for more emergent vegetation than forested with a temporary water regime is not known but may be a result of extensive clearing operations for agriculture, silver culture, and other purposes, where natural revegetation is occurring.

Typical vegetation in a Palustrine Forested with a temporary water regime (PFOA) are *Liquidamber styracilua*, *Quercus laurifolia*, *Quercus nigra*, *Myrica cerifera*, *Sambucus canadensis*, *Hypericum fasciculatum*.

Palustrine emeregent wetlands with a temporary water regime (PEMA) typically contain these species: *Agalinis fasciculata*, *Dichromena colorata*, *Eriocaulon decangulare*, *Lachnocaulon anceps*, *Sadatia grandiflora*.

Fifty-nine percent of the Palustrine wetlands in Florida have a seasonally flooded water regime (surface water is present for extended periods, especially early in the growing season). These are the most abundant wetlands in Florida, but the plant species associations between north and south Florida are quite variable. The typical species for the forested class (PFOC) are as follows with (N) and (S) indicating north or south Florida respectively.

Taxodium distichum	*Clethras alnifolia* (N)
Chamaecyparis thoides (N)	*Cornus florida*
Forestiera acuminata	

The most typical species for the emergent (PEMC) category are:

Canna flaccida (S)
Cladium jamaicense (S)
Panicum hemitomon
Polygonum punctatum (S)
Pontederia cordata
Saururus cernuus

The vegetated wetlands that have a permanent water regime (PFOH & PEMH) comprise less than one percent of the Palustrine total. Probably these should have been included in the semipermanent water regime category, since most plants need an occasional draw down to germinate.

Palustrine forested dominated the semipermanent water regime category, containing 22% of the Palustrine total. Typical species are as follows with (N) and (S) indicating north or south Florida:

Carya aquatica	Taxodium distichum
Fraxinus carolinmiana	Pinus serotina
Nyssa aquatica	Cephalanthus occidentalis
Quercus lyrata (N)	Cornus foemina
Salix nigra (N)	Salix caroliniana
Ulmus americana (N)	

The emergents occupying the semipermanent water regime niche, though relatively small in acreage with seven percent of the Palustrine total, are the species most identified with wetlands such as cattails, arrowhead and pickerelweed. Due to the scale of aerial photography, mapping conventions and scale of the map, many of the smaller wetlands of this type were either not identified or included with other wetland types, such as the forested category or, where they occur in narrow bands around lakes, in the Lacustrine system. Typical species occurring in this wetland type are:

Eleocharis cellulosa (S)
Peltandra virginica
Pontederia cordata
Sagittarias lancifolia
Thalia geniculata
Typha domingensis

STATE SUMMARY OF WETLAND ACREAGE
TO WATER REGIME LEVEL OF DETAIL BY SYSTEMS

PALUSTRINE [P] SYSTEM[1]

Class[2]	WATER REGIMES[3] Acres (% of System) Temporary [A]	Seasonal [C]	Semi-Permanent [F]	Permanent [H]	TOTAL BY CLASS Acres	Percent
Forested [FO]	264,000 (3%)	4,174,000 (40%)	2,287,000 (22%)	22,000 (<1%)	6,747,000	(65%)
Emergent [EM]	524,000 (5%)	1,488,000 (14%)	791,000 (7%)	49,000 (<1%)	2,852,000	(27%)
Forested/ Emergent [FO/EM]	33,000 (<1%)	553,000 (5%)	166,000 (2%)	2,000 (<1%)	754,000	(7%)
Open Water/ Other	-0-	1,000	24,000 (<1%)	115,000 (1%)	140,000	(1%)
TOTAL BY WATER REGIMES	821,000 (8%)	6,216,000 (59%)	3,268,000 (31%)	188,000 (2%)	Total Palustrine 10,493,000	

Fig. 5 RELATIVE PERCENTAGE OF PALUSTRINE SYSTEM BY CLASS AND WATER REGIME

TO READ CODE:

Order is: System [1], Class [2], Water Regime [3]. Example in P F O A: [P] represents Palustrine System, [FO] represents the class Forested, and [A] represents temporary water regime.

ESTUARINE WETLAND AND DEEPWATER HABITAT ACREAGE

Estuarine wetlands constitute less than 13% of the total wetlands of Florida occupying 4% of the state. Fourty-six percent of the 1.5 million acres of estuarine wetlands are Forested (includes half of the forested/emergent mix) and 28% as emergent with the remainder being non-vegetated.

The Estuarine Intertidal Forested (E2FO) wetlands, which in this mapping effort included scrub/shrub, are mostly mangrove swamps vegetated by red mangrove (Rhizophora mangle), white mangrove (Laguncularia racemosa), black mangrove (Avicennia germinaus), and to a lesser extent, buttonwood (Conocarpus erecta), and saltbush (Baccharis halimifolia). halimifolia).

There are close to 696,000 acres of mangrove habitat in Florida. Of these, 361,000 acres, or almost half the mangrove habitat of Florida, is located in Monroe County.

The Estuarine intertidal emergent wetlands, commonly referred to as salt marshes, consist predominantly of smooth cord grass (Spartina alterniflora) were flooded regularly (at least once daily) by the tides and lack of needlerush (Juncus roemerianus) were flooded irregularly by the tides. Salt grass (Distichlis spicato), glass wort (Salicornia spp.), salt wort (Batis maritima), sea bite (Suaeda spp.), salt meadow cordgrass (Spartina patens), and Baker's cordgrass (Spartina bakerii) also occur in the estuarine intertidal emergent comnmunities and many of these species are found on flats.

There were 2,600,000 acres designated as estuarine subtidal on the reconnaisance level maps. Of these, over one million acres were aquatic bed, the preponderance of which occur around the Florida keys. The most prevalent species in the aquatic bed class are Haloduli wrightii, Thalasia testudinum, Halophila engelamannii and Cymodocea filiformis.

One thirdf of the roughly one and a half million acres of estuarine sub-tidal open water is located within embayments, such as Tampa Bay, Charlotte Harbor, and Intracoastal Waterway.

RECONNAISANCE LEVEL MAPPING

WETLAND SUMMARY TY TYPE
for Florida

TYPE OF WETLANDS	WETLAND ACREAGE	TYPE OF WETLANDS	WETLAND ACREAGE	TYPE OF WETLANDS	WETLAND ACREAGE
M2US	31257	L20W	41958	POW/U	16206
E2AB	197631	L2US	1223	U/POW	9197
E2AB/US	46367	PABH	4663	FPOA	240486
E2EM	347143	PEMA	450314	PFO/EMA	33124
E2EM/AB	14739	PEMA/U	61407	PFOA/U	34408
E2EM/OW	16096	U/PEMA	92434	U/PFOA	7133
E2EM/US	8392	PEMC/U	810801	PFOC	3504381
E2EM/U	2747	PEM/ABC	1844	PFO/EMC	552628
U/E2EM	2089	PEMC/U	611555	PFOC/U	806574
E2FO	592935	U/PEMC	766831	U/PFOC	460705
E2FO/OW	41647	PEMF	491631	PFOF	1510033
E2FO/AB	15442	PEM/ABF	4844	PFO/ABF	3040.27232
E2FO/EM	65647	PEM/OWF	32010	PFO/EMF	166182
E2FO/US	45627	PEMF/U	265344	PFO/OWF	5458
E2FO/U	1150	U/PEMF	305569	PFOF/U	592762
E2RF	3065	PEMH	28470	U/PFOF	1048270
E2US	116983	PEMH/ABH	29604	PFOH/ABH	19837
L2AB	26440	PEM/OWH	11221	PFO/ABH	3042
L2AB/OW	1798	POW	71592	PFO/EMH	1874
L2EM	1974	POWH	3039	PFO/OWH	1898

SUMMARY OF VEGETATED WETLAND DISTRIBUTION BY COUNTY
(In Acres)

	Summary of Totals				Fresh Water			Salt Water		
	% of County Wetland	Ranking Order	Total of Vegetated Wetlands	Ranking Order	PFO	PEM	Totals	E2FO	E2EM	Totals
Alachua	10	34	63,701	57	43,473	20,228	63,701			
Baker	33	16	123,404	38	121,663	1,740	123,404			
Bay	37	13	182,143	17	157,133	17,803	174,936		7,207	7,207
Bradford	15	32	28,648	65	28,524	124	28,648			
Brevard	37	13	249,344	11	61,739	163,547	225,286	6,623	17,435	24,058
Broward	49	7	380,887	6	94,131	285,052	379,183	1,704		1,704
Calhoun	38	12	138,992	29	124,600	14,392	138,992			
Charlotte	27	21	127,045	33	27,047	73,735	100,782	22,432	3,831	26,263
Citrus	24	24	94,678	47	38,099	16,912	55,011	3,394	36,273	39,667
Clay	15	32	59,771	58	57,145	2,626	59,771			
Collier	63	3	813,030	2	568,902	144,438	713,340	85,513	14,177	99,690
Columbia	21	27	107,884	46	105,040	2,844	107,884			
Dade	65	2	856,418	1	124,542	610,796	735,338	96,337	24,743	121,080
De Soto	30	19	124,148	36	34,943	88,799	123,742	203	203	406
Dixie	44	9	196,794	15	170,540	6,752	177,292	243	19,259	19,502
Duval	24	24	123,867	37	85,015	1,248	86,263		37,604	37,604
Escambia	26	22	110,474	44	106,809	1,512	108,321	78	2,075	2,153
Flagler	34	15	108,009	45	101,407	3,715	105,122	259	2,628	2,887
Franklin	63	3	218,246	13	163,215	38,492	201,707		16,539	16,539
Gadsden	17	31	54,806	61	54,426	380	54,806			
Gilcrist	10	34	32,781	64	30,755	2,026	32,781			
Glades	31	18	167,421	23	18,606	148,815	167,421			
Gulf	46	8	170,006	22	144,610	20,139	164,749		5,257	5,257
Hamilton	22	26	73,481	56	71,497	1,984	73,481			
Hardee	30	19	122,594	39	69,016	53,578	122,594			
Hendry	22	26	171,841	21	60,958	110,883	171,841			
Hernando	18	30	58,245	59	38,047	7,172	45,219	230	12,796	13,026
Highlands	26	22	179-170	19	54,346	124,824	179,170			
Hillsborough	21	27	144,556	26	110,566	22,220	132,786	10,095	1,675	11,770
Holmes	29	20	88,292	52	87,873	419	88,292			
Indian River	27	21	89,100	51	42,051	42,006	84,057	4,133	910	5,043
Jackson	14	33	87,271	53	84,970	2,300	87,271			
Jefferson	40	10	157,956	24	147,595	5,496	153,091		4,865	4,865
Lafayette	49	7	173,322	20	161,044	12,278	173,322			
Lake	29	20	203,642	14	135,132	68,510	203,642			
Lee	27	21	143,192	27	75,229	24,967	100,196	40,164	2,832	42,996
Leon	20	28	90,413	49	86,466	3,947	90,413			
Levy	33	16	240,730	12	195,294	9,292	204,586	441	35,703	36,144
Liberty	55	5	295,317	8	284,221	11,096	295,317			
Madison	40	10	179,449	18	170,803	8,646	179,449			
Manatee	25	23	120,801	41	61,271	52,746	114,017	5,754	1,030	6,784
Marion	8	35	86,133	54	55,936	30,196	86,133			
Martin	23	25	93,593	48	18,470	71,489	89,959	3,634		3,634
Monroe	67	1	549,533	3	71,163	86,724	157,887	361,063	30,583	391,646
Nassau	31	18	131,665	32	103,837	24	103,861	478	27,326	27,804
Okaloosa	14	33	82,586	55	81,474	855	82,329		257	257
Okeechobee	22	26	125,537	35	28,998	96,539	125,537			
Orange	22	26	139,557	28	118,370	21,187	139,557			
Osceola	31	18	286,159	9	186,858	99,300	286,159			
Palm Beach	29	20	420,711	4	244,526	175,431	419,957	754		754
Pasco	30	19	146,638	25	80,260	43,563	123,823	10,588	12,227	22,815
Pinellas	10	34	19,248	67	9,888	1,721	11,609	7,216	423	7,639
Polk	25	23	329,699	7	227,434	102,266	329,699			
Putnam	20	28	111,198	43	98,831	12,367	111,198			
St. Johns	27	21	114,693	42	91,839	2,973	94,812	306	19,575	19,881
St. Lucie	15	32	56,381	60	14,288	36,036	50,324	5,500	557	6,057
Santa Rosa	21	27	138,647	30	127,876	3,498	131,374	148	7,125	7,273
Sarasota	32	17	122,396	40	28,821	91,331	120,152	1,116	1,128	2,244
Seminole	22	26	47,815	62	32,466	15,349	47,815			
Sumter	35	14	125,681	34	81,511	44,170	125,681			
Suwannee	5	36	21,079	66	20,160	919	21,079			
Taylor	61	4	409,988	5	367,518	18,576	386,094	154	23,740	23,894
Union	24	24	37,036	63	37,036		37,036			
Volusia	39	11	268,772	10	212,553	36,294	248,847	9,327	10,598	19,925
Wakulla	50	6	193,769	16	168,421	5,800	174,221		19,548	19,548
Walton	19	29	131,919	31	127,865	1,102	128,967	14	2,938	2,952
Washington	23	25	90,161	50	89,479	681	90,161			
TOTALS: (Rounded to nearest 100,000)			11,400,000		7,100,000	3,200,000	10,300,000	700,000	400,000	1,100,000

Figure 8: Vegetated Wetland Distribution by County

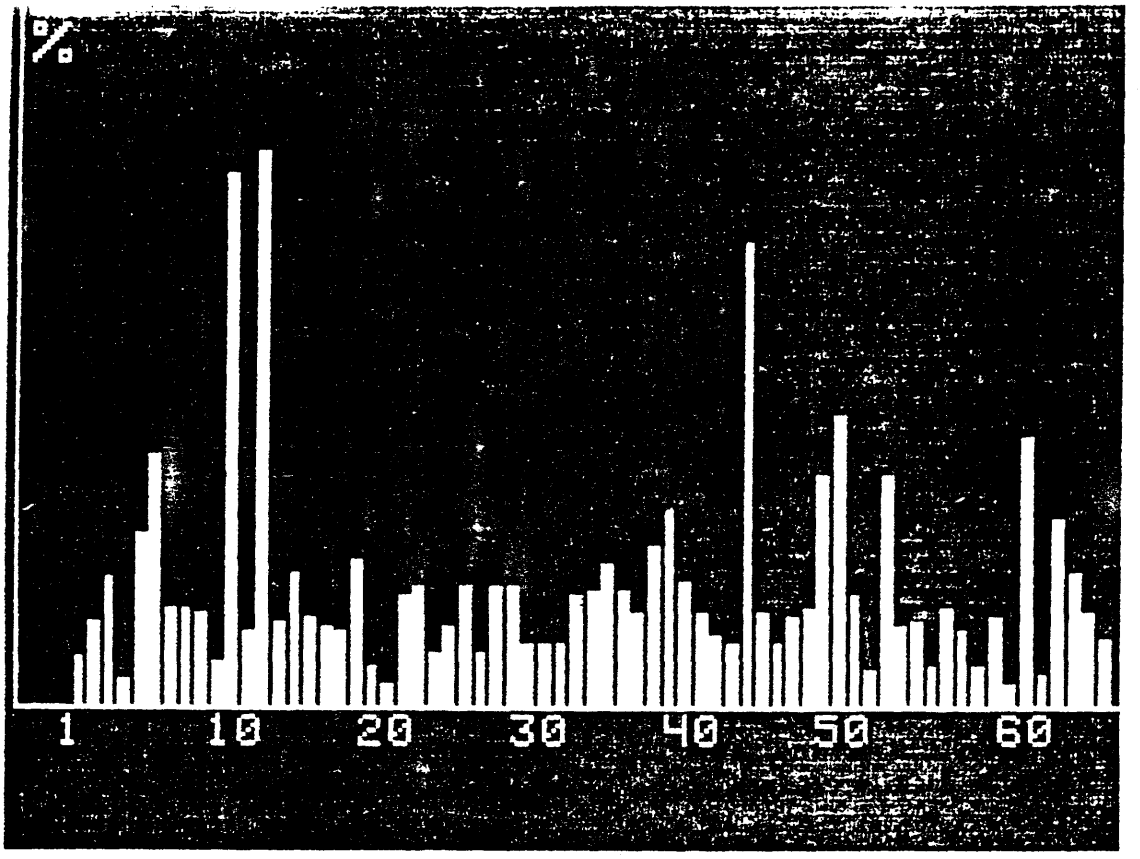

Figure 9: RELATIVE DISTRIBUTION OF VEGETATED WETLANDS IN FLORIDA BY ALPHABETICAL LISTING OF COUNTIES

No.on Graph	County	No. on Graph	County
1.	Alachua	34.	Lafayette
2.	Baker	35.	Lake
3.	Bay	36.	Lee
4.	Bradford	37.	Leon
5.	Brevard	38.	Levy
6.	Broward	39.	Liberty
7.	Calhoun	40.	Madison
8.	Charlotte	41.	Manatee
9.	Citrus	42.	Marion
10.	Clay	43.	Martin
11.	Collier	44.	Monroe
12.	Columbia	45.	Nassau
13.	Dade	46.	Okaloosa
14.	De Soto	47.	Okeechobee
15.	Dixie	48.	Orange
16.	Duval	49.	Osceola
17.	Escambia	50.	Palm Beach
18.	Flagler	51.	Pasco
19.	Franklin	52.	Pinellas
20.	Gadsden	53.	Polk
21.	Gilcrist	54.	Putnam
22.	Glades	55.	St. Johns
23.	Gulf	56.	St. Lucie
24.	Hamilton	57.	Santa Rosa
25.	Hardee	58.	Sarasota
26.	Hendry	59.	Seminole
27.	Hernando	60.	Sumter
28.	Highlands	61.	Suwannee
29.	Hillsborough	62.	Taylor
30.	Holmes	63.	Union
31.	Indian River	64.	Volusia
32.	Jackson	65.	Wakulla
33.	Jefferson	66.	Walton
		67.	Washington

APPENDIX

County Summary
of
Wetlands and Deepwater Habitats by Type

CAUTION

This data was obtained from generalized reconnaisance level National Wetlands Inventory maps at a scale of 1:250,000 and, therefore, may not be suitable for some county-wide applications. Also, since maps were prepared from high-altitude aerial photography at a scale of 1:80,000 and mapping conventions that emphasized over-story vegetation were used, data by wetland type may be different than that from other studies.

COUNTY SUMMARY OF WETLANDS AND DEEPWATER HABITATS BY TYPE

ALACHUA COUNTY

Type	Acres
PEMC	302
PEMF	19,926
POW	359
PFOA	314
PFOC	12,356
PFOC/U	134
PFOF	26,768
PFOF/U	1,749
U/PFOF	2,152
L2AB/OWH	40
L2AB/OW	33
Subtotal:	64,133
L10W	23,613
TOTAL:	87,746

BAKER COUNTY

Type	Acres
PEMC	103
PEM/OWF	161
POW	30
POW/U	26
PFOC	28,890
PFO/EMC	2,740
PFOC/U	28
U/PFOC	521
PFOF	75,091
PFO/EMF	372
PFOF/U	3,629
U/PFOF	11,948
Subtotal:	123,541
L10W	1,807
TOTAL:	125,348

BRADFORD COUNTY

Type	Acres
PEMC	104
POW	8
PFOA	24
PFOC	8,701
PFOC/U	2,782
U/PFOC	64
PFOF	16,188
PFO/EMF	40
PFOF/U	221
U/PFOF	524
Subtotal:	28,655
L10W	3,627
TOTAL:	32,282

BREVARD COUNTY

Type	Acres
M2US	847
E2EM	9,882
E2EM/OW	7,798
E2EM/U	811
U/E2EM	738
E2FO	2,201
E2FO/OW	4,634
E2FO/EM	4,210
U/E20W	59
E2US	627
PEMA	1,358
PEMA/U	6,292
PEMC	66,979
PEMC/U	22,505
U/PEMC	35,229
PEMF	5,793
PEM/OWF	1,961
PEM/ABH	4,181
POW	421
KPOW/U	79
PFOA	2,943
PFOC	3,900
PFO/EMC	28,077
PFOC/U	770
U/PFOC	1,444
PFOF	26,792
PFO/EMF	14,963
PFOF/U	1,437
U/PFOF	2,132
PFO/EMA	1,605
PAB	16
Subtotal:	260,683
E1AB/OW	12,041
E10W	145,020
E10W/U	153
L10W	12,479
TOTAL:	430,376

BAY COUNTY

Type	Acres
M2US	1,299
E2AB/US	806
E2EM	6,825
E2EM/OW	340
E2EM/US	423
E2US	5,613
PEMC	904
PEMF	960
POW	177
POWH	54
PFOA	450
PFOC	119,589
PFO/EMC	28,938
PFOC/U	8,314
U/PFOC	513
PFOF	5,793
PFO/EMF	2,940
PFOF/U	1,697
U/PFOF	4.807
PFO/OWH	63
L2AB	54
Subtotal:	190,560
E1AB	2,641
E10W	48,513
L10W	3,624
TOTAL:	245,338

BROWARD COUNTY

Type	Acres
E2FO	1,704
L2AB	698
PEMA	11,364
PEMC	146,212
PEMF	79,270
PEMH	1,433
POW	675
POW/U	326
U/POW	314
PFOA	24,171
PFOA/U	528
U/PFOA	620
PFOC	20,592
PFOF	1,448
PFO/EMF	92,972
PFO/EMH	574
Subtotal:	382,901
E10W	1,507
L10W	3,208
TOTAL:	387,616

CALHOUN COUNTY

Type	Acres
PEMA	109
U/PEMC	210
POW	166
PFOC	94,737
PFO/EMC	28,147
PFOF	13,717
PFOF/U	166
U/PFOF	1,152
PFO/OWH	1,510
R2US	51
Subtotal:	139,964
R20W	4,307
L10W	140
TOTAL:	144,411

CHARLOTTE COUNTY

Type	Acres
M2US	60
E2AB	7,340
E2AB/US	1,146
E2AB/OW	184
E2EM	2,654
E2FO	18,509
E2FO/AB	4,573
E2FO/EM	2,354
E2FO/US	918
E2US	3,119
PEMA	7,919

PEMA/U	5,237
U/PEMA	604
PEMC	8,381
PEMC/U	6,734
U/PEMC	36,730
PEMF	6,493
PEMF/U	375
U/PEMF	1,263
POW	76
POWH	1,654
PFOA	4,952
PFOA/U	168
PFOC	17,130
PFOC/U	4,420
PFOF	377
Subtotal:	143,369
E10W	49,038
E10W/U	186
U/E10W	4,836
L10W	4,105
L10WH	49
TOTAL:	201,583

CITRUS COUNTY

Type	Acres
E2AB/US	21,162
E2EM	27,705
E2EM/AB	13,549
E2FO	203
E2FO/AB	2,418
E2FO/EM	3,586
E2FO/US	378
E2RF	695
L2AB	1,208
PEMA	129
PEMC	1,286
PEMC/U	244
U/PEMC	288
PEMF	2,430
PEMF/U	744
U/PEMF	196
PEMH	366
PEM/ABH	17,398
POW	157
POW/U	33
PFOA	350
PFOC	23,396
PFO/EMC	1,846
PFOC/U	1,554
PFOF	8,028
PFO/EMF	2,460
PFOF/U	22
U/PFOF	2,218
PFO/EMH	755
PAB/OWH	44
R1AB	335
Subtotal:	135,180
E1AB	490
E1AB/OW	4,885
E10W	156,724
U/E10W	647
R10W	646
R20W	323
L10W	3,028
U/R10W	184
TOTAL:	302,107

CLAY COUNTY

Type	Acres
PEMA	190
PEMC	1,590
PEMC/U	143
PEMF	359
PEM/OWF	348
POW	308
U/POW	78
PFOA	3,209
PFOC	30,272
PFO/EMC	343
PFOC/U	102
U/PFOC	1,327
PFOF	16,631
PFOF/U	845
U/PFOF	4,587
Subtotal:	60,331
R10W	10,017
R20W	509
L10W	13,499
L10W/U	276
TOTAL:	84,632

COLLIER COUNTY

Type	Acres
E2AB	342
E2EM	13,625
E2FO	74,607
E2FO/EM	1,103
E2FO/US	1,526
E2FO/OW	19,181
E2US	4,090
PEMA	60,059
PEMA/U	1,178
U/PEMA	1,960
PEMC	36,672
PEMC/U	26,064
U/PEMC	15,478
PEMF	2,405
PEMF/U	623
POW	147
PFOA	71,630
PFOA/U	3,849
U/PFOA	813
PFOC	414,821
PFOC/U	72,434
U/PFOC	3,526
PFOF	1,829
Subtotal:	827,961
E1AB	270
E10W	24,485
E10W/U	620
L10W	449
L10WH	741
TOTAL:	854,526

COLUMBIA COUNTY

Type	Acres
L2AB	164
PEMC	813
PEMF	85
PEM/OWF	51
PEM/ABH	455
POW	40,694
PFOA	18
PFOC	33,018
PFO/EMC	168
PFOC/U	2,042
U/PFOC	81
PFOF	39,030
PFO/ABF	70
PFO/EMF	3,217
PFOF/U	10,593
PFOF	17,650
PFO/OW	1,763
PABH	37
PAB/OWH	73
Subtotal:	156,021
L10W	1,147
TOTAL:	157,168

DADE COUNTY

Type	Acres
E2AB	1,423
E2EM	20,060
E2FO	91,654
E2FO/EM	9,365
E2US	4,702
L2US	248
PEMA	208,772
PEMA/U	10,912
PEMC	189,524
PEMF	174,012
POW	1,050
POW/U	335
PFOA	42,909
PFOC	39,306
PFO/EMC	30,273
PFOF	14,612
PFO/EMF	1,225
PFOH	139
PFO/EMA	23,624
PFO/EMH	27
PUSA	21
Subtotal:	864,193
E1AB	160,104
E10W	7,603
E10W/U	3,723
L10W	5,172
TOTAL:	1,040,795

DE SOTO COUNTY

Type	Acres
E2FO/EM	407
PEMA	192
PEMA/U	513
PEMC	8,766
PEMC/U	58,231
U/PEMC	2,472
PEMF	1,002
PEMF/U	6,913
U/PEMF	8,322
POW	14
PFOA	478
PFOA/U	170
PFOC	23,838
PFO/EMC	4,395
PFOC/U	4,411
PFOF	3,658
PFO/EMF	381

Subtotal:	124,162
E10W	285
TOTAL:	124,448

DIXIE COUNTY

Type	Acres
E2EM	19,259
E2FO	243
E2RF	465
E2US	1,159
PEMA	44
PEMC	941
PEMC/U	245
PEMF	1,978
PEMF/U	3,544
POW	130
PFOC	15,800
PFOF	114,221
PFOF/U	34,553
U/PFOF	5,966
Subtotal:	198,548
E10W	16
R10W	940
E10W*	66,844
TOTAL:	266,348

DUVAL COUNTY

Type	Acres
M2US	762
E2EM	37,576
E2EM/OW	55
W2US	1,298
PEMA	22
PEMC	353
U/PEMC	33
PEMF	273
PEM/OWF	145
POW	384
POW/U	84
U/POW	16
PFOC	34,215
PFO/EMC	717
PFOC/U	7,142
U/PFOC	8,080
PFOF	27,021
PFO/EMF	272
PFOF/U	420
U/PFOF	7,641
PABH	76
Subtotal:	126,585
E10W	24,325
R10W	24,296
L10W	668
TOTAL:	175,874

ESCAMBIA COUNTY

Type	Acres
E2EM	2,036
U/E2EM	39
E2FO	78
E2US	2,179
PEMA	16
PEMC	249
PEMC/U	22
U/PEMC	938
PEMB	40
POW	335
POW/U	88
U/POW	5
PFOA	551
PFOC	91,306
PFO/EMC	314
PFOC/U	365
U/PFOC	3,195
PFOF	11,076
PFO/EMF	180
PFOF/U	58
U/PFOF	12
Subtotal:	113,081
E1AB	1,685
E1AB/OW	15
E10W	49,339
R20W	1,960
L10W	424
E10W/AB	119
TOTAL:	166,623

FLAGLER COUNTY

Type	Acres
M2US	919
E2EM	2,001
E2EM/U	577
E2FO	209
E2FO/EM	100
E2US	144
PEMC	1,289
PEMC/U	440
U/PEMC	422
POW	85
PFOA/U	2,184
PFOC	21,940
PFO/EMC	3,127
PFOC/U	12,891
U/PFOC	25,202
PFOF	12,023
PFOF/U	18,937
U/PFOF	6,666
R2AB	39
Subtotal:	109,195
E10W	2,332
U/E10W	11
L10W	9,124
TOTAL:	120,662

FRANKLIN COUNTY

Type	Acres
E2EM	14,991
E2EM/US	3,095
E2US	162
PEMC	258
PEMC/U	175
PEMF	22
U/PEMF	550
POW	13
POW/U	40
PFOA	354
PFOC	84,978
PFO/EMC	74,960
PFOC/U	17,114
U/PFOC	2,472
PFOF	18,733
PFO/EMF	14
PFO/OWF	1,843
PFOF/U	146
U/PFOF	1,009
Subtotal:	220,929
E10W	5,873
R10W	426
R20W	469
L10W	210
E10W*	129,992
TOTAL:	357,899

GADSDEN COUNTY

Type	Acres
PEMC	373
PFOC	51,355
PFOC/U	303
U/PFOC	1,884
PFOF	724
PFO/ABF	135
PFO/EMF	14
PFO/OWF	51
PFOF/U	61
PABH	28
Subtotal:	54,928
L10W	3,023
TOTAL:	57,951

GILCHRIST COUNTY

Type	Acres
PEMA	30
PEMC	1,510
PEMF	380
PEMF/U	106
POW	150
PFOC	7,125
PFOF	657
PFOF/U	21,001
U/PFOF	1,972
Subtotal:	32,931
R10W	440
L10W	461
TOTALS:	33,832

GLADES COUNTY

Type	Acres
L2AB	4,116
L2EM	1,962
L20W	13,628
PEMA	14,426
PEMA/U	4,287
U/PEMA	26,802
PEMC	25,944
PEMC/U	5,695
U/PEMC	14,561

PEMF	41,346
PEMF/U	350
U/PEMF	1,296
PEMH	14,109
POW	392
PFOA	2,258
U/PFOA	134
PFOC	12,704
U/PFOC	597
PFOF	2,913
Subtotal:	187,520
R20W	1,177
L10W	44,706
TOTAL:	233,403

GULF COUNTY

Type	Acres
E2AB	1,946
E2EM	5,257
E2US	4,213
PFOC	63,284
PFO/EMC	38,347
PFOC/U	10,063
PFOF	50,790
PFO/EMF	1,932
U/PFOF	334
Subtotal:	176,167
E10W	4,117
R10W	735
R20W	1,885
L10W	2,093
E10W*	29,401
TOTAL:	214,398

HAMILTON COUNTY

Type	Acres
PEMC	456
PEMC/U	129
U/PEMC	184
PEMF	193
PEM/WBH	310
PEM/OWH	8
POW	107
POW/U	333
U/POW	466
PFOA	330
PFOC	17,197
PFO/EMC	1,214
PFOC/U	7,481
U/PFOC	713
PFOF	15,986
PFO/ABF	95
PFO/EMF	512
PFOF/U	4,777
U/PFOF	24,103
PABH	267
PAB/OWF	209
Subtotal:	75,069
L10W	1,671
L10W/U	1,214
TOTAL:	77,954

HARDEE COUNTY

Type	Acres
L2AB	234
PEMA	1,426
PEMC	7,051
PEMC/U	31,424
U/PEMC	5,241
PEMF	976
PEMF/U	3,027
POWH	25
PFOA	2,777
PFOA/U	375
PFOC	52,970
PFO/EMC	8,394
PFOC/U	556
U/PFOC	117
PFOF	7,080
PFO/EMF	472
U/PFOF	707
PABH	26
Subtotal:	122,879
L10W	197
TOTAL:	123,076

HENDRY COUNTY

Type	Acres
L20W	4,503
PEMA	7,868
PEMA/U	105
U/PEMA	623
PEMC	19,274
PEMC/U	17,055
U/PEMC	59,996
PEMF	5,791
U/PEMF	170
POW	62
PFOA	1,358
U/PFOA	283
PFOC	40,081
PFOC/U	5,635
U/PFOC	11,073
PFOF	2,528
Subtotal:	176,406
R20W	886
L10W	5,154
TOTAL:	182,446

HERNANDO COUNTY

Type	Acres
E2AB	3,535
E2AB/US	6,794
E2EM	10,787
E2EM/AB	1,190
E2EM/US	819
E2FO	42
E2FO/US	188
E2RF	106
E2US	1,516
L2AB	132
L20W	68
PEMA	901
PEMC	3,876
PEMC/U	706
U/PEMC	585
PEMF	128
U/PEMF	450
PEMH	113
PEM/ABH	6
PEM/OWH	78
POW	84
U/POW	226
PFOA	453
PFOC	27,338
PFO/EMC	659
PFOC/U	90
U/PFOC	100
PFOF	878
PFO/EMF	81
PFOF/U	8,074
U/PFOF	744
PABH	100
Subtotal:	71,848
E1AB	4,624
E1AB/OW	5,085
E10W	16,656
U/E10W	419
R20W	93
L10W	1,563
L10W/U	157
TOTAL:	100,446

HIGHLANDS COUNTY

Type	Acres
L2AB	87
PEMA	10,122
PEMA/U	1,860
U/PEMA	2,306
PEMC	47,523
PEMC/U	38,585
U/PEMC	10,531
PEMF	5,237
PEM/OWF	301
PEMF/U	793
U/PEMF	230
PEMH	723
POW	243
POWH	18
PFOA	4,552
PFOA/U	210
U/PFOA	308
PFOC	39,686
PFO/EMC	8,905
PFOC/U	215
PFOF	2,612
PFO/EMF	281
PFO/EMA	4,338
Subtotal:	179,666
L10W	44,487
TOTAL:	224,152

HILLSBOROUGH COUNTY

Type	Acres
M2US	3,313
E2AB	7,878
E2AB/US	1,973
E2EM	1,128
E2EM/OW	154
E2EM/US	939
E2FO	9,397
E2FO/U	139
E2FO/OW	1,117

E2US	8,770
L2AB	611
L2US	125
PABF/U	82
PEMA	617
PEMC	3,490
PEMC/U	2,263
U/PEMC	9,808
PEMF	2,986
PEMF/U	1,847
U/PEMF	73
POW	1,070
POW/U	2,747
U/POW	287
PFOA	753
PFOC	64,912
PFO/EMC	1,549
PFOC/U	2,718
U/PFOC	2,478
PFOC/EM	722
PFOF	14,863
PFOF/U	4,071
U/PFOF	19,636
PUSC	49
PSSA	39
Subtotal:	172,604
E10W	126,705
E10W/U	294
U/E10W	308
R20W	309
L10W	8,853
L10W/U	796
TOTAL:	309,869

HOLMES COUNTY

Type	Acres
PMA	57
PEMC	90
PEMH	127
POW/U	21
PFOA	13
PFOC	51,711
PFOC/U	1,084
U/PFOC	2,724
PFOF	19,000
PFO/EMF	290
U/PFOF	13,196
Subtotal:	88,313
R20W	724
L10W	952
TOTAL:	89,989

INDIAN RIVER COUNTY

Type	Acres
E2EM	135
E2FO	2,788
E2FO/EM	1,550
E2FO/OW	142
E2FO/U	499
E2US	199
PEMA	602
PEMC	2,524
PEMC/U	9,118
U/PEMC	226
PEMF	3,315
PEMF/U	3,702
POW	58
POW/U	28
PFOA	254
PFOC	6,365
PFO/EMC	45,038
PFOF	11,999
PFOF/U	914
PSS	7
Subtotal:	89,463
E10W	13,992
L10W	6,092
TOTAL:	109,547

JACKSON COUNTY

Type	Acres
L2AB	176
L2US	46
PEMA	105
PEMC	690
PEMC/U	55
PEMF	655
PEM/OWF	133
PEMF/U	102
PEM/OWH	101
POW	485
POW/U	111
PFOC	61,542
PFO/EMC	1,089
PFOF	21,189
PFO/ABF	237
PFO/EMF	61
PFO/OWF	104
PFOF/U	281
U/PFOF	336
PFO/ABH	1,711
PFO/OWH	42
PABH	115
Subtotal:	89,366
R20W	972
L10W	8,134
L10W/U	762
L2AB/OWF	231
TOTAL:	99,465

JEFFERSON COUNTY

Type	Acres
E2EM	4,865
L2AB	3,134
PEMA	28
PEMC	766
PEMC/U	78
U/PEMC	59
PEMF	1,770
PEM/ABF	148
PEM/ABH	565
POW	132
U/POW	21
PFOA	585
PFOA/U	146
PFOC	42,816
PFO/EMC	4,019
PFOC/U	38,196
U/PFOC	658
PFOF	32,244
PFO/EMF	857
PFOF/U	29,662
U/PFOF	850
PABH	93
Subtotal:	161,692
E10W	1,164
L10W	468
TOTAL:	163,324

LAFAYETTE COUNTY

Type	Acres
PEMA	14
PEMC	751
PEMC/U	480
U/PEMC	860
PEMF	1,006
POW	37
POW/U	35
PFOC	13,652
PFO/EMC	17,998
PFOC/U	5,263
U/PFOC	2,328
PFOF	45,535
PFO/EMF	337
PFOF/U	75,320
U/PFOF	9,778
Subtotal:	173,394
L10W	414
TOTAL:	173,808

LAKE COUNTY

Type	Acres
L2AB	490
U/PABH	143
PEMA	478
PEMC	9,204
PEMC/U	5,342
U/PEMC	13,195
PEMF	14,612
PEM/OWF	6,767
PEMF/U	12,633
POW	1,962
POWH	399
POW/U	74
U/POW	60
PFOA	245
PFOC	60,336
PFO/EMC	9,383
PFOC/U	3,349
U/PFOC	1,666
PFOF	44,565
PFO/EMF	9,900
PFO/OWF	913
U/PFOF	14,874
POW/U	91
PEM/OW	44
Subtotal:	210,724
R20W	2,855
L10W	71,904
L10W/U	859
TOTAL:	286,342

LEE COUNTY

Type	Acres
M2US	591
E2AB	13,839
E2AB/US	10,561
E2EM	2,684
E2EM/US	296
E2FO	37,360
E2FO/AB	3,985
E2FO/US	1,621
E2US	5,168
L2AB	200
L20W	410
PEMA	3,646
PEMA/U	1,465
PEMC	8,465
PEMC/U	3,254
U/PEMC	4,304
PEMF	2,091
PEMF/U	1,743
POW	277
PFOA	11,425
PFOA/U	1,777
PFOC	49,765
PFOC/U	10,818
U/PFOC	1,075
PFOF	369
Subtotal:	177,189
E1AB	427
E10W	91,800
U/E10W	3,242
R20W	1,043
L10W	335
TOTAL:	274,036

LEON COUNTY

Type	Acres
L2AB	6,591
PEMC	1,074
U/PEMC	91
PEMF	619
PEM/ABF	1,146
PEM/OWF	241
PEM/ABH	243
POW	295
POW/U	237
PFOC	40,474
PFO/EMC	468
PFOC/U	31,554
PFOF	5,943
PFO/ABF	931
PFO/EMF	2,137
PFOF/U	5,857
U/PFOF	643
PFO/ABH	140
PFO/OWH	166
POW/ABH	59
PABH	325
PAB/OWH	389
PFO/ABC	148
PEM/OWC	87
Subtotal:	99,859
L10W	9,311
TOTAL:	109,170

LEVY COUNTY

Type	Acres
E2EM	35,703
E2FO	441
E2RF	1,641
E2US	30,998
L2AB	1,052
PEMA	157
PEMC	784
PEMC/U	286
U/PEMC	2,047
PEMF	4,346
U/PEMF	1,672
POW	312
PFOC	1,740
PFOC/U	5,285
PFOF	148,244
PFOF/U	12,965
U/PFOF	27,060
Subtotal:	274,733
E10W	466
E10W*	116,535
R10W	423
R20W	288
L10W	922
TOTAL:	393,367

LIBERTY COUNTY

Type	Acres
PFOC	194,567
PFO/EMC	22,192
PFOC/U	23,278
U/PFOC	16,253
PFOF	38,535
U/PFOF	463
PFO/OWH	58
Subtotal:	295,346
R20W	2,897
L10W	87
TOTAL:	298,330

MADISON COUNTY

Type	Acres
L2AB	349
PEMC	1,026
PEMC/U	59
U/PEMC	197
PEMF	3,444
PEM/ABH	823
PEM/OWH	80
POW	65
U/POW	27
PFOA	945
PFOC	102,648
PFO/EMC	3,277
PFOC/U	22,678
U/PFOC	7,399
PFOF	20,331
PFO/EMF	3,506
PFOF/U	9,856
U/PFOF	3,478
PFO/EMH	151
PABH	53
Subtotal:	180,393
L10W	1,080
TOTAL:	181,473

MANATEE COUNTY

Type	Acres
E2AB	10,094
E2EM	1,030
E2FO	5,089
E2FO/AB	1,090
E2FO/US	240
E2US	1,534
L2AB	63
PEMA	1,196
PEMC	7,829
PEMC/U	924
U/PEMC	3,413
PEMF	5,720
PEM/ABF	338
PEMF/U	8,688
U/PEMF	16,419
POW	155
POW/U	393
PFOA	2,191
PFOC	39,586
PFO/EMC	16,528
PFOC/U	3,342
U/PFOC	3,676
PFOF	4,088
PFO/EMF	248
R2AB	31
Subtotal:	133,905
E10W	15,080
E1AB	477
L10W	2,251
TOTAL:	151,713

MARION COUNTY

Type	Acres
L2AB	244
PEMA	254
PEMC	8,469
PEMC/U	82
U/PEMC	4,568
PEMF	8,924
PEM/OWF	349
U/PEMF	1,868
PEM/ABH	2,657
PEM/OWH	572
POW	1,966
POWH	68
POW/U	109
U/POW	570
PFOA	1,037
PFOC	12,576
PFO/EMC	6,944
PFOC/U	5,328
U/PFOC	405
PFOF	29,586
PFO/EMF	574
PFOF/U	1,793
U/PFOF	1,270
PFO/EMH	367
PEM/ABK	602
PABH	290
R2AB	78
Subtotal:	91,548

L10W/U	123
U/L10W	273
L10W	20,221
R20W	375
TOTAL:	112,541

MARTIN COUNTY

Type	Acres
E2FO	3,634
E2US	994
PEMA	1,324
U/PEMA	145
PEMC	2,970
PEMC/U	1,387
U/PEMC	4,200
PEMF	2,229
PEM/OWF	1,491
PEMF/U	29,403
U/PEMF	24,935
POW	296
U/POW	541
PFOA	2,022
U/PFOA	114
PFOC	5,902
PFO/EMC	7,918
PFOC/U	2,480
U/PFOC	3,023
PFOF	607
PFO/EMF	328
U/PFOF	172
PABH	8
PFO/EMA	54
Subtotal:	96,177
E1AB	501
E10W	13,358
R20W	89
L10W	51,434
TOTAL:	161,559

MONROE COUNTY

Type	Acres
M2US	15,890
E2AB	123,533
E2EM	18,909
E2FO	323,198
E2FO/AB	1,618
E2FO/EM	23,347
E2FO/US	40,137
E2FO/OW	10,626
E2US	14,108
PEMA	66,993
PEMC	12,127
PEMF	4,751
PFOA	1,959
PFOC	65,675
PFO/EMC	5,178
PFOC/U	71
PFOF	605
PFO/EMA	558
Subtotal:	729,283
E10W	89,333
E1AB	862,010
E10W*	17,608
E1AB/OW	1,658
E1RF	33
TOTAL:	1,699,925

NASSAU COUNTY

Type	Acres
M2US	192
E2EM	27,312
E2EM/US	35
E2FO	428
E2FO/U	50
E2US	3,941
PEMC	13
PEMF	11
POW	50
PFOC	27,932
PFOC/U	1,603
U/PFOC	1,685
PFOF	58,850
PFOF/U	1,536
U/PFOF	12,230
Subtotal:	135,867
E10W	10,437
R10W	291
R20W	421
L10W	44
TOTAL:	147,060

OKALOOSA COUNTY

Type	Acres
E2EM	257
E2US	2,444
PEMC	411
U/PEMC	335
PEMF	108
POW	484
POW/U	76
PFOA	182
PFOC	64,352
PFOC/U	940
U/PFOC	1,148
PFOF	14,852
PABH	6
Subtotal:	85,595
E10W	31,293
U/E10W	40
E1AB	1,598
L10W	1,369
TOTAL:	119,894

OKEECHOBEE COUNTY

Type	Acres
L2AB	54
PEMA	6,096
PEMA/U	552
U/PEMA	566
PEMC	26,922
PEMC/U	44,666
U/PEMC	5,065
PEMF	6,731
PEMF/U	596
U/PEMF	1,708
PEMH	558
PFOA	715
PFOC	17,555
PFO/EMC	5,937
PFOC/U	764
U/PFOC	242
PFOF	6,571
PFO/EMF	125
U/PFOF	72
PFO/EMA	93
Subtotal:	125,588
L10W	65,275
TOTAL:	190,863

ORANGE COUNTY

Type	Acres
L2AB	203
PEMA	1,054
PEMC	14,003
PEMC/U	250
U/PEMC	2,174
PEMF	559
PEM/OWF	1,764
PEMF/U	138
POW	2,522
POW/U	479
PFOA	4,402
PFOC	57,014
PFO/EMC	2,185
PFOC/U	107
U/PFOC	8,150
PFOF	18,980
PFO/EMF	300
U/PFOF	28,432
PFO/ABH	84
PEM/ABC	1,605
PEM/OW	162
PAB/OWH	54
Subtotal:	144,622
L10W	53,896
L10W/U	76
TOTAL:	198,594

OSCEOLA COUNTY

Type	Acres
L2AB	1,504
L2AB/OW	543
L20W	1,300
PEMA	9,572
PEMA/U	2,489
U/PEMA	284
PEMC	24,732
PEMC/U	31,104
U/PEMC	2,836
PEMF	4,445
PEM/OWF	3,924
PEMF/U	8,179
PEM/OWH	1,692
POW	126
PFOA	4,496
PFOA/U	1,417
PFOC	56,139
PFO/EMC	19,146
PFOC/U	6,319
U/PFOC	388
PFOF	67,986
PFO/EMF	5,957
PFOF/U	9,307
U/PFOF	27,955
PFO/EMA	598
Subtotal:	292,438
L10W	80,382
TOTAL:	372,821

PALM BEACH COUNTY

Type	Acres
E2FO	754
E2US	10
L2AB	1,518
L2OW	21,600
PEMA	6,366
PEMA/U	233
U/PEMA	181
PEMC	38,669
PEMC/U	2,713
U/PEMC	19,533
PEMF	52,527
PEMF/U	32,598
U/PEMF	3,118
PEMH	10,878
POW	1,180
U/POW	216
PFOA	17,872
U/PFOA	580
PFOC	94,664
PFO/EMC	17,229
PFOC/U	49,709
U/PFOC	1,660
PFOF	51,701
U/PFOF	27
PFOH	19,698
Subtotal:	445,234
E1OW	8,661
R2OW	972
L1OW	113,014
TOTAL:	567,881

PASCO COUNTY

Type	Acres
M2US	783
E2AB	10,968
E2AB/US	2,172
E2EM	2,714
E2EM/US	646
E2FO	1,152
E2FO/EM	18,381
E2FO/US	493
E2US	1,321
L2AB/OW	25
PEMA	2,269
PEMA/U	527
PEMC	4,317
PEMC/U	15,854
U/PEMC	971
PEMF	719
PEM/ABF	213
PEMF/U	14,560
U/PEMF	1,243
POW	167
POW/U	171
U/POW	251
PFOA	471
PFOC	30,548
PFO/EMC	5,351
PFOC/U	3,557
U/PFOC	1,091
PFOF	6,449
PFO/EMF	641
PFOF/U	13,060
U/PFOF	21,906
PFO/ABH	309
PFO/US	56
PABH	18
Subtotal:	163,372
E1OW/U	77
U/E1OW	762
E1OW	15,172
E1AB	1,259
L1OW	3,089
L1OW/U	156
TOTAL:	183,888

PINELLAS COUNTY

Type	Acres
M2US	3,980
E2AB	15,326
E2AB/US	920
E2EM	49
E2EM/US	748
E2FO	7,216
E2US	4,768
E2US/OW	488
PEMC	147
U/PEMC	1,468
PEMF	46
POW	831
POW/U	332
U/POW	27
PFOA	254
PFOA/U	117
PFOC	3,621
PFO/EMC	121
PFOC/U	524
U/PFOC	104
PFOF	1,285
U/PFOF	3,922
Subtotal:	46,295
E1OW	72,919
E1OW/U	3,038
U/E1OW	437
R2OW	34
L1OW	3,690
L1OW/U	23
TOTAL:	126,435

POLK COUNTY

Type	Acres
L2AB	2,775
L2EM	12
L2OW	448
L2US	612
PEMA	17,188
PEMA/U	941
U/PEMA	488
PEMC	26,116
PEMC/U	23,911
U/PEMC	3,967
PEMF	3,980
PEM/ABF	1,513
PEM/OWF	2,174
PEMF/U	3,159
U/PEMF	384
PEMH	164
PEM/OWH	8,660
POW	1,250
POWH	713
POW/U	2,354
U/POW	221
PFOA	7,244
PFOC	126,178
PFO/EMC	27,510
PFOC/U	1,441
U/PFOC	2,675
PFOF	16,204
PFO/ABF	1,091
PFO/EMF	2,909
PFOF/U	6,992
U/PFOF	50,457
PFO/EMA	975
PEM/ABC	192
POWH/U	255
PABH	1,635
L2AB/OWH	599
L2US/OW	194
Subtotal:	347,581
U/L1OW	1,032
L1OW	81,349
L1OW/U	17,408
TOTAL:	447,369

PUTNAM COUNTY

Type	Acres
PEMA	99
PEMC	2,262
PEMC/U	436
U/PEMC	3,495
PEMF	3,319
PEM/OWF	996
PEMF/U	464
U/PEMF	126
PEM/ABH	65
POW	771
POW/U	515
PFOA	341
PFOA/U	4,843
PFOC	51,559
PFO/EMC	3,273
PFOC/U	1,127
U/PFOC	1,928
PFOF	34,799
PFO/OWF	49
PFOF/U	238
U/PFOF	2,335
PABA	14
R1AB	605
SUBTOTAL:	113,659
R2OW	6,698
R1OW	17,724
L1OW/U	318
U/L1OW	466
L1OW	30,809
TOTAL:	169,673

ST. JOHNS COUNTY

Type	Acres
M2US	1,388
E2EM	18,057
E2EM/OW	1,643
E2EM/US	1,391
E2FO	306
E2US	733
PEMC	406
PEMC/U	18
U/PEMC	1,430
PEMF	717
PEM/OWF	155
POW/U	81
PFOA	747
PFOA/U	1,950
PFOC	47,985

PFO/EMC	647
U/PFOC	23,094
PFOF	3,334
PFOF/U	410
U/PFOF	13,994
Subtotal:	118,488
E10W	9,033
R10W	27,000
L10W	109
TOTAL:	154,630

ST. LUCIE COUNTY

Type	Acres
E2FO	4,940
E2FO/EM	1,113
E2FO/U	3
E2US	208
PEMA	3,008
PEMA/U	253
PEMC	5,621
PEMC/U	2,086
U/PEMC	12,799
PEMF	1,030
PEM/OWF	2,128
PEMF/U	1,587
U/PEMF	5,419
POW	61
U/POW	109
PFOA	369
PFOC	6,343
PFO/EMC	6,338
PFOF	3,226
PFOF/U	1,181
Subtotal:	57,822
E1AB	1,038
E10W	20,491
L10W	350
TOTAL:	79,701

SANTA ROSA COUNTY

Type	Acres
E2EM	7,125
E2FO	148
E2US	2,391
PEMA	1,844
PEMC	123
U/PEMC	168
PEMF	119
PEM/OWF	10
POW	646
POW/U	89
PFOA	2,013
PFOA/U	55
PFOC	101,541
PFO/EMC	836
PFOC/U	1,440
U/PFOC	986
PFOF	20,174
PFO/ABF	69
PFO/EMF	410
PFOF/U	358
U/PFOF	36
PFO/EMA	1,229
Subtotal:	141,812
E10W	70,572
U/E10W	82
E1AB	1,808
R20W	491
R10W	782
U/L10W	27
L10W	1,168
TOTAL:	216,742

SARASOTA COUNTY

Type	Acres
M2US	38
E2AB	1,073
E2AB/US	832
E2EM	1,128
E2FO	174
E2FO/AB	1,757
E2FO/US	126
E2US	1,000
L2AB/OW	337
PEMA	458
U/PEMA	829
PEMC	1,405
PEMC/U	601
U/PEMC	3,291
PEMF	3,035
PEM/ABF	324
PEMF/U	22,713
U/PEMF	49,923
POW	65
POW/U	69
PFOA	3,532
PFOA/U	814
PFOC	13,361
PFO/EMC	11,421
PFOC/U	236
U/PFOC	706
PFOF	646
PFO/EMF	6,081
PFOF/U	774
PABH	11
Subtotal:	126,760
E10W	14,680
E1AB	137
L10W	667
TOTAL:	142,245

SEMINOLE COUNTY

Type	Acres
L2AB/OW	22
PEMA	66
PEMC	5,411
PEMC/U	70
U/PEMC	3,687
PEMF	1,429
PEM/ABF	1,162
PEM/OWF	3,671
PEMF/U	70
PEM/ABH	933
POW	1,046
POW/U	7
PFOA	60
PFOC	16,566
PFO/EMC	2,186
PFOC/U	175
U/PFOC	205
PFOF	6,455
PFO/EMF	1,277
U/PFOF	7,273
PABH	17
Subtotal:	51,788
L10W	19,527
L10W/U	10
R20W	1,906
TOTAL:	73,231

SUMTER COUNTY

Type	Acres
L2AB	96
PEMA	907
U/PEMA	2,221
PEMC	8,274
PEMC/U	11,324
U/PEMC	12,863
PEMF	2,706
PEMF/U	641
U/PEMF	2,497
PEM/ABH	997
POW	100
POWH	33
POW/U	209
U/POW	89
PFOA	294
PFOC	17,220
PFO/EMC	193
U/PFOC	619
PFOF	18,106
PFO/EMF	3,231
PFOF/U	16,996
U/PFOF	26,539
PFO/EMA	51
PABF	25
PABH	181
Subtotal:	126,911
R20W	654
L10W	4,332
TOTAL:	131,896

SUWANNEE COUNTY

Type	Acres
PEMA	230
PEMC	468
PEMF	66
PEM/ABH	128
POW	492
POW/U	11
PFOC	15,835
PFOC/U	271
PFOF	3,911
PFO/ABF	12
PFO/EMF	183
U/PFOF	46
PABH	180
PAB/OWH	14
Subtotal:	21,847
R20W	430
L10W	785
TOTAL:	23,062

TAYLOR COUNTY

Type	Acres
E2EM	23,740
E2FO	154
E2RF	158
E2US	4,272
PEMA	154
PEMC	3,762
U/PEMC	659
PEMF	2,488
U/PEMF	365
POW	136
POW/U	74
PFOC	244,364
PFO/EMC	19,662
PFOC/U	16,028
U/PFOC	20,220
PFOF	48,455
PFO/EMF	2,633
PFOF/U	21,552
U/PFOF	5,751
Subtotal:	414,629
E10W	1,069
L10W	360
E10W*	51,186
TOTAL:	467,243

UNION COUNTY

Type	Acres
PFOA	371
PFOC	15,967
PFOC/U	1,314
U/PFOC	1,631
PFOF	16,785
PFOF/U	282
U/PFOF	687
Subtotal:	37,036
L10W	1,640
TOTAL:	38,677

VOLUSIA COUNTY

Type	Acres
M2US	149
E2EM	7,164
E2EM/OW	6,105
E2EM/U	260
U/E2EM	59
E2FO	6,292
E2FO/EM	132
E2US	290
E2FO/OW	5,947
PEMA	382
PEMC	14,592
PEMC/U	1,500
U/PEMC	5,732
PEMF	1,130
PEM/OWF	5,116
PEM/ABH	141
PEM/OW	177
PEM/US	83
PFOA	5,401
PFOA/U	1,746
PFOC	12,176
PFO/EMC	19,866
PFOC/U	40,702
U/PFOC	6,474
PFOF	73,095
PFO/EMF	530
PFOF/U	33,251
U/PFOF	29,510
POW	869
U/POW	155
R2AB	369
L2AB	713
Subtotal:	280,110
L10W	62,685
L10W/U	13
R20W	467
E1AB/OW	2,911
E10W	18,399
TOTAL:	364,585

WAKULLA COUNTY

Type	Acres
M2US	943
E2AB	28
E2EM	19,548
L2AB/OW	232
PEMC	1,906
PEMC/U	20
U/PEMC	394
PEMF	35
PEM/OWF	96
PEM/ABH	83
POW/U	147
PFOC	103,142
PFO/EMC	6,710
PFOC/U	35,736
U/PFOC	6,479
PFOF	19,502
PFOF/U	30
U/PFOF	50
PFO/AB	255
Subtotal:	195,336
U/E10W	32
E10W	20,206
L10W	536
R20W	220
TOTAL:	216,330

WALTON COUNTY

Type	Acres
M2US	103
E2AB	122
E2EM	2,938
E2FO	14
E2US	3,499
L2AB	106
PEMA	205
PEMC	35
PEMC/U	120
PEMF	481
PEM/OWF	29
PEM/ABH	17
PEM/OWH	29
POW	430
POW/U	11
PFOA	5,633
PFOA/U	295
PFOC	91,080
PFOC/U	7,218
U/PFOC	2,204
PFOF	21,213
PFO/EMF	443
PABH	53
Subtotal:	136,281
E10W	43,856
E1AB	194
R20W	189
R10W	1,136
L10W	2,432
TOTAL:	184,086

WASHINGTON COUNTY

Type	Acres
U/PABF	47
PEMC	122
PEMF	38
POW	583
POWH	75
PFOA	471
PFOC	44,451
PFO/EMC	149
PFOC/U	442
PFOF	42,546
PFO/ABF	401
PFO/EMF	892
PFO/OWF	368
PFOF/U	235
PFO/ABH	797
PFO/OWH	60
PABH	35
Subtotal:	91,713
L10W	11,278
L10W/U	115
R20W	549
TOTAL:	103,655

TOTAL WETLANDS: 12,100,000

TOTAL DEEP WATER HABITATS: 3,800,000

TREND ANALYSIS

Background:

This study quantitatively determined gains and losses to the wetlands of the lower 48 states. It was designed by a team of statisticians from the U.S. Fish and Wildlife Service, U.S. Forest Service, Corps of Engineers, and Soil Conservation Service.

Aerial photography from the mid-1950's and the mid-1970's was utilized for 3,635 four (4) square mile plots randomly distributed throughout the conterminous United States. Unlike most states, Florida was fortunate in that a sufficient number of plots (655) were located there, making it possible to obtain statistically valid, though generalized, data concerning changes to the wetland resources. Data acquisition was performed by the N.W.I. and its service support contractor. All statistical work was performed by the Colorado State University. Mode years for the national study were 1954 and 1974. Mode years for Florida data were 1953 and 1973.

Reliability and Data Analysis:

An indication of the reliability of each estimate is provided as a standard error of each entry expressed as a percentage of that entry in parenthesis, (S.E.%). Reliability of each entry can be determined by adding to and subtracting from the entry S.E.%/100 times the entry to obtain a confidence of 68% that the true value is within the interval. For example, if an entry is one million acres, and the S.E.% is 20, then we are 68% confident that the true value is between eight hundred thousand and 1.2 million acres. To obtain a 95% confidence interval, twice the S.E.% is added to and subtracted from the acreage entry.

As can be seen in the table below, several of the acreage entries by wetland type have a very low degree of reliability and, due to the relatively small acreage and sample size, the change data is the least reliable. This data is a result of a national study and should be used with caution for interpreting state results. The reliability of state data can be improved to a desired S.E.% by increasing the number of randomly selected, stratified plots.

TREND ANALYSIS DATA
FOR FLORIDA

Wetland Type	CHANGE % of Same Wetland Type	CHANGE Acres	(S.E.) %	Mode Year 1973 Acres	(S.E.) %	Mode Year 1953 Acres	(S.E.) %
PFO	- 3	-182,712	(38)	5,704,200	(15)	5,886,912	
PSS	- 17	-175,510	(67)	875,807	(12)	1,051,316	
PEM	- 21	-1,064,664	(18)	3,434,182	(9)	4,498,846	
POW	+ 53	+41,079	(23)	118,228	(9)	77,149	
PUS	- 60	-7,259	(103)	4,893	(45)	12,151	
P other	+ 60	+11,782	(84)	31,572	(51)	19,789	
POW & P other	+ 55	+52,861		149,800		96,938	
E2FO	- 4	-22,296	(79)	548,974	(15)	571,270	
E2EM	- 11	-39,942	(41)	342,007	(18)	381,950	
E2 other	+ 18	+27,245	(34)	123,328	(31)	150,574	
P veg.	- 12	-1,422,886		10,014,189		11,437,074	
E2 veg.	- 7	-62,238		890,981		953,220	
All veg.	- 12	-1,485,124		10,905,170		12,390,294	
All wetlands	- 12	-1,547,362		11,796,151		13,343,514	

(S.E.%) is standard error expressed as a percentage of the entry.
See discussion above.

Within the constraints of the reliability of the data, the following is a comparison of the National and State estimates obtained from the Trend Analysis.

COMPARISON OF NATIONAL AND STATE WETLAND ACREAGE DATA
FROM TREND ANALYSIS

Classification	National	State	% of U.S.A. Wetlands in Florida
PFO	49,713,400	5,704,200	12
PSS	10,611,100	875,800	8
PEM	28,441,400	3,434,200	12
Plaustrine (veg)	88,765,900	10,014,200	11
E2FO	573,000	549,000	96
E2EM	3,922,800	342,000	12
E2 veg.	4,495,800	891,100	20
TOTAL - Wetlands Veg.	93,261,700	10,905,300	12
TOTAL WETLANDS	99 million	12 million	12