Big Lagoon State Park
Tarkiln Bayou Preserve State Park
Perdido Key State Park

Approved
Multi-Unit Management Plan
Addendum 1 – 12

State of Florida
Department of Environmental Protection
Division of Recreation and Parks
December 2018

Addendum 1—Acquisition History

Big Lagoon State Park Acquisition History

LAND ACQUISITION HISTORY REPORT	
Park Name	Big Lagoon State Park
Date Updated	11/17/2016
County	Escambia
Trustees Lease Number	Trustees Lease No. 2977
Legal Description	A legal description is available upon request to the Department of Environmental Protection
Current Park Size	703.93 acres
Purpose of Acquisition	The State of Florida acquired Big Lagoon State Park to protect hydrological resources while providing for public recreation and compatible multi-use management.

Acquisition History

Parcel Name or Parcel DM-ID	Date Acquired	Initial Seller	Initial Purchaser	Size in acres	Instrument Type
MDID 438	1/27/1977	Hobbs & Associates, Inc. Financial American Corporation John G. Martin	The Board of Trustees of the Internal Improvement Trust Fund of the State of Florida (Trustees)	507.08	Warranty Deed
MDID 3551	7/27/1978	Jack Fiveash	Trustees	103.935	Warranty Deed
MDID 3550	6/27/1977	Mitchell Anthony Touart, III Joyce Watkins Touart Marilyn Touart Ferneyhough Charles Joseph Ferneyhough, Jr.	Trustees	59.588	Deed

Management Lease

Parcel Name or Lease Number	Date Leased	Initial Lessor	Initial Lessee	Current Term	Expiration Date
Lease No. 2977	6/24/1977	Board of Trustees of the Internal Improvement Trust Fund of the State of Florida	The State of Florida Department of Natural Resources for the use and benefit of the Division of Recreation and Parks	50 years	8/16/2033

Outstanding Issue	Type of Instrument	Brief Description of the Outstanding Issue	Term of the Outstanding Issue
There is no known deed related restriction or reservation related to Big Lagoon State Park.			

Tarkiln Bayou Preserve State Park Acquisition History

LAND ACQUISITION HISTORY REPORT	
Park Name	Tarklin Bayou Preserve State Park
Date Updated	11/2/2016
County	Escambia County, Florida
Trustees Lease Number	Trustees Lease No. 4192
Legal Description	A legal description is available upon request to the Florida Department of Environmental Protection
Current Park Size	4,470.16 acres
Purpose of Acquisition	The State of florida acquired Tarklin Bayou Preserve State Park to conserve grass prairies and picher plants as well as the underdeveloped land around them.

Acquisition History

Parcel Name or Parcel DM-ID	Date Acquired	Initial Seller	Initial Purchaser	Size in acres	Instrument Type
	Nineteen (19) different deeds	Different owners	The Board of Trustees of the Internal Iprovement Trust Fund of the State of Florida (Trustees)	1,260.12	Different Instruments
MDID 401	4/13/1998	Trilogy Corporation of Northwest Florida	Trustees	1,027.88	Warranty Deed
MDID 329997	8/23/1999	Perdido Bay Partnership	Trustees	494.795	Warranty Deed
MDID312791	2/16/2000	Marguerite F. Uebelacker	Trustees	358.67	Warranty Deed
MDID 312204	10/31/1999	Marianana McCormick Caldwell Charles Caldwell Robert Caldwell III Judy McLeod Grover C. Robinson III Gladys McCurtain Thomas Robinson H. Miller Caldwell, Jr. Campbell West Caldwell	Trustees	333.503	Warranty Deed
MDID312754	11/1/2000	Robert E. Dale Karen H. Dale	Trustees	268.274	Warranty Deed
MDID341767	12/22/2003	Heron's Forest Development Company	Trustees	224.835	Warranty Deed
MDID 312757	9/14/2000	Spencer A. Ingram and John P. Sisson	Trustees	155.855	Warranty Deed
MDID312789	10/22/1999	Andrew Fortier Kahn	Trustees	154.701	Warranty Deed

Management Lease

Parcel Name or Lease Number	Date Leased	Initial Lessor	Initial Lessee	Current Term	Expiration Date
Lease No. 4192	4/30/1998	Florida Department of Environmental Protection, Division of Recreation and Parks	The Board of Trustees of the Internal Improvement Trust Fund of the State of Florida	50 years	4/29/2048

Outstanding Issue	Type of Instrument	Brief Description of the Outstanding Issue	Term of the Outstanding Issue
There is no known deed resrtiction or reservation that applies to Tarkiln Bayou Preserve State Park.			

LAND ACQUISITION HISTORY REPORT	
Park Name	Perdido Key State Park
Date Updated	11/29/2016
County	Escambia Couty, Florida
Trustees Lease Number	Lease No. 3193
Legal Description	A legal description is available upon request to the Department of Environmental Protection
Current Park Size	290.32 acres
Purpose of Acquisition	The State of Florida acquired Perdido Key State Park to preserve the land and dunes in its natual state.

Acquisition History

Parcel Name or Parcel DM-ID	Date Acquired	Initial Seller	Initial Purchaser	Size in acres	Instrument Type
MDID 3996	5/25/1978	Stephens College	The Board of Trustees of the Internal Improvement Trust Fund of the State of Florida (Trustees)	146.917	Quitclaim Deed
MDID 3997	6/2/1978	Pensa-Key Properties, Inc.	Trustees	117.619	Warranty Deed
MDID 3993	5/23/1978	Mary Elizabeth Baars	Trustees	77.12	Warranty Deed
MDID 3992	5/23/1978	Mary Elizabeth Baars	Trustees	46.116	Warranty Deed
MDID 6973	3/13/1984	United States of America	Trustees	42.913	U. S. Paternt

Management Lease

Parcel Name or Lease Number	Date Leased	Initial Lessor	Initial Lessee	Current Term	Expiration Date
Board of Trustees Lease No. 3193	10/4/1983	Board of Trustees of the Internal Improvement Trust Fund of the State of Florida	The State of Florida Department of Natural Resources, Division of Recreation and Parks.	10 years	10/3/2023

Outstanding Issue	Type of Instrument	Brief Description of the Outstanding Issue	Term of the Outstanding Issue
Revertor	U.S. Land Patent	*In the event that title to the property is transferred or the property is used for any purpose other than the purpose for which it is patented to the state of Florida which is to operate and manage the patented property as part of Perdido Key Preserve, title to the property shall revert to the United States of America.*	Inperpetuity

Addendum 2—Management Zones

Table 1. Big Lagoon State Park Management Zones			
Management Zone	**Acreage**	**Managed with Prescribed Fire**	**Contains Known Cultural Resources**
BG-A	66.19	Y	Y
BG–B1	42.09	Y	N
BG–B2	70.83	Y	N
BG–B3	21.49	Y	N
BG–B4	65.37	Y	N
BG-C	51.73	Y	N
BG–C2	13.71	Y	N
BG-D	33.93	Y	N
BG-E	52.87	Y	N
BG-F	81.50	Y	N
BG-G	21.76	Y	N
BG-H	18.07	Y	N
BG-I	29.80	Y	Y
BG-J	31.94	Y	N
BG-K	40.75	N	Y
BG-L	9.24	N	N
BG-M	6.67	Y	N
BG-N	48.45	Y	N

BIG LAGOON STATE PARK

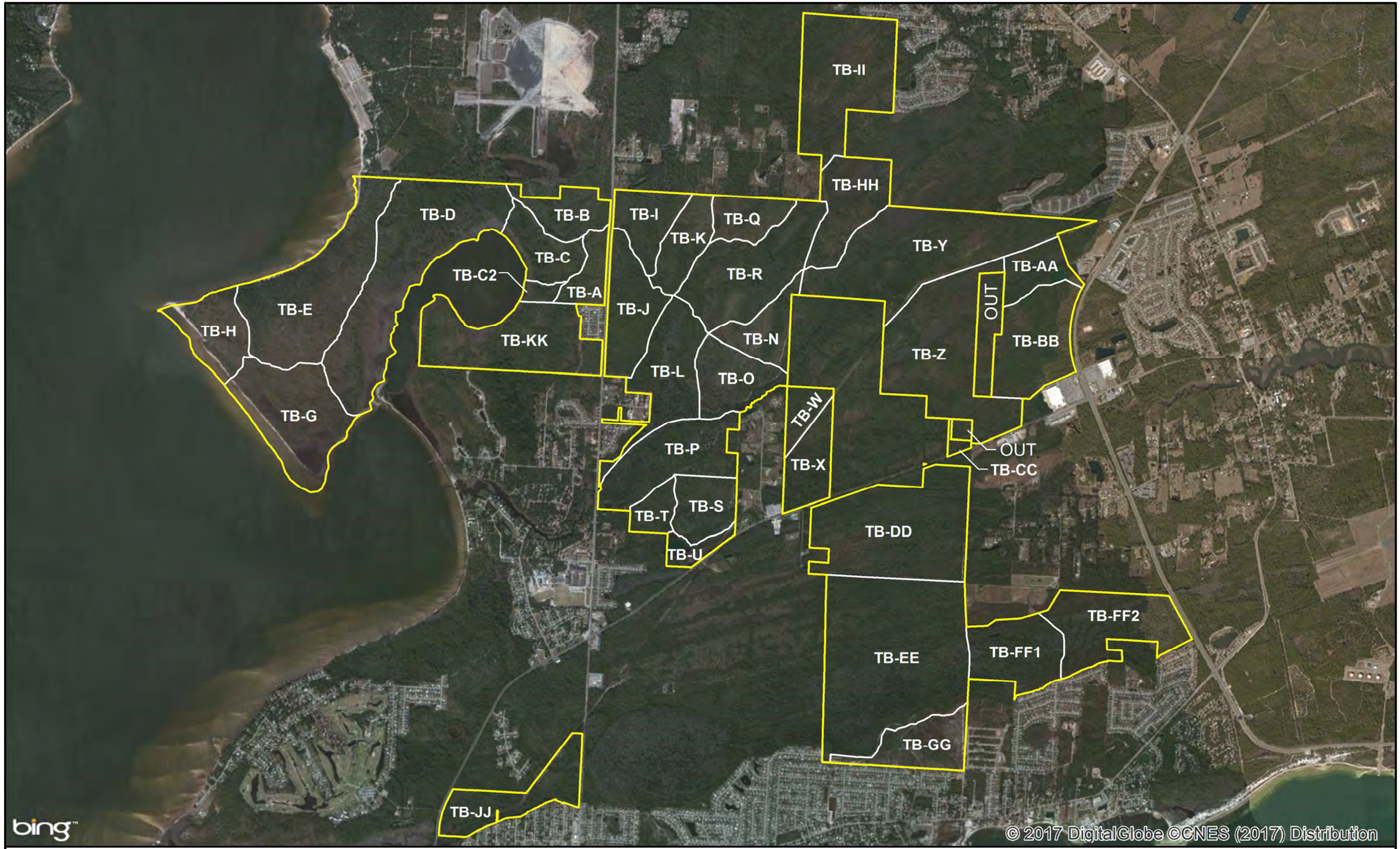
N

0 250 500 1,000 Feet

Florida Department of Environmental Protection
Division of Recreation and Parks
Date of aerial; 2010

MANAGEMENT ZONES MAP

Table 1. Tarkiln Bayou Preserve State Park Management Zones			
Management Zone	**Acreage**	**Managed with Prescribed Fire**	**Contains Known Cultural Resources**
TB-A	43.09	Y	N
TB-AA	54.87	Y	N
TB-B	63.09	Y	N
TB-BB	139.85	Y	N
TB-C	68.99	Y	Y
TB-C2	13.28	Y	N
TB-CC	6.45	Y	N
TB-D	303.28	Y	N
TB-DD	265.78	Y	N
TB-E	248.63	Y	Y
TB-EE	412.92	Y	N
TB-FF1	109.80	Y	N
TB-FF2	142.41	Y	N
TB-G	178.00	Y	N
TB-GG	82.54	Y	N
TB-H	86.81	Y	Y
TB-HH	107.23	Y	N
TB-I	68.69	Y	N
TB-II	204.04	Y	N
TB-J	105.14	Y	N
TB-JJ	101.36	Y	N
TB-K	66.13	Y	N
TB-KK	192.81	Y	N
TB-L	129.72	Y	N
TB-N	64.82	Y	N
TB-O	87.24	Y	N
TB-P	138.35	Y	N
TB-Q	55.41	Y	N
TB-R	177.53	Y	N
TB-S	68.76	Y	N
TB-T	33.86	Y	N
TB-U	26.10	Y	N
TB-W	34.25	Y	N
TB-X	67.35	Y	N
TB-Y	275.03	Y	Y
TB-Z	247.22	Y	N



TARKILN BAYOU PRESERVE STATE PARK

N

0 0.25 0.5 1 Mile

Florida Department of Environmental Protection
Division of Recreation and Parks
Date of aerial; 2010

MANAGEMENT ZONES MAP

Table 1. Perdido Key State Park Management Zones			
Management Zone	**Acreage**	**Managed with Prescribed Fire**	**Contains Known Cultural Resources**
PK-1	87.63	N	N
PK-2	108.24	N	N
PK-3	94.49	N	Y

PERDIDO KEY STATE PARK

N

0 500 1,000 2,000 Feet

Florida Department of Environmental Protection
Division of Recreation and Parks
Date of aerial; 2010

MANAGEMENT ZONES MAP

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Addendum 4—Soil Descriptions

2 – Duckston Sand, frequently flooded

Duckston sand consists of deep, poorly drained sandy soil in coastal lowlands. This map unit is typically found in shallow depressions between coastal dunes on nearly level flats between the dunes and marshes, generally at elevations less than 5 feet above mean tide level. These soils are in areas of 0 to 2 percent slope, where individual areas are irregular in shape.

In a representative profile the surface layer consists of black muck approximately 0.5 inches thick, overlying a layer of very dark gray sand about 3 inches thick. The next substratum reaches 80 inches deep and is light gray and white sand. Included in the Duckston map unit are a few small areas of Corolla and Direго soils. The somewhat poorly drained Corolla soils are in the slightly higher, more convex positions, generally near the upper edges of mapped areas. The very poorly drained Direго soils are in the lower positions and have an organic surface layer that is 20 to 44 inches thick. Also included are a few small areas of soils that are similar to the Duckston soil but have up to 8 inches of muck on the surface. They are in slightly lower positions than those of the Duckston soil. Included soils make up about 10 percent of the map unit.

The available water capacity is very low and has a very high permeability to water, with very slow runoff. There is a seasonal high water table, where water can be found at the surface to 0.5 feet above the surface throughout the year. The water table fluctuates in relation to the tides and the surface is flooded following heavy rains or high storm tides.

Duckston sand is not suitable for cultivation, pasture, woodland, urban uses, or recreational uses because of wetness and the propensity for flooding. The vegetation commonly found associated with the Duckston series is a coastal shrub plant community. The native plant community consists of wax myrtle, willow, small-leaf highbush blueberry, and marshhay cordgrass.

Duckston sand comprises a section of sparsely vegetated coastal grassland and a drainage area associated with a basin swamp in the northwest. These deep, poorly drained soils form nearly level flats in the coastal grassland natural communities populated with sea oats and salt-tolerant grasses and herbs. This soil type grades into Croatan and Pickney sands which underlay the basin swamp and baygall and depression areas along the coast.

3 – Corolla-Duckston Sands, gently undulating, flooded

Corolla-Duckston sands are intricately combined to form a soil complex that is generally composed of 50 percent Corolla soil, 35 percent Duckston soil, 10 percent Newhan, and 5 percent Direго. The Complexity that is found in the mixture of these soils makes it too difficult to map separately. Corolla-Duckston sands are generally found in gently undulating areas of low dunes and swales in coastal wetlands. Slopes of these sands are generally short and

complex with slopes ranging from 0 to 5 percent. The individual areas of Corolla-Duckston sands are irregular in shape.

Corolla-Duckston sands has poor drainage, and available water capacity, and the soil complex is very permeable to water. The Corolla soil generally is on slightly convex, low dunes and on convex slopes of flats. Typically, the surface layer is grayish brown sand about 5 inches thick. The substratum extends to a depth of 80 inches, and is very pale brown sand in the upper part, white sand

that has strong brown and yellowish red mottles in the middle part, and light gray sand in the lower part. Typically, Duckston sand surface layer consists of a layer of black muck about 0.5 inch thick overlying a layer of very dark gray sand about 3 inches thick. The substratum reaches a depth of 80 inches and consists of light gray and white sand. The excessively drained Newhan soils are on the higher parts of dunes. The very poorly drained Direго soils are in lower positions than those of the Duckston soil and have an organic surface layer that is 20 to 44 inches thick. Also included are soils that are similar to Duckston soil but have up to 8 inches of muck on the surface.

The Corolla-Duckston sands are not suited for the cultivation of crops, pasture, hay land, or woodland areas because most areas receive salt spray and periodic flooding and drought. The Corolla part is in the North Florida Coastal Strand ecological community, and the Duckston part is in the Salt Marsh ecological community.

Corolla-Duckston sands are closely associated to the mesic flatwoods found within the park. Both Corolla and Duckston are poorly draining soils commonly found on flats and shallow swales along coastal regions in Escambia County. This poor drainage is able to hold freshwater which allows for the growth of slash pines (*Pinus elliottii),* saw palmettos (*Serenoa repens*), gallberry (*Ilex glabra*), wiregrass (*Aristida stricta* var. *beyrichiana*) along with other species used to classify an area as scrubby or wet flatwoods depending on elevation and drainage.

5 – Croatan and Pickney Soils, depressional

Croatan and Pickney soils consist of very deep, very poorly drained soils in depressions in coastal wetlands. These soils are associated with ponding for several months in most years. The soil composition in this map unit is variable. Some areas mainly consist of the Croatan soil, some areas mainly consist of the Pickney soil, and other areas contain both soils in variable proportions. In a typical area, the Croatan soil makes up 45 percent of the map unit and the Pickney soil makes up 35 percent. Slopes of this map unit are within 0 to 1 percent. Individual areas of Croatan and Pickney soils are rounded or oblong in shape. The areas of these soils range from 10 to about 250 acres in size.

Croatan soil is most commonly found in the lower portions of depressions. The surface layer is black muck about 15 inches thick. The subsurface layer

extends to a depth of 25 inches and is dark brown muck. Below this is a buried surface layer of dark grayish brown loam to a depth of 33 inches. The substratum extends to a depth of 80 inches, which is gray sandy loam in the upper part, gray loamy sand in the middle part, and gray and dark gray sand in the lower part.

The Pickney soil is commonly in shallow depressions or in the higher parts of deep depressions. Typically, the surface layer is black sand about 10 inches thick. The subsurface layer extends to a depth of 35 inches, and is black sand that has streaks and pockets of gray sand. The substratum extends to a depth of 80 inches, and is very dark gray coarse sand in the upper part and very dark grayish brown sand in the lower part.

This map unit is not suited for the cultivation of crops, pasture, hay, woodland, urban uses, or recreational uses because of wetness and ponding. Croatan and Pickney soils are associated with basin swamp, and bottomland forest ecological community types.

6 – Direго Muck, tidal

Dirego muck soil consist of very deep, very poorly drained organic soil that forms in highly decomposed plant materials and underlying sandy sediments. The map unit is found in tidal marshes on barrier islands and adjacent to coastlines. Dirego soils have a high-water table within a depth of 0.5 feet throughout the year and are subject to daily flooding by the tides. Slopes in this map unit is usually less than 1 percent.

Typically, the surface layer is very dark brown muck about 8 inches thick. The subsurface layer reaches a depth of 35 inches and consists of black muck. The substratum extends to a depth of 80 inches, and is dark grayish brown fine sand in the upper part and grayish brown fine sand in the lower part. Dirego muck has a very high available water capacity, and is very permeable to water. Rapid flooding occurs frequently, and may flood two times a day for brief periods.

Dirego muck is not suitable for the cultivation of crops, pasture, hay, woodland, urban use, or recreational uses because of wetness, the frequent flooding, and a high content of salt and sulfur in the soil. Dirego soils are used mainly for wildlife habitat. The map unit is mainly a estuarine tidal marsh community, with characteristic species being; saltmarsh and marshhay cordgrass, needle rush, saltwort, and sea-oxeye.

The Dirego muck series consists of very deep, very poorly draining organic soils that formed in conjunction with highly decomposed plant materials and the underlying sandy sediments in tidal areas. They are found in estuarine tidal marshes and adjacent to the coastline. Common plants associated with this soil include saltmarsh cordgrass (*Spartina alterniflora*) and needle rush (*Juncus roemerianus*).

7 – Kureb Sand, 0 to 8 percent slopes

Kureb sand is very deep, excessively drained, sandy soil and is found on undulating low ridges, knolls, and old dunes in the coastal lowlands and on side slopes along streams and bays. Kureb sand formed in marine, aeolian, or fluvial sands. Slopes generally are short and complex. Individual areas commonly are parallel to the coast and are long and narrow, and range from 15 to about 70 acres in size. Typically, the surface layer is very dark gray sand about 3 inches thick. The subsurface layer of white sand extends to a depth of 19 inches. The next layer extends to a depth of 36 inches and consists of brownish yellow sand with streaks of white sand and thin bands of dark brown sand. The substratum reaches a depth of 80 inches and is brownish yellow and yellow sand.

Kureb sand is poorly suited for the cultivation of crops. The main issues are the very low available water capacity, very low fertility, and the hazard of erosion. Irrigation is needed to produce cultivated crops in most years. Leaching of plant nutrients is also a management concern. Frequent, light applications of fertilizer is necessary to maintain the productivity of most crops. Kureb sand is suited for pasture and hay cultivation. Coastal bermudagrass and bahiagrass are commonly grown grasses and are well adapted to the local conditions. Proper stocking rates, pasture rotation, and restricted grazing during prolonged dry periods help to keep the pasture in good condition. Frequent, light applications of nitrogen is necessary to maintain the productivity of grasses. The potential productivity is moderate for sand pine and low for slash pine, loblolly pine, and longleaf pine in Kureb sand. Moderate limitations affect timber management. The main management concerns are an equipment limitation, seedling mortality, and plant competition. The sandy texture of the surface layer restricts the use of wheeled equipment, especially when the soil is very dry. Harvesting activities should be planned for seasons when the soil is moist. The high seedling mortality rate is caused by drought conditions. It can be compensated for by increasing the number of trees planted. Plant competition reduces timber yields and can prevent adequate reforestation. The competing vegetation can be controlled by mechanical methods, herbicides, or prescribed burning. This map unit is suited to most urban uses. It has slight limitations affecting building sites and local roads and streets, and has slight to severe limitations affecting most kinds of sanitary facilities. The main management concerns are the sandy texture, seepage, and drought conditions. Cut-banks are unstable and subject to slumping and support beams should be used to maintain the stability of these areas. If this unit is used as a site for a septic tank absorption field, effluent can surface in downslope areas or impact the water table and create a health hazard. Mounding with suitable fill material increases the filtering capacity of the field.

Florida Scrub is the ecological community most commonly found in kureb sand. The native vegetation that can be found in this map unit is turkey oak, scrub and dwarf live oak, longleaf pine, and sand pine.

8 – Newhan-Corolla sands, rolling

Newhan and Corolla sands are found in undulating dune-like areas adjacent to the Gulf of Mexico. These soils are gently sloping to steep and can range from a 2 to 15 percent slope. Newhan soil is excessively drained, and Corolla soil is moderately well drained or somewhat poorly drained by comparison. Areas of these soil are intricately mixed and too small to be mapped separately. Individual areas Newhan-Corolla sands range from less than 10 acres to 400 acres and are generally long and narrow.

Newhan soil makes up to 55 percent of the map unit. This soil type is generally found on the higher parts of dunes and have a surface layer of gray sand about 3 inches thick. The substratum extends to a depth of 80 inches and is light gray sand in the upper part, and white sand in the lower part. Corolla soil makes up about 30 percent of the map unit. The Corolla soil is generally found on the lower parts of dunes and in shallow swales between dunes. Typically, the surface layer is grayish brown sand about 5 inches thick. The substratum extends to a depth of 80 inches and is very pale brown sand in the upper part, white sand that has strong brown and yellowish red mottles in the middle part, and light gray sand in the lower part. Newhan and Corolla soils have a seasonally high water table, very low available water capacity, and are highly permeable to water.

Newhan and Corolla sands are not suited for the cultivation of crops, pasture, hay, or woodland because of salt spray from the Gulf of Mexico. Additional management concerns include droughtiness and the wetness in the Corolla soil. This map unit is poorly suited to most urban and recreational uses because of the flooding and the wetness in the Corolla soils. Additional management concerns include the slope, the sandy textures, droughtiness, and salt spray.

Natural vegetation is sparse. It is chiefly stunted sand pine, sand live oak, sea oats, and beach grass.

9 – Leon sand

This map unit has very deep, poorly drained, sandy soil and is found in the coastal lowlands. Leon sand is in areas of nearly level flatwoods. Slopes are flat or slightly concave and are generally less than 2 percent. Individual areas are irregular in shape, and range from 10 to 150 acres in size. Typically, the surface layer is dark gray sand about 5 inches thick. The subsurface layer extends to a depth of 18 inches and consists of gray sand. The substratum extends to a depth of 80 inches and is dark brown sand in the upper part, light brownish gray and very pale brown sand in the middle part, and very dark brown sand in the lower part. Leon sands have a seasonally high water table, a low available water capacity, and a moderately slow permeability to water.

This map unit is poorly suited for the cultivation of crops, hay and for pasture. The main management concerns are wetness, low available water capacity,

low fertility, and leaching of plant nutrients. Leon sand is suited for slash pine, loblolly pine, and longleaf pine. The potential productivity is moderate. Severe limitations affect timber management. The main management concerns are an equipment limitation, seedling mortality, and plant competition. Harvesting activities should be planned for seasons when the soil is dry. Using standard wheeled and tracked equipment when the soil is wet results in rutting and compaction. Using low-pressure ground equipment minimizes rutting and the damage caused to tree roots by compaction. Planting seedlings on raised beds helps to establish the seedlings and increases the seedling survival rate. Plant competition reduces timber yields and can prevent adequate reforestation. The competing vegetation can be controlled by site preparation, herbicides, or prescribed burning. Applications of fertilizer can increase yields. This map unit is poorly suited to most urban uses. Wetness is a severe limitation affecting building sites, local roads and streets, and most kinds of sanitary facilities. Additional management concerns include the sandy texture and droughtiness. Because of the seasonal high water table during winter and spring, a drainage system is needed for buildings. A deep drainage system can help to lower the water table. Constructing roads on raised, well-compacted fill material helps to overcome the wetness. Septic tank absorption fields do not function properly during rainy periods because of the wetness. Constructing the absorption field on a raised bed helps to compensate for this limitation. Using supplemental irrigation and seeding or planting varieties that are adapted to droughty conditions increase the survival rate of grasses and landscaping plants.

The vegetation that commonly occurs on leaon sand is longleaf pine, slash pine, oak, sawpalmetto, wax myrtle, goldenrod, dog fennel, and wiregrass.

Leon sand consists of deep, poorly drained, moderately slowly permeable soils on upland flats near the northern boundary of the park within the scrub. This soil type grades into the Newhan-Corolla Series, which is located in the beach dunes and scrub areas of the park. The somewhat poorly drained Corolla soils are found on the lower parts of dunes and in shallow swales while the excessively draining Newhan soils are on higher portions of the dunes. A portion of this formation is fill from the channel maintenance of the Intracoastal Waterway (ICW).

15 - Resota sand, 0 to 5 percent slopes

Resota sand is deep, moderately well drained, and is found on gently sloping knolls and low ridges in the coastal lowlands. Typically, the surface layer is gray sand about 3 inches thick. The subsurface layer extends to a depth of 19 inches and consists of white sand. The subsoil extends to a depth of 65 inches and is brownish yellow sand that has streaks of white sand in the upper part, yellow sand in the middle part, and is very pale brown sand in the lower part. The substratum reaches a depth of 80 inches and consists of white sand. Resota soil has a seasonally high water table, very low available water capacity, and has very low permeability to water.

This map unit is poorly suited for the cultivation of crops. The main management concerns are the very low available water capacity, very low fertility, and a moderate hazard of erosion. In most years, irrigation can prevent damage to crops and can increase productivity. Returning crop residue to the soil helps to maintain tilth and increases the available water capacity. Minimum tillage, contour farming, and cover crops reduce the runoff rate and help to control erosion. Leaching of plant nutrients is also a concern. Most crops respond well to applications of lime and to frequent, light applications of fertilizer. This map unit is suited for the cultivation of pasture and hay. Coastal bermudagrass and bahiagrass are commonly grown grasses and are well adapted to the local conditions. Proper stocking rates, pasture rotation, and restricted grazing during prolonged dry periods help to keep the pasture in good condition. Frequent, light applications of nitrogen are necessary to maintain the productivity of grasses. This map unit is suited to sand pine, slash pine, loblolly pine, and longleaf pine. The potential productivity is moderate, and moderate limitations affect timber management. The main management concerns are an equipment limitation, seedling mortality, and plant competition. The sandy texture of the surface layer restricts the use of wheeled equipment, especially when the soil is very dry. Harvesting activities should be planned for seasons when the soil is moist. The moderate seedling mortality rate is caused by droughtiness. It can be compensated for by increasing the number of trees planted. Plant competition reduces timber yields and can prevent adequate reforestation. The competing vegetation can be controlled by mechanical methods, herbicides, or prescribed burning. This map unit is suited to most urban uses. It has slight or moderate limitations affecting building sites and local roads and streets and has slight to severe limitations affecting most kinds of sanitary facilities. The main management concerns are the sandy texture, the seasonal high water table, seepage, and droughtiness. Cutbanks are unstable and subject to slumping. Support beams should be used to maintain the stability of the cutbanks. If this unit is used as a site for a septic tank absorption field, effluent can surface in downslope areas or impact the water table and create a health hazard. Mounding with suitable fill material increases the filtering capacity of the field. Applying lime and fertilizer, mulching, and irrigating help to establish lawns and landscape plants. This map unit is suited to most recreational uses. Native vegetation consists of sand pine, slash pine, longleaf pine, dwarf live oak, and turkey oak with an understory of native shrubs, sawpalmetto, and sparse wiregrass.

BIG LAGOON STATE PARK

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0 250 500 1,000 Feet

Florida Department of Environmental Protection
Division of Recreation and Parks
Date of aerial; 2010

SOILS MAP

5 - Croatan and Pickney soils, depressional

This is the most common soil type found at the preserve and is associated with mapped baygall, wet flatwoods, shrub bog and wet prairie. This soil type consists of very deep, very poorly drained soils in depressions in the coastal lowlands. These soils are subject to ponding for several months in most years. The composition of the unit is variable. Some areas mainly consist of the Croatan soil, some areas mainly consist of the Pickney soil, and other areas contain both soils in variable proportions. In a typical area, the Croatan soil makes up about 45 percent of the map unit and the Pickney soil makes up about 35 percent. Slopes are 0 to 1 percent. Individual areas are rounded or oblong in shape. They range from 10 to about 250 acres in size. The Croatan soil is commonly in the lower parts of the depressions. The Pickney soil is commonly in shallow depressions or in the higher parts of deep depressions. Included in mapping are a few small areas of Dorovan soils. The Dorovan soils are in the deeper parts of depressions.

These soil types are not considered as suitable for development or recreation due to persistent wetness and ponding. This soil type is considered to be in the Swamp Hardwoods ecological community

Croatan and Pickney are the most common soil types found within Tarkiln Bayou Preserve State Park, covering approximately 50% of the park's property. These soils are very deep, drain poorly, and are associated with coastal wetlands that are subject to ponding for several months of the year (USDA 2004; EPA 2010). The natural communities associated with Croatan and Pickney include baygall, wet flatwoods, and wet prairie. Common plant species found growing within Croatan-dominated soils include red maple (Acer rubrum), dahoon holly (Ilex cassine), muscadine (Vitis rotundifolia), titi (Cliftonia monophylla, Cyrilla racemiflora), and cypress (Taxodium spp.). In the Pickney-dominated soils, more flatwoods species persist such as toothache grass (Ctenium aromaticum), pitcherplants (Sarracenia spp.), and slash pine (Pinus elliottii). The persistence of these poorly draining soils in Tarkiln Bayou prevented this landscape from being developed previously, as the soils are extremely poor for development and farming.

6 - Direго muck, tidal

Approximately 3% of the preserve consists of this soil type. This very deep, very poorly drained soil is in the coastal lowlands. It is in tidal marshes on the barrier islands and bordering the bays and lagoons adjacent to the Gulf of Mexico. These soils are subject to daily flooding by fluctuating tides. Slopes are less than 1 percent. Individual areas are irregular in shape. They range from 10 to about 400 acres in size. Typically, the surface layer is very dark brown muck about 8 inches thick. The subsurface layer to a depth of 35 inches is black muck. The substratum extends to a depth of 80 inches. It is dark grayish brown fine sand in the upper part and grayish brown fine sand in the lower part.

Included in mapping are a few small areas of Duckston soils in the slightly higher positions near the upper edges of mapped areas. The Duckston soils are sandy throughout. Also included are small areas of mineral soils that have a surface layer of muck that is less than 16 inches thick. Included soils make up about 10 percent of the map unit. Individual areas generally are less than 3 acres in size.

This soil type is not suited for development due to the frequent flooding, and a high content of salt and sulfur in the soil.

This soil type is included in the Salt Marsh ecological community. At the preserve, the associated natural community is estuarine tidal marsh, and common vegetation includes smooth cordgrass (*Spartina alterniflora*), marshhay (*Spartina patens*), black needlerush (*Juncus roemerianus*), and seashore dropseed (*Sporobolus virginicus*).

About 3% of Tarkiln Bayou consists of Direго muck. This soil type is very deep, very poorly draining organic soil that formed with highly decomposing plant materials and underlying sandy sediments. These soils are in tidal marshes on the park's border, adjacent to the shoreline. Dirego soils have a high water table, within a depth of 0.5 feet throughout the year, and are subject to daily flooding by the tides. The associated natural community is estuarine tidal marsh, and common vegetation includes smooth cordgrass (Spartina alterniflora), marshhay (Spartina patens), black needle rush (Juncus roemerianus), and seashore dropseed (Sporobolus virginicus). The Allanton-Pottsburg complex covers another 3% of the park, and consists of poorly draining soils on nearly level flats and shallow depressions. This soil type manifests into wet flatwood communities imbedded in more mesic soils. Common vegetation includes gallberry, wax myrtle (Myrica cerifera), titi, wiregrass, and saw palmetto.

8 - Lakeland-Hurricane

This soil type covers approximately 10% of the park's area and is the third most abundant. Lakeland-Hurricane consists of highly draining sands on broad, gently sloping summits. This map unit consists of soils on broad, low ridges in the southern part of the county, primarily in and around the city of Pensacola. The landscape consists of long, smooth slopes and has little relief. Slopes range from 0 to 8 percent. The excessively drained Lakeland soils are on broad, gently sloping summits and on gently sloping and moderately sloping side slopes. Typically, the surface layer is dark grayish brown sand about 5 inches thick. The substratum is yellowish brown sand in the upper part and brownish yellow sand in the lower part.

This sandy soil is moderately productive for pine plantations, as limited organic material makes for decreased soil fertility. Sandhill and mesic flatwoods are both associated with Lakeland-Hurricane soils as they do not hold water for long periods of time. Common vegetation includes longleaf pine (*Pinus palustris*), turkey oaks (*Quercus laevis*), Adam's needle (*Yucca*

filamentosa), wiregrass (*Aristida stricta var. beyrichiana*), pineywoods dropseed (*Sporobolus junceus*) and winged sumac (*Rhus copallinum*).

The third most abundant soil type is the Lakeland-Hurricane sands, covering approximately 10% of the park's area. Lakeland-Hurricane consists of highly draining sands on broad, gently sloping summits. This sandy soil is moderately productive for pine plantations, as limited organic material makes for decreased soil fertility. Sandhill and mesic flatwoods are both associated with Lakeland-Hurricane soils as they do not hold water for long periods of time. Common vegetation includes longleaf pine, turkey oak (Quercus laevis), Adam's needle (Yucca filamentosa), wiregrass (Aristida stricta var. beyrichiana), pineywoods dropseed (Sporobolus junceus), and winged sumac (Rhus copallinum).

9 - Leon sand

This soil type is the second most abundant soil type, covering approximately 20% of the park's area. This is a very deep, poorly draining sandy soil found in the coastal lowlands. Slopes are flat or slightly concave and are generally less than 2 percent. Individual areas are irregular in shape. They range from 10 to about 150 acres in size. Typically, the surface layer is dark gray sand about 5 inches thick. The subsurface layer extends to a depth of 18 inches. It is gray sand. The subsoil extends to a depth of 80 inches. It is dark reddish brown and dark brown sand in the upper part, light brownish gray and very pale brown sand in the middle part, and very dark brown sand in the lower part.

Included in mapping are a few small areas of Hurricane, Pickney, and Pottsburg soils. The somewhat poorly drained Hurricane soils are on low knolls and do not have organic-enriched subsoil layers within a depth of 30 inches. The very poorly drained Pickney soils are in small depressions. The Pottsburg soils are in positions similar to those of the Leon soil and do not have organic-enriched subsoil layers within a depth of 30 inches. Included soils make up about 15 percent of the map unit. Individual areas generally are less than 5 acres in size.

This map unit is poorly suited to most urban uses. Wetness is a severe limitation affecting building sites, local roads and streets, and most kinds of sanitary facilities. Additional management concerns include the sandy texture and droughtiness. Because of the seasonal high water table during winter and spring, a drainage system is needed for buildings.

The natural communities associated with this soil type include mesic and wet flatwoods. Common vegetative communities include saw palmetto (*Serenoa repens*), gallberry (*Ilex glabra*), longleaf pine and slash pine. These soils are slightly drier than the Croatan Pickney complex, and are therefore maintain slightly more mesic communities.

This soil type is considered to be in the Swamp Hardwoods ecological community. Vegetative communities found within this soil type include

sweetbay (*Magnolia virginiana*), fetterbush (*Lyonia lucida*), buttonbush (*Cephalanthus occidentalis*), greenbriars (*Smilax* spp.), poison ivy (*Toxicodendron radicans*), and Spanish moss (*Tillandsia usneoides*).

Leon sand is the next most abundant soil type, covering approximately 20% of the park's area. This is a deep, poorly draining sandy soil found in the coastal lowlands. The natural communities associated with this soil type include mesic and wet flatwoods. Common vegetative communities include saw palmetto (Serenoa repens), gallberry (Ilex glabra), longleaf pine (Pinus palustris) and slash pine. These soils are slightly drier than the Croatan Pickney complex, and are therefore maintain slightly more mesic communities.

14- Allanton-Pottsburg complex

This soil type consists of the very poorly drained Allanton soil and the poorly drained Pottsburg soil. The Allanton soil is on nearly level flats and in shallow depressions, and the Pottsburg soil is in areas of flatwoods. It is in the coastal lowlands in the southern part of the county. The areas are so intricately intermingled that they could not be mapped separately at the scale selected for mapping. The Allanton soil makes up about 60 percent of the map unit, and the Pottsburg soil makes up about 30 percent. Slopes are long and smooth and range from 0 to 2 percent. Individual areas are irregular in shape. They range from 10 to 250 acres in size. The Allanton soil is on flats and in rounded depressions. Typically, the surface layer is black and very dark gray sand about 17 inches thick. The subsurface layer extends to a depth of 53 inches. It is grayish brown sand in the upper part and light gray sand in the lower part. The subsoil extends to a depth of 80 inches. It is dark brown sand in the upper part and dark reddish brown sand in the lower part.

The Pottsburg soil is in areas of flatwoods in slightly higher positions than those of the Allanton soil. Typically, the surface layer is very dark grayish brown sand about 7 inches thick. The subsurface layer extends to a depth of 53 inches. It is brown sand in the upper part and light brownish gray sand in the lower part. The subsoil extends to a depth of 80 inches. It is dark reddish brown sand in the upper part and black sand in the lower part.

This map unit is poorly suited to most development. Wetness is a severe limitation affecting building sites, local roads and streets, and most kinds of sanitary facilities. Because of the seasonal high water table during winter and spring, a drainage system is needed for buildings.

This map unit is in the Flats ecological community. At the preserve, this soil type manifests into wet flatwoods communities imbedded in more mesic soils. Common vegetation includes gallberry, wax myrtle (*Myrica cerifera*), titi, wiregrass, and saw palmetto.

19 - Foxworth sand, 0 to 5 percent slopes

This soil type covers approximately 5% of the preserve property. This soil type is very deep, moderately well drained, sandy soil is on nearly level and gently sloping, low ridges and knolls in the coastal lowlands in the southwestern part of the county. Slopes are commonly long and smooth, but some are short and complex. Individual areas are irregular in shape. They range from 5 to about 100 acres in size. Typically, the surface layer is dark brown sand about 6 inches thick. The substratum extends to a depth of 80 inches. It is yellowish brown sand in the upper part, light yellowish brown sand that has grayish and reddish mottles in the middle part, and white sand that has reddish mottles in the lower part.

Included in mapping are a few small areas of Hurricane and Lakeland soils. The somewhat poorly drained Hurricane soils are in slightly lower, less convex positions than those of the Foxworth soil. The excessively drained Lakeland soils are in slightly higher positions than those of the Foxworth soil. Also included are moderately well drained, sandy soils that have dark colored, slightly cemented horizons below a depth of 40 inches. Included soils make up less than 15 percent of the map unit. Individual areas are generally less than 5 acres in size.

This map unit is suited to most urban uses. It has slight limitations affecting building sites and local roads and streets and has slight to severe limitations affecting most kinds of sanitary facilities.
The main management concerns are the sandy texture, seepage, wetness, and droughtiness.

This map unit is in the Longleaf Pine-Turkey Oak Hills ecological Community and both sandhill and maritime hammock are associated with Foxworth sand, which highly draining properties allow for more xeric communities. Common plants found growing on foxworth sand include live oak (*Quercus virginiana*), bluejack oak (*Quercus incana*), pricklypear (*Opuntia humistrata*), dense gayfeather (*Liatris spicata*), and tailed brackenfern (*Pteridium aquilinum var. pseudocaudatum*).

Foxworth sand also covers approximately 5% of the park's area. This soil type is a very deep, moderately draining sandy soil found on nearly level and gently sloping ridges. Both sandhill and maritime hammock are associated with Foxworth sand, which highly draining properties allow for more xeric communities. Common plants found growing on Foxworth sand include live oak (Quercus virginiana), bluejack oak (Quercus incana), pricklypear (Opuntia humistrata), dense gayfeather (Liatris spicata), and tailed brackenfern (Pteridium aquilinum var. pseudocaudatum).

49 - Dorovan muck and Fluvaquents, frequently flooded

This soil type covers approximately 5% of the preserve and tends to encompass baygall, seepage stream and blackwater stream natural communities.

This soil type consists of very poorly draining, mucky soils associated with flood plains, rivers and streams. Dorovan is subject to frequent flooding and ponding for very long periods of most years. The composition of this unit is variable. Some areas mainly consist of the Dorovan soil, some areas mainly consist of the Fluvaquents, and other areas contain both in variable proportions. In a typical area, the Dorovan soil makes up about 45 percent of the map unit and the Fluvaquents make up about 40 percent. Slopes are less than 2 percent. Individual areas are long and narrow and range from 20 to several hundred acres in size. The Dorovan soil commonly is on the lower parts of the flood plain. Typically, the surface layer is dark reddish brown muck about 8 inches thick. Below this is black muck to a depth of 80 inches

Dorovan muck and Fluvaquents are the next most common soil type, covering approximately 5% of the park's area. This soil type consists of very poorly draining, mucky soils associated with flood plains, rivers, and streams. Dorovan is subject to frequent flooding and ponding for very long periods of most years. Baygall, seepage stream, and blackwater stream are the natural communities found on Dorovan muck and Fluvaquents. Vegetative communities found within this soil type include sweetbay (Magnolia virginiana), fetterbush (Lyonia lucida), buttonbush (Cephalanthus occidentalis), greenbriars (Smilax spp.), poison ivy (Toxicodendron radicans), and Spanish moss (Tillandsia usneoides).

The last soil type represented at Tarkiln Bayou includes Pits, which consists of open areas of excavation where the original soil and underlying material have been removed. The original soil in the area of management zones TB-EE and TB-GG has been removed to a depth of 5-35 feet. The resulting removed soil has been used as a source of construction material for highways and building foundations. Extensive reclamation efforts would be required to make this small section of pits soil suitable habitat with ecological value.

Legend

- 4-Pickney sand
- 5-Croatan and Pickney soils, depressional
- 6-Diredo muck, tidal
- 9-Leon sand
- 11-Hurricane sand, 0 to 5 percent slopes
- 12-Croatan muck, depressional
- 13-Lakeland sand, 0 to 5 percent slopes
- 14-Allanton-Pottsburg complex
- 15-Resota sand, 0 to 5 percent slopes
- 18-Pits
- 19-Foxworth sand, 0 to 5 percent slopes
- 49-Dorovan muck and Fluvaquents, frequently flooded
- 99-Water

TARKILN BAYOU PRESERVE STATE PARK

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0 0.25 0.5 1 Mile

Florida Department of Environmental Protection
Division of Recreation and Parks
Date of aerial: 2010

SOILS MAP

Beaches

This map unit is in the coastal lowlands in the southern part of the county. It is a miscellaneous land type that consists of narrow strips of tide washed sand on the coast and on barrier islands. Beaches are subject to daily flooding by fluctuating tides and wave action. The shape and slope of the beaches commonly change due to storm surges and wave action. Most areas have a uniform, gentle slope, but some areas have a short, steep slope at the water's edge. Individual areas are long and narrow, generally ranging from 200 to 500 feet in width. Most areas of Beaches consist of thick deposits of thinly stratified fine white sand. In most areas, many shell fragments and dark sand grains are throughout the profile. A typifying profile was not selected. Important properties of Beaches— Seasonal high water table: Apparent, at the surface to a depth of 1/2 foot throughout the year Available water capacity: Very low Permeability: Rapid Flooding: Very frequent for very brief periods due to fluctuating tides. Included in mapping are a few small areas of Newhan, Corolla, and Duckston soils. The Newhan and Corolla soils are on sand dunes and are not subject to daily flooding by fluctuating tides. The poorly drained Duckston soils are in shallow swales and other depressions. Included soils make up less than 10 percent of the map unit. Individual areas generally are less than 1 acre in size. This map unit is not suited to cultivated crops, pasture, hay, woodland, or most urban uses because of the flooding, wetness, and the instability of the landforms. Beaches provide access to the Gulf of Mexico and are used extensively for recreational activities. The capability subclass is VIIIw. This map unit has not been assigned a woodland ordination symbol or an ecological community.

Beaches is an unconsolidated quartz sandy soil, and comprises the open beach associated with the marine unconsolidated substrate and the sparsely vegetated beach dune natural communities. This soil type grades into the Newhan-Corolla Series, which is located in the beach dunes and scrub areas of the park. The somewhat poorly drained Corolla soils are found on the lower parts of dunes and in shallow swales while the excessively draining Newhan soils are on higher portions of the dunes. Nearly all of the recreational facility developments in the area have occurred on the Newhan-Corolla complex and Beaches.

Corolla Series

The Corolla series consists of very deep, somewhat poorly drained soils that formed in thick deposits of marine sands that have been reworked by wind and wave action. These soils are on the lower parts of dunes and in shallow swales between dunes on the barrier islands and near the coastal beaches on the mainland. The seasonal high water table is influenced by daily tidal fluctuations. In most years, it is at a depth of 11/2 to 3 feet throughout the year. These soils are subject to rare flooding. Slopes range from 2 to 6 percent. These soils are thermic, uncoated Aquic Quartzipsamments. Corolla soils are geographically associated with Dirego, Duckston, Kureb, Newhan, and Resota soils. The very poorly drained Dirego soils are in tidal marshes and

have a thick, histic epipedon. The poorly drained Duckston soils are in lower positions than the Corolla soils on flats and in swales between dunes. The excessively drained Kureb and moderately well drained Resota soils are in the higher positions and have spodic materials in the subsoil. The excessively drained Newhan soils are in the higher positions on the dunes. Typical pedon of Corolla sand, in an area of Newhan-Corolla complex, rolling, rarely flooded; in Big Lagoon State Recreation Area, about 2,640 feet south and 675 feet west of the northeast corner of sec.13, T.3 S., R. 32 W. A—0 to 5 inches; grayish brown (10YR 5/2) sand; single grained; loose; few fine roots; moderately acid; clear wavy boundary.C1—5 to 28 inches; very pale brown (10YR 7/3) sand; single grained; loose; common medium distinct brown (10YR 4/3) streaks of organic stains; moderately acid; clear wavy boundary. C2—28 to 40 inches; white (N 8/0) sand; single grained; loose; common fine prominent strong brown (7.5YR 5/8) masses of iron accumulation with sharp boundaries throughout the matrix; common medium prominent brown (10YR 4/3) streaks of organic stains; moderately acid; gradual wavy boundary. C3—40 to 48 inches; white (10YR 8/1) sand; single grained; loose; common fine prominent yellowish red (5YR 5/8) masses of iron accumulation with sharp boundaries throughout the matrix; moderately acid; gradual wavy boundary. C4—48 to 80 inches; light gray (10YR 7/1) sand; single grained; loose; common black sand grains; moderately acid.

Corolla-Duckston sands are closely associated to the mesic flatwoods found within the park. Both Corolla and Duckston are poorly draining soils commonly found on flats and shallow swales within barrier islands in Escambia County. This poor drainage is able to hold freshwater which allows for the growth of slash pines (*Pinus elliottii),* saw palmettos (*Serenoa repens*), gallberry (*Ilex glabra*), wiregrass (*Aristida stricta* var. *beyrichiana*) along with other species used to classify an area as mesic flatwoods.

Dirego Series

The Dirego series consists of very deep, very poorly drained organic soils that formed in highly decomposed plant materials and the underlying sandy sediments. These soils are in tidal marshes on the barrier islands and adjacent to the coastline. Dirego soils have a high water table within a depth of 1/2 foot throughout the year and are subject to daily flooding by the tides. Slopes are less than 1 percent. These soils are sandy or sandy-skeletal, siliceous, euic, thermic Terric Sulfisaprists. Dirego soils are geographically associated with Corolla, Duckston, Leon, Newhan, and Pickney soils. All of the associated soils are in higher positions than the Dirego soils and are mineral soils. Typical pedon of Dirego muck, in an area of Dirego muck, tidal; on Santa Rosa Island, about 2.0 miles east of Big Sabine Point and 0.7 mile north of County Road 399; lat. 30 degrees 21 minutes 32 seconds N. and long. 87 degrees 00 minutes 51 seconds W.

The last soil type described within Perdido Key State Park is Dirego muck. The Dirego series consists of very deep, very poorly draining organic soils that formed in conjunction with highly decomposed plant materials and the

underlying sandy sediments. These soils are found in salt marshes and adjacent to the coastline. Common plants associated with this soil include smooth cordgrass (*Spartina alterniflora*), needle rush (*Juncus roemerianus*), and sea purslane (*Sesuvium portulacastrum*).

Newhan Series

The Newhan series consists of very deep, excessively drained soils that formed in thick deposits of marine sands that have been reworked by wind and wave action. These soils are on dunes on the barrier islands and adjacent to the coastal beaches on the mainland. The seasonal high water table is below a depth of 6 feet throughout the year. Slopes range from 2 to 12 percent. These soils are thermic, uncoated Typic Quartzipsamments. Newhan soils are geographically associated with Corolla, Direго, Duckston, Kureb, and Resota soils. The somewhat poorly drained Corolla soils are on the lower parts of dunes and in shallow swales between dunes. The very poorly drained Dirego soils are in tidal marshes and have a thick histic horizon. The poorly drained Duckston soils are on flats and in swales between dunes. The Kureb and Resota soils are on dunes and knolls that are not subject to salt spray. The Kureb soils have discontinuous spodic horizons. The Resota soils are moderately well drained. Typical pedon of Newhan sand, in an area of Newhan-Corolla complex, rolling, rarely flooded; about 2,500 feet south and 4,850 feet west of the northeast corner of sec. 34, T. 3 S., R. 32 W. A—0 to 3 inches; gray (10YR 6/1) sand; single grained; loose; few fine roots; slightly acid; clear wavy boundary. C1—3 to 22 inches; light gray (10YR 7/1) sand; single grained; loose; few fine roots; common black sand grains; slightly acid; gradual wavy boundary. C2—22 to 80 inches; white (10YR 8/1) sand; single grained; loose; common black sand grains; slightly acid. The combined thickness of the sandy sediments is more than 80 inches. Reaction ranges from extremely acid to slightly alkaline. Up to 35 percent, by volume, of the soil are fragments of mollusk shell, mostly of sand size. In most pedons, dark sand grains of ilmenite are throughout the profile. The A horizon has hue of 10YR or 2.5Y, value of 4 to 7, and chroma of 1 to 3. The C horizon has hue of 10YR or 2.5Y, value of 5 to 8, and chroma of 1 or 2. It is sand or fine sand.

PERDIDO KEY STATE PARK

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0 500 1,000 2,000 Feet

Florida Department of Environmental Protection
Division of Recreation and Parks
Date of aerial; 2010

SOILS MAP

Addendum 5—Plant and Animal List

Big Lagoon State Park Plants

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
FUNGI		
Octopus stinkhorn*	*Clathrus archeri*	
Dyemaker's false puffball	*Pisolithus tinctoris*	
PTERIDOPHYTES		
Cinnamon fern	*Osmunda cinnamomea*	
Japanese climbing fern*	*Lygodium japonicum*	
Royal fern	*Osmunda regalis var. spectabilis*	
Widespread maiden fern	*Thelypteris kunthii*	
Marsh fern	*Thelypteris palustris*	
Virginia chain fern	*Woodwardia virginica*	
GYMNOSPERMS		
Sand pine	*Pinus clausa*	
Florida slash pine	*Pinus elliottii*	
Loblolly pine	*Pinus taeda*	
Longleaf pine	*Pinus palustris*	
ANGIOSPERMS		
Red maple	*Acer rubrum*	
Red buckeye	*Aesculus pavia*	
Mimosa*	*Albizia julibrissin*	
Common ragweed	*Ambrosia artemisiifolia*	
Pinewoods milkweed	*Asclepias humistrata*	
Bushy bluestem	*Andropogon glomeratus*	
Broomsedge	*Andropogon virginicus var. virginicus*	
Wiregrass	*Aristida stricta*	
Longleaved milkweed	*Asclepias longifolia*	
Showy milkwort	*Asemeia violacea*	
Sea Myrtle	*Baccharis halimifolia*	
White hyssop, Herb of grace	*Bacopa monnieri*	
Yellow buttons	*Balduina angustifolia*	
Saltwort, Turtleweed	*Batis maritima*	
Beggarticks, Romerillo	*Bidens alba*	
False nettle	*Boehmeria cylindrica*	
Bushy seaside oxeye	*Borrichia frutescens*	
Curtiss' sandgrass	*Calamovilfa curtissii*	WP, WF, MF
Vanillaleaf	*Carphephorus odoratissimus*	
Pignut hickory	*Carya glabra*	
Spurred butterfly-pea	*Centrosema virginianum*	
Common buttonbush	*Cephalanthus occidentalis*	
Tropical bushmint	*Cantinoa mutabilis*	
Spadeleaf	*Centella asiatica*	

Big Lagoon State Park Plants

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Coastal sandbar	*Cenchrus spinifex*	
Florida rosemary	*Ceratiola ericoides*	
Hyssopleaf sandmat	*Chamaesyce hyssopifolia*	
Bush goldenrod	*Chrysoma pauciflosculosa*	
Pursh's rattlebox	*Crotalaria purshii*	
Compact dodder	*Cuscuta compacta*	
Bermudagrass*	*Cynodon dactylon*	
Leconte's flatsedge	*Cyperus lecontei*	
Partridge-pea	*Chamaecrista fasciculata*	
Sensitive Pea	*Chamaecrista nictitans*	
Dixie sandmat	*Chamaesyce bombensis*	
Lamb's-quarters*	*Chenopodium album*	
Godfrey's goldenaster	*Chrysopsis godfreyi*	BD
Jamaica swamp sawgrass	*Cladium jamaicense*	
Coastal sweet pepperbush	*Clethra alnifolia*	
Black titi	*Cliftonia monophylla*	
Tread-softly	*Cnidoscolus stimulosus*	
Whitemouth dayflower	*Commelina erecta*	
False rosemary	*Conradina canescens*	
Ti plant*	*Cordyline terminalis*	
Coreopsis	*Coreopsis gladiate*	
Pinebarren frostweed	*Crocanthemum corymbosum*	
Smooth rattlebox*	*Crotalaria pallida var. obovate*	
Small rattlebox	*Crotalaria rotundifolia*	
Tropic croton	*Croton glandulosus var. septentrionalis*	
Gulf Croton, Beach tea	*Croton punctatus*	
Fiveangled dodder	*Cuscuta pentagona*	
Pinebarren flatsedge	*Cyperus ovatus*	
Titi	*Cyrilla racemiflora*	
Threeflower ticktrefoil	*Desmodium triflorum*	
Cypress witchgrass	*Dichanthelium dichotomum*	
Rough buttonweed	*Diodia teres*	
Common persimmon	*Diospyros virginiana*	
Salt grass	*Distichlis spicata*	
Pink sundew	*Drosera capillaris*	
Oakleaf fleabane	*Erigeron quercifolius*	
Swamp doghobble	*Eubotrys racemosa*	
Falsefennel	*Eupatorium leptophyllum*	
Sl Yankeeweed	*Eupatorium compositifolium*	
Mohr's Thoroughwort	*Eupatorium mohrii*	
Greater Florida spurge	*Euphorbia floridana*	
Ender flattop goldenrod	*Euthamia caroliniana*	
Silver dwarf morning-glory	*Evolvulus sericeus*	
Carolina fimbry	*Fimbristylis caroliniana*	
Southern umbrellasedge	*Fuirena scirpoidea*	

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Eastern milkpea	*Galactia volubilis*	
Coastal bedstraw	*Galium hispidulum*	
Gardenia*	*Gardenia jasminoides*	
Woolly huckleberry	*Gaylussacia mosieri*	
Rough hedgehyssop	*Gratiola hispida*	
English ivy*	*Hedera helix*	
Diamond-flower	*Hedyotis nigricans*	
Camphorweed	*Heterotheca subaxillaris*	
Crimsoneyed rosemallow	*Hibiscus moscheutos*	
Largeleaf marshpennywort	*Hydrocotyle bonariensis*	
Roundpod St. John's-wort	*Hypericum cistifolium*	
Coastalplain St. John's wort	*Hypericum brachyphyllum*	
St. Peter's-wort	*Hypericum crux-andreae*	
Pineweeds	*Hypericum gentianoides*	
Dahoon	*Ilex cassine*	
Inkberry	*Ilex glabra*	
Myrtle dahoon	*Ilex cassine* var. *myrtifolia*	
Tievine	*Ipomoea cordatotriloba*	
Standing cypress	*Ipomopsis rubra*	
Yaupon	*Ilex vomitoria*	
Cogongrass*	*Imperata cylindrica*	
Hairy indigo*	*Indigofera hirsuta*	
Beach morning-glory	*Ipomoea imperati*	
Railroad vine	*Ipomoea pes-caprae brasiliensis*	
Saltmarsh morning-glory	*Ipomoea sagittata*	
Bigleaf sumpweed	*Iva frutescens*	
Seacoast marshelder	*Iva imbricate*	
Shore rush	*Juncus marginatus*	
Needle rush	*Juncus roemerianus*	
Red Cedar	*Juniperus virginiana*	
Wicky, Hairy Laurel	*Kalmia hirsute*	
Virginia saltmarsh mallow	*Kosteletzkya pentacarpos*	
Lantana	*Lantana camara*	
Virginia pepperweed	*Lepidium virginicum*	
Bearded sprangle top	*Leptochloa fusca fascicularis*	
Shortleaf gayfeather	*Liatris tenuifolia var. quadriflora*	
Gopher apple	*Licania michauxii*	
Carolina sealavender	*Limonium carolinianum*	
Easter lily*	*Lilium longiflorum*	
Sweetgum	*Liquidambar styraciflua*	
Big blue lilyturf	*Liriope muscari*	
Japanese honeysuckle	*Lonicera japonica*	
Fetterbush	*Lyonia lucida*	
Wand loosestrife	*Lythrum lineare*	
Southern magnolia	*Magnolia grandiflora*	
Sweet bay	*Magnolia virginiana*	

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
White sweet clover*	*Melilotus albus*	
Wax myrtle	*Myrica cerifera*	
Peppervine	*Nekemias arborea*	
American white waterlily	*Nymphaea odorata*	
Swamp tupelo	*Nyssa sylvatica var. biflora*	
Seabeach evening primrose	*Oenothera humifusa*	
Southern beeblossom	*Oenothera simulans*	
Prickly pear	*Opuntia humifusa*	
Wild olive	*Osmanthus americanus*	
Bitter panicgrass	*Panicum amarum*	
Fall panicgrass	*Panicum dichotomiflorum*	
Torpedograss*	*Panicum repens*	
Switch grass	*Panicum virgatum*	
Squareflower	*Paronychia erecta*	
Mudbank crowngrass	*Paspalum dissectum*	
Bahiagrass*	*Paspalum notatum*	
Vasey grass	*Paspalum urvillei*	
Red bay	*Persea borbonia*	
Swamp bay	*Persea palustris*	
Red chokeberry	*Photinia pyrifolia*	
Turkey tangle fogfruit	*Phyla nodiflora*	
Coastal groundcherry	*Physalis angustifolia*	
American pokeweed	*Phytolacca americana*	
Wright's plaintain	*Plantago wrightiana*	
Rosy camphorweed	*Pluchea rosea*	
Sweetscent	*Pluchea odorata*	
Baldwin's milkwort	*Polygala balduinii*	
Drumheads	*Polygala cruciata*	
Orange milkwort	*Polygala lutea*	
Large-leaved jointweed	*Polygonella macrophylla*	SC, SCF
October flower	*Polygonella polygama*	
Rustweed	*Polypremum procumbens*	
Pink purslane	*Portulaca pilosa*	
Carolina laurelcherry	*Prunus caroliniana*	
Black cherry	*Prunus serotina*	
Tailed bracken	*Pteridium aquilinum var. pseudocaudatum*	
Blackroot	*Pterocaulon pycnostachyum*	
Mock bishopweed	*Ptilimnium capillaceum*	
Chapman's oak	*Quercus chapmanii*	
Sand live oak	*Quercus geminate*	
Turkey oak	*Quercus laevis*	
Laurel oak	*Quercus laurifolia*	
Dwarf live oak	*Quercus minima*	
Myrtle oak	*Quercus myrtifolia*	
Water oak	*Quercus nigra*	
Live oak	*Quercus virginiana*	

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
West Indian meadowbeauty	*Rhexia cubensis*	
Winged sumac	*Rhus copallinum*	
Giant whitetop	*Rhynchospora latifolia*	
Royal snoutbean	*Rhynchosia cytisoides*	
Sandyfield beaksedge	*Rhynchospora megalocarpa*	
Tropical Mexican clover*	*Richardia brasiliensis*	
Sawtooth blackberry	*Rubus pensilvanicus*	
Sand blackberry	*Rubus cuneifolius*	
Southern dewberry	*Rubus trivialis*	
Heartwing dock	*Rumex hastatulus*	
Shortleaf rosegentian	*Sabatia brevifolia*	
Rose-of-plymouth	*Sabatia stellaris*	
Bulltounge arrowhead	*Sagittaria lancifolia*	
Carolina willow	*Salix caroliniana*	
Redflower pitcher plant	*Sarracenia rubra gulfensis (extirpated)*	WP, SSL
Saw palmetto	*Serenoa repens*	
Bladderpod	*Sesbania vesicaria*	
Shoreline seapurslane	*Sesuvium portulacastrum*	
Knotroot foxtail	*Setaria parviflora*	
Gulf coast swallowwort	*Seutera angustifolia*	
Yaupon blacksenna	*Seymeria cassioides*	
Heartleaf sida	*Sida cordifolia*	
Cuban jute	*Sida rhombifolia*	
Earleaf greenbrier	*Smilax auriculata*	
Saw greenbrier	*Smilax bona-nox*	
Cat greenbrier	*Smilax glauca*	
Laurel greenbrier	*Smilax laurifolia*	
Sarsaparilla vine	*Smilax pumila*	
Coral greenbrier	*Smilax walteri*	
Canada goldenrod	*Solidago canadensis*	
Johnsongrass*	*Sorghum halepense*	
Common nightshade	*Solanum americanum*	
Black nightshade	*Solanum chenopodioides*	
Seaside goldenrod	*Solidago sempervirens*	
Saltmarsh cordgrass	*Spartina alterniflora*	
Marshhay cordgrass	*Spartina patens*	
Gulf cordgrass	*Spartina spartinae*	
Smutgrass*	*Sporobolus indicus*	
Virginia dropseed	*Sporobolus virginicus*	
Florida betony	*Stachys floridana*	
St. Augustine grass	*Stenotaphrum secundatum*	
Queen's delight	*Stillingia sylvatica*	
Annual saltmarsh	*Symphyotrichum subulatum*	
White-topped aster	*Symphyotrichum tenuifolium*	
Spanish-moss	*Tillandsia usneoides*	
Eastern poison ivy	*Toxicodendron radicans*	

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Hairyflower spiderwort	*Tradescantia hirsutiflora*	
Southern cattail	*Typha domingensis*	
Chinese tallow	*Triadica sebifera*	
Broadleaf cattail	*Typha latifolia*	
Sea oats	*Uniola paniculata*	
Little floating bladderwort	*Utricularia radiata*	
Sparkleberry	*Vaccinium arboreum*	
Highbush blueberry	*Vaccinium corymbosum*	
Darrow's blueberry	*Vaccinium darrowii*	
Brazilian vervain*	*Verbena brasiliensis*	
Frostweed	*Verbesina virginica*	
Florida ironweed	*Vernonia blodgettii*	
Texas vervain	*Verbena halei*	
Summer grape	*Vitis aestivalis*	
Muscadine	*Vitis rotundifolia*	
Chinese wisteria*	*Wisteria sinensis*	
Spanish bayonet	*Yucca aloifolia*	
Adam's needle	*Yucca filamentosa*	
Carolina yelloweyed grass	*Xyris caroliniana*	
Hercules' club	*Zanthoxylum clava-herculis*	

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)

ODONATA

Great blue skimmer ..... *Libellula vibrans*

LEPIDOPTERA

Gulf fritillary ..... *Agraulis vanillae*
Monarch ..... *Danus plexippus*
Cecropia silkmoth ..... *Hyalophora cecropia*
Viceroy ..... *Limentis archippus*
Palemedes swallowtail ..... *Papilio palamedes*
Long-tailed skipper ..... *Urbanus proteus*
Southern dogface ..... *Zerene cesonia*

AMPHIBIANS

Frogs and Toads

Southern cricket frog ..... *Acris gryllus dorsalis*
Green treefrog ..... *Anaxyrus cinerea*
Oak toad ..... *Anaxyrus quercicus*
Squirrel treefrog ..... *Anaxyrus squirella*
Southern toad ..... *Anaxyrus terrestris*
Southern leopard frog ..... *Lithobates utricularia*
Southern spring peeper ..... *Pseudacris crucifer*
Southern chorus frog ..... *Pseudacris nigrita*
Pig frog ..... *Rana grylio*

REPTILES

Crocodilians

American alligator ..... *Alligator mississippiensis* ..... MTC

Turtles and tortoise

Gopher tortoise ..... *Gopherus polyphemus* ..... SC,SCF
Ornate diamondback terrapin ..... *Malaclemys terrapin*
Eastern box turtle ..... *Terrapene carolina*

Lizards

Green anole ..... *Anolis carolinensis*
Six-lined racerunner ..... *Aspidoscelis sexlineatus*
Eastern coachwhip ..... *Masticophis flagellum*
Eastern slender glass lizard ..... *Ophisaurus attenuates*
Eastern glass lizard ..... *Ophisaurus ventralis*
Southeastern five-lined skink ..... *Plestiodon inexpectatus*
Broadhead skink ..... *Plestiodon laticeps*
Southern fence lizard ..... *Sceloporus undulatus undulatus*

Geckos

Tropical house gecko* ..... *Hemidactylus mabouia*

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Mediterranean house gecko*	*Hemidactylus turcicus*	
Snakes		
Florida cottonmouth	*Agkistrodon piscivorus conanti*	
Southern black racer	*Coluber constrictor priapus*	
Eastern diamondback rattlesnake	*Crotalus adamanteus*	
Eastern mud snake	*Farancia abacura abacura*	
Eastern hognose snake	*Heterodon platyrhinos*	
Eastern coral snake	*Micrurus fulvius*	
Banded water snake	*Nerodia fasciata*	
Gulf salt marsh snake	*Nerodia clarkii clarkii*	
Brown water snake	*Nerodia taxispilota*	
Corn snake	*Pantherophis guttatus*	
Dusky Pigmy Rattlesnake	*Sistrurus miliarius barbouri*	
BIRDS		
Grebes and Loons		
Common loon	*Gavia immer*	
Pied-billed Grebe	*Podilymbus podiceps*	
Horned grebe	*Podiceps auritus*	
Cormorants, and Anhingas		
Anhinga	*Anhinga anhinga*	
Double-crested Cormorant	*Phalocrocorax auritus*	
Pelicans, Frigatebirds, and Gannets		
Magnificent frigatebird	*Fregata magnificens*	
Northern gannet	*Morus bassanus*	
American white pelican	*Pelecanus erythrorhynchos*	
Brown pelican	*Pelecanus occidentalis*	
Herons, Ibis, and Allies		
Great Egret	*Ardea alba*	
Great Blue Heron	*Ardea herodias*	
American bittern	*Botaurus lentiginosus*	
Cattle Egret	*Bubulcus ibis*	
Green Heron	*Butorides virescens*	
Little Blue Heron	*Egretta caerulea*	MTC
Reddish egret	*Egretta rufescens*	MTC
Snowy egret	*Egretta thula*	
Tricolored heron	*Egretta tricolor*	MTC
Least bittern	*Ixobrychus exilis*	
Yellow-crowned night-heron	*Nyctanassa violacea*	
Black-crowned night-heron	*Nycticorax nycticorax*	

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Waterfowl		
Wood duck	*Aix sponsa*	
Northern pintail	*Anas acuta*	
American wigeon	*Anas americana*	
Northern shoveler	*Anas clypeata*	
Blue-winged teal	*Anas discors*	
Mallard	*Anas platyrhynchos*	
Gadwall	*Anas strepera*	
Lesser scaup	*Aythya affinis*	
Redhead	*Aythya americana*	
Ring-necked duck	*Aythya collaris*	
Greater scaup	*Aythya marila*	
Lesser scaup	*Aythya marila*	
Canada goose	*Branta canadensis*	
Bufflehead	*Bucephala albeola*	
Common goldeneye	*Bucephala clangula*	
Snow goose	*Chen caerulescens*	
Hooded merganser	*Lophodytes cucullatus*	
Red-breasted merganser	*Mergus serrator*	
Common merganser	*Mergus merganser*	
White-winged scoter	*Melanitta fusca*	
Rails, Gallinules, and Allies		
American coot	*Fulica Americana*	
Common moorhen	*Gallinula galeata*	
Sora	*Porzana carolina*	
Purple gallinule	*Porphyrio martinicus*	
Clapper rail	*Rallus crepitans*	
King rail	*Rallus elegans*	
Virginia rail	*Rallus limicola*	
Shorebirds		
Spotted sandpiper	*Actitis macularius*	
Ruddy turnstone	*Arenaria interpres*	
Sanderling	*Calidris alba*	
Dunlin	*Calidris alpine*	
Western sandpiper	*Calidris mauri*	
Least sandpiper	*Calidris minutilla*	
Piping plover	*Charadrius melodus*	BD, EUS
Snowy plover	*Charadrius nivosus*	BD, EUS
Semipalmated plover	*Charadrius semipalmatus*	
Killdeer	*Charadrius vociferous*	
Wilson's plover	*Charadrius wilsonia*	
Wilson's Snipe	*Gallinago delicata*	
Black-necked stilt	*Himantopus mexicanus*	
Short-billed dowitcher	*Limnodromus griseus*	

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Marbled godwit	*Limosa fedoa*	
Whimbrel	*Numenius phaeopus*	
Black-bellied plover	*Pluvialis squatarola*	
American woodcock	*Scolopax minor*	
Greater yellowlegs	*Tringa melanoleuca*	
Willet	*Tringa semipalmata*	
Solitary sandpiper	*Tringa solitaria*	
Gulls		
Bonaparte's gull	*Chroicocephalus philadelphia*	
Herring gull	*Larus argentatus*	
Ring-billed gull	*Larus delawarensis*	
Laughing gull	*Leucophaeus atricilla*	
Terns		
Black tern	*Chlidonias niger*	
Caspian tern	*Hydroprogne caspia*	MTC
Black skimmer	*Rynchops niger*	MTC
Least tern	*Sterna antillarum*	MTC
Forster's tern	*Sterna forsteri*	
Common tern	*Sterna hirundo*	
Royal tern	*Thalasseus maximus*	
Sandwich tern	*Thalasseus sandvicensis*	MTC
Hawks, Eagles, Falcons, and Allies		
Cooper's hawk	*Accipiter cooperii*	
Sharp-shinned hawk	*Accipiter striatus*	
Red-tailed hawk	*Buteo jamaicensis*	
Red-shouldered hawk	*Buteo lineatus*	
Broad-winged hawk	*Buteo platypterus*	
Northern harrier	*Circus cyaneus*	
Merlin	*Falco columbarius*	
Peregrine falcon	*Falco peregrinus*	
American kestrel	*Falco sparverius*	
Bald eagle	*Haliaeetus leucocephalus*	
Osprey	*Pandion haliaetus*	
Vultures		
Turkey Vulture	*Cathartes aura*	
Black Vulture	*Coragyps atratus*	
Turkey and Quail		
Northern bobwhite	*Colinus virginianus*	
Wild turkey	*Meleagris gallopavo*	
Doves		
Rock pigeon*	*Columba livia*	

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Common ground-dove	*Columbina passerina*	
Eurasian collard-dove*	*Streptopelia decaocto*	
White-winged dove	*Zenaida asiatica*	
Mourning dove	*Zenaida macroura*	
Cukoos		
Yellow-billed cuckoo	*Coccyzus americanus*	
Owls		
Great horned owl	*Bubo virginianus*	
Eastern screech owl	*Megascops asio*	
Goatsuckers		
Chuck-will's-willow	*Caprimulgus carolinensis*	
Common nighthawk	*Chordeiles minor*	
Swifts		
Chimney swift	*Chaetura pelagica*	
Hummingbirds		
Ruby-throated hummingbird	*Archilochus colubris*	
Kingfishers		
Belted kingfisher	*Megaceryle alcyon*	
Woodpeckers		
Northern flicker	*Colaptes auratus*	
Pileated woodpecker	*Dryocopus pileatus*	
Red-bellied woodpecker	*Melanerpes carolinus*	
Red-headed woodpecker	*Melanerpes erythrocephalus*	
Downy woodpecker	*Picoides pubescens*	
Hairy woodpecker	*Picoides villosus*	
Yellow-bellied sapsucker	*Sphyrapicus varius*	
Flycatchers		
Eastern wood-pewee	*Contopus virens*	
Least flycatcher	*Empidonax minimus*	
Great crested flycatcher	*Myiarchus crinitus*	
Eastern phoebe	*Sayornis phoebe*	
Gray kingbird	*Tyrannus dominicensis*	
Eastern kingbird	*Tyrannus tyrannus*	
Shrikes		
Loggerhead shrike	*Lanius ludovicianus*	
Vireos		
White-eyed vireo	*Vireo griseus*	

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Red-eyed vireo	*Vireo olivaceus*	
Blue-headed vireo	*Vireo solitarius*	
Jays and Crows		
American crow	*Corvus brachyrhynchos*	
Fish crow	*Corvus ossifragus*	
Blue jay	*Cyanocitta cristata*	
Swallows		
Barn swallow	*Hirundo rustica*	
Cliff swallow	*Petrochelidon pyrrhonota*	
Purple martin	*Progne subis*	
Bank swallow	*Riparia riparia*	
Northern rough-winged swallow	*Stelgidopteryx serripennis*	
Tree swallow	*Tachycineta bicolor*	
Titmice		
Tufted titmouse	*Baeolophus bicolor*	
Carolina chickadee	*Poecile carolinensis*	
Nuthatches		
Red-breasted nuthatch	*Sitta canadensis*	
Brown-headed nuthatch	*Sitta pusilla*	
Wrens		
Marsh wren	*Cistothorus palustris*	
Carolina wren	*Thryothorus ludovicianus*	
House wren	*Troglodytes aedon*	
Gnatcatchers and Kinglets		
Blue-gray Gnatcatcher	*Polioptila caerulea*	
Ruby-crowned kinglet	*Regulus calendula*	
Golden-crowned kinglet	*Regulus satrapa*	
Thrushes		
Veery	*Catharus fuscescens*	
Hermit thrush	*Catharus guttatus*	
Swainson's thrush	*Catharus ustulatus*	
Wood thrush	*Hylocichla mustelina*	
Eastern bluebird	*Sialia sialis*	
American robin	*Turdus migratorius*	
Thrashers		
Gray catbird	*Dumetella carolinensis*	
Northern mockingbird	*Mimus polyglottos*	
Brown thrasher	*Toxostoma rufum*	

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Starlings		
European starling*	*Sturnus vulgaris*	
Wagtails and pipits		
American pipit	*Anthus rubescens*	
Waxwings		
Cedar Waxwing	*Bombycilla cedrorum*	
Warblers		
Common yellowthroat	*Geothlypis trichas*	
Worm-eating warbler	*Helmitheros vermivorum*	
Tennessee warbler	*Leiothlypis peregrina*	
Swainson's warbler	*Limnothlypis swainsonii*	
Black-and-white warbler	*Mniotilta varia*	
Orange-crowned warbler	*Oreothlypis celata*	
Prothonotary warbler	*Protonotaria citrea*	
Ovenbird	*Seiurus aurocapilla*	
Northern parula	*Setophaga americana*	
Bay-breasted warbler	*Setophaga castanea*	
Hooded warbler	*Setophaga citrina*	
Yellow-rumped warbler	*Setophaga coronata*	
Magnolia warbler	*Setophaga magnolia*	
Palm warbler	*Setophaga palmarum*	
Chestnut-sided warbler	*Setophaga pensylvanica*	
Yellow warbler	*Setophaga petechia*	
Pine warbler	*Setophaga pinus*	
American redstart	*Setophaga ruticilla*	
Blackpoll warbler	*Setophaga striata*	
Sparrows		
Nelson's sparrow	*Ammodramus nelsoni*	
Song sparrow	*Melospiza melodia*	
Lincoln's sparrow	*Melospiza lincolnii*	
Swamp sparrow	*Melospiza georgiana*	
House sparrow*	*Passer domesticus*	
Savannah sparrow	*Passerculus sandwichensis*	
Eastern towhee	*Pipilo erythrophthalmus*	
Chipping sparrow	*Spizella passerina*	
Field sparrow	*Spizella pusilla*	
White-throated sparrow	*Zonotrichia albicollis*	
White-crowned sparrow	*Zonotrichia leucophrys*	
Meadowlarks,Blackbirds and Orioles		
Red-winged blackbird	*Agelaius phoeniceus*	
Baltimore oriole	*Icterus galbula*	
Orchard oriole	*Icterus spurius*	

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Brown-headed cowbird*	*Molothrus ater*	
Common grackle	*Quiscalus quiscula*	
Boat-tailed grackle	*Quiscalus major*	
Eastern meadowlark	*Sturnella magna*	
Cardinals,Grosbeaks,and Buntings		
Northern cardinal	*Cardinalis cardinalis*	
Blue grosbeak	*Passerina caerulea*	
Indigo Bunting	*Passerina cyanea*	
Rose-breasted grosbeak	*Pheucticus ludovicianus*	
Summer tanager	*Piranga rubra*	
Scarlet tanager	*Piranga olivacea*	
Finches		
House finch	*Haemorhous mexicanus*	
Pine siskin	*Spinus pinus*	
American goldfinch	*Spinus tristis*	
MAMMALS		
Didelphids		
Opossum	*Didelphis virginiana*	
Moles		
Eastern mole	*Scalopus aquaticus*	
Bats		
Big brown bat	*Eptesicus fuscus*	
Lagomorphs		
Marsh rabbit	*Sylvilagus palustris*	
Rodents		
North American beaver	*Castor canadensis*	
Cotton mouse	*Peromyscus gossypinus*	
Gray squirrel	*Sciurus carolinensis*	
Hispid cotton rat	*Sigmodon hispidus*	
Carnivores		
Coyote*	*Canis latrans*	
Striped skunk	*Mephitis mephitis*	
Raccoon	*Procyon lotor*	
Gray fox	*Urocyon cinereoargenteus*	
Artiodactyls		
White-tailed deer	*Odocoileus virginianus*	

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)

LICHENS

Reindeer moss	*Cladonia* sp..

PTERIDOPHYTES

Carolina mosquito fern	*Azolla caroliniana*
Southern grape-fern	*Botrychium biternatum*
Horsetail	*Equisetum hyemale*
Foxtail clubmoss	*Lycopodium alopecuroides*
Southern clubmoss	*Lycopodiella appressa*
Slender clubmoss	*Lycopodiella caroliniana*
Japanese climbing fern	*Lygodium japonicum**
Cinnamon Fern	*Osmunda cinnamomea*
Royal Fern	*Osmunda regalis*
Resurrection fern	*Pleopeltis polypodioides*
Tailed bracken	*Pteridium aquilinum var. pseudocaudatum*
Water spangles	*Salvinia minima*
Marsh fern	*Thelypteris palustris var. pubescens*
Netted chain fern	*Woodwardia areolata*
Virginia chain fern	*Woodwardia virginica*

GYMNOSPERMS

Atlantic white cedar	*Chamaecyparis thyoides*
Red Cedar	*Juniperus virginiana*
Choctawhatchee Sand Pine	*Pinus clausa var. Choctawhatchee*
N. FL. Slash pine	*Pinus elliottii var. elliotii*
Longleaf pine	*Pinus palustris*
Loblolly pine	*Pinus taeda*
Pond-cypress	*Taxodium ascendens*
Bald-cypress	*Taxodium distichum*

ANGIOSPERMS

Monocots

Blue maidencane	*Amphicarpum muhlenbergianum*
Bushy Bluestem	*Andropogon glomeratus*
Wiregrass	*Aristida stricta*
Switchcane	*Arundinaria gigantea*
Common carpetgrass	*Axonopus fissifolius*
Tuberous grasspink orchid	*Calopogon tuberosus*
Pale grasspink orchid	*Calopogon pallidus*
Coastal sandbur	*Cenchrus spinifex*
Sanddune sandbur	*Cenchrus tribuloides*
Slender woodoats	*Chasmanthium laxu*

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Jamaica swamp sawgrass	*Cladium jamaicense*	
Spreading pogonia	*Cleistes divaricate*	WP
Pampasgrass	*Cortaderia selloana**	
Seven sisters, string-lily	*Crinum americanum*	
Toothachegrass	*Ctenium aromaticum*	
Leconte's flatsedge	*Cyperus lecontei*	
Poorland flatsedge	*Cyperus compressus*	
Haspan flatsedge	*Cyperus haspan*	
Needleleaf witchgrass	*Dichanthelium aciculare*	
Woolly witchgrass	*Dichanthelium scabriusculum*	
Air-potato	*Dioscorea bulbifera**	
Creeping burrhead	*Echinodorus cordifolius*	
Gulf coast spikerush	*Eleocharis cellulosa*	
Virginia wildrye	*Elymus virginicus*	
Flattened pipewort	*Eriocaulon compressum*	
Tenangle pipewort	*Eriocaulon decangulare*	
Southern umbrella-grass	*Fuirena scirpoidea*	
Cogongrass	*Imperata cylindrical**	
Lesser creeping rush	*Juncus repens*	
Black rush, needlerush	*Juncus roemerianus*	
Roundhead rush	*Juncus validus*	
Fringed yellow stargrass	*Hypoxis juncea*	
Carolina redroot	*Lachnanthes caroliana*	
Pineland bogbutton	*Lachnocaulon digynum*	
Small bogbutton	*Lachnocaulon minus*	
Whitehead bogbutton	*Lachnocaulon anceps*	
Woodland lettuce	*Lactuca floridana*	
Bitter panicgrass	*Panicum amarum*	
Torpedo Grass	*Panicum repens**	
Brownseed paspalum	*Paspalum plicatulum*	
Vaseygrass	*Paspalum urvillei*	
Common reed	*Phragmites australis*	
Turkey tangle fogfruit	*Phyla nodiflora*	
Chamber bitter	*Phyllanthus urinaria**	
Mascarene island leafflower	*Phyllanthus tenellus**	
Rose pogonia	*Pogonia ophioglossoide*	WP, SB
Crested yellow fringed orchid	*Platanthera cristata*	WP
Yellow fringeless orchid	*Platanthera integra*	WP
Bunched beachsedge	*Rhynchospora cephalantha*	
Chapman's beacksedge	*Rhynchospora chapmanii*	
Starrush whitetop	*Rhynchospora colorata*	
Shortbristle horned beaksedge	*Rhynchospora corniculata*	
Giant whitetop	*Rhynchospora latifolia*	
Sandyfield beaksedge	*Rhynchospora megalocarpa*	
Dwarf palmetto	*Sabal minor*	
Grassy arrowhead	*Sagittaria graminea*	

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Woolgrass	*Scirpus cyperinus*	
Tall nutrush	*Scleria triglomerata*	
Saw Palmetto	*Serenoa repens*	
Yellow bristlegrass	*Setaria parviflora*	
Earleaf greenbrier	*Smilax auriculata*	
Cat greenbrier	*Smilax glauca*	
Laurel greenbrier	*Smilax laurifolia*	
Sarsaparilla vine	*Smilax pumila*	
Marshhay cordgrass	*Spartina patens*	
Greenvein ladiestresses	*Spiranthes praecox*	
Little ladiestresses	*Spiranthes tuberosa*	WP, WF
Seashore dropseed	*Sporobolus virginicus*	
Yellow hatpins	*Syngonanthus flavidulus*	
Spanish moss	*Tillandsia usneoides*	
Hairyflower Spiderwort	*Tradescantia hirsutiflora*	
Seaoats	*Uniola paniculata*	
Coastalplains yelloweyed grass	*Xyris ambigua*	
Carolina yelloweyed grass	*Xyris caroliniana*	
Savannah Yelloweyed grass	*Xyris flabelliformis*	
Spanish bayonet	*Yucca aloifolia*	
Adam's needle	*Yucca filamentosa*	

Dicots

Red maple	*Acer rubrum*	
Mimosa*	*Albizia julibrissin*	
Golden colicroot	*Aletris aurea*	
Yellow colicroot	*Aletris lutea*	
Common ragweed	*Ambrosia artemisiifolia*	
Fewflower milkweed	*Asclepias lanceolata*	
Longleaf milkweed	*Asclepias longifolia*	
Savannah milkweed	*Asclepias pedicellata*	
Smallflower pawpaw	*Asimina parviflora*	
Smooth yellow false foxglove	*Aureolaria flava*	
Groundsel tree, saltbush	*Baccharis halimifolia*	
Oneflower honeycombhead	*Balduina uniflora*	
Gopherweed	*Baptisia lanceolata*	
Beggarstick	*Bidens alba*	
Devil's Beggarstick	*Bidens frondosa*	
Pineland rayless goldenrod	*Bigelowia nudata*	
Crossvine	*Bignonia capreolata*	
False nettle	*Boehmeria cylindrica*	
Scarlet calamintha	*Calamintha coccinea*	
American beautyberry	*Callicarpa americana*	
Trumpet creeper	*Campsis radicans*	
Hairy chaffhead	*Carphephorus paniculatus*	

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Wild olive	*Cartrema americana*	
Sand hickory	*Carya pallida*	
Pennywort, Spadeleaf	*Centella asiatica*	
Florida rosemary	*Ceratiola ericoides*	
Partridge pea	*Chamaecrista fasciculata*	
Sensitive pea	*Chamaecrista nictitans*	
Pineland Daisy	*Chaptalia tomentosa*	
Bush goldenrod	*Chrysoma pauciflosculosa*	
Coastal sweet pepperbush	*Clethra alnifolia*	
Black titi	*Cliftonia monophylla*	
Tread softly	*Cnidoscolus stimulosus*	
Common dayflower	*Commelina diffusa*	
False rosemary	*Conradina canescens*	
Canadian horseweed	*Conyza canadensis*	
Titi	*Cyrilla racemiflora*	
Panicled ticktrefoil	*Desmodium paniculatum*	
Poor Joe, rough buttonweed	*Diodia teres*	
Virginia buttonweed	*Diodia virginiana*	
Common persimmon	*Diospyros virginiana*	
Dwarf sundew	*Drosera brevifolia*	
Pink sundew	*Drosera capillaris*	
Water sundew, spoonleaf	*Drosera intermedia*	WF, WP, SB, SS
Elephantfoot	*Elephantopus spp.*	
Tracy's sundew	*Drosera tracyi*	
Oakleaf fleabane	*Erigeron quercifolius*	
Flattened pipewort	*Eriocaulon compressum*	
Tenangle pipewort	*Eriocaulon decangulare*	
Dogtongue wild buckwheat	*Eriogonum tomentosum*	
Blueflower eryngo	*Eryngium integrifolium*	
Button rattlesnakemaster	*Eryngium yuccifolium*	
Dogfennel	*Eupatorium capillifolium*	
Falsefennel	*Eupatorium leptophyllum*	
Greater Florida spurge	*Euphorbia floridana*	
Slender flattop goldenrod	*Euthamia caroliniana*	
Eastern milkpea	*Galactia volubilis*	
Coastal bedstraw	*Galium hispidulum*	
Dwarf huckleberry	*Gaylussacia dumosa*	
Blue huckleberry	*Gaylussacia frondosa*	
Whoolly huckleberry	*Gaylussacia mosieri*	
Shaggy hedgehyssop	*Gratiola pilosa*	
Rough false pennyroyal	*Hedeoma hispidum*	
Variableleaf sunflower	*Helianthus heterophyllus*	
Camphorweed	*Heterotheca subaxillaris*	
Comfortroot	*Hibiscus aculeatus*	
Largeleaf marshpennywort	*Hydrocotyle bonariensis*	
Coastalplain St. John's-wort	*Hypericum brachyphyllum*	

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Roundpod St. John's-wort	*Hypericum cistifolium*	
St. Peter's wort	*Hypericum crux-andreae*	
St. Andrew's cross	*Hypericum hypericoides*	
Myrtleleaf St. John's-wort	*Hypericum myrtifolium*	
Tropical bushmint	*Hyptis mutabilis**	
Dahoon	*Ilex cassine*	
Myrtle Dahoon	*Ilex cassine var. myrtifolia*	
Large gallberry	*Ilex coriacea*	
Gallberry, inkberry	*Ilex glabra*	
Yaupon	*Ilex vomitoria*	
Flaxleaf aster	*Ionactis linariifolia*	
Man-of-the-earth	*Ipomoea pandurata*	
Wicky, Hairy laurel	*Kalmia hirsuta*	
Virginia saltmarsh mallow	*Kosteletzkya pentacarpos*	
Lantana	*Lantana camara**	
Virginia pepperweed	*Lepidium virginicum*	
Dense gayfeather	*Liatris spicata*	
Gopher Apple	*Licania michauxi*	
Chinese privet	*Ligustrum sinense**	
Florida yellow flax	*Linum floridanum*	
Sweetgum	*Liquidambar styraciflua*	
Nuttall's lobelia	*Lobelia nuttallii*	
Japanese honeysuckle	*Lonicera japonica**	
Gold crest	*Lophiola aurea*	
Hairy primrosewillow	*Ludwigia pilosa*	
Savannah primrosewillow	*Ludwigia virgata*	
Fetterbush	*Lyonia lucida*	
Cat's claw vine	*Macfadyena unguis-cati**	
Southern magnolia	*Magnolia grandiflora*	
Sweet bay	*Magnolia virginiana*	
Partridgeberry	*Mitchella repens*	
Swiss-cheese plant	*Monstera deliciosa**	
Wax myrtle	*Myrica cerifera*	
Evergreen bayberry	*Myrica caroliniensis*	
Oderless bayberry	*Myrica inodora*	
Fragrant water-lily	*Nymphaea odorata*	
Swamp tupelo	*Nyssa sylvatica var. biflora*	
Prickly pear	*Opuntia humifusa*	
Stiff cowbane	*Oxypolis rigidior*	
Squareflower, Sand Squares	*Paronychia erecta*	
Virginia Creeper	*Parthenocissus quinquefolia*	
Red Bay	*Persea borbonia*	
Swamp Bay	*Persea palustris*	
Mild waterpepper	*Persicaria hydropiperoides*	
Red chokecherry	*Photinia pyrifolia*	
Yellow butterwort	*Pinguicula lutea*	

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Chapman's butterwort	*Pinguicula planifolia*	
Narrowleaf silkgrass	*Pityopsis graminifolia*	
Grassleaf goldenaster	*Pityopsis oligantha*	
Rush featherling	*Pleea tenuifolia*	
Sweetscent	*Pluchea odorata*	
Baldwin's milkwort	*Polygala balduinii*	
Drumheads	*Polygala cruciata*	
Orange milkwort	*Polygala lutea*	
Candyroot	*Polygala nana*	
Drumheads	*Polygala cruciata*	
Drumheads	*Polygala cruciata*	
Low pinebarren milkwort	*Polygala ramosa*	
Largeleaf jointweed	*Polygonella macrophylla*	MH
Black Cherry	*Prunus serotina*	
Blackroot	*Pterocaulon pycnostachyum*	
Mock Bishop's-weed	*Ptilimnium capillaceum*	
Chapman's oak	*Quercus chapmanii*	
Sand live oak	*Quercus geminata*	
Laurel oak	*Quercus laurifolia*	
Bluejack oak	*Quercus incana*	
Turkey oak	*Quercus laevis*	
Myrtle oak	*Quercus myrtifolia*	
Water oak	*Quercus nigra*	
Live oak	*Quercus virginiana*	
Savannah meadowbeauty	*Rhexia alifanus*	
Yellow meadowbeauty	*Rhexia lutea*	
Pale meadowbeauty	*Rhexia mariana*	
Fringed meadowbeauty	*Rhexia petiolata*	
Handsome harry	*Rhexia virginica*	
Swamp azalea	*Rhododendron viscosum*	
Winged Sumac	*Rhus copallinum*	
Royal snoutbean	*Rhynchosia cytisoides*	
Tropical Mexican clover	*Richardia brasiliensis**	
Sawtooth blackberry	*Rubus pensilvanicus*	
Heartwing dock	*Rumex hastatulus*	
Bartram's rosegentian	*Sabatia decandra*	
Largeleaf rosegentian	*Sabatia macrophylla*	
American glasswort, pickleweed	*Salicornia virginica*	
American elderberry	*Sambucus nigra subsp. canadensis*	
Chinese tallow, popcorn tree	*Sapium sebiferum**	
Yellow pitcherplant	*Sarracenia flava*	WF, WP, SB
Whitetop pitcherplant	*Sarracenia leucophylla*	WF, WP, SB
Parrot pitcherplant	*Sarracenia psittacina*	WF, WP, SB
Gulf purple pitcherplant	*Sarracenia rosea*	WF, WP, SB
Gulf redflower pitcherplant	*Sarracenia rubra subsp. gulfensis*	WF, WP, SB

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Whitetop aster	*Sericocarpus tortifolius*	
Purple sesban	*Sesbania punicea**	
Bladderpod	*Sesbania vesicaria*	
Shoreline seapurslane	*Sesuvium portulacastrum*	
Yaupon blacksenna	*Seymeria cassioides*	
Gum bully	*Sideroxylon lanuginosum*	
American black nightshade	*Solanum americanum**	
Sticky nightshade	*Solanum sisymbriifolium**	
Pinebarren goldenrod	*Solidago fistulosa*	
Trailing fuzzybean	*Strophostyles helvola*	
Southern dawnflower	*Stylisma humistrata*	
Coastalplain dawnflower	*Stylisma patens*	
American snowbell	*Styrax americanus*	
Scaleleaf aster	*Symphyotrichum adnatum*	
Savannah aster	*Symphyotrichum chapmanii*	
Horse sugar, common sweetleaf	*Symplocos tinctoria*	
Water cowbane	*Tiedemannia filiformis*	
Coastal false asphodel	*Tofieldia racemosa*	
Eastern poison ivy	*Toxicodendron radicans*	
Poison sumac	*Toxicodendron vernix*	
Humped bladderwort	*Utricularia gibba*	
Floating bladderwort	*Utricularia inflate*	
Eastern purple bladderwort	*Utricularia purpurea*	
Zigzag bladderwort	*Utricularia subulata*	
Sparkleberry	*Vaccinium arboreum*	
Highbush blueberry	*Vaccinium corymbosum*	
Darrow's blueberry	*Vaccinium darrowii*	
Deerberry	*Vaccinium stamineum*	
Tall ironweed	*Vernonia angustifolia*	
Possumhaw	*Viburnum nudum*	
Bog white violet	*Viola lanceolata*	
Early blue violet	*Viola palmata*	
Primroseleaf violet	*Viola primulifolia*	
Downy yellow violet	*Viola pubescens*	
Southern coastal violet	*Viola septemloba*	
Common blue violet	*Viola sororia*	
Summer grape	*Vitis aestivalis*	
Muscadine	*Vitis rotundifolia*	
Chinese wisteria	*Wisteria sinensis**	

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)

CRUSTACEANS

Common blue crab	*Callinectes sapidus*	EUS
Gray hermit crab	*Pagurus pollicaris*	EUS, SAM
Saltmarsh mud crab	*Panopeus obesus*	EUS
Horseshoe crab	*Limulus polyphemus*	EUS
Ghost crab	*Ocypode quadrata*	EUS
Jackknife crayfish	*Procambarus hubbelli*	MTC
Sand fiddler crab	*Uca pugilator*	EUS, SAM

FISH

Spotted sea trout, speckled	*Cynoscion nebulosus*	
Sheepshead minnow	*Cyprinodon variegatus variegatus*	
Eastern mosquitofish	*Gambusia holbrooki*	
Spotfin mojarra	*Eucinostomus argenteus*	
Bayou killifish	*Fundulus pulverous*	
Pinfish	*Lagodon rhomboides*	
Redbreast sunfish	*Lepomis auritus*	
Warmouth	*Lepomis gulosus*	
Bluegill	*Lepomis macrochirus*	
Redear sunfish	*Lepomis microlophus,*	
Florida largemouth bass	*Micropterus salmoides floridanus*	
Striped mullet	*Mugil cephalus*	
Redfish, red drum	*Sciaenops ocellatus*	
Atlantic needlefish	*Strongylura marina*	

AMPHIBIANS

Frogs and Toads

Southern cricket frog	*Acris gryllus*	MTC
Oak toad	*Anaxyrus quercicus*	MTC
Southern toad	*Anaxyrus terrestris*	MTC
Eastern narrow-mouthed toad	*Gastrophryne carolinensis*	MTC
Green treefrog	*Hyla cinerea*	MTC
Pine woods treefrog	*Hyla femoralis*	MTC
Barking treefrog	*Hyla gratiosa*	MTC
Squirrel treefrog	*Hyla squirella*	MTC
American bullfrog	*Lithobates catesbeianus*	MTC
Bronze frog	*Lithobates clamitans clamitans*	MTC
Pig frog	*Lithobates grylio*	MTC
Southern leopard frog	*Lithobates sphenocephalus*	MTC
Southern spring peeper	*Pseudacris crucifer*	MTC
Little grass frog	*Pseudacris ocularis*	MTC
Southern chorus frog	*Pseudacris nigrita nigrita*	MTC
Eastern spadefoot	*Scaphiopus holbrookii*	MTC

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)

Salamanders

Two-toed amphiuma	*Amphiuma means*	BS, MF
Southern dusky salamander	*Desmognathus auriculatus*	MTC
Dwarf salamander	*Eurycea quadridigitata*	BS, MF
Central newt	*Notophthalmus viridescens louisianensis*	BS, MF
Lesser siren	*Siren lacertina*	BS, MF

REPTILES

Crocodilians

American alligator	*Alligator mississippiensis*	MTC

Turtles and tortoises

Florida softshell turtle	*Apalone ferox*	MTC
Eastern snapping turtle	*Chelydra serpentina serpentina*	BM, MF, CDLK
Eastern chicken turtle	*Deirochelys reticularia reticularia*	BM, MF
Gopher tortoise	*Gopherus polyphemus*	BD, SC, MF
Eastern mud turtle	*Kinosternon subrubrum subrubrum*	BM, MF
River cooter	*Pseudemys concinna*	BM, MF, CDLK
Coastal plain cooter	*Pseudemys concinna floridana*	BM, MF, CDLK
Eastern musk turtle	*Sternotherus odoratus*	BM, MF, CDLK
Gulf coast box turtle	*Terrapene carolina major*	BM, MF, CDLK
Yellow-bellied slider	*Trachemys scripta scripta**	BM, MF, CDLK

Lizards

Green anole	*Anolis carolinensis carolinensis*	MTC
Brown anole*	*Anolis sagrei*	MTC
Eastern six-lined racerunner	*Aspidoscelis sexlineatus sexlineatus*	MTC
Mediterranean gecko*	*Hemidactylus turcicus*	MTC
Slender glass lizard	*Ophisaurus attenuatus longicaudus*	MTC
Mimic glass lizard	*Ophisaurus mimicus*	MTC
Eastern glass lizard	*Ophisaurus ventralis*	MTC
Northern mole skink	*Plestiodon egregious similis*	MTC
Common five-lined skink	*Plestiodon fasciatus*	MTC
Southeastern five-lined skink	*Plestiodon inexpectatus*	MTC
Broad-headed skink	*Plestiodon laticeps*	MTC
Eastern fence lizard	*Sceloporus undulatus*	MTC
Little brown skink	*Scincella lateralis*	MTC

Snakes

Florida cottonmouth	*Agkistrodon piscivorus conanti*	MTC
Northern scarlet snake	*Cemophora coccinea copei*	MTC
Southern black racer	*Coluber constrictor priapus*	MTC

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Eastern coachwhip	*Coluber flagellum flagellum*	MTC
East diamondback rattlesnake	*Crotalus adamanteus*	MTC
Southern ring-necked snake	*Diadophis punctatus punctatus*	MTC
Eastern mud snake	*Farancia abacura*	MTC
Eastern hognose snake	*Heterodon platirhinos*	MTC
Scarlet kingsnake	*Lampropeltis elapsoides*	MTC
Eastern kingsnake	*Lampropeltis getulus getulus*	MTC
Harlequin coral snake	*Micrurus fulvius*	MF, MAH
Gulf salt marsh snake	*Nerodia clarkii clarkii*	SAM
Banded water snake	*Nerodia fasciata fasciata*	MTC
Brown water snake	*Nerodia taxispilota*	MTC
Rough green snake	*Opheodrys aestivus*	MF
Red cornsnake	*Pantherophis guttatus*	MTC
Gray rat snake	*Pantherophis spiloides*	MTC
Pine woods litter snake	*Rhadinaea flavilata*	MF
Dusky pygmy rattlesnake	*Sistrurus miliarius barbouri*	MTC
Florida red-bellied snake	*Storeria occipitomaculata obscura*	MF
Southeastern crowned snake	*Tantilla coronata*	MF, MAH
Common ribbon snake	*Thamnophis sauritus sauritus*	SAM
Eastern garter snake	*Thamnophis sirtalis sirtalis*	MTC
Rough earth snake	*Virginia striatula*	MF, MAH

BIRDS

Ducks

Wood duck	*Aix sponsa*	BS, AP, AW
Green-winged teal	*Anas carolinensis*	BS, AP, AW
Blue-winged teal	*Anas discors*	BS, AP
Mallard	*Anas platyrhynchos*	BS, AP
Lesser scaup	*Aythya affinis*	BS, AP, AW
Redhead	*Aythya americana*	BS, AP, AW
Ring-necked duck	*Aythya collaris*	BS, AP, AW
Greater scaup	*Aythya marila*	BS, AP, AW
Bufflehead	*Bucephala albeola*	BS, AP, AW
Common goldeneye	*Bucephala clangula*	BS, AP, AW
Hooded merganser	*Lophodytes cucullatus*	BS, AP, AW
Red-breasted merganser	*Mergus serrator*	BS, AP, AW

Loons

Common loon	*Gavia immer*	AW, EUS

Grebes

Horned grebe	*Podiceps auritus*	AW
Pied-billed grebe	*Podilymbus podiceps*	AW, AP, BS

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Sulids		
Northern gannet	*Morus bassanus*	AW, OF
Pelicans		
Brown pelican	*Pelecanus occidentalis*	AW, EUS
American white pelican	*Pelecanus erythrorhynchos*	AW, EUS, OF
Cormorants		
Double-crested cormorant	*Phalacrocorax auritus*	AW, EUS, OF
Darters		
Anhinga	*Anhinga anhinga*	BS, OF
Bitterns and Herons		
Great egret	*Ardea alba*	MTC
Great blue heron	*Ardea herodias*	MTC
American bittern	*Botaurus lentiginosus*	BS, SAM
Cattle egret	*Bubulcus ibis*	MTC
Green heron	*Butorides virescens*	BS, SAM
Little blue heron	*Egretta caerulea*	MTC
Reddish egret	*Egretta rufescens*	BS, EUS, SAM
Snowy egret	*Egretta thula*	MTC
Tricolored heron	*Egretta tricolor*	MTC
Least bittern	*Ixobrychus exilis*	SAM
Yellow-crowned night heron	*Nyctanassa violacea*	BS, EUS
Ibises and Spoonbills		
White ibis	*Eudocimus albus*	MTC
Vultures		
Turkey vulture	*Cathartes aura*	OF
Black vulture	*Coragyps atratus*	OF
Ospreys		
Osprey	*Pandion haliaetus*	MTC
Hawks, Eagles and Kites		
Cooper's hawk	*Accipiter cooperii*	MTC
Sharp-shinned hawk	*Accipiter striatus*	MTC
Red-tailed hawk	*Buteo jamaicensis*	OF, MF, MAH

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Red-shouldered hawk	*Buteo lineatus*	MTC
Broad-winged hawk	*Buteo platypterus*	OF
Northern harrier	*Circus cyaneus*	SAM, WP
Bald eagle	*Haliaeetus leucocephalus*	MTC
Mississippi kite	*Ictinia mississippiensis*	OF
Falcons		
Merlin	*Falco columbarius*	MTC
Peregrine falcon	*Falco peregrinus*	MTC
American kestrel	*Falco sparverius*	MTC
Rails and Coots		
American coot	*Fulica americana*	MTC
Common gallinule	*Gallinula galeata*	MTC
Purple gallinule	*Porphyrio martinicus*	MTC
Sora	*Porzana carolina*	MTC
Plovers		
Semipalmated plover	*Charadrius semipalmatus*	EUS
Killdeer	*Charadrius vociferus*	MTC
Black-bellied Plover	*Pluvialis squatarola*	EUS
Snipes and Sandpipers		
Spotted sandpiper	*Actitis macularius*	EUS
Ruddy turnstone	*Arenaria interpres*	EUS
Sanderling	*Calidris alba*	EUS
Dunlin	*Calidris alpina*	EUS
Least sandpiper	*Calidris minutilla*	EUS
Semipalmated sandpiper	*Calidris pusilla*	EUS
Wilson's snipe	*Gallinago delicata*	BS, SAM
Lesser yellowlegs	*Tringa flavipes*	MTC
Greater yellowlegs	*Tringa melanoleuca*	MTC
Western willet	*Tringa semipalmata inornata*	MTC
Eastern willet	*Tringa semipalmata semipalmata*	MTC
Solitary sandpiper	*Tringa solitaria*	MTC
Gulls and Terns		
Black tern	*Chlidonias niger*	EUS, AW
Laughing gull	*Leucophaeus atricilla*	MTC
Ring-billed gull	*Larus delawarensis*	MTC
Herring gull	*Larus smithsonianus*	MTC
Least tern	*Sternula antillarum*	EUS, AW
Common tern	*Sterna hirundo*	EUS, AW

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Forster's tern	*Sterna forsteri*	EUS, AW
Royal tern	*Thalasseus maximus*	EUS, AW
Sandwich tern	*Thalasseus sandvicensis*	EUS, AW
Skimmers		
Black skimmer	*Rynchops niger*	EUS, AW
Doves		
Rock pigeon	*Columba livia**	MTC
Common ground-dove	*Columbina passerina*	MTC
Eurasian collared dove	*Streptopelia decaocto**	DV
Mourning dove	*Zenaida macroura*	MTC
Cuckoos		
Yellow-billed cuckoo	*Coccyzus americanus*	BG, MAH
Black-billed cuckoo	*Coccyzus erythropthalmus*	BG, MAH
Owls		
Short-eared owl	*Asio flammeus*	MTC
Great horned owl	*Bubo virginianus*	MTC
Eastern screech-owl	*Megascops asio*	MTC
Barred owl	*Strix varia*	MTC
Goatsuckers		
Chuck-will's-widow	*Antrostomus carolinensis*	MTC
Whip-poor-will	*Antrostomus vociferus*	MTC
Common nighthawk	*Chordeiles minor*	MTC
Swifts		
Chimney swift	*Chaetura pelagica*	OF
Hummingbirds		
Ruby-throated hummingbird	*Archilochus colubris*	MTC
Kingfishers		
Belted kingfisher	*Megaceryle alcyon*	MTC
Woodpeckers		
Northern flicker	*Colaptes auratus*	MTC
Pileated woodpecker	*Dryocopus pileatus*	MTC

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Red-bellied woodpecker	*Melanerpes carolinus*	MTC
Red-headed woodpecker	*Melanerpes erythrocephalus*	MTC
Downy woodpecker	*Picoides pubescens*	MTC
Hairy woodpecker	*Picoides villosus*	MTC
Yellow-bellied sapsucker	*Sphyrapicus varius*	MTC
Flycatchers and Kingbirds		
Eastern wood-Pewee	*Contopus virens*	MF, MAH
Acadian flycatcher	*Empidonax virescens*	MF, MAH
Great-crested flycatcher	*Myiarchus crinitus*	MTC
Eastern phoebe	*Sayornis phoebe*	MTC
Eastern kingbird	*Tyrannus tyrannus*	MTC
Shrikes		
Loggerhead shrike	*Lanius ludovicianus*	MTC
Vireos		
Yellow-throated vireo	*Vireo flavifrons*	MAH, MF
White-eyed vireo	*Vireo griseus*	MAH, MF
Red-eyed vireo	*Vireo olivaceus*	MAH, MF
Blue-headed vireo	*Vireo solitarius*	MAH, MF
Jays and Crows		
American crow	*Corvus brachyrhynchos*	MTC
Fish crow	*Corvus ossifragus*	MTC
Blue jay	*Cyanocitta cristata*	MTC
Swallows and Martins		
Barn swallow	*Hirundo rustica*	DV, OF
Purple martin	*Progne subis*	OF
Northern rough swallow	*Stelgidopteryx serripennis*	OF
Tree swallow	*Tachycineta bicolor*	OF
Titmice and Chickadees		
Tufted titmouse	*Baeolophus bicolor*	MAH, MF
Carolina chickadee	*Poecile carolinensis*	MTC
Nuthatches		
Red-breasted nuthatch	*Sitta canadensis*	MF
Brown-headed nuthatch	*Sitta pusilla*	MTC

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Creepers		
Brown creeper	*Certhia Americana*	MF
Wrens		
Marsh wren	*Cistothorus palustris*	SAM
Sedge wren	*Cistothorus platensis*	SAM
Carolina wren	*Thryothorus ludovicianus*	MTC
House wren	*Troglodytes aedon*	MTC
Winter wren	*Troglodytes hiemalis*	MTC
Kinglets		
Ruby-crowned kinglet	*Regulus calendula*	MTC
Gnatcatchers		
Blue-gray gnatcatcher	*Polioptila caerulea*	MTC
Thrushes		
Hermit thrush	*Catharus guttatus*	MTC
Gray-cheeked thrush	*Catharus minimus*	MF, MAH
Wood thrush	*Hylocichla mustelina*	MF, MAH
Eastern bluebird	*Sialia sialis*	MTC
American robin	*Turdus migratorius*	MTC
Thrashers		
Gray catbird	*Dumetella carolinensis*	MTC
Northern mockingbird	*Mimus polyglottos*	MTC
Brown thrasher	*Toxostoma rufum*	MTC
Starlings		
European starling	*Sturnus vulgaris**	DV
Waxwings		
Cedar waxwing	*Bombycilla cedrorum*	MTC
Warblers		
Common yellowthroat	*Geothlypis trichas*	MAH, SAM
Black-and-white warbler	*Mniotilta varia*	MTC
Orange-crowned warbler	*Oreothlypis celata*	MAH, BS
Tennessee warbler	*Oreothlypis peregrina*	MAH, BS
Prothonotary warbler	*Protonotaria citrea*	MAH, BS

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Northern parula	*Setophaga americana*	MAH, BS
Hooded warbler	*Setophaga citrina*	MTC
Yellow-rumped warbler	*Setophaga coronata*	MTC
Prairie warbler	*Setophaga discolor*	MTC
Yellow-throated warbler	*Setophaga dominica*	MTC
Magnolia warbler	*Setophaga magnolia*	MAH, BS
Palm warbler	*Setophaga palmarum*	MTC
Yellow warbler	*Setophaga petechia*	MTC
Pine warbler	*Setophaga pinus*	MTC
American redstart	*Setophaga ruticilla*	MAH, BS
Black-throated green warbler	*Setophaga virens*	MAH, BS
Sparrows		
Nelson's sparrow	*Ammodramus nelsoni*	SAM, SC
Song sparrow	*Melospiza melodi*	MTC
Swamp sparrow	*Melospiza georgiana*	BS, SAM
Savannah sparrow	*Passerculus sandwichensis*	MTC
Chipping sparrow	*Spizella passerina*	MTC
Field sparrow	*Spizella pusilla*	MTC
White-throated sparrow	*Zonotrichia albicollis*	MTC
White-crowned sparrow	*Zonotrichia leucophrys*	MTC
Cardinals, Tanagers, Grosbeaks, and Buntings		
Northern cardinal	*Cardinalis cardinalis*	MTC
Blue grosbeak	*Passerina caerulea*	MAH, MF
Painted bunting	*Passerina ciris*	BS, MAH
Indigo bunting	*Passerina cyanea*	MTC
Rose-breasted grosbeak	*Pheucticus ludovicianus*	BS, DV, MAH
Scarlet tanager	*Piranga olivacea*	MTC
Summer tanager	*Piranga rubra*	MAH
Towhees		
Eastern towhee	*Pipilo erythrophthalmus*	MTC
Meadowlarks, Blackbirds and Orioles		
Red-winged blackbird	*Agelaius phoeniceus*	MTC
Bobolink	*Dolichonyx oryzivorus*	BS, MAH
Orchard oriole	*Icterus spurius*	BS, DV, MAH
Boat-tailed grackle	*Quiscalus major*	BS, MAH, SC
Common grackle	*Quiscalus quiscula*	MTC
Eastern meadowlark	*Sturnella magna*	MTC

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Cowbirds		
Brown-headed cowbird	*Molothrus ater*	MTC
Finches		
Pine siskin	*Carduelis pinus*	MF
American goldfinch	*Carduelis tristis*	MAH
House finch	*Haemorhous mexicanus*	MTC
Purple finch	*Haemorhous purpureus*	MTC
Old World Sparrows		
House sparrow	*Passer domesticus**	DV
MAMMALS		
Dasypodinae		
Nine-banded armadillo	*Dasypus novemcinctus**	MTC
Didelphids		
Virginia opossum	*Didelphis virginiana*	MTC
Chiropteres (Bats)		
Big brown bat	*Eptesicus fuscus*	MTC
Eastern red bat	*Lasiurus borealis*	MTC
Hoary bat	*Lasiurus cinereus*	MTC
Northern yellow bat	*Lasiurus intermedius*	MTC
Seminole bat	*Lasiurus seminolus*	MTC
Southeastern myotis	*Myotis austroriparius*	MTC
Evening bat	*Nycticeius humeralis*	MTC
Tri-colored bat	*Perimyotis subflavus*	MTC
Brazilian free-tailed bat	*Tadarida brasiliensis*	MTC
Lagomorphs		
Eastern cottontail	*Sylvilagus floridanus*	MTC
Marsh rabbit	*Sylvilagus palustris*	MTC
Rodents		
North American beaver	*Castor canadensis*	CD
Nutria, coypu	*Myocastor coypus**	WP
Eastern woodrat	*Neotoma floridana*	MF, SH
Cotton mouse	*Peromyscus gossypinus*	MTC
Eastern mole	*Scalopus aquaticus*	MTC

Tarkiln Bayou Preserve State Park Animals

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Eastern gray squirrel	*Sciurus carolinensis*	MTC
Hispid cotton rat	*Sigmodon hispidus*	MTC
Carnivores		
Coyote	*Canis latrans**	MTC
Domestic cat	*Felis catus **	MTC
North American river otter	*Lontra canadensis*	MTC
Striped skunk	*Mephitis mephitis*	MTC
Raccoon	*Procyon lotor*	MTC
Gray fox	*Urocyon cinereoargenteus*	MTC
Red fox	*Vulpes vulpes**	MTC
Ungulates		
White-tailed deer	*Odocoileus virginianus*	MTC

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)

PTERIDOPHYTES

Tailed bracken	*Pteridium aquilinum* var. *pseudocaudatum*	

GYMNOSPERMS

Red cedar	*Juniperus virginiana*	
Choctawhatchee and pine	*Pinus clausa* var. *immuginata*	
Slash pine	*Pinus elliottii*	

ANGIOSPERMS

Red Maple	*Acer rubrum*	
Lesser snakeroot	*Ageratina aromatica*	
Common ragweed	*Ambrosia artemisiifolia*	
Peppervine	*Ampelopsis arborea*	
Bushy beardgrass	*Andropogon glomeratus* var. *pumilus*	
Chalky broomsedge	*Andropogon virginicus* var. *glaucas*	
Wiregrass	*Aristida stricta* var. *beyrichiana*	
Pinewoods milkweed	*Asclepias humistrata*	
Longleaf milkweed	*Asclepias longifolia*	
Showy milkwory	*Asemeia violacea*	
Annual saltmarsh aster	*Symphyotrichum subulatum*	
Saltwater false willow	*Baccharis angustifolia*	
Saltbush	*Baccharis halimifolia*	
Coastalplain honeycombhead	*Balduina angustifolia*	
Saltwort	*Batis maritima*	
Beggartick	*Bidens alba*	
Crossvine	*Bignonia capreolata*	
Sea oxeye	*Borrichia frutescens*	
Coastal searocket	*Cakile lanceolata*	
American beautyberry	*Callicarpa americana*	
Vanillaleaf	*Carphephorus odoratissimus*	
Wild olive	*Cartrema americana*	
Southern sandbur	*Cenchrus echinatus*	
Coastal sandbur	*Cenchrus spinifex*	
Spurred butterfly-pea	*Centrosema virginianum*	
Common buttonbush	*Cephalanthus occidentalis*	
Florida rosemary	*Ceratiola ericoides*	
Partridge pea	*Chamaecrista fasciculata*	
Sensitive pea	*Chamaecrista nictitans*	
Lambs-quarters*	*Chenopodium album*	
Bush goldenrod	*Chrysoma pauciflosculosa*	
Godfrey's goldenaster	*Chrysopsis godfreyi*	BD, SC
Cruise's goldenaster	*Chrysopsis gossypina* subsp. *cruiseana*	BD, SC
Tread softly	*Cnidoscolus stimulosus*	
False rosemary	*Conradina canescens*	

* Non-native Species

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Whitemouth dayflower	*Commelina erecta*	
Canadian horseweed	*Conyza canadensis*	
Leavenworth's tickseed	*Coreopsis leavenworthii*	
Pampasgrass*	*Cortaderia selloana*	
Coastalsand frostweed	*Crocanthemum arenicola*	
Pine-barren frostweed	*Crocanthemum corymbosum*	
Smooth rattlebox*	*Crotalaria pallida* var. *obovata*	
Rabbit-bells	*Crotalaria rotundifolia*	
Vente conmigo	*Croton glandulosus* var. *septentrionalis*	
Seaside croton	*Croton punctatus*	
Fiveangled dodder	*Cuscuta pentagona*	
Sago palm*	*Cycas revoluta*	
Rough flatsedge	*Cyperus retrofractus*	
Titi	*Cyrilla racemiflora*	
Threeflower ticktrefoil*	*Desmodium triflorum*	
Poor Joe	*Diodia teres*	
Common persimmon	*Diospyros virginiana*	
Saltgrass	*Distichlis spicata*	
Pink sundew	*Drosera capillaris*	
Oakleaf fleabane	*Erigeron quercifolius*	
Early whitetop fleabane	*Erigeron vernus*	
Swamp doghobble	*Eubotrys racemosa*	
Dogfennel	*Eupatorium capillifolium*	
Queen-of-the-meadow	*Eupatorium fistulosum*	
Falsefennel	*Eupatorium leptophyllum*	
Slender flattop goldenrod	*Euthamia caroliniana*	
Slender dwarf morning-glory	*Evolvulus sericeus*	
Carolina fimbry	*Fimbristylis caroliniana*	
Cottonweed	*Froelichia floridana*	
Eastern milkpea	*Galactia volubilis*	
Yellow jessamine	*Gelsemium sempervirens*	
Shoalweed	*Halodule wrightii*	
Cucumberleaf dune sunflower	*Helianthus debilis* subsp. *cucumerifolius*	
Camphorweed	*Heterotheca subaxillaris*	
Swamp rosemallow	*Hibiscus grandiflorus*	
Largeleaf marshpennywort	*Hydrocotyle bonariensis*	
Roundpod St. John's-wort	*Hypericum cistifolium*	
St. Peter's-wort	*Hypericum crux-andreae*	
Pineweeds	*Hypericum gentianoides*	
St. Andrew's-cross	*Hypericum hypericoides*	
Gallberry	*Ilex glabra*	
Yaupon	*Ilex vomitoria*	
Cogongrass*	*Imperata cylindrica*	
Hairy indigo*	*Indigofera hirsuta*	
Beach morning-glory	*Ipomoea imperati*	
Railroad vine	*Ipomoea pes-caprae* subsp. *brasiliensis*	

* Non-native Species

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Saltmarsh morning-glory	*Ipomoea sagittata*	
Big-leaf marshelder	*Iva frutescens*	
Seacoast marshelder	*Iva imbricata*	
Neddle rush	*Juncus roemerianus*	
Needlepod rush	*Juncus scirpoides*	
Wicky	*Kalmia hirsuta*	
Virginia saltmarsh mallow	*Kosteletzkya pentacarpos*	
Lantana*	*Lantana camara*	
Virginia pepperweed	*Lepidium virginicum*	
Coastal doghobble	*Leucothoe axillaris*	
Chapman's gayfeather	*Liatris chapmanii*	
Shortleaf gayfeather	*Liatris tenuifolia*	
Gopher apple	*Licania michauxii*	
Apalachicola toadflax	*Linaria floridana*	
Fetterbush	*Lyonia lucida*	
Southern magnolia	*Magnolia grandiflora*	
Sweetbay	*Magnolia virginiana*	
White sweetclover*	*Melilotus albus*	
Wax myrtle	*Myrica cerifera*	
American white waterlily	*Nymphaea odorata*	
Seaside evening-primrose	*Oenothera humifusa*	
Prickly-pear cactus	*Opuntia humifusa*	
Beach grass	*Panicum amarum*	
Fall panicgrass	*Panicum dichotomiflorum*	
Maidencane	*Panicum hemitomon*	
Torpedograss*	*Panicum repens*	
Switchgrass	*Panicum virgatum*	
Squareflower	*Paronychia erecta*	
Pineland nailwort	*Paronychia patula*	
Knotgrass	*Paspalum distichum*	
Vaseygrass*	*Paspalum urvillei*	
Seashore paspalum	*Paspalum vaginatum*	
Senegal date palm*	*Phoenix reclinata*	
Coastal groundcherry	*Physalis angustifolia*	
Pokeweed	*Phytolacca americana*	
Sweetscent	*Pluchea odorata*	
Orange milkwort	*Polygala lutea*	
Candyroot	*Polygala nana*	
Tall jointweed	*Polygonella gracilis*	
Large-leaved jointweed	*Polygonella macrophylla*	BD, SC
October flower	*Polygonella polygama*	
Little Hogweed*	*Portulaca oleracea*	
Mock bishopsweed	*Ptilimnium capillaceum*	
Chapman's oak	*Quercus chapmanii*	
Sand live oak	*Quercus geminata*	
Laurel oak	*Quercus laurifolia*	

* Non-native Species

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Myrtle oak	*Quercus myrtifolia*	
Live oak	*Quercus virginiana*	
West Indian meadowbeauty	*Rhexia cubensis*	
Winged sumac	*Rhus copallinum*	
Dollarleaf	*Rhynchosia reniformis*	
Starrush whitetop	*Rhynchospora colorata*	
Sand blackberry	*Rubus cuneifolius*	
Southern dewberry	*Rubus trivialis*	
Heartwing dock	*Rumex hastatulus*	
Cabbage palm	*Sabal palmetto*	
Shortleaf rosegentian	*Sabatia brevifolia*	
Bulltongue arrowhead	*Sagittaria lancifolia*	
Carolina willow	*Salix caroliniana*	
Lyreleaf sage	*Salvia lyrata*	
Little bluestem	*Schizachyrium scoparium*	
Saw-palmetto	*Serenoa repens*	
Bladderpod	*Sesbania vesicaria*	
Sea purslane	*Sesuvium portulacastrum*	
Knotroot foxtail	*Setaria parviflora*	
Indian hemp	*Sida rhombifolia*	
Ear-leaf greenbriar	*Smilax auriculata*	
Saw greenbriar	*Smilax bona-nox*	
Roundleaf greenbriar	*Smilax rotundifolia*	
Lanceleaf greenbriar	*Smilax smallii*	
Common nightshade	*Solanum americanum*	
Black nightshade	*Solanum chenopodioides*	
Chapman's goldenrod	*Solidago odora* var. *chapmanii*	
Seaside goldenrod	*Solidago sempervirens*	
Saltmarsh cordgrass	*Spartina alterniflora*	
Saltmeadow cordgrass	*Spartina patens*	
Gulf cordgrass	*Spartina spartinae*	
Little ladiestresses	*Spiranthes tuberosa*	MF
Smutgrass*	*Sporobolus indicus*	
Seashore dropseed	*Sporabolus virginicus*	
Diamond-flowers	*Stenaria nigricans*	
St. Augustinegrass	*Stenotaphrum secundatum*	
Queensdelight	*Stillingia sylvatica*	
Pink fuzzybean	*Strophostyles umbellata*	
Perennial saltmash aster	*Symphyotrichum tenuifolium*	
Turtle grass	*Thalassia testadinum*	
Ballmoss	*Tillandsia recurvata*	
Poison ivy	*Toxicodendron radicans*	
Ohio spiderwort	*Tradescantia ohiensis*	
Broadleaf cattail	*Typha latifolia*	
Sea oats	*Uniola paniculata*	
Humped bladderwort	*Utricularia gibba*	

* Non-native Species

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Sparkleberry	*Vaccinium arboreum*	
Brazilian vervain*	*Verbena brasiliensis*	
Frost weed	*Verbesina virginica*	
Giant ironweed	*Vernonia gigantea*	
Summer grape	*Vitis aestivalis*	
Elliot's yellow-eyed grass	*Xyris elliottii*	
Spanish bayonet	*Yucca aloifolia*	
Adam's needle	*Yucca filamentosa*	
Hercules'-club	*Zanthoxylum clava-herculis*	

* Non-native Species

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)

FISH

Spotted eagle ray	*Aetobatus narinari*	MUS
Sheepshead	*Archosargus probatocephalus*	MUS
Trumpet fish	*Aulostomus maculatus*	MUS
Gafftopsail catfish	Bagre marinus	MUS
Blue runner	*Caranx crysos*	MUS
Jack crevalle	*Caranx hippos*	MUS
Bull shark	*Carcharhinus leucas*	MUS
Blacktip shark	*Carcharhinus limbatus*	MUS
Sandbar shark	*Carcharhinus plumbeus*	MUS
Common snook	*Centropomus undecimalis*	MUS
Spotted seatrout	*Cynoscion nebulosus*	MUS
Southern stingray	*Dasyatis Americana*	MUS
Ladyfish	*Elops saurus*	MUS
Goliath grouper	*Epinephelus itajara*	MUS
Nurse shark	*Ginglymostoma cirratum*	MUS
White grunt	*Haemulon plumierii*	MUS
Pinfish	*Lagodon rhomboids*	MUS
Mangrove snapper	*Lutjanus griseus*	MUS
Atlantic tarpon	*Megalops atlanticus*	MUS
Flathead mullet	*Mugil cephalus*	MUS
Gag grouper	*Mycteroperca microlepis*	MUS
Gulf flounder	*Paralichthys albiguttata*	MUS
Black drum	*Pogonias cromis*	MUS
Cobia	*Rachycentron canadum*	MUS
Red drum	Sciaenops ocellatus	MUS
Spanish mackerel	*Scomberomorus maculatus*	MUS
Southern puffer	*Sphoeroides nephelus*	MUS
Bonnethead shark	*Sphyrna tiburo*	MUS
Florida pompano	*Trachinotus carolinus*	MUS

AMPHIBIANS

Florida cricket frog	*Acris gryllus dorsalis*	DM
Oak toad	*Anaxyrus quercicus*	SC, MF
Southern toad	*Anaxyrus terrestris*	DM, MF
Eastern narrowmouth toad	*Gastrophryne carolinensis*	MTC
Green treefrog	*Hyla cinerea*	DM
Squirrel treefrog	*Hyla squirella*	DM
Pig frog	*Lithobates grylio*	DM
Southern leopard frog	*Lithobates sphenocephalus*	DM
Spring peeper	*Pseudacris crucifer*	DM
Southern chorus frog	*Pseudacris nigrita*	DM

* Non-native Species

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)

REPTILES

Florida cottonmouth	*Agkistrodon piscivorus conanti*	DM
American alligator	*Alligator mississippiensis*	DM, MUS
Green anole	*Anolis carolinensis*	MTC
Cuban brown anole*	*Anolis sagrei*	MTC
Six-lined racerunner	*Aspidoscelis sexlineata*	MTC
Loggerhead sea turtle	*Caretta caretta*	BD, MUS
Green sea turtle	*Chelonia mydas*	BD, MUS
Southern black racer	*Coluber constrictor priapus*	MTC
Eastern diamondback	*Crotalus adamanteus*	MF, SC
Eastern hognose snake	*Heterodon simus*	MF
Kemp's ridley sea turtle	*Lepidochelys kempii*	BD, MUS
Ornate diamondback terrapin	*Malaclemys terrapin macrospilota*	SAM, MUS
Eastern coachwhip	*Masticophis flagellum flagellum*	SC, MF
Gulf salt marsh snake	*Nerodia clarkii clarkia*	SAM, MUS
Banded water snake	*Nerodia fasciata fasciata*	MTC
Brown water snake	*Nerodia taxispilota*	SAM, DM
Eastern slender glass lizard	*Ophisaurus attenuatus longicaudus*	MF, SC
Eastern glass lizard	*Ophisaurus ventra*	MF, SC
Eastern corn snake	*Pantherophis guttatus*	MTC
Common five-lined skink	*Plestiodon fasciatus*	MF, SC
Southeastern five-lined skink	*Plestiodon inexpectatus*	MTC
Broadhead skink	*Plestiodon laticeps*	MTC
Eastern fence lizard	*Sceloporus undulates*	MF, SC
Ground skink	*Scincella lateralis*	SAM
Dusky pigmy rattlesnake	*Sistrurus miliarius barbouri*	MF, SC
Gulf coast box turtle	*Terrapene carolina major*	MF, SC

BIRDS

Cooper's hawk	*Accipiter cooperii*	MTC
Sharp-shinned hawk	*Accipiter striatus*	MTC
Spotted sandpiper	*Actitis macularia*	MUS, BD
Red-winged blackbird	*Agelaius phoeniceus*	MTC
Wood duck	*Aix sponsa*	MUS, SAM
Mallard	Anas platyrhynchos	MUS, SAM, DM
Anhinga	*Anhinga anhinga*	DM, BD, SAM
Chuck-will's-widow	*Antrostomus carolinensis*	MF, SC
Eastern whip-poor-will	*Antrostomus vociferous*	MF, SC
Ruby-throated hummingbird	*Archilochus colubris*	MTC
Great egret	*Ardea alba*	BD, MUS
Great blue heron	*Ardea herodias*	SAM, MUS, DM
Ruddy turnstone	*Arenaria interpres*	MUS
Short-eared owl	*Asio flammeus*	MF
Lesser scaup	*Aythya affinis*	MUS, DM

* Non-native Species

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Redhead	*Aythya americana*	DM
Ring-necked duck	*Aythya collaris*	MUS, SAM
Greater scaup	*Aythya marila*	MTC
Tufted titmouse	*Baeolophus bicolor*	MTC
Cedar waxwing	*Bombycilla cedrorum*	MF
American bittern	*Botaurus lentiginosus*	DM, SAM
Great horned owl	*Bubo virginianus*	MF
Cattle egret	*Bubulcus ibis*	MTC
Bufflehead	*Bucephala albeola*	MUS, SAM
Common goldeneye	*Bucephala clangula*	DM, MUS
Red-tailed hawk	*Buteo jamaicensis*	MTC
Red-shouldered hawk	*Buteo lineatus*	MTC
Broad-winged hawk	*Buteo platypterus*	MTC
Green heron	*Butorides virescens*	DM, MUS
Sanderling	*Calidris alba*	MUS
Dunlin	*Calidris alpina*	MUS
Red knot	*Calidris canutus rufa*	BD, MUS
Least sandpiper	*Calidris minutilla*	MUS
Semipalmated sandpiper	*Calidris pusilla*	MUS
Northern cardinal	*Cardinalis cardinalis*	MTC
Turkey vulture	*Cathartes aura*	MTC
Hermit thrush	*Catharus guttatus*	MF, SC
Gray-cheeked thrush	*Catharus minimus*	MF, SC
Brown creeper	*Certhia Americana*	MF, SC
Chimney swift	*Chaetura pelagica*	MTC
Snowy plover	*Charadrius nivosus*	BD, MUS
Piping plover	*Charadrius melodus*	BD, MUS
Semipalmated plover	*Charadrius semipalmatus*	BD, MUS
Killdeer	*Charadrius vociferus*	BD, MUS, MF
Wilson's plover	*Charadrius wilsonia*	BD, MUS
Black tern	*Chlidonias niger*	BD, MUS
Common nighthawk	*Chordeiles minor*	MTC
Bonaparte's gull	*Chroicocephalus philadelphia*	MUS, BD
Northern harrier	*Circus cyaneus*	MTC
Sedge wren	*Cistothorus platensis*	DM, SAM
Yellow-billed cuckooo	*Coccyzus americanus*	SAM, MF
Black-billed cuckoo	*Coccyzus erythropthalmus*	SAM, MF
Northern flicker	*Colaptes auratus*	MTC
Northern bobwhite	*Colinus virginianus*	MF, SC
Rock dove	*Columba livia*	BD, DV
Common ground-dove	*Columbina passerina*	MTC
Eastern wood-pewee	*Contopus virens*	MF, SC
Black vulture	*Coragyps atratus*	MTC
American crow	*Corvus brachyrhynchos*	MTC
Fish crow	*Corvus ossifragus*	MTC
Blue jay	*Cyanocitta cristata*	MTC

* Non-native Species

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Bobolink	*Dolichonyx oryzivorus*	SAM, DM
Pileated woodpecker	*Dryocopus pileatus*	MF, SC
Gray catbird	*Dumetella carolinensis*	MF, SC
Little blue heron	*Egretta caerulea*	MUS, DM, BD
Snowy egret	*Egretta thula*	MUS, DM, BD
Tricolored heron	*Egretta tricolor*	MUS, DM, BD
Swallow tailed kite	*Elanoides forficatus*	MTC
White ibis	*Eudocimus albus*	MTC
Merlin	*Falco columbarius*	OF
Peregrine falcon	*Falco peregrinus*	MTC
American kestrel	*Falco sparverius*	MTC
American coot	*Fulica americana*	DM, MUS
Wilson's snipe	*Gallinago delicata*	DM
Common gallinule	*Gallinula galeata*	DM, SAM
Common loon	*Gavia immer*	MUS
Common yellowthroat	*Geothlypis trichas*	MF, SC
House finch*	*Haemorhous mexicanus*	MTC
Purple finch	*Haemorhous purpureus*	MTC
American oystercatcher	*Haematopus palliates*	MUS, BD
Bald eagle	*Haliaeetus leucocephalus*	MTC
Barn swallow	*Hirundo rustica*	MTC
Caspian tern	*Hydroprogne caspia*	BD, MUS
Wood thrush	*Hylocichla mustelina*	MF
Orchard oriole	*Icterus spurius*	MF
Mississippi kite	*Ictinia mississippiensis*	MTC
Least bittern	*Ixobrychus exilis*	MUS, SAM
Dark-eyed junco	*Junco hyemalis*	MF, SC
Loggerhead strike	*Lanius ludovicianus*	MF, SC
Herring gull	*Larus argentatus*	BD, MUS
Ring-billed gull	*Larus delawarensis*	BD, MUS
Laughing gull	*Leucophaeus atricilla*	BD, MUS
Short-billed dowitcher	*Limnodromus griseus*	BD, MUS
Scaly-breasted munia*	*Lonchura punctulata*	DV
Hooded merganser	*Lophodytes cucullatus*	MUS, SAM
Belted kingfisher	*Megaceryle alcyon*	MUS, SAM
Red-bellied woodpecker	*Melanerpes carolinus*	MF, SC
Swamp sparrow	*Melospiza georgiana*	DM, SAM
Song sparrow	*Melospiza melodia*	MTC
Red-breasted merganser	*Mergus serrator*	MUS
Northern mockingbird	*Mimus polyglottos*	MTC
Black-and-white warbler	*Mniotilta varia*	MTC
Brown-headed cowbird	*Molothrus ater*	MTC
Northern gannet	*Morus bassanus*	MUS
Great crested flycatcher	*Myiarchus crinitus*	MF, SC
Yellow-crowned night heron	*Nyctanassa violacea*	MUS, SAM
Orange-crowned warbler	*Oreothlypis celata*	MF, SC

* Non-native Species

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Eastern screech owl	*Otus asio*	MF, SC
Osprey	*Pandion haliaetus*	MTC
Louisiana waterthrush	*Parkesia motacilla*	MF
House sparrow*	*Passer domesticus*	DV
Savannah sparrow	*Passerculus sandwichensis*	MF, SC
Indigo bunting	*Passerina cyanea*	MF, SC
Painted bunting	*Passerina ciris*	MF, SC
American white pelican	*Pelecanus erythrorhynchos*	MUS
Brown pelican	*Pelecanus occidentalis*	MUS
Double crested cormorant	*Phalacrocorax auritus*	MUS, SAM
Rose-breasted grosbeak	*Pheucticus ludovicianus*	MF, SC
Downy woodpecker	*Picoides pubescens*	MF, SC
Hairy woodpecker	*Picoides villosus*	MF, SC
Eastern towhee	*Pipilo erythrophthalmus*	MTC
Scarlet tanager	*Piranga olivacea*	MF, SC
Summer tanager	*Piranga rubra*	MF, SC
American golden plover	*Pluvialis dominica*	BD, MUS
Black-bellied plover	*Pluvialis squatarola*	BD, MUS
Horned grebe	*Podiceps auritus*	MUS
Pied-billed grebe	*Podilymbus podiceps*	MUS
Carolina chickadee	*Poecile carolinensis*	MTC
Blue-gray gnatcatcher	*Polioptila caerulea*	MF, SC
Purple gallinule	*Porphyrio martinicus*	MUS, DM
Purple martin	*Progne subis*	MTC
Prothonotary warbler	*Protonotaria citrea*	MF, SC
Common grackle	*Quiscalus quiscula*	MTC
Clapper rail	*Rallus longirostris*	DM, SAM
Ruby-crowned kinglet	*Regulus calendula*	MF, SC
Golden-crowned kinglet	*Regulus satrapa*	MTC
Bank swallow	*Riparia riparia*	OF
Black skimmer	*Rynchops niger*	BD, MUS
Eastern phoebe	*Sayornis phoebe*	MF, SC
American woodcock	*Scolopax minor*	MF
Northern parula	*Setophaga americana*	MTC
Hooded warbler	*Setophaga citrina*	MF
Yellow-rumped warbler	*Setophaga coronata*	MF, SC
Prairie warbler	*Setophaga discolor*	MF, SC
Palm warbler	*Setophaga palmarum*	MF, SC
Yellow warbler	*Setophaga petechia*	MF, SC
Pine warbler	*Setophaga pinus*	MF, SC
American redstart	*Setophaga ruticilla*	MF, SC
Eastern bluebird	*Sialia sialis*	MTC
Red-breasted nuthatch	*Sitta canadensis*	MF
Brown-headed nuthatch	*Sitta pusilla*	MF
Yellow-bellied sapsucker	*Sphyrapicus varius*	MF
Pine siskin	*Spinus pinus*	MTC

* Non-native Species

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
American goldfinch	*Spinus tristis*	MTC
Chipping sparrow	*Spizella passerine*	MTC
Field sparrow	*Spizella pusilla*	MF, SC
Forster's tern	*Sterna forsteri*	BD, MUS
Common tern	*Sterna hirundo*	BD, MUS
Least tern	*Sternula antillarum*	BD, MUS
Eastern meadowlark	*Sturnella magna*	MF
European starling*	*Sturnus vulgaris*	MTC
Tree swallow	*Tachycineta bicolor*	OF
Royal tern	*Thalasseus maximus*	BD, MUS
Sandwich tern	*Thalasseus sandvincensis*	BD, MUS
Carolina wren	*Thryothorus ludovicianus*	MF, SC
Brown thrasher	*Toxostoma rufum*	MF, SC
Greater yellowlegs	*Tringa melanoleuca*	BD, MUS
Willet	*Tringa semipalmata*	MUS
House wren	*Troglodytes aedon*	MTC
American Robin	*Turdus migratorius*	OF
Gray kingbird	*Tyrannus dominicensis*	SAM, SC
Eastern kingbird	*Tyrannus tyrannus*	MTC
Yellow-throated vireo	*Vireo flavifrons*	MF
White-eyed vireo	*Vireo griseus*	MF
Red-eyed vireo	*Vireo olivaceus*	MF
Blue-headed vireo	*Vireo solitarius*	MF
Mourning dove	*Zenaida macroura*	MTC
White-throated sparrow	*Zonotrichia albicollis*	MF, SC

MAMMALS

Coyote*	*Canis latrans*	MTC
Nine-banded armadillo*	*Dasypus novemcinctus*	MTC
Virginia opossum	*Didelphis virginiana*	MTC
Big brown bat	*Eptesicus fuscus*	MTC
Feral cats*	*Felis catus*	MTC
Eastern red bat	*Lasiurus borealis*	MTC
Northern yellow bat	*Lasiurus intermedius*	MTC
North American river otter	*Lontra canadensis*	DM, MS, MUS
Bobcat	*Lynx rufus*	SC, MF
Striped skunk	*Mephitis mephitis*	MTC
Nutria*	*Myocaster coypus*	DM, SAM
Florida woodrat	*Neotoma floridana*	DM, SAM
White-tailed deer	*Odocoileus virginianus*	MTC
Cotton mouse	*Peromyscus gossypinus*	BD, SC
Perdido Key beach mouse	*Peromyscus polionotus trysillepsis*	BD, SC
Raccoon	*Procyon lotor*	MTC
Eastern mole	*Scalopus aquaticus*	MF
Eastern gray squirrel	*Sciurus carolinensis*	MTC

* Non-native Species

Perdido Key State Park Animals

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Hispid cotton rat	*Sigmodon hispidus*	MTC
Marsh rabbit	*Sylvilagus palustris*	MTC
Brazilian free-tailed bat	*Tadarida brasiliensis*	MTC
Manatee	*Trichechus manatus*	MUS
Atlantic bottle-nose dolphin	*Tursiops vulpes*	MUS
Gray fox	*Urocyon cinereoargenteus*	MTC
Florida black bear	*Ursus americanus floridanus*	MTC
Red fox*	*Vulpes vulpes*	MTC

* Non-native Species

TERRESTRIAL

Beach Dune....BD
Coastal Berm....CB
Coastal Grassland....CG
Coastal Strand....CS
Dry Prairie....DP
Keys Cactus Barren....KCB
Limestone Outcrop....LO
Maritime Hammock....MAH
Mesic Flatwoods....MF
Mesic Hammock....MEH
Pine Rockland....PR
Rockland Hammock....RH
Sandhill....SH
Scrub....SC
Scrubby Flatwoods....SCF
Shell Mound....SHM
Sinkhole....SK
Slope Forest....SPF
Upland Glade....UG
Upland Hardwood Forest....UHF
Upland Mixed Woodland....UMW
Upland Pine....UP
Wet Flatwoods....WF
Xeric Hammock....XH

PALUSTRINE

Alluvial Forest....AF
Basin Marsh....BM
Basin Swamp....BS
Baygall....BG
Bottomland Forest....BF
Coastal Interdunal Swale....CIS
Depression Marsh....DM
Dome Swamp....DS
Floodplain Marsh....FM
Floodplain Swamp....FS
Glades Marsh....GM
Hydric Hammock....HH
Keys Tidal Rock Barren....KTRB
Mangrove Swamp....MS
Marl Prairie....MP
Salt Marsh....SAM
Seepage Slope....SSL
Shrub Bog....SHB
Slough....SLO
Slough Marsh....SLM
Strand Swamp....STS

Wet Prairie ..... WP

LACUSTRINE

Clastic Upland Lake ..... CULK
Coastal Dune Lake ..... CDLK
Coastal Rockland Lake ..... CRLK
Flatwoods/Prairie ..... FPLK
Marsh Lake ..... MLK
River Floodplain Lake..... RFLK
Sandhill Upland Lake ..... SULK
Sinkhole Lake ..... SKLK
Swamp Lake..... SWLK

RIVERINE

Alluvial Stream ..... AST
Blackwater Stream ..... BST
Seepage Stream ..... SST
Spring-run Stream ..... SRST

SUBTERRANEAN

Aquatic Cave ..... ACV
Terrestrial Cave ..... TCV

ESTUARINE

Algal Bed ..... EAB
Composite Substrate ..... ECPS
Consolidated Substrate ..... ECNS
Coral Reef ..... ECR
Mollusk Reef..... EMR
Octocoral Bed ..... EOB
Seagrass Bed ..... ESGB
Sponge Bed..... ESPB
Unconsolidated Substrate..... EUS
Worm Reef..... EWR

MARINE

Algal Bed ..... MAB
Composite Substrate ..... MCPS
Consolidated Substrate ..... MCNS
Coral Reef ..... MCR
Mollusk Reef ..... MMR
Octocoral Bed ..... MOB
Seagrass Bed ..... MSGB
Sponge Bed ..... MSPB
Unconsolidated Substrate ..... MUS
Worm Reef ..... MWR

ALTERED LANDCOVER TYPES

Abandoned field ..... ABF
Abandoned pasture ..... ABP
Agriculture ..... AG
Canal/ditch ..... CD
Clearcut pine plantation ..... CPP
Clearing CL
Developed ..... DV
Impoundment/artificial pond ..... IAP
Invasive exotic monoculture ..... IEM
Pasture - improved ..... PI
Pasture - semi-improved ..... PSI
Pine plantation ..... PP
Road ..... RD
Spoil area ..... SA
Successional hardwood forest ..... SHF
Utility corridor ..... UC

MISCELLANEOUS

Many Types of Communities ..... MTC
Overflying ..... OF

Addendum 6—Imperiled Species Ranking Definitions

The Nature Conservancy and the Natural Heritage Program Network (of which FNAI is a part) define an element as any exemplary or rare component of the natural environment, such as a species, natural community, bird rookery, spring, sinkhole, cave or other ecological feature. An element occurrence (EO) is a single extant habitat that sustains or otherwise contributes to the survival of a population or a distinct, self-sustaining example of a particular element.

Using a ranking system developed by The Nature Conservancy and the Natural Heritage Program Network, the Florida Natural Areas Inventory assigns two ranks to each element. The global rank is based on an element's worldwide status; the state rank is based on the status of the element in Florida. Element ranks are based on many factors, the most important ones being estimated number of Element occurrences, estimated abundance (number of individuals for species; area for natural communities), range, estimated adequately protected EOs, relative threat of destruction, and ecological fragility.

Federal and State status information is from the U.S. Fish and Wildlife Service; and the Florida Fish and Wildlife Conservation Commission (animals), and the Florida Department of Agriculture and Consumer Services (plants), respectively.

FNAI GLOBAL RANK DEFINITIONS

G1 ..... Critically imperiled globally because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or fabricated factor.

G2 ..... Imperiled globally because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.

G3 ..... Either very rare or local throughout its range (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction of other factors.

G4 ..... apparently secure globally (may be rare in parts of range)

G5 ..... demonstrably secure globally

GH ..... of historical occurrence throughout its range may be rediscovered (e.g., ivory-billed woodpecker)

GX ..... believed to be extinct throughout range

GXC ..... extirpated from the wild but still known from captivity or cultivation

G#? ..... Tentative rank (e.g.,G2?)

G#G# ..... range of rank; insufficient data to assign specific global rank (e.g., G2G3)

G#T# ..... rank of a taxonomic subgroup such as a subspecies or variety; the G portion of the rank refers to the entire species and the T portion refers to the specific subgroup; numbers have same definition as above (e.g., G3T1)

G#Q..... rank of questionable species - ranked as species but questionable whether it is species or subspecies; numbers have same definition as above (e.g., G2Q)

G#T#Q..... same as above, but validity as subspecies or variety is questioned.

GU ..... due to lack of information, no rank or range can be assigned (e.g., GUT2).
G?..... Not yet ranked (temporary)
S1..... Critically imperiled in Florida because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
S2..... Imperiled in Florida because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
S3..... Either very rare or local throughout its range (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction of other factors.
S4..... apparently secure in Florida (may be rare in parts of range)
S5..... demonstrably secure in Florida
SH ..... of historical occurrence throughout its range, may be rediscovered (e.g., ivory-billed woodpecker)
SX..... believed to be extinct throughout range
SA..... accidental in Florida, i.e., not part of the established biota
SE..... an exotic species established in Florida may be native elsewhere in North America
SN ..... regularly occurring but widely and unreliably distributed; sites for conservation hard to determine
SU ..... due to lack of information, no rank or range can be assigned (e.g., SUT2).
S?..... Not yet ranked (temporary)
N ..... Not currently listed, nor currently being considered for listing, by state or federal agencies.

LEGAL STATUS

FEDERAL
(Listed by the U. S. Fish and Wildlife Service - USFWS)

LE ..... Listed as Endangered Species in the List of Endangered and Threatened Wildlife and Plants under the provisions of the Endangered Species Act. Defined as any species that is in danger of extinction throughout all or a significant portion of its range.
PE ..... Proposed for addition to the List of Endangered and Threatened Wildlife and Plants as Endangered Species.
LT ..... Listed as Threatened Species. Defined as any species that is likely to become an endangered species within the near future throughout all or a significant portion of its range.
PT ..... Proposed for listing as Threatened Species.
C ..... Candidate Species for addition to the list of Endangered and Threatened Wildlife and Plants. Defined as those species for which the USFWS currently has on file sufficient information on biological vulnerability and threats to support proposing to list the species as endangered or threatened.

E(S/A) ..... Endangered due to similarity of appearance.
T(S/A) ..... Threatened due to similarity of appearance.
EXPE, XE..... Experimental essential population. A species listed as experimental and essential.
EXPN, XN .... Experimental non-essential population. A species listed as experimental and non-essential. Experimental, nonessential populations of endangered species are treated as threatened species on public land, for consultation purposes.

STATE

ANIMALS .. (Listed by the Florida Fish and Wildlife Conservation Commission - FWC)

FE ..... Federally-designated Endangered

FT ..... Federally-designated Threatened

FXN..... Federally-designated Threatened Nonessential Experimental Population

FT(S/A) ..... Federally-designated Threatened species due to similarity of appearance

ST..... Listed as Threatened Species by the FWC. Defined as a species, subspecies, or isolated population, which is acutely vulnerable to environmental alteration, declining in number at a rapid rate, or whose range or habitat, is decreasing in area at a rapid rate and therefore is destined or very likely to become an endangered species within the near future.

SSC..... Listed as Species of Special Concern by the FWC. Defined as a population which warrants special protection, recognition or consideration because it has an inherent significant vulnerability to habitat modification, environmental alteration, human disturbance or substantial human exploitation that, in the near future, may result in its becoming a threatened species.

PLANTS .... (Listed by the Florida Department of Agriculture and Consumer Services - FDACS)

LE ..... Listed as Endangered Plants in the Preservation of Native Flora of Florida Act. Defined as species of plants native to the state that are in imminent danger of extinction within the state, the survival of which is unlikely if the causes of a decline in the number of plants continue, and includes all species determined to be endangered or threatened pursuant to the Federal Endangered Species Act of 1973,as amended.

LT ..... Listed as Threatened Plants in the Preservation of Native Flora of Florida Act. Defined as species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in such number as to cause them to be endangered.

Addendum 7—Cultural Information

These procedures apply to state agencies, local governments, and non-profits that manage state-owned properties.

A. General Discussion

Historic resources are both archaeological sites and historic structures. Per Chapter 267, Florida Statutes, '*Historic property' or 'historic resource' means any prehistoric district, site, building, object, or other real or personal property of historical, architectural, or archaeological value, and folklife resources. These properties or resources may include, but are not limited to, monuments, memorials, Indian habitations, ceremonial sites, abandoned settlements, sunken or abandoned ships, engineering works, treasure trove, artifacts, or other objects with intrinsic historical or archaeological value, or any part thereof, relating to the history, government, and culture of the state."*

B. Agency Responsibilities

Per State Policy relative to historic properties, state agencies of the executive branch must allow the Division of Historical Resources (Division) the opportunity to comment on any undertakings, whether these undertakings directly involve the state agency, i.e., land management responsibilities, or the state agency has indirect jurisdiction, i.e. permitting authority, grants, etc. No state funds should be expended on the undertaking until the Division has the opportunity to review and comment on the project, permit, grant, etc.

State agencies shall preserve the historic resources which are owned or controlled by the agency.

Regarding proposed demolition or substantial alterations of historic properties, consultation with the Division must occur, and alternatives to demolition must be considered.

State agencies must consult with Division to establish a program to location, inventory and evaluate all historic properties under ownership or controlled by the agency.

C. Statutory Authority

Statutory Authority and more in depth information can be found at:
http://www.flheritage.com/preservation/compliance/guidelines.cfm

D. Management Implementation

Even though the Division sits on the Acquisition and Restoration Council and approves land management plans, these plans are conceptual. Specific information regarding individual projects must be submitted to the Division for review and recommendations.

Managers of state lands must coordinate any land clearing or ground disturbing activities with the Division to allow for review and comment on the proposed project. Recommendations may include, but are not limited to: approval of the project as submitted, cultural resource assessment survey by a qualified professional archaeologist, modifications to the proposed project to avoid or mitigate potential adverse effects.

Projects such as additions, exterior alteration, or related new construction regarding historic structures must also be submitted to the Division of Historical Resources for review and comment by the Division's architects. Projects involving structures fifty years of age or older, must be submitted to this agency for a significance determination. In rare cases, structures under fifty years of age may be deemed historically significant. These must be evaluated on a case by case basis.

Adverse impacts to significant sites, either archaeological sites or historic buildings, must be avoided. Furthermore, managers of state property should make preparations for locating and evaluating historic resources, both archaeological sites and historic structures.

E. Minimum Review Documentation Requirements

In order to have a proposed project reviewed by the Division, certain information must be submitted for comments and recommendations. The minimum review documentation requirements can be found at: http://www.flheritage.com/preservation/compliance/docs/minimum_review_documentation_requirements.pdf .

* * *

Questions relating to the treatment of archaeological and historic resources on state lands should be directed to:

Deena S. Woodward
Division of Historical Resources
Bureau of Historic Preservation
Compliance and Review Section
R. A. Gray Building
500 South Bronough Street
Tallahassee, FL 32399-0250

Phone: (850) 245-6425
Toll Free: (800) 847-7278
Fax: (850) 245-6435

The criteria to be used for evaluating eligibility for listing in the National Register of Historic Places are as follows:

1) Districts, sites, buildings, structures, and objects may be considered to have significance in American history, architecture, archaeology, engineering, and/or culture if they possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- **a)** are associated with events that have made a significant contribution to the broad patterns of our history; and/or
- **b)** are associated with the lives of persons significant in our past; and/or
- **c)** embody the distinctive characteristics of type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; and/or
- **d)** have yielded, or may be likely to yield, information important in prehistory or history.

2) Ordinarily cemeteries, birthplaces, or graves of historical figures; properties owned by religious institutions or used for religious purposes; structures that have been moved from their original locations; reconstructed historic buildings; properties primarily commemorative in nature; and properties that have achieved significance within the past 50 years shall not be considered eligible for the *National Register*. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

- **a)** a religious property deriving its primary significance from architectural or artistic distinction or historical importance; or
- **b)** a building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
- **c)** a birthplace or grave of an historical figure of outstanding importance if there is no appropriate site or building directly associated with his productive life; or
- **d)** a cemetery which derives its primary significance from graves of persons of transcendent importance, from age, distinctive design features, or association with historic events; ora reconstructed building, when it is accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and no other building or structure with the same association has survived; or a property primarily commemorative in intent, if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or
- **e)** a property achieving significance within the past 50 years, if it is of exceptional importance.

Restoration is defined as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.

Rehabilitation is defined as the act or process of making possible a compatible use for a property through repair, alterations and additions while preserving those portions or features that convey its historical, cultural or architectural values.

Stabilization is defined as the act or process of applying measures designed to reestablish a weather resistant enclosure and the structural stability of an unsafe or deteriorated property while maintaining the essential form as it exists at present.

Preservation is defined as the act or process of applying measures necessary to sustain the existing form, integrity and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project.

Addendum 8—Timber Management Analysis

1. *Management Context and Best Management Practices*

Timber management prescriptions and actions at Tarkiln Bayou Preserve State Park (TBPSP) are based on the desired future condition (DFC) of a stand or natural community as determined by DRP) guidelines. In most cases, the DFC will be closely related to the historic natural community. However, in some cases where the historic community has been severely altered by past land use practices, the DFC may not always be the same as the historic natural community. All forest/stand/timber management activities undertaken will adhere to the current Florida Silvicultural Best Management Practices and Florida Forestry Wildlife Best Management Practices for State Imperiled Species. DRP is responsible for managing timber resources within corresponding management zones. This timber assessment was conducted by F4 Tech on behalf of DRP.

2. *Purpose of Timber Management Activities*

Timber management activities will be conducted to help restore and/or improve current conditions so that the associated DFC (typically an historic condition) can be achieved or maintained. Timber management will primarily be conducted in pine-dominated natural communities. Upland communities typically include mesic flatwoods, sandhill, upland pine, upland mixed woodland, and altered landcover areas such as successional hardwood forest and pine plantations. Other historically hardwood-dominated natural communities will likely have little to no scheduled timber management activities. In some circumstances, actions may be conducted to remove overstory invasive/exotic trees, e.g. melaleuca, Chinese tallow, Brazilian pepper, occupying contiguous areas of land to help restore or maintain natural communities.

3. *Potential Silvicultural Treatments*

Several silvicultural treatments may be considered and utilized over the next ten years to achieve the long-term DFC for candidate natural communities at the TBPSP. These treatments include timber harvests, timber stand improvement, and reforestation. The various types of timber harvests may include pine thinning, targeted hardwood removal, and clearcutting. Silvicultural treatments should be implemented to minimize disturbance to non-target vegetation, soil, and wildlife.

Thinning is conducted to reduce the basal area (BA) or density of stems in a stand to improve forest health and growth conditions for residual trees. The “opening up” of high density forest stands increases tree and stand vigor, which helps mitigate the potential for damaging insect outbreaks. Thinning also increases sunlight reaching the forest floor, which when combined with routine prescribed fire, can increase groundcover vegetation abundance, species richness, and overall ecological diversity. The disruption of a historic natural fire regime and/or fire return interval can often result in the need to remove undesirable or overstocked hardwood stems that currently occupy growing space in the canopy and sub-canopy. Tree removal/harvest also increases groundcover vegetation, ecological diversity, and fine fuels that facilitate consistent fire return intervals and responses.

Clearcutting supports restoration goals by removing offsite pine or hardwood species and is a precursor to establishing site-appropriate species. It is also used to control insect infestations that are damaging or threatening forest resources and ecosystem conditions on or off site.

A tangible by-product of conducting timber harvests for restoring or improving forested communities is the generation of revenue.

Stand or natural community improvement activities are often conducted to reduce unwanted hardwood or palmetto competition. Stand improvement treatments reduce fuel or fuel height, which can improve groundcover conditions and aid in maintaining proper prescribed burning return intervals. The two main stand improvement activities used on park property are herbicide treatments and mechanically cutting vegetation. Herbicide may be applied aerially, by mechanized ground-based equipment, or via backpack sprayers. Herbicides are used to reduce the amount of hardwood competition in areas that are unable to carry sufficient prescribed fire due to shading and lack of adequate groundcover fuels. Mechanical cutting is used to reduce the height of smaller shrub and hardwood competition, allowing for the establishment of fire-dependent herbs and grasses. Decreasing fuel loadings and enhancing groundcover allows prescribed fire to be reintroduced safely into a stand that has been unable to carry fire adequately.

Reforestation is used to establish the appropriate southern pine species in areas that have been harvested and lack sufficient natural regeneration in terms of abundance (seedlings/acre) and/or species composition. Reforestation candidate areas can also include those that are fire suppressed or have been recently impacted by natural events such as windthrow, bark beetle attack, or wildfire. The two methods used to reestablish the overstory will be natural and artificial regeneration. Both methods may require site preparation to facilitate survival of the desired species. Site preparation activities may include the use of prescribed fire, herbicides, and/or mechanical treatments such as roller chopping. Site preparation technique(s) will be selected that address the current vegetative cover type and condition, and the need to minimize seedling competition while avoiding/minimizing any long-term impacts to native groundcover species and native wildlife. Where artificial regeneration is not needed, natural regeneration may be used in areas that have an adequate seed source of the desired tree species located on site or in the immediate vicinity. Artificial regeneration may include machine or hand planting. Hand planting is preferred on wetter sites, rougher sites, and/or sites where groundcover protection is a concern and a more natural appearance of randomly spaced trees is desired. Machine planting generally allows for more consistent planting and often allows higher survival rates if the site is properly prepared.

4. *Inventory Data and Potential Actions per Area of Interest or Management Zone*

TBPSP comprises 4,466 acres in Escambia County. A total of 3,880 acres are associated with several upland natural communities that are potential candidates for timber management. For this region, upland natural communities include mesic

flatwoods, sandhill, wet flatwoods, wet prairie, and xeric hammock. Baygall is not traditionally considered an upland natural community, but in this area invasive species necessitate mechanical treatment. In February and March of 2016, a plot-based forest/vegetation inventory was conducted across and within these areas to quantify overstory, midstory and understory conditions. Table 1 below provides general statistics generated by this inventory of the TBPSP. Table 2 below provides current stocking levels and potential management activities of candidate management zones and natural communities

A review and analysis of this data suggests that current ecological conditions for multiple management zones and associated forested communities could benefit from vegetation treatments. This assessment was based on a comparison of current conditions and the corresponding natural community analog or target conditions as defined per FNAI Reference Site descriptions. In general, inventory data indicates that upland habitats in several management zones have an average pine BA that is outside the acceptable range for the DFC of the natural community types. Some natural communities considered may need midstory and overstory control to become, or remain, in compliance with FNAI defined ranges for palmetto and non-pine midstory. Stands with low stocking levels or a complete lack of preferred tree species would likely benefit from midstory control and artificial regeneration. In areas where planting is deemed necessary, the site should be assessed for site preparation needs including midstory/understory reduction.

The following contains a general description of each management zone within the TBPSP that contains upland natural communities as well as their general condition and need for restoration and/or improvement actions via timber management.

Table 1. General summary statistics for TBPSP

Number of Management Zones within the Park	36
Number of Management Zones needing timber management	36
Number of unique upland Natural Communities (split by management zone)	90
Number of unique upland Natural Communities potentially needing timber management	90
Upland Natural Community acres	3,880
Acres potentially needing timber management	3,880

Mesic Flatwoods (1,202 acres)

Mesic flatwoods occur at Tarkiln TBPSP in a mosaic landscape interspersed with sandhill, wet flatwoods, wet prairies, and seepage areas. This community is characterized by an open canopy of tall longleaf pine (*Pinus palustris*), along with a dense, low ground layer of shrubs, grasses, and forbs. Saw palmetto (*Serenoa repens*) is present but not overly dominant. Other shrub species include gallberry (*Ilex glabra*), fetterbush (*Lyonia lucida*), shiny blueberry (*Vaccinium myrsinites*), vanillaleaf (*Carphephorus odoratissimus*), and dwarf huckleberry (*Gaylussacia dumosa*). The herbaceous layer is primarily grasses, including wiregrass (*Aristida stricta*) and broomsedge (*Andropogon virginicus*). The optimal fire return interval for this community is two to five years. In this region, the preferred species, as determined by FNAI reference sites, is longleaf pine and should be stocked at a level of 10 to 50 square feet per acre BA. Non-pine overstory species are absent. The following management zone(s) contain mesic flatwoods which could be considered for some form of timber management including overstory removal, midstory mitigation, site preparation, and planting of preferred pine species.

Management Zone(s)	Mesic Flatwoods (Acres)	Basal Area (ft^2 / acre)	Basal Area Preferred Species	Basal Area Non-Preferred Species	Average Diameter at breast height (inches)
TB-R	62	57	27	30	3.6
TB-S	43	116	54	62	3.8
TB-G	53	38	18	20	4.2
TB-Y	116	72	34	38	4.5
TB-AA	24	92	45	47	4.7
TB-P	63	95	41	54	4.8
TB-Z	76	103	44	59	4.9
TB-HH	42	126	60	66	4.9
TB-BB	87	119	50	69	5.1
TB-U	10	126	59	67	5.2
TB-I	20	104	51	53	5.3
TB-X	32	135	64	71	5.7
TB-K	27	120	59	61	5.7
TB-II	26	129	62	67	5.9
TB-O	26	73	32	41	6
TB-W	10	91	44	47	6.1
TB-B	36	79	29	50	6.7
TB-D	48	68	32	36	6.9
TB-T	26	169	81	88	7
TB-J	72	197	95	102	7.2
TB-L	45	188	85	103	7.4
TB-H	51	50	23	27	7.6

Management Zone(s)	Mesic Flatwoods (Acres)	Basal Area (ft^2/acre)	Basal Area Preferred Species	Basal Area Non-Preferred Species	Average Diameter at breast height (inches)
TB-GG	10	34	7	27	8.3
TB-A	30	120	54	66	8.5
TB-E	35	156	76	80	9
TB-KK	33	107	52	55	9.3
TB-C	10	180	90	90	11.5
TB-DD*	49	--	--	--	--
TB-CC*	<1	--	--	--	--
TB-N*	25	--	--	--	--

*Un-sampled upland areas are present in this analysis and could require vegetation management in the future.

Sandhill (334 acres)

Sandhill communities at Tarklin Bayou are dominated by longleaf pine TBPSPand interspersed with the occasional slash pine (*P. elliottii*). Herbaceous cover is dense with wiregrass, and low in stature. Most of the plant diversity is contained in the herbaceous layer including other three-awns (*Aristida* spp.), pineywoods dropseed (*Sporobolus junceus*), lopsided Indian grass (*Sorghastrum secundum*), bluestems (*Andropogon* spp.) and little bluestem (*Schizachyrium scoparium*). In addition to groundcover and pines, there will be scattered individual trees, clumps, or ridges of on-site oak species such as turkey oak (*Quercus laevis*), sand post oak (*Q. margaretta*), and bluejack oak (*Q. incana*). The optimal fire return interval for this community is one to three years. In this region, the preferred species, as determined by FNAI reference sites, is longleaf pine and should be stocked at a level of 20 to 60 square feet per acre BA while non-pine species should remain between 0 and 78.8 stems per acre. The following management zone(s) contain sandhill which could be considered for some form of timber management including midstory mitigation, site preparation, and planting of preferred pine species.

Management Zone(s)	Sandhill (Acres)	Basal Area (ft^2/acre)	Basal Area Preferred Species	Basal Area Non-Preferred Species	Average Diameter at breast height (inches)
TB-D	3	42	20	22	3.6
TB-E	182	86	33	53	7.5
TB-GG	69	33	13	20	4.3
TB-N	19	34	9	25	2.9
TB-O	44	45	17	28	3.2
TB-R	4	10	0	10	2.4

Management Zone(s)	Sandhill (Acres)	Basal Area (ft^2/acre)	Basal Area Preferred Species	Basal Area Non-Preferred Species	Average Diameter at breast height (inches)
TB-EE*	8	--	--	--	--
TB-L*	<1	--	--	--	--

*Un-sampled upland areas are present in this analysis and could require vegetation management in the future.

Wet Flatwoods (1,013 acres)

The dominant canopy species are longleaf pine and slash pine, along with pond cypress (*Taxodium ascendens*) reaching the canopy in some locations. Overall, the canopy is open, with pines widely scattered and of variable age classes. Native herbaceous cover is dense and includes wiregrass, pitcher plants, and other imperiled species such as terrestrial orchids and butterworts (*Pinguicula* spp.). Common shrubs will include sweet pepperbush (*Clethra alnifolia*), fetterbush, large gallberry (*Ilex coriacea*), titi (*Cyrilla racemiflora*), and wax myrtle (*Myrica cerifera*). The optimal fire return interval for this community is two to four years. In this region, the preferred species, as determined by FNAI reference sites, is longleaf pine and should be stocked at a level of 10 to 50 square feet per acre BA while non-pine species should remain at 0 stems per acre. The following management zone(s) contain wet wet flatwoods which could be considered for some form of timber management including overstory removal, midstory mitigation, site preparation, and planting of preferred pine species.

Management Zone(s)	Wet Flatwoods (Acres)	Basal Area (ft^2/acre)	Basal Area Preferred Species	Basal Area Non-Preferred Species	Average Diameter at breast height (inches)
TB-A	9	33	3	30	7.9
TB-BB	19	30	12	18	2.9
TB-C	18	106	50	56	9
TB-CC	6	173	80	93	7.4
TB-D	45	141	60	81	9.5
TB-DD	164	139	50	89	7
TB-EE	140	115	44	71	6.1
TB-FF2	28	32	14	18	3
TB-G	12	130	65	65	4.5
TB-I	26	79	22	57	5.1
TB-J	33	159	74	85	5.4
TB-JJ	57	68	22	46	6.1
TB-K	12	46	20	26	5.7

Management Zone(s)	Wet Flatwoods (Acres)	Basal Area (ft^2/acre)	Basal Area Preferred Species	Basal Area Non-Preferred Species	Average Diameter at breast height (inches)
TB-KK	114	90	35	55	9.4
TB-P	41	186	78	108	6.9
TB-R	20	75	35	40	5.6
TB-T	6	67	27	40	4.3
TB-X	21	166	57	109	9.3
TB-Y	113	109	34	75	6
TB-Z	69	60	21	39	6
TB-C2*	5	--	--	--	--
TB-FF1*	<1	--	--	--	--
TB-II*	31	--	--	--	--
TB-HH*	<1	--	--	--	--
TB-L*	11	--	--	--	--

*Un-sampled upland areas are present in this analysis and could require vegetation management in the future.

Wet Prairie (652 acres)

This community at TBPSP is entirely herbaceous, and can be found on continuously wet, but not inundated soils. Only a few stunted slash pines and pond cypress are found intermixed. Groundcover is dense, and exceptionally species-rich with potentially more than 100 different species in one prairie. Dominant species will be wiregrass, foxtail club-moss (*Lycopodiella alopecuroides*), yellow butterwort (*Pinguicula lutea*), and savannah meadowbeauty (*Rhexia alifanus*). Pitcher plants and other carnivorous plant species, and terrestrial orchids are present and abundant in some areas as well. Wet prairie at Tarkiln Bayou is very similar to areas described as wet flatwoods except that prairie is characterized by the low number or complete lack of overstory pines. There is currently no FNAI recommendations or preferred species or stocking levels for this natural community. The following management zone(s) contain wet prairie which could be considered for some form of timber management including overstory removals, and midstory mitigation.

Management Zone(s)	Wet Flatwoods (Acres)	Basal Area (ft^2/acre)	Basal Area Preferred Species	Basal Area Non-Preferred Species	Average Diameter at breast height (inches)
TB-A	2	90	--	--	9.3
TB-AA	12	57	--	--	8.3
TB-BB	43	44	--	--	6.7

Management Zone(s)	Wet Flatwoods (Acres)	Basal Area (ft^2/acre)	Basal Area Preferred Species	Basal Area Non-Preferred Species	Average Diameter at breast height (inches)
TB-D	73	41	--	--	7.5
TB-DD	50	49	--	--	5.4
TB-EE	29	57	--	--	6.8
TB-G	80	49	--	--	6.6
TB-HH	76	56	--	--	4.8
TB-II	159	34	--	--	6
TB-JJ	13	42	--	--	6
TB-K	34	26	--	--	6.5
TB-KK	24	60	--	--	11
TB-N	10	25	--	--	6.3
TB-Q	74	56	--	--	7.1
TB-R	22	21	--	--	3.8
TB-W	22	57	--	--	8.8
TB-X	15	69	--	--	7
TB-Y	32	24	--	--	3.8
TB-Z	70	54	--	--	5
TB-B*	8	--	--	--	--
TB-C2*	1	--	--	--	--
TB-H*	15	--	--	--	--
TB-I*	5	--	--	--	--

*Un-sampled upland areas are present in this analysis and could require vegetation management in the future.

Xeric Hammock (26 acres)

At TBPSP xeric hammock is typically considered a late successional stage of sandhill, this community occurs in small isolated patches on excessively well-drained soils. Vegetation consists of a low closed canopy dominated by sand live oak (*Quercus geminate*), which provides shady conditions. Typical plant species also include Chapman's oak (*Quercus chapmanii*) and laurel oak (*Q. laurifolia*). Slash pine and longleaf pine also are a minor component. Understory species include saw palmetto, fetterbush, myrtle oak (*Q. myrtifolia*), and yaupon holly (*I. vomitoria*). A sparse groundcover layer of wiregrass and other herbaceous species (including saw palmetto and smilax vines) exists in areas with partial sunlight. There is currently no FNAI recommendations or preferred species or stocking levels for this natural community. The following management zone(s) contain xeric hammock which could be considered for some form of timber management including overstory removals, and midstory mitigation.

Management Zone(s)	Xeric Hammock (Acres)	Basal Area (ft^2/acre)	Basal Area Preferred Species	Basal Area Non-Preferred Species	Average Diameter at breast height (inches)
TB-L	10	86	0	86	9.7
TB-P	13	48	0	48	10.6
TB-J*	<1	--	--	--	--
TB-R*	1	--	--	--	--

*Un-sampled upland areas are present in this analysis and could require vegetation management in the future.

Baygall (653 acres)

Baygall consists of a wet, densely-forested, peat-filled depression near the base of a slope. Seepage from adjacent uplands will maintain saturated conditions. Medium to tall trees consist of sweetbay, loblolly bay, swamp bay (*Persea palustris*) and occasional sparse pines. A thick understory consisting of gallberry, fetterbush, dahoon (*Ilex cassine*), titi, and red maple (*Acer rubrum*) are found with climbing vines such as greenbrier (*Smilax* spp.) and muscadine grape (*Vitis rotundifolia*). The dominant baygall species are fire intolerant, indicating an infrequent optimal fire return interval of 25-100 years. There is currently no FNAI recommendations or preferred species or stocking levels for this natural community. The following management zone(s) contain Baygall which could be considered for some form of timber management including overstory removals, and midstory mitigation.

Management Zone(s)	Wet Flatwoods (Acres)	Basal Area (ft^2/acre)	Basal Area Preferred Species	Basal Area Non-Preferred Species	Average Diameter at breast height (inches)
TB-AA	24	40	--	--	7.8
TB-B	27	56	--	--	12.8
TB-C	43	62	--	--	8.9
TB-D	129	125	--	--	12.5
TB-EE	219	168	--	--	11.6
TB-FF1	49	9	--	--	3.4
TB-KK	16	40	--	--	9.7
TB-S	32	64	--	--	5.4
TB-Y	13	29	--	--	4.7
TB-C2*	4	--	--	--	--
TB-FF2*	24	--	--	--	--
TB-GG*	<1	--	--	--	--

Management Zone(s)	Wet Flatwoods (Acres)	Basal Area (ft^2/acre)	Basal Area Preferred Species	Basal Area Non-Preferred Species	Average Diameter at breast height (inches)
TB-HH*	<1	--	--	--	--
TB-I*	23	--	--	--	--
TB-L*	74	--	--	--	--
TB-N*	13	--	--	--	--
TB-O*	16	--	--	--	--
TB-P*	22	--	--	--	--
TB-Q*	<1	--	--	--	--
TB-R*	85	--	--	--	--
TB-U*	<1	--	--	--	--
TB-W*	4	--	--	--	--
TB-Z*	54	--	--	--	--

*Un-sampled upland areas are present in this analysis and could require vegetation management in the future.

Table 2. Summary of proposed timber management actions for upland natural community (NatCom) types to help restore or improve ecosystem conditions.

Management Zones (MZ)	MZ (acres)	Candidate NatComs	Candidate NatComs (acres)	Current Average Overstory Pine BA (ft^2/AC)	Target Overstory Pine BA (ft^2/AC)	Current Non-Pine Overstory TPA	Target Non-Pine Overstory TPA	Potential Actions/Treatments			
								Harvest or Thin	Stand Improvement*	Site Prep	Plant
TB-A	42	Mesic Flatwoods	30	90	10 - 50	200	0 - 26	Y	Y	Y	N
TB-A	42	Wet Flatwoods	9	90	10 - 50	200	0 - 0	Y	Y	Y	N
TB-A	42	Wet Prairie	1	90	-	200	-	N	N	Y	N
TB-AA	54	Baygall	17	40	-	100	-	N	N	Y	N
TB-AA	54	Mesic Flatwoods	24	40	10 - 50	100	0 - 26	Y	Y	Y	N
TB-AA	54	Wet Prairie	9	40	-	100	-	N	N	Y	N
TB-B	63	Baygall	20	56	-	296	-	N	N	Y	N
TB-B	63	Mesic Flatwoods	36	56	10 - 50	296	0 - 26	Y	Y	Y	N
TB-BB	139	Mesic Flatwoods	87	17	10 - 50	900	0 - 26	Y	Y	Y	N
TB-BB	139	Wet Flatwoods	19	17	10 - 50	900	0 - 0	Y	Y	Y	N
TB-BB	139	Wet Prairie	31	17	-	900	-	N	N	Y	N
TB-C	68	Baygall	32	90	-	583	-	N	N	Y	N

Management Zones (MZ)	MZ (acres)	Candidate NatComs	Candidate NatComs (acres)	Current Average Overstory Pine BA (ft^2/AC)	Target Overstory Pine BA (ft^2/AC)	Current Non-Pine Overstory TPA	Target Non-Pine Overstory TPA	Potential Actions/Treatments			
								Harvest or Thin	Stand Improvement*	Site Prep	Plant
TB-C	68	Mesic Flatwoods	10	90	10 - 50	583	0 - 26	Y	Y	Y	N
TB-C	68	Wet Flatwoods	18	90	10 - 50	583	0 - 0	Y	Y	Y	N
TB-CC	6	Wet Flatwoods	6	82	10 - 50	778	0 - 0	Y	Y	Y	N
TB-D	302	Baygall	96	20	-	936	-	N	N	Y	N
TB-D	302	Mesic Flatwoods	48	20	10 - 50	936	0 - 26	Y	Y	Y	N
TB-D	302	Sandhill	3	20	20 - 60	936	0 - 79	Y	Y	Y	Y
TB-D	302	Wet Flatwoods	45	20	10 - 50	936	0 - 0	Y	Y	Y	N
TB-D	302	Wet Prairie	54	20	-	936	-	N	N	Y	N
TB-DD	265	Wet Flatwoods	164	44	10 - 50	1,984	0 - 0	Y	Y	Y	N
TB-DD	265	Wet Prairie	37	44	-	1,984	-	N	N	Y	N
TB-E	248	Mesic Flatwoods	35	40	10 - 50	367	0 - 26	Y	Y	Y	N
TB-E	248	Sandhill	182	40	20 - 60	367	0 - 79	Y	Y	Y	N
TB-EE	412	Baygall	162	10	-	419	-	N	N	Y	N
TB-EE	412	Wet Flatwoods	140	10	10 - 50	419	0 - 0	Y	Y	Y	Y

Management Zones (MZ)	MZ (acres)	Candidate NatComs	Candidate NatComs (acres)	Current Average Overstory Pine BA (ft^2/AC)	Target Overstory Pine BA (ft^2/AC)	Current Non-Pine Overstory TPA	Target Non-Pine Overstory TPA	Potential Actions/Treatments			
								Harvest or Thin	Stand Improvement*	Site Prep	Plant
TB-EE	412	Wet Prairie	21	10	-	419	-	N	N	Y	N
TB-FF1	109	Baygall	36	7	-	1,093	-	N	N	Y	N
TB-FF2	142	Wet Flatwoods	28	0	10 - 50	5,496	0 - 0	Y	Y	Y	Y
TB-G	177	Mesic Flatwoods	53	65	10 - 50	456	0 - 26	Y	Y	Y	N
TB-G	177	Wet Flatwoods	12	65	10 - 50	456	0 - 0	Y	Y	Y	N
TB-G	177	Wet Prairie	59	65	-	456	-	N	N	Y	N
TB-GG	82	Mesic Flatwoods	10	7	10 - 50	867	0 - 26	Y	Y	Y	Y
TB-GG	82	Sandhill	69	7	20 - 60	867	0 - 79	Y	Y	Y	Y
TB-H	86	Mesic Flatwoods	51	20	10 - 50	1,200	0 - 26	Y	Y	Y	N
TB-HH	107	Mesic Flatwoods	42	22	10 - 50	1,914	0 - 26	Y	Y	Y	N
TB-HH	107	Wet Prairie	56	22	-	1,914	-	N	N	Y	N
TB-I	68	Mesic Flatwoods	20	51	10 - 50	725	0 - 26	Y	Y	Y	N
TB-I	68	Wet Flatwoods	26	51	10 - 50	725	0 - 0	Y	Y	Y	N

Management Zones (MZ)	MZ (acres)	Candidate NatComs	Candidate NatComs (acres)	Current Average Overstory Pine BA (ft^2/AC)	Target Overstory Pine BA (ft^2/AC)	Current Non-Pine Overstory TPA	Target Non-Pine Overstory TPA	Potential Actions/Treatments			
								Harvest or Thin	Stand Improvement*	Site Prep	Plant
TB-II	203	Mesic Flatwoods	26	30	10 - 50	4,800	0 - 26	Y	Y	Y	N
TB-II	203	Wet Prairie	118	30	-	4,800	-	N	N	Y	N
TB-J	105	Mesic Flatwoods	72	82	10 - 50	860	0 - 26	Y	Y	Y	N
TB-J	105	Wet Flatwoods	33	82	10 - 50	860	0 - 0	Y	Y	Y	N
TB-JJ	101	Wet Flatwoods	57	20	10 - 50	5,000	0 - 0	Y	Y	Y	N
TB-JJ	101	Wet Prairie	9	20	-	5,000	-	N	N	Y	N
TB-K	66	Mesic Flatwoods	27	26	10 - 50	66	0 - 26	Y	Y	Y	N
TB-K	66	Wet Flatwoods	12	26	10 - 50	66	0 - 0	Y	Y	Y	N
TB-K	66	Wet Prairie	25	26	-	66	-	N	N	Y	N
TB-KK	192	Baygall	12	40	-	200	-	N	N	Y	N
TB-KK	192	Mesic Flatwoods	33	40	10 - 50	200	0 - 26	Y	Y	Y	N
TB-KK	192	Wet Flatwoods	114	40	10 - 50	200	0 - 0	Y	Y	Y	N
TB-KK	192	Wet Prairie	18	40	-	200	-	N	N	Y	N

Management Zones (MZ)	MZ (acres)	Candidate NatComs	Candidate NatComs (acres)	Current Average Overstory Pine BA (ft^2/AC)	Target Overstory Pine BA (ft^2/AC)	Current Non-Pine Overstory TPA	Target Non-Pine Overstory TPA	Potential Actions/Treatments			
								Harvest or Thin	Stand Improvement*	Site Prep	Plant
TB-L	129	Mesic Flatwoods	45	26	10 - 50	411	0 - 26	Y	Y	Y	N
TB-L	129	Xeric Hammock	10	26	-	411	-	N	N	Y	N
TB-N	64	Sandhill	19	24	20 - 60	700	0 - 79	Y	Y	Y	N
TB-N	64	Wet Prairie	7	24	-	700	-	N	N	Y	N
TB-O	87	Mesic Flatwoods	26	31	10 - 50	1,751	0 - 26	Y	Y	Y	N
TB-O	87	Sandhill	44	31	20 - 60	1,751	0 - 79	Y	Y	Y	N
TB-P	138	Mesic Flatwoods	63	58	10 - 50	459	0 - 26	Y	Y	Y	N
TB-P	138	Wet Flatwoods	41	58	10 - 50	459	0 - 0	Y	Y	Y	N
TB-P	138	Xeric Hammock	13	58	-	459	-	N	N	Y	N
TB-Q	55	Wet Prairie	55	53	-	370	-	N	N	Y	N
TB-R	177	Mesic Flatwoods	62	10	10 - 50	200	0 - 26	Y	Y	Y	Y
TB-R	177	Sandhill	4	10	20 - 60	200	0 - 79	Y	Y	Y	Y
TB-R	177	Wet Flatwoods	20	10	10 - 50	200	0 - 0	Y	Y	Y	Y

Management Zones (MZ)	MZ (acres)	Candidate NatComs	Candidate NatComs (acres)	Current Average Overstory Pine BA (ft^2/AC)	Target Overstory Pine BA (ft^2/AC)	Current Non-Pine Overstory TPA	Target Non-Pine Overstory TPA	Potential Actions/Treatments			
								Harvest or Thin	Stand Improvement*	Site Prep	Plant
TB-R	177	Wet Prairie	16	10	-	200	-	N	N	Y	N
TB-S	68	Baygall	24	46	-	7,918	-	N	N	Y	N
TB-S	68	Mesic Flatwoods	43	46	10 - 50	7,918	0 - 26	Y	Y	Y	N
TB-T	33	Mesic Flatwoods	26	28	10 - 50	9,600	0 - 26	Y	Y	Y	N
TB-T	33	Wet Flatwoods	6	28	10 - 50	9,600	0 - 0	Y	Y	Y	N
TB-U	25	Mesic Flatwoods	10	59	10 - 50	7,800	0 - 26	Y	Y	Y	N
TB-W	34	Mesic Flatwoods	10	44	10 - 50	1,900	0 - 26	Y	Y	Y	N
TB-W	34	Wet Prairie	16	44	-	1,900	-	N	N	Y	N
TB-X	67	Mesic Flatwoods	32	65	10 - 50	600	0 - 26	Y	Y	Y	N
TB-X	67	Wet Flatwoods	21	65	10 - 50	600	0 - 0	Y	Y	Y	N
TB-X	67	Wet Prairie	11	65	-	600	-	N	N	Y	N
TB-Y	274	Baygall	10	24	-	2,400	-	N	N	Y	N
TB-Y	274	Mesic Flatwoods	116	24	10 - 50	2,400	0 - 26	Y	Y	Y	N

Management Zones (MZ)	MZ (acres)	Candidate NatComs	Candidate NatComs (acres)	Current Average Overstory Pine BA (ft^2/AC)	Target Overstory Pine BA (ft^2/AC)	Current Non-Pine Overstory TPA	Target Non-Pine Overstory TPA	Potential Actions/Treatments			
								Harvest or Thin	Stand Improvement*	Site Prep	Plant
TB-Y	274	Wet Flatwoods	113	24	10 - 50	2,400	0 - 0	Y	Y	Y	N
TB-Y	274	Wet Prairie	24	24	-	2,400	-	N	N	Y	N
TB-Z	246	Baygall	40	52	-	1,725	-	N	N	Y	N
TB-Z	246	Mesic Flatwoods	76	52	10 - 50	1,725	0 - 26	Y	Y	Y	N
TB-Z	246	Wet Flatwoods	69	52	10 - 50	1,725	0 - 0	Y	Y	Y	N
TB-Z	246	Wet Prairie	52	52	-	1,725	-	N	N	Y	N
TB-FF1	109	Wet Flatwoods	<1	--	--	--	--	N	N	Y	N
TB-C2	13	Wet Prairie	1	--	--	--	--	N	N	Y	N
TB-R	177	Baygall	63	--	--	--	--	N	N	Y	N
TB-I	68	Baygall	17	--	--	--	--	N	N	Y	N
TB-II	203	Wet Flatwoods	31	--	--	--	--	N	N	Y	N
TB-N	64	Baygall	9	--	--	--	--	N	N	Y	N
TB-CC	6	Mesic Flatwoods	<1	--	--	--	--	N	N	Y	N
TB-U	25	Baygall	<1	--	--	--	--	N	N	Y	N
TB-P	138	Baygall	16	--	--	--	--	N	N	Y	N

Management Zones (MZ)	MZ (acres)	Candidate NatComs	Candidate NatComs (acres)	Current Average Overstory Pine BA (ft^2/AC)	Target Overstory Pine BA (ft^2/AC)	Current Non-Pine Overstory TPA	Target Non-Pine Overstory TPA	Potential Actions/Treatments			
								Harvest or Thin	Stand Improvement*	Site Prep	Plant
TB-FF2	142	Baygall	18	--	--	--	--	N	N	Y	N
TB-Q	55	Baygall	<1	--	--	--	--	N	N	Y	N
TB-I	68	Wet Prairie	3	--	--	--	--	N	N	Y	N
TB-L	129	Wet Flatwoods	11	--	--	--	--	N	N	Y	N
TB-L	129	Sandhill	<1	--	--	--	--	N	N	Y	N
TB-GG	82	Baygall	<1	--	--	--	--	N	N	Y	N
TB-B	63	Wet Prairie	6	--	--	--	--	N	N	Y	N
TB-N	64	Mesic Flatwoods	25	--	--	--	--	N	N	Y	N
TB-J	105	Xeric Hammock	<1	--	--	--	--	N	N	Y	N
TB-HH	107	Wet Flatwoods	<1	--	--	--	--	N	N	Y	N
TB-C2	13	Wet Flatwoods	5	--	--	--	--	N	N	Y	N
TB-H	86	Wet Prairie	11	--	--	--	--	N	N	Y	N
TB-R	177	Xeric Hammock	1	--	--	--	--	N	N	Y	N
TB-EE	412	Sandhill	8	--	--	--	--	N	N	Y	N
TB-HH	107	Baygall	<1	--	--	--	--	N	N	Y	N

Management Zones (MZ)	MZ (acres)	Candidate NatComs	Candidate NatComs (acres)	Current Average Overstory Pine BA (ft^2/AC)	Target Overstory Pine BA (ft^2/AC)	Current Non-Pine Overstory TPA	Target Non-Pine Overstory TPA	Potential Actions/Treatments			
								Harvest or Thin	Stand Improvement*	Site Prep	Plant
TB-O	87	Baygall	12	--	--	--	--	N	N	Y	N
TB-W	34	Baygall	3	--	--	--	--	N	N	Y	N
TB-C2	13	Baygall	3	--	--	--	--	N	N	Y	N
TB-DD	265	Mesic Flatwoods	49	--	--	--	--	N	N	Y	N
TB-L	129	Baygall	55	--	--	--	--	N	N	Y	N

*Stand improvement, per Section 3 above, includes palmetto/midstory reduction. While inventory data was not used to estimate this metric, remotely sensed images and on-site observations have indicated that the selected areas could benefit from such treatments.

**Un-sampled upland areas are present in this analysis and could require vegetation management in the future.

Addendum 9—Land Management Review

2017 Land Management Review Team Report for Tarkiln Bayou Preserve State Park

Table of Contents

1. Introduction

Section 259.036, F.S. requires a periodic on-site review of conservation and recreation lands titled in the name of the Board of Trustees to determine (1) whether the lands are being managed for the purposes for which they were acquired and (2) whether they are being managed in accordance with their land management plan adopted pursuant to s. 259.032, F.S. In case where the managed areas exceed 1,000 acres in size, such a review must be scheduled at least every five years. In conducting this review, a statutorily constructed review team "shall evaluate the extent to which the existing management plan provides sufficient protection to threatened or endangered species, unique or important natural or physical features, geological or hydrological functions or archaeological features. The review shall also evaluate the extent to which the land is being managed for the purposes for which it was acquired and the degree to which actual management practices, including public access, are in compliance with the adopted management plan."

The land management review teams are coordinated by the Division of State Lands and consist of representatives from the Division of Recreation and Parks (DEP), the Florida Forest Service (DACS), the Fish and Wildlife Conservation Commission, the local government in which the property is located, the DEP District in which the parcel is located, the local soil and water conservation district or jurisdictional water management district, a conservation organization member, and a local private land manager.

Each Land Management Review Report is divided into three sections. Section 1 provides the details of the property being reviewed as well as the overall results of the report. Section 2 provides details of the Field Review, in which the Review Team inspects the results of management actions on the site. Section 3 provides details of the Land Management Plan Review, in which the team determines the extent to which the Management Plan provides for and documents adequate natural and recreational resource protection.

Finally, each report may also contain an Appendix that lists individual team member comments. This is a compilation of feedback, concerns or other thoughts raised by individual team members, but not necessarily indicative of the final consensus reached by the Land Management Review Team.

1.1. Property Reviewed in this Report

Name of Site: Tarkiln Bayou Preserve State Park
Managed by: Florida Department of Environmental Protection – Division of Recreation and Parks
Acres: 4,470 **County:** Escambia
Purpose(s) for Acquisition: to protect and restore the natural and cultural values of the property and provide the greatest benefit to the citizens of the state.
Acquisition Program(s): P2000/CARL/Florida Forever **Original Acquisition Date:** 4/13/98
Area Reviewed: Entire Property **Last Management Plan Approval Date:** 10/13/06
Review Date: 11/15/17

Agency Manager and Key Staff Present:

- Brandon Joseph, Park Ranger
- Chris Telhiard

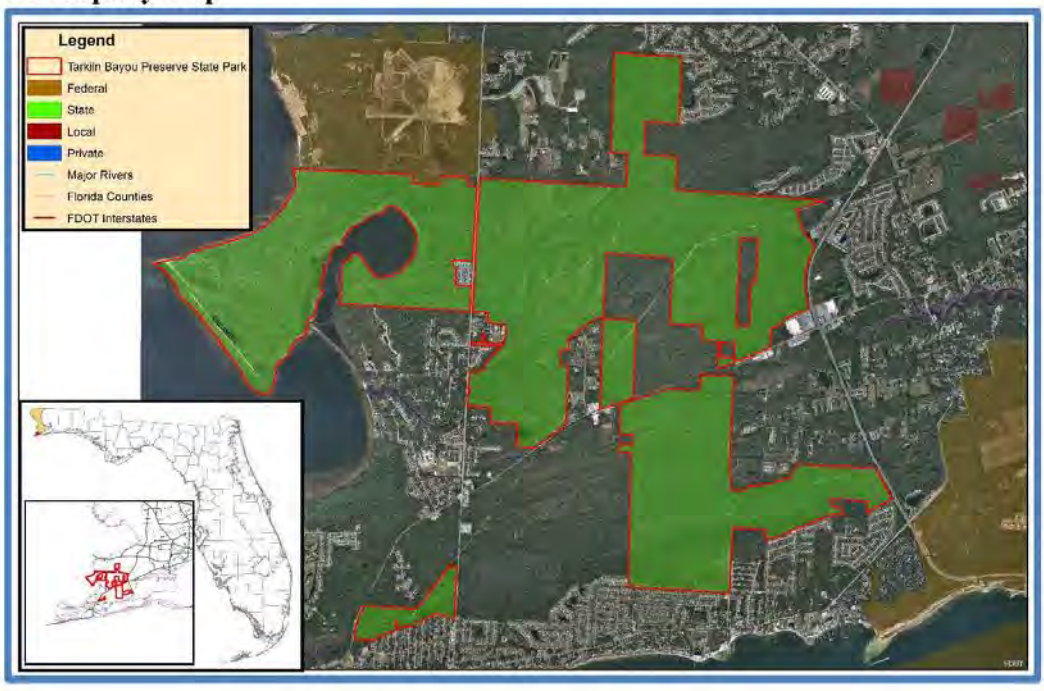
Review Team Members Present (voting)

- Bob Wilken, Private Land Manager
- Jennifer Manis, FWC
- John McKenzie, FPS
- Jason Love, FFS
- Mark Gillman, DEP District
- Carole Tebay, Conservation Org.
- Steve Brown, NWFWMD
- Local Government, None

Other Non-Team Members Present (attending)

- James Parker, DEP/DSL
- Keith Singleton, DEP/DSL

1.2 Property Map



1.3. Overview of Land Management Review Results

Is the property managed for purposes that are compatible with conservation, preservation, or recreation?

Yes = 7, No = 0

Are the management practices, including public access, in compliance with the management plan?

Yes = 7, No = 0

Table 1 shows the average scores received for each applicable category of review. *Field Review* scores refer to the adequacy of management actions in the field, while *Management Plan Review* scores refer to adequacy of discussion of these topics in the management plan. Scores range from 1 to 5 with 5 signifying excellence. For a more detailed key to the scores, please see *Appendix A*.

Table 1: Results at a glance

Major Land Management Categories	Field Review	Management Plan Review
Natural Communities / Forest Management	4.24	4.17
Prescribed Fire / Habitat Restoration	3.69	4.55
Hydrology	3.20	4.10
Imperiled Species	4.67	4.45
Exotic / Invasive Species	4.64	4.32
Cultural Resources	4.21	4.29
Public Access / Education / Law Enforcement	4.08	4.10
Infrastructure / Equipment / Staffing	2.08	N/A
Color Code (See Appendix A for detail)		
Excellent	Above Average	Below Average	Poor

1.3.1 Consensus Commendations for the Managing Agency

The following commendations resulted from discussion and vote of the review team members:

1. The team commends the Florida Park Service (FPS) for their work on exotic plant treatment and removal. (7+, 0-)
2. The team commends the FPS for continuing to conduct prescribed burning where feasible, even in the face of limited staff and budget. (7+, 0-)

1.3.2. Consensus Recommendations to the Managing Agency

The following recommendations resulted from a discussion and vote of review team members. The next management plan update should include information about how these recommendations have been addressed:

1. The team recommends that the FPS continue surveys for reticulated flatwood salamanders and consider reintroductions if no salamanders are found on the property. (7+, 0-)

   Managing Agency Response: ***Agree. Park Service staff are currently coordinating with the United States Fish and Wildlife Service (USFWS) Panama City Field Office to continue surveys and identify high quality habitats appropriate for potential reintroduction.***

2. The team recommends that the FPS conduct diamondback terrapin surveys in Tarkiln Bayou, and coordinate collecting genetic material with the Fish and Wildlife Conservation Commission. (7+, 0-)

Managing Agency Response: *Agree. Park Service staff will request guidance and assistance from the Florida Fish & Wildlife Conservation Commission (FWC) regarding surveying the park's expansive saltmarsh habitat for diamondback terrapin. Park staff will defer to the FWC Regional Species Conservation Biologist to ensure proper protocols are followed.*

3. The team recommends that the FPS conduct timber thinning on park property east of Bauer Rd to help reduce fuel load and to help with prescribed fire. (7+, 0-)

   Managing Agency Response: *Agree. Park Service staff will identify areas, east of Bauer Rd, where timber thinning can serve as an initial restoration measure, re-establishing open wet prairie, and reducing live fuel loads ahead of prescribed burning. Areas will be prioritized based on current habitat quality, and feasibility of access.*

4. The team recommends that the FPS work with the military on an upland access onto the Tarkiln Peninsula. Pursue filling in ditch on the east side of Bauer Rd. northside of the property. (7+, 0-)

   Managing Agency Response: *Agree. Park Service staff will continue discussions with Pensacola Naval Air Station (NAS) Natural Resource staff regarding a bridged crossing of the Bronson Field ditch. Such a bridge would avoid further impacts to park wetlands caused by service vehicles, and improve opportunities for prescribed burning. Any steps to mitigate the impacts of minor ditching on the eastern portion of the park should include consultation with the DEP Northwest District Office, Submerged Lands and Environmental Resources Coordination Program. Park staff will reach out to DEP permitting to discuss feasibility.*

5. The team recommends that the FPS purchase a track loader with appropriate cutting implements, and support GCPEP acquisition of appropriate tracked fire-suppression equipment to allow safer prescribed burning through wet natural communities long term. (7+, 0-)

   Managing Agency Response: *Agree. A compact trackloader (aka skid-steer) with mulching head, brushcutter, and feller/buncher, has been requested as a top priority through the Division's Park Projects Management Tracking System (PPMTS). As an active member of the Gulf Coastal Plain Ecosystem Partnership (GCPEP), the Park and District continue to support acquiring specialized equipment necessary to access and manage the partnership's challenging wetland habitats.*

6. The team recommends that the FPS develop and support infrastructure to maintain current progress with natural resources. (7+, 0-)

   Managing Agency Response: *Agree. Park and District will continue to communicate the need for staff and resources to Division Management. Any determination of the need for additional staffing and other budget appropriations for Tarkiln Bayou must be coordinated through DEP's established legislative budget request process.*

2. Field Review Details

2.1 Field Review Checklist Findings

The following items received high scores on the review team checklist, which indicates that management actions exceeded expectations.

1. **Natural communities, specifically maritime hammock, sandhill, xeric hammock, basin swamp, baygal, depression marsh, blackwater stream, seepage stream, estuarine tidal marsh, estuarine unconsolidated substrate**
2. **Animals, shorebirds, flatwoods salamander, gopher tortoise, plants, pitcher plants, large leaf jointweed**
3. **Natural resources survey/monitoring specifically , listed species or their habitat monitoring, other non-game species or their habitat monitoring, fire effects monitoring, other habitat management effects monitoring, invasive species survey/monitoring**
4. **Cultural resources, specifically cultural resource survey, and protection and preservation**
5. **Resource management (prescribed fire), specifically frequency**
6. **Forest Management, specifically Timber inventory/assesment**
7. **Non-native, invasive, and problem species, specifically prevention and control of plants, animals**
8. **Resource protection, specifically signage and law enforcement presence.**
9. **Adjacent property concerns, specifically expanding development.**
10. **Public access, specifically roads, parking**
11. **Enviromental Education & outreach, specifically wildlife, invasive species, habitat management activities, interpretive facilities and signs, recreational opportunities, management of visitor impacts**
12. **Management resources, specifically waste disposal.**

2.2. Items Requiring Improvement Actions in the Field

The following items received low scores on the review team checklist, which indicates that management actions noted during the Field Review were not considered sufficient (less than 3.0 score on average). Please note that overall good scores do not preclude specific recommendations by the review team requiring remediation. **The management plan update should include information on how these items have been addressed:**

1. ***The maintenance condition of the Natural Communities, specifically wet prairie received below average scores. The review team is asked to evaluate, based on their perspective, what percent of the natural community is in maintenance condition. The scores range from 1 to 5, with 1 being 0-20% in maintenance condition, 2 being 21-40%, 3 being 41-60%, 4 being 16-80% and 5 being 81-100%.***

   Managing Agency Response: *Wet prairie habitats located on the western portion of the park have been well managed with prescribed fire and are in good condition, evidenced by abundant pitcherplants and high species diversity. Due to saturated soils, access into some eastern portions of the park have been limited, impacting the ability to manage wet prairie. Park and District staff have requested the specialized, low ground pressure equipment necessary to begin establishing and maintaining necessary fire lines. Fire line work and prescribed burning will be expanded into the eastern portion of the park in FY18/19 as equipment availability and soil conditions allow.*

2. ***Hydrologic/Geologic function Hydro-Alteration, specifically roads/culverts and ditches, received a below average score. The review team is asked to evaluate, based on information provided by the managing agency, whether consideration of past and present hydrologic and geologic functions are sufficient.***

   Managing Agency Response: *Hydro-Alterations center on the stretch of DuPont Road used to access the Tarkiln Peninsula. Large segments were impacted by recreational four-wheel driving prior to State acquisition. Severe rutting and subsequent erosion have resulted in a sunken roadbed, intercepting surface water that once sheeted across the property into Tarkiln Bayou. Returning the roadbed to matching elevation will restore hydrological function to hundreds of acres of northwest Florida wet prairie, among the most species-rich habitats in North America.*

   Repairing the DuPont Road is an essential component of the Bronson Field Habitat Restoration and Water Qualitiy Improvement Project. This is a multi-agency cooperative project submitted for NRDA (Natural Resouce Damage Assessment) review in 2017 by Escambia County.

3. ***Management Resources, specifically buildings, equipment, staff, and funding, received below average scores. The review team is asked to evaluate, based on information provided by the managing agency, whether management resources are sufficient.***

   Managing Agency Response: *Similar to item 6 above: Park and District will continue to communicate the need for staff and resources to Division Management. Any determination of the need for additional staffing and other budget appropriations for Tarkiln Bayou must be coordinated through DEP's established legislative budget request process.*

2.3. Field Review Checklist and Scores

Field Review Item	Reference #	Anonymous Team Members								Average
		1	2	3	4	5	6	7	8	
Natural Communities (I.A)										
Maritime Hammock	I.A.1	5	5	4	5	5	5	5		4.86
Mesic Flatwoods	I.A.2	3	3	4	3	3	4	4		3.43
Sandhill	I.A.3	5	5	5	5	5	5	5		5.00
Xeric Hammock	I.A.4	5	5		5	5	5	5		5.00
Basin Swamp	I.A.5	5	5	4	5	5	5	5		4.86
Baygall	I.A.6	5	5	4	5	5	5	5		4.86
Depression Marsh	I.A.7	5	5	4	5	5	5	5		4.86
Wet Flatwoods	I.A.8	3	3	3	3	3	3	3		3.00
Wet Prairie	I.A.9	2	3	3	3	3	3	3		2.86
Blackwater Stream	I.A.10	5	5	3	5	5	5	5		4.71
Seepage Stream	I.A.11	5	5	3	5	5	5	5		4.71
Estuarine Tidal Marsh	I.A.12	5	5	5	5	5	5	5		5.00
Estuarine Unconsolidated Substrate	I.A.13	5	5	5	5	5	5	5		5.00
									Natural Communities Average Score	4.47

Listed species:Protection & Preservation (I.B)										
Animals	I.B.1	4	5	5	5	5		5		4.83
Shorebirds	I.B.1.a	4	5	4	5	5	5	5		4.71
Flatwoods Salamander	I.B.1.b	4	5	5	5	5	4	5		4.71
Gopher Tortoise	I.B.1.c	4	5	4	5	5	5	5		4.71
Plants	I.B.2	4	5		5	4		5		4.60
Pitcher Plants	I.B.2.a	4	5	4	5	4	5	5		4.57
Large Leaf Jointweed	I.B.2.b	4	5	4	5	4	5	5		4.57
								Listed Species Average Score		4.67
Natural Resources Survey/Management Resources (I.C)										
Listed species or their habitat monitoring	I.C.2	4	5	4	5	5	5	5		4.71
Other non-game species or their habitat monitoring	I.C.3	4	5	4	5	4	5	5		4.57
Fire effects monitoring	I.C.4	4	5	5	5	5	5	5		4.86
Other habitat management effects monitoring	I.C.5	2	5	5	5	3		5		4.17
Invasive species survey / monitoring	I.C.6	4	5	5	5	5	5	5		4.86
Cultural Resources (Archeological & Historic sites) (II.A, II.B)										
Cultural Res. Survey	II.A	3	5	4	5	3	5	4		4.14
Protection and preservation	II.B	3	4	4	5	5	5	4		4.29
								Cultural Resources Average Score		4.21
Resource Management, Prescribed Fire (III.A)										
Area Being Burned (no. acres)	III.A1	3	3	4	3	4	3	4		3.43
Frequency	III.A.2	2	5	5	5	3	4	5		4.14
Quality	III.A.3	2	4	4	5	3	4	5		3.86
								Resource Management, Prescribed Fire Average Score		3.81
Restoration (III.B)										
Hydrologic Restoration	III.B.2	3	5	3	3	2	5	4		3.57
								Restoration Average Score		3.57
Forest Management (III.C)										
Timber Inventory / Assessment	III.C.1	4	4	3	5	4	4	4		4.00
								Forest Management Average Score		4.00
Non-Native, Invasive & Problem Species (III.D)										
Prevention										
prevention - plants	III.D.1.a	4	5	4	5	5	5	5		4.71
prevention - animals	III.D.1.b	4	5	4	5	5	5	5		4.71
Control										
control - plants	III.D.2.a	4	5	3	5	5	5	5		4.57
control - animals	III.D.2.b	4	5	3	5	5	5	5		4.57
								Non-Native, Invasive & Problem Species Average Score		4.64
Hydrologic/Geologic function Hydro-Alteration (III.E.1)										
Roads/culverts	III.E.1.a	2	4	2	3	2	4	3		2.86
Ditches	III.E.1.b	2	4	2	3	2	4	3		2.86

Hydro-period Alteration	III.E.1.c	3	4		3	3	4	3		3.33
Hydrologic/Geologic function, Hydro-Alteration Average Score										3.02
Ground Water Monitoring (III.E.2)										
Ground water quality	III.E.2.a	3	5	2	5	3	4	3		3.57
Ground Water Monitoring Average Score										3.57
Surface Water Monitoring (III.E.3)										
Surface water quality	III.E.3.a	3	X	2	X	3	4	3		3.00
Surface Water Monitoring Average Score										3.00
Resource Protection (III.F)										
Boundary survey	III.F.1	2	5	3	4	2	3	3		3.14
Gates & fencing	III.F.2	4	5	3	5	2	3	4		3.71
Signage	III.F.3	4	5	3	5	4	5	4		4.29
Law enforcement presence	III.F.4	4	5	4	5	4	4	4		4.29
Resource Protection Average Score										3.86
Adjacent Property Concerns (III.G)										
Land Use										
Expanding development	III.G.1.a	4	5	3	5	4	4	5		4.29
Inholdings/additions	III.G.1.b	3	5	3	X	4	4	4		3.83
Public Access & Education (IV.1, IV.2, IV.3, IV.4, IV.5)										
Public Access										
Roads	IV.1.a	4	5		3	3	5	4		4.00
Parking	IV.1.b	4	5	2	5	4	5	4		4.14
Environmental Education & Outreach										
Wildlife	IV.2.a	3	5	3	5	4	5	4		4.14
Invasive Species	IV.2.b	3	5	4	5	4	5	4		4.29
Habitat Management Activities	IV.2.c	3	5	4	5	5	5	4		4.43
Interpretive facilities and signs	IV.3	4	5	4	5	5	5	4		4.57
Recreational Opportunities	IV.4	4	5	4	5	4	5	4		4.43
Management of Visitor Impacts	IV.5	4	5	4	4	5	5	4		4.43
Public Access & Education Average Score										4.30
Management Resources (V.1, V.2, V.3. V.4)										
Maintenance										
Waste disposal	V.1.a	4	5	3	5	4	4	4		4.14
Sanitary facilities	V.1.b	4	4	2	4	3	4	3		3.43
Infrastructure										
Buildings	V.2.a	3	1	1	2	1	1	2		1.57
Equipment	V.2.b	1	1	1	2	1	1	1		1.14
Staff	V.3	2	1		1	1	1	1		1.17
Funding	V.4	1	1	1	1	1	1	1		1.00
Management Resources Average Score										2.08

Color Code: Excellent | Above Average | Below Average | Poor | Missing Vote | Insufficient Information

See Appendix A for detail

3. Land Management Plan Review Details

3.1 Items Requiring Improvements in the Management Plan

The following items received low scores on the review team checklist, which indicates that the text noted in the Management Plan Review does not sufficiently address this issue (less than 3.0 score on average.). Please note that overall good scores do not preclude specific recommendations by the review team requiring remediation. The next management plan update should address the checklist items identified below:

The review team scores did not identify items requiring improvement in the management plan.

3.2 Management Plan Review Checklist and Scores

Plan Review Item	Reference #	Anonymous Team Members								Average
		1	2	3	4	5	6	7	8	
Natural Communities (I.A)										
Maritime Hammock	I.A.1	4	5	3	5	3	5	5		4.29
Mesic Flatwoods	I.A.2	4	5	3	5	4	5	5		4.43
Sandhill	I.A.3	4	5	4	5	4	5	5		4.57
Xeric Hammock	I.A.4	4	5	4	5	3	5	5		4.43
Basin Swamp	I.A.5	4	5	4	5	4	5	5		4.57
Baygall	I.A.6	4	5	4	5	5	5	5		4.71
Depression Marsh	I.A.7	4	5	4	5	2	5	5		4.29
Wet Flatwoods	I.A.8	4	5	4	5	5	5	5		4.71
Wet Prairie	I.A.9	4	5	4	5	5	5	5		4.71
Blackwater Stream	I.A.10	4	5	4	5	2	5	5		4.29
Seepage Stream	I.A.11	4	5	3	5	4	5	5		4.43
Estuarine Tidal Marsh	I.A.12	4	5	4	5	4	5	5		4.57
Estuarine Unconsolidated Substrate	I.A.13	4	5	4	5	2	5	5		4.29
									Natural Communities Average Score	4.48
Listed species: Protection & Preservation (I.B)										
Animals	I.B.1	4	5	4	5	2	5	5		4.29
Shorebirds	I.B.1.a	4	5	4	5	2	5	5		4.29
Flatwoods Salamander	I.B.1.b	4	5	4	5	2	5	5		4.29
Gopher Tortoise	I.B.1.c	4	5	4	5	3	5	5		4.43
Plants	I.B.2	4	5		5	4		5		4.60
Pitcher Plants	I.B.2.a	4	5	5	5	4	5	5		4.71
Large Leaf Jointweed	I.B.2.b	4	5	4	5	4	5	5		4.57
									Listed Species Average Score	4.45
Natural Resources Survey/Management Resources (I.C)										
Listed species or their habitat monitoring	I.C.2	4	5	4	4	4	5	5		4.43
Other non-game species or their habitat monitoring	I.C.3	4	5	4	4	2	5	5		4.14
Fire effects monitoring	I.C.4	4	5	4	4	3	5	5		4.29

Other habitat management effects monitoring	I.C.5	4	5	4	4	3		5		4.17
Invasive species survey / monitoring	I.C.6	4	5	4	5	4	5	5		4.57
Cultural Resources (Archeological & Historic sites) (II.A,II.B)										
Cultural Res. Survey	II.A	3	5	4	5	4	5	4		4.29
Protection and preservation	II.B	3	5	4	5	4	5	4		4.29
								Cultural Resources Average Score		4.29
Resource Management, Prescribed Fire (III.A)										
Area Being Burned (no. acres)	III.A.1	4	5	3	5	4	5	5		4.43
Frequency	III.A.2	4	5	5	5	4		5		4.67
Quality	III.A.3	4	5	4	5	4		5		4.50
										4.53
Restoration (III.B)										
Hydrologic Restoration	III.B.2	4	5	4	5	4	5	5		4.57
								Restoration Average Score		4.57
Forest Management (III.C)										
Timber Inventory / Assessment	III.C.1	4	5	2	5	3	4	4		3.86
								Forest Management Average Score		3.86
Non-Native, Invasive & Problem Species (III.D)										
Prevention										
prevention - plants	III.D.1.a	4	5	3	5	2	5	5		4.14
prevention - animals	III.D.1.b	4	5	3	5	3	5	5		4.29
Control										
control - plants	III.D.2.a	4	5	3	5	4	5	5		4.43
control - animals	III.D.2.b	4	5	3	5	4	5	5		4.43
								Non-Native, Invasive & Problem Species Average Score		4.32
Hydrologic/Geologic function, Hydro-Alteration (III.E.1)										
Roads/culverts	III.E.1.a	3	5	3	5	4	5	5		4.29
Ditches	III.E.1.b	3	5	3	5	5	5	5		4.43
Hydro-period Alteration	III.E.1.c	3			5	3	5	5		4.20
								Hydrologic/Geologic function, Hydro-Alteration Average Score		4.30
Ground Water Monitoring (III.E.2)										
Ground water quality	III.E.2.a	4	5	3	5	3	4	4		4.00
								Ground Water Monitoring Average Score		4.00
Surface Water Monitoring (III.E.3)										
Surface water quality	III.E.3.a	4	5	3	5	3	4	4		4.00
								Surface Water Monitoring Average Score		4.00
Resource Protection (III.F)										
Boundary survey	III.F.1	4	5	3	5	2	3	4		3.71
Gates & fencing	III.F.2	4	5	3	5	3	4	5		4.14
Signage	III.F.3	4	5	3	5	3	4	5		4.14
Law enforcement presence	III.F.4	4	5	3	3	3	4	5		3.86
								Resource Protection Average Score		3.96

Adjacent Property Concerns (III.G)										
Land Use										
Expanding development	III.G.1.a	4		3	5	3	4	5		4.00
Inholdings/additions	III.G.2	4		3	5	3	5	5		4.17
Discussion of Potential Surplus Land Determination	III.G.3	3	5	2	4	2	3	4		3.29
Surplus Lands Identified?	III.G.4	5	5	3	4	4	5	5		4.43
Public Access & Education (IV.1, IV.2, IV.3, IV.4, IV.5)										
Public Access										
Roads	IV.1.a	4	5		5	4	5	5		4.67
Parking	IV.1.b	4	5	3	5	4	5	5		4.43
Environmental Education & Outreach										
Wildlife	IV.2.a	4	5	3	5	3	5	4		4.14
Invasive Species	IV.2.b	4	5	3	5	3	5	4		4.14
Habitat Management Activities	IV.2.c	4	5	3	5	3	5	4		4.14
Interpretive facilities and signs	IV.3	4	5	3	5	3	5	4		4.14
Recreational Opportunities	IV.4	4	5	3	5	3	5	4		4.14
Management of Visitor Impacts	IV.5	4	5	3	5	3	5	4		4.14
									Public Access & Education Average Score	4.24
Managed Area Uses (VI.A, VI.B)										
Existing Uses										
Picnicking	VI.A.1	4	5	4	5	5	5	5		4.71
Swimming	VI.A.2	4	5	4	5	5	5	5		4.71
Shared-use Trails	VI.A.3	4	5	4	5	5	5	5		4.71
Nature Study	VI.A.4	4	5	4	5	5	5	5		4.71
Geocaching	VI.A.5	4	5	4	5	5	5	5		4.71
Proposed Uses										
Camping	VI.B.1	4		2	5	2	5			3.60

Color Code: Excellent | Above Average | Below Average | Poor | See Appendix A for detail

Missing Vote | Insufficient Information

Appendix A: Scoring System Detail

Explanation of Consensus Commendations:

Often, the exceptional condition of some of the property's attributes impress review team members. In those instances, team members are encouraged to offer positive feedback to the managing agency in the form of a commendation. The teams develop commendations generally by standard consensus processes or by majority vote if they cannot obtain a true consensus.

Explanation of Consensus Recommendations:

Subsection 259.036(2), F.S., specifically states that the managing entity shall consider the findings and recommendations of the land management review. We ask team members to provide general recommendations for improving the management or public access and use of the property. The teams discuss these recommendations and develop consensus recommendations as described above. We provide these recommendations to the managing agency to consider when finalizing the required ten-year management plan update. We encourage the manager to respond directly to these recommendations and include their responses in the final report when received in a timely manner.

Explanation of Field Review Checklist and Scores, and Management Plan Review Checklist and Scores:

We provide team members with a checklist to fill out during the evaluation workshop phase of the Land Management Review. The checklist is the uniform tool used to evaluate both the management actions and condition of the managed area, and the sufficiency of the management plan elements. During the evaluation workshop, team members individually provide scores on each issue on the checklist, from their individual perspective. Team members also base their evaluations on information provided by the managing agency staff as well as other team member discussions. Staff averages these scores to evaluate the overall conditions on the ground, and how the management plan addresses the issues. Team members must score each management issue 1 to 5: 1 being the management practices are clearly insufficient, and 5 being that the management practices are excellent. Members may choose to abstain if they have inadequate expertise or information to make a cardinal numeric choice, as indicated by an "X" on the checklist scores, or they may not provide a vote for other unknown reasons, as indicated by a blank. If a majority of members failed to vote on any issue, that issue is determined to be irrelevant to management of that property or it was inadequately reviewed by the team to make an intelligent choice. In either case staff eliminated the issue from the report to the manager.

Average scores are interpreted as follows:

Scores 4.0 to 5.0 are *Excellent*

Scores 3.0 to 3.99 are *Above Average*

Scores 2.0 to 2.99 are *Below Average*

Scores 1.0 to 1.99 are considered *Poor*

Addendum 10—Recreational Carrying Capacity Guidelines

THE SELECTION AND CAPACITY DETERMINATION OF USE SITES

Introduction

The Division of Recreation and Parks has the responsibility of planning the use of and managing a sizable portion of Florida's public lands and water areas. With tremendous population increases and the constant and extensive development of private lands, the state recreation and parks system has a more significant role than ever before in (a) providing opportunities for quality outdoor recreation experiences, and (b) preserving representative and unique natural areas of the state. Both the quality of the recreation experience and the protection of the natural areas are directly affected by the implementation of the site plans, or land use plans, which are prepared for the various areas of the system and which designate sites to be established for public use and lands to be set aside for preservation purposes. Important factors given thorough study during the site planning process are the types of recreation activities to be provided, where these activities are to take place, and the amount of public use to be allowed.

Site Selection and Site Deterioration

Proper site selection is a critical part of the site planning process. Deterioration of recreation sites through normal use can be minimized when a designer remains sensitive to the plant communities he is working with. Some communities are significantly more tolerant of man's presence than others.

To assure the consideration of these factors, it is helpful to map plant communities existing at each site. This, coupled with analysis of plant communities' characteristics as summarized in Attachment A, should insure selection of the best available site which in turn will minimize the degree of deterioration from normal use.

Other factors, such as wildlife, soils, topography, and hydrology, should also be considered during the site planning process. Plant communities, once identified, suggest the soil makeup and animals which will be found at the site, but geology and hydrology should be considered separately.

Plant Community Limitations

Attachment A, "Characteristics of Florida's Major Plant Communities," was prepared to assist in the study of areas' plant community limitations. Included is a relative ranking of each community's ability to tolerate use other than that normally associated with wilderness. Practically all of the plant communities of Florida are represented on lands of the state recreation and parks system. They vary from unstable types which cannot withstand trampling, such as sand dunes, to stable types, such as pine flatwoods.

Several plant communities are rare or endangered because of extensive development which has taken place over the past 30 years. For example, the coastal hammocks which were once found in a continuous band along the barrier islands of the Atlantic Coast, have been reduced to remnants, due to extensive coastal development. To encourage active use of unstable and fragile plant communities is contrary to sound environmental management. Wherever possible, use sites will be located in communities and on terrain resistant to trampling. Similarly, communities which are considered to be rare or endangered, will be avoided. These areas best serve the public in scenic, interpretive, and biological research categories.

In some instances, planners are faced with the dilemma of not having a stable community in which to place a use site. Many east coast barrier islands consist of three basic communities--dune, coastal hammock, and mangroves. The coastal hammock is stable but endangered, and the dunes and mangroves are unstable as well as endangered. The most suitable location, therefore, is the outer portion of the coastal hammock. In areas which do not possess suitable plant communities, and yet some degree of use is determined desirable, the degree of development and corresponding intensity of use will be low.

Additional biological factors must be considered during the initial planning. Sand dunes are unable to withstand trampling, but high intensity use of adjacent beaches can be allowed by the installation of boardwalks over the dunes. Also, the location of a use site adjacent to an important wildlife nesting or feeding area may be detrimental even though the community is well suited for active use. Early field investigations for the purpose of inventorying plant communities, will provide such information.

Overcrowding and Site Deterioration

Areas in the state recreation and parks system have always been popular with large segments of the public and have accordingly received considerable use. But previously, they were seldom overcrowded to the extent that a lessening of the quality of the users' outdoor recreation experiences resulted. Now, in several areas, the number of persons seeking outdoor recreation exceeds the space allotments of the public use sites. Carrying capacities--limitations on the number of persons to use each site at a given time--can protect users' experiences by preventing overcrowding which (a) causes deterioration of the natural attribute of each use site and (b) impedes each user's ability to move freely and to fully enjoy the natural setting without undue distraction.

Optimum Carrying Capacities for Users

In order to determine appropriate carrying capacities for each park situation, two guides are provided here: Attachment A, "Characteristics of Florida's Major Plant Communities," already discussed, and Attachment B, "Optimum Carrying Capacities for Outdoor Recreation Activities." Attachment B gives the recommended limits on the number of users for most outdoor recreation activities in an attempt to prevent overcrowding, and a recommended land base to assure that sufficient support area and buffer area are provided. A range is given for almost every activity, to allow for differences in each site. The site's classification is a main factor in density variation. For state parks, special feature sites and preserves, the carrying capacities should be reduced to insure compatibility with the management objectives of each category.

The carrying capacities determined by these guidelines are to be followed in the preparation of site plans for new use sites and for authorized alterations of existing use sites. The applicable carrying capacity for a given use site also governs the number of parking spaces, the size of restrooms, and all quantities of support facilities to be provided.

Control of Established Carrying Capacities

Carrying capacity computations derived with the help of the guidelines contained here are vital to planning of new use sites, renovation of older developed sites and continuous management of all areas of the system, to prevent overcrowding and resource deterioration. The estimated optimum carrying capacity is included in each approved park unit management plan, in a tabular format. This estimate is evaluated and revised, as needed, as part of the periodic unit management plan update procedure

ATTACHMENT A

CHARACTERISTICS OF FLORIDA'S MAJOR PLANT COMMUNITIES

	Moisture Level Moist-▲ Dry-◊ Moderate-❖	Shade Potential Dense-▲ None-◊ Moderate-❖	Understory Buffer Dense-▲ None-◊ Moderate-❖
Group 1			
Pine Flatwoods	❖	❖	❖
Mixed Hardwood/Pine	❖	▲	▲
Group 2			
Xeric Hammock	◊	▲	❖
Coastal Hammock*	◊	▲	◊
Mesic Hammock	❖	▲	◊
Tropical Hammock*	❖	▲	❖
Group 3			
Sand Pine Scrub*	◊	❖	▲
Sandhill*	◊	❖	◊
Group 4			
Low Flatwoods	▲	◊	❖
Hydric Hammock	▲	▲	◊
Group 5			
Dunes*	◊	◊	◊
Wetlands*	▲	varies	▲

*Indicates rare and endangered communities.

The group number indicates the relative degree to which each community is affected by development. Group 1 is least affected, Group 5 is most affected.

ATTACHMENT B
OPTIMUM CARRYING CAPACITY FOR OUTDOOR RECREATION ACTIVITIES
Updated 10/7/14

Recreation Activity	Required Land Base	Area Requirements	People/Unit of Facility	Turnover Rate
Camping				
Hike-in (Primitive, no restrooms)	10-50 acres/site	Sites clustered to a maximum of 4 sites/acre	8/site	1/day
Short-walk, Tent	2-10 acres/site	3-8 sites/acre	8/site	1/day
Rustic (no water/sewer)	1-5 acres/site	3-8 sites/acre	8/site	1/day
Standard Facility	1-3 acres/site	3-10 sites/acre	8/site	1/day
Groups (primitive)	20-50 acres/area	5-20 acres/area	10-30/site (4 tents/site)	1/day
Cabins	1-3 acres/cabin	2-6/acre	4-12/cabin (generally 6/cabin)	1/day
Yurt	n/a	n/a	8/yurt	1/day
Campfire Circle	1-2 acres/facility	1/4-1/2 acre/facility	1/2 camping capacity	1/day
Museum/Visitor Center	1-5 acres/structure (15 sq. ft./person)	1/4-1/2 acre/structure (1 acre/structure)	1/20 sq. ft.	4/day
Picnicking	1/4-4 acres/site of exhibit area	8-15 tables/acre	4/table	2/day
Trails				
Nature Trails	min. of 25 acres/mile of trail, max. length 1 mile	5-20 groups/mile (10-40 people/mile)	2/group	4/day
Primitive Hiking	min. of 100 acres/mile of trail, min. length 1 mile	1-5 groups/mile (2-10 people/mile)	2/group	2/day

ATTACHMENT B
OPTIMUM CARRYING CAPACITY FOR OUTDOOR RECREATION ACTIVITIES
Updated 10/7/14

Recreation Activity	Required Land Base	Area Requirements	People/Unit of Facility	Turnover Rate
Trails cont'd				
Bicycle (Off-road)	min. of 25 acres/mile of trail	10 bikes/lane/mile	1/bike	4/day
Shared Use Trail (Paved or Unpaved?)	n/a	10-20 people/mile	2/group	4/day
Note: depending on the trail, these numbers might need to be adjusted as appropriate based on actual/observed use.				
Equestrian	min. 75 acres/mile of trail min. length 5 miles	2-8 groups/mile (4-16 people/mile)	4/group	1 to 2/day
Parking (only use if no way to calculate capacity w/activities)	80 cars/acre 70 cars with trailer/acre	3 people/car	Bus (large touring coach = 50 people)	
WATER-BASED ACTIVITIES				
Beach Use (Swimming)	min. 1/8 acre of land/ swimmer	50-200 sq. ft. of water (spring/lakes) and 200-500 sq. ft. of beach/swimmer (note: measure ¼-mile from beach access along length of beach)		2/day
Surfing (for designated surfing areas; subtract from beach use figures to avoid double-counting)	min. 1/2 mile of beach for surfing area, and 1/8 acre of land/surfer	40-100 linear ft. of beach/surfer		2/day
Fishing (note: subtract from beach use figures to avoid double-counting)				
Shoreline	min. 1/4 mile of shoreline for a fishing area, and 1/8 acre of land/fisherman	1 fisherman/20-100 linear feet		2/day
Jetty Pier	min. 1/8 acre of land/ fisherman	1 fisherman/10-40 linear feet		2/day

ATTACHMENT B
OPTIMUM CARRYING CAPACITY FOR OUTDOOR RECREATION ACTIVITIES
Updated 10/7/14

Recreation Activity	Required Land Base	Area Requirements	People/Unit of Facility	Turnover Rate
Boating				
Limited Power (10 HP or less)	min. 200 acres of water, and 1/4 acre of land/boat	1 boat/5-10 acres of water	2/boat	2/day
Unlimited Power	min. 600 acres of water and 1/4 acre of land/boat	1 boat/10-20 acres of water	4/boat	1/day
Water-skiing	min. 600 acres of water and 1/4 acre of land/boat	1 boat/20-50 acres of water	4/boat	1/day
Sailing	min. 200 acres of water and 1/4 acre of land/boat	1 boat/5-10 acres of water	2/boat	2/day
No Power, Still Water	min. 50 acres of water and 1/4 acre of land/boat	1 boat/5-10 acres of water	2/boat	2/day
No Power, Moving Water	min. 1 mile of stream	2-10 boats/mile	2/boat	2/day
Kayak Rentals		25 people at one time		2/day

Addendum 11—Advisory Group Members and Report

Local Government Representative

The Honorable Jeff Bergosh, Chair
Escambia County
Board of County Commissioners

Agency Representatives

Kiersten Wilson, Park Manager
Division of Recreation and Parks
Big Lagoon State Park
Tarkiln Bayou Preserve State Park
Perdido Key State Park

Jason Love
Florida Forest Service

Ashley Warren
Florida Fish and Wildlife
Conservation Commission

Jason O'Donoughue
Florida Department of State
Division of Historical Resources

Olen Pettis
Florida Department of Transportation
SUNTrail Coordinator

Austin Mount, Director
West Florida Regional Planning Council

Paul Thorpe
Northwest Florida
Water Management District

Debbie Williams
Escambia Soil and Water
Conservation District

Jimmie Jarratt
Escambia County
Natural Resource Management

Brian Cooper, Director
City of Pensacola
Parks and Recreation

Matthew Hall
National Park Service
Gulf Islands National Seashore

Environmental and Conservation Group Representative

Cheryl Jones
Florida Native Plant Society
Longleaf Pine Chapter

Carole Tebay
Francis M. Weston Audubon Society

Local Private Property Owners

Stanley Donaway
Local Resident

Recreational User Group Representatives

Helen Wigersma
Florida Trail Association
Western Gate Chapter

Tourism and Economic Development Representative

Dana Pagador
Perdido Key Chamber of Commerce

Cultural and Historical Resources Representative

Ramie Gougeon
University of West Florida
Department of Anthropology

Citizen Support Organization Representative

Vicky Haney, President
Friends of Pensacola State Parks

The advisory group meeting to review the proposed unit management plan (UMP) for Big Lagoon State Park, Tarkiln Bayou Preserve State Park, and Perdido Key State Park was held at the West Florida Public Libraries – Southwest Branch on June 20, 2018 at 9:00 am.

Jeff Bergosh, Jason Love, Jason O'Donoughue, Olen Pettis, Austin Mount, Paul Thorpe, Debbie Williams, Cheryl Jones, and Stanley Donaway were not in attendance. Jason Love, Jason O'Donoughue, and Paul Thorpe provided written comments prior to the meeting, which are summarized below. All other appointed advisory group members were present, as well as Anne Daniel. Attending staff were Ben Faure, Kiersten Wilson, Jeshua Yancey, Joel Allbritton, Britney Moore, and Tyler Maldonado.

Mr. Maldonado began the meeting by explaining the purpose of the advisory group and reviewing the meeting agenda. He provided a brief overview of the Division of Recreation and Parks' (DRP) planning process and summarized public comments received during the previous evening's public meeting. Mr. Maldonado then asked each member of the advisory group to express his or her comments on the plan.

Summary of Advisory Group Comments

Brian Cooper (City of Pensacola, Parks and Recreation) inquired about visitation and revenue at the parks. He stated that he came to participate in the advisory group to learn more about the management planning process and thanked DRP for the invitation.

Jimmie Jarratt (Escambia County, Natural Resource Management) mentioned Escambia County's Jones Swamp Greenway, which is near the northwest boundary of Tarkiln Bayou, is currently going through its management plan revision process. She asked about the goals and objectives in DRP's management plan, wondering if they applied to all three parks. It was explained that there are broad goals and objectives for the parks overall, but the plan also contains park-specific management programs. She expressed her concern with declining baygall natural communities in the area, citing the spread of invasive plant species. She encouraged DRP to include a baygall monitoring objective to the management plan. She recommended expanding the hydrology section of the plan to include a more detailed discussion of non-point source pollution and total maximum daily loads (TMDLs). She applauded DRP on putting together an educational and informative management plan for the parks.

Matthew Hall (National Park Service, Gulf Island National Seashore) commented on the new ferry operation that the Gulf Island National Seashore has recently launched. This concession-operated ferry service will transport visitors between Pensacola and Fort Pickens and was funded with money from the BP oil spill settlement. The potential to connect the parks with this ferry service was discussed. He graciously fielded questions about volunteer-led and interpretive programs that he is working on for the National Park Service, which was extremely informative for the park staff in attendance.

Dana Pagador (Perdido Key Chamber of Commerce) voiced her support for collaborative partnerships with the park. She mentioned the underutilized amphitheater at Big Lagoon State Park and suggested establishing a partnership to develop and market a summer concert series at the park.

Ashley Warren (Florida Fish and Wildlife Conservation Commission) provided several comments regarding species management at the parks. She commented on predator (i.e. cats, foxes, coyotes) management in relation to the protection of shorebirds and beach mice. She stressed the importance of monitoring and trapping efforts prior to, as well as during, shorebird nesting season. She recommended mentioning other agency partnerships that DRP could pursue to help with these efforts, including partnerships with USDA and FWC. She applauded the park's commitment to continue monitoring the Perdido Key beach mouse, but suggested the beach mouse should have its own imperiled species management objective in the plan. This objective should include a commitment to monitor beach mouse occupancy tubes at least once every two months. For sea turtle management, she proposed the use of self-releasing screens at nesting sites to prevent the need for nighttime beach driving/walking that can negatively impact beach nesting. She encouraged DRP to continue working with the county to promote wildlife-friendly lighting regulations for properties adjacent to the parks, Perdido Key State Park in particular. She pointed out that USFWC, not FWC, provides guidelines for activities near Southern bald eagle nests. She expressed her support for the wet prairie and wet flatwoods restoration objective at Tarkiln Bayou Preserve State Park, citing the potential benefits of habitat restoration for reticulated flatwoods salamander species. She noted that salamander collection may not be a necessary management technique when testing water samples for reticulated flatwoods salamander DNA could be sufficient for identifying utilized habitat. She was supportive of the overall effort to reintroduce the flatwood salamander at the preserve. She recommended that DRP consider using herbicide to improve the long-term effects of their efforts to remove hardwood overgrowth during wet prairie and wet flatwood restoration. Aquatic approved herbicides and adjuvants, as well as specific application techniques (painting herbicide onto stumps instead of spraying), can limit concerns of overspray and effects on non-target vegetation. FWC has observed that a favorable herbaceous response occurs quickly after the use of herbicide during ephemeral wetland restoration.

Helen Wigersma (Florida Trail Association, Western Gate Chapter) speculated on methods to improve park attendance from broader and more diverse segments of the population. She commented on the changing demographics of the population in general and suggested developing marketing strategies and interpretive programs to target minority populations. She promoted the parks as areas that encourage physical activity, referencing "prescribed exercise" programs that could facilitate coordination between DRP and the Department of Health. She supported efforts to establish regional trail systems that connect the parks, which could potentially create connectivity with the Florida National Scenic Trail. She recommended starting conversations with the National Park Service to tie the parks, Big Lagoon State Park in particular, into the newly established ferry service. She was supportive of plans to develop primitive campsites at Tarkiln Bayou Preserve State

Park but was concerned about potential timber management activities at the preserve.

Ramie Gougeon (University of West Florida, Department of Anthropology) complimented the plan on its discussion of cultural resources. He appreciated the plan's balance of discussing cultural sites without disclosing their exact location, which could lead to illicit site disturbance. He commented on the need for continuous monitoring of sites given the dynamic nature of cultural resources. He stressed the need for annual monitoring, but cautioned against simply monitoring sites without a maintenance or restoration plan in place. He stated that data collection standardization should be implemented. He recommended pursuing collaborative partnerships for research opportunities and to help with monitoring sites. He mentioned the Heritage Monitoring Scouts, which is a new volunteer program that helps with site documentation and assessments. One site in particular that he stated deserves more attention is the Miss Ivey site. The plan states that site is scheduled for removal, but he suggested the site represents an opportunity for interpretation and study of minority communities. He pointed out that exotic species are attracted to midden and other cultural sites given their organic-rich composition and advised precaution when conducting exotic species treatment in areas thought to have cultural sites. He recognized that this current iteration of the management plan may be too early to include sea level rise management considerations, but he recommended beginning research and documentation for the next management plan revision.

Carole Tebay (Francis M. Weston Audubon Society) reiterated Mr. Gougeon's sentiment regarding the Miss Ivey cultural site. She expressed her support for the hydrological restoration project scheduled to take place along the northern boundary of Tarkiln Bayou Preserve State Park. She inquired about how the hydrological objectives would affect natural communities at the preserve.

Summary of Advisory Group Written Comments

Jason Love (Florida Forest Service) pointed out that a recent Land Management Review (LMR) has been conducted at Tarkiln Bayou Preserve State Park, and the corresponding addendum should be updated with the most recent LMR response. He noted discrepancies in the text related to timber management activities. He commented that the timber management addendum does not provide current stand conditions or recommendations for action. He recommended including a statement on DRP's determination regarding surplus lands (see written comments below).

Jason O'Donoughue (Florida Department of State, Division of Historical Resources) noted a discrepancy in the significance of a cultural site at Big Lagoon State Park. The cultural sites table in the plan indicates this site is "not significant", although records show that this site has not been formally evaluated by the State Historic Preservation Officer. He reminded DRP that every cultural site at each park must be monitored on an annual basis. He recommended developing a plan to manage cultural sites that are vulnerable to shoreline erosion. He stated staff from DHR's Public Lands Archaeology program are available to help investigate priority

areas. He pointed out inconsistency in archaeological terminology (see written comments below).

Paul Thorpe (Northwest Florida Water Management District) provided editorial comments and suggested revisions on the management plan. He noted that some of the plan's maps should be updated to include additional information and to correctly identify public lands. He recommended consulting with DEP's Division of Environmental Assessment and Restoration to review the language in the plan referring to the high levels of mercury found in fish tissue samples in Tarkiln Bayou. He stated that atmospheric deposition can also influence mercury levels and the issue in Tarkiln Bayou may not necessarily be attributed to localized flushing characteristics. He identified the correct source of drinking water for the area, which is the sand-and-gravel aquifer (see written comments below).

Staff Recommendations

The staff recommends approval of the proposed management plans for Big Lagoon State Park, Tarkiln Bayou Preserve State Park, and Perdido Key State Park as presented, with the following significant changes:

- The Land Management Review addendum will be updated with the most current version.
- A statement regarding surplus land will be added, which will indicate that the DRP does not consider any lands to be surplus to the management needs of the parks.
- Discrepancies related to the hydrology and cultural resources sections will be corrected.

Notes on Composition of the Advisory Group

Florida Statutes Chapter 259.032 Paragraph 10(b) establishes a requirement that all state land management plans for properties greater than 160 acres will be reviewed by an advisory group:

> "Individual management plans required by s. 253.034(5), for parcels over 160 acres, shall be developed with input from an advisory group. Members of this advisory group shall include, at a minimum, representatives of the lead land managing agency, co-managing entities, local private property owners, the appropriate soil and water conservation district, a local conservation organization, and a local elected official."

Advisory groups that are composed in compliance with these requirements complete the review of State park management plans. Additional members may be appointed to the groups, such as a representative of the park's Citizen Support Organization (if one exists), representatives of the recreational activities that exist

in or are planned for the park, or representatives of any agency with an ownership interest in the property. Special issues or conditions that require a broader representation for adequate review of the management plan may require the appointment of additional members. The Division's intent in making these appointments is to create a group that represents a balanced cross-section of the park's stakeholders. Decisions on appointments are made on a case-by-case basis by Division of Recreation and Parks staff.

Florida Forest Service Comments – Big Lagoon, Tarkiln Bayou Preserve, Perdido Key State Parks

Tyler – Due to work schedules and other things we will not be able to make the MPAG. Here are the comments that I have on this plan.

Page 125 – Land Management Review was conducted November 2017. Also, related addendum needs updating.

Page 120/121 Timber Management Analysis – This states that primary management activities at Tarkiln Bayou could be met without conducting timber management activities yet addendum 8 recommends timber harvesting.

Addendum 8 – There are no maps showing timber stands. There is no description of current stand conditions or recommendations on how to meet desired goals. Table 2 shows management zones for potential action/treatment but gives no recommendations or options for these. This analysis does not help with management because it gives no recommendation for activities, timing of activities or different management options. Managers in the future need to be able to pick this up and know where things are heading.

Surplus Lands – There is nothing in the plan about determination of any surplus lands. This is something that is looked at during LMR's. Even if it is determined that there are no lands that could be surplus, there needs to be something in the plan describing the process and stating that.

If you have any questions about my comments please let me know.

Jason Love
State Lands Management
Coordinator Florida Forest
Service
Florida Department of Agriculture and Consumer and Services

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FLORIDA DEPARTMENT of STATE

RICK SCOTT
Governor

KEN DETZNER
Secretary of State

June 19, 2018

Tyler Maldonado
Park Planner
Office of Park Planning
Florida Department of Environmental Protection
Division of Recreation and Parks

Dear Mr. Maldonado,

Thank you for inviting the Division of Historical Resources (DHR) to participate in the advisory group review of the draft unit management plan for Big Lagoon State Park, Tarkiln Bayou Preserve State Park, and Perdido Key State Park. We have completed our review and have the following comments and recommendations:

- The narrative summary of cultural resources in the park is thorough and well-written. Additionally, the inventory of sites presented in the plan generally accords with the records of the Florida Master Site File (FMSF). The only exception to this is with regard to the significance of site 8ES4285. On page 114 and in Table 5 it is staed that this is considered not significant. This is incorrect. Per FMSF records, this site has not been evaluated with regards to its significance or eligibility for listing on the National Register of Historic Places.
- Page 114, third paragraph: "8ES3510 is the only site where management might be feasible." This statement is inaccurate. DRP should be *managing* all of its cultural resources, in one way or another. Perhaps what is meant here is that site 8ES3510 is the only site where *stabilization* might be feasible?
- Page 114, fourth paragraph: as noted above, the significance of site 8ES4285 has not been evaluated by the State Historic Preservation Officer. Please consult with DHR Compliance and Review prior to removal of historical materials from the site.
- Page 114, fifth paragraph: the cultural sites within all three state parks must be monitored on an annual basis. According to this paragraph, those on Tarkiln Bayou have not been visited in five years.
- On Page 114, 118, and elsewhere it is noted that coastal erosion is a significant factor impacting cultural resources. DHR recommends developing a plan for managing archaeological and historic materials that are eroded onto the shoreline as part of the

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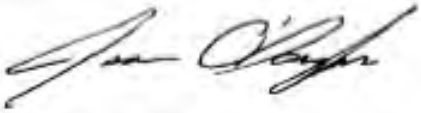
assessment and evaluation of the cultural resources in the park (e.g. record and collect, record and leave in place, note disturbances, etc.). We suggest reaching out to the Florida Public Archaeology Network (FPAN), which is available to assist with monitoring and recording threatened coastal sites.

- Page 118–119, Objective B, Action 2 and Action 7: staff from DHR's Public Lands Archaeology program (PLA) are available to conduct an archaeological reconnaissance of priority areas and to help relocate anecdotally reported sites.
- Page 118–119, Objective B, Action 7 is to conduct a "Level 1" archaeological survey of priority areas. We agree that additional survey is needed, but this terminology is not consistent with that used by cultural resource management professionals and it is therefore unclear what the scope of this work would be. Please refer to Module 3 of DHR's cultural resource management standards and operations manual, which details the scope of archaeological fieldwork of varying intensities.

Please let us know if you have any questions or concerns regarding these comments. Thank you again for inviting us to participate and for your diligence in preserving, promoting, and interpreting Florida's cultural heritage.

Sincerely,



Jason O'Donoughue
Archaeologist III
Public Lands Archaeology
Bureau of Archaeological Research
Division of Historical Resources

Northwest Florida Water Management District Staff Review: Big Lagoon State Park, Tarkiln Bayou State Park, and Perdido Key State Park: Advisory Group Draft Unit Management Plan (June 2018)

Comments and Recommendations for Consideration

1) Page two, paragraph three – In the third sentence, suggest revise "is" to "are." Alternatively, the second and third sentences could be combined to read: "In the management of a State Preserve, resource considerations are given priority over user considerations; development is restricted to the minimum necessary for ensuring protection and maintenance, limited access, user safety and convenience, and appropriate interpretation."

2) Revise the Vicinity Map (page 3) to reflect the International Paper Company wetland treatment lands as Privately Managed Lands.

3) Identify the individual parks on the Reference Map (page 5).

4) Page seven – first sentence – "State Park" is repeated. Could revise and shorten the sentence to read "This plan serves as the basic statement of policy and direction for the management of Big Lagoon, Tarkiln Bayou Preserve, and Perdido Key state parks as units of Florida's state park system."

5) Topographic maps (pages 13-17) – consider using the same scale within the legends of the three maps, so that readers could visually contrast relative topography between the parks.

6) Concerning the discussion of mercury (page 25), it is recommended that the source discussion recognize atmospheric deposition. Additionally, it is recommended that the final statement be reviewed by the DEP Division of Environmental Assessment and Restoration (DEAR). Given how widespread high mercury in fish tissue is in the environment, it is not clear that the issue should be attributed to localized flushing characteristics. Here is the corresponding statement from the 2017 Perdido River and Bay Watershed SWIM plan:

    a. "The FDEP adopted a statewide TMDL for reducing human health risks associated with consuming fish taken from waters impaired for mercury. Mercury impairments are based on potential human health risks, not exceedances of water quality criteria. The primary source of mercury depositions in the environment is atmospheric deposition. It is estimated that about 70 percent of deposited mercury comes from anthropogenic sources (FDEP 2013)." [Note, there is additional related text on page 15 of the SWIM plan.]

    b. The SWIM plan citation is: Northwest Florida Water Management District (NWFWMD). 2017. Perdido River and Bay Watershed Surface Water Improvement and Management Plan. Northwest Florida Water Management District, Program Development Series 17-07. October 2017. https://www.nwfwater.com/Water-Resources/Surface-Water-Improvement-and-Management

    c. The referenced DEP citation is: Florida Department of Environmental Protection (FDEP). 1997. 2013. *Mercury TMDL for the State of Florida.* Accessed March 2016. http://www.dep.state.fl.us/water/tmdl/docs/tmdls/mercury/Mercury-TMDL.pdf.

7) Page 25 incorrectly states that the Floridan aquifer is the source of municipal water for the area. Within Escambia County, the primary source of water for public supply is the sand-and-gravel

aquifer. Please see the most recent water supply assessment for the region (NWFWMD 2013; https://www.nwfwater.com/Water-Resources/Water-Supply-Planning) for details. Escambia County is discussed beginning on page 3-3.

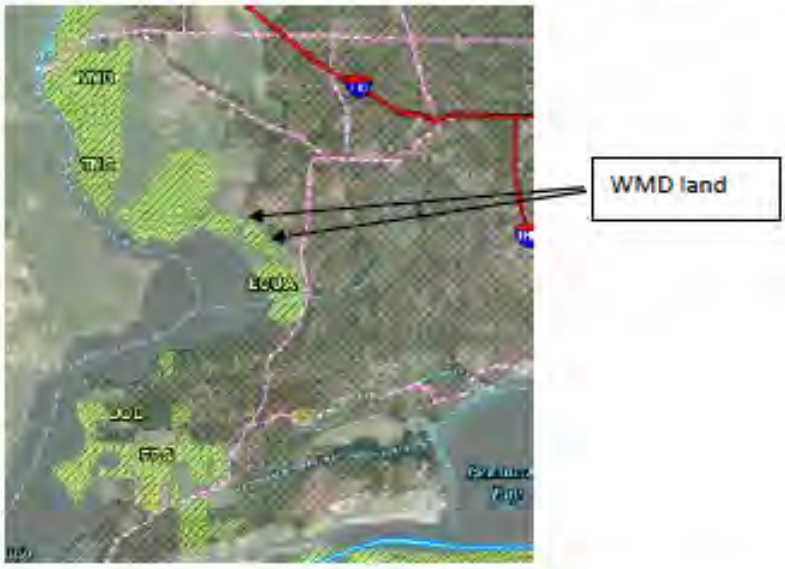
8) Page 25 discusses permanent surface waters. Depending on how broadly the paragraph is intended,[1] other surface waters include the Perdido River, Perdido Bay, several tributary streams, Big Lagoon, and Pensacola Bay (etc.).

9) Page 26 includes as its goal "Protect water quality in the park…". Is this for just one park or all three?

10) Page 30 refers to the U.S. Corps of Engineer. Recommend that it be rephrased the U.S. Army Corps of Engineers.

11) Table 6 on page 129 refers to regional resource based recreational opportunities. Please note the following concerning the listed Northwest Florida Water Management District lands:
    a. The Perdido River Water Management Area has an equestrian trail.
    b. The word "Lower" should not precede the name Escambia River Water Management Area.
    c. Nature Study should be indicated for the Garcon Point Water Management Area.
    d. Camping is allowed on Yellow River Water Management Area

12) Page 129 depicts recreation and conservation lands. Two unlabeled sites are also NWFWMD land:



Also, consider labeling the International Paper wastewater treatment wetland area that is also depicted on the map as Regional Conservation Land.

[1] For example, was the sentence addressing only one of the parks addressed on the document or all of them?

Addendum 12—Local Government Comprehensive Plan Compliance

From: Andrew D. Holmer [mailto:ADHOLMER@myescambia.com]
Sent: Wednesday, August 22, 2018 1:26 PM
To: Baxley, Demi <Demi.Baxley@dep.state.fl.us>
Subject: RE: DRP Park Planning Unit Management Plan and Compliance with Local Comprehensive Plan

Good Afternoon,

I have reviewed the draft management plan for Big Lagoon, Tarkiln Bayou, and Perdido Key State Parks and find it to be in accordance with Escambia County's 2030 Comp Plan. I did notice some language on page 132 that should be adjusted to reflect some recent changes and have attached a pdf. showing those changes.

Please review and let me know if I need to provide any additional information.

Thanks

Andrew D. Holmer
Development Services Manager
Escambia County
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adholmer@myescambia.com

From: Baxley, Demi
Sent: Thursday, July 19, 2018 2:52 PM
To: 'developmentreview@myescambia.com' <developmentreview@myescambia.com>
Subject: DRP Park Planning Unit Management Plan and Compliance with Local Comprehensive Plan

Good Afternoon,

The Florida Department of Environmental Protection, Division of Recreation and Parks, Office of Park Planning is responsible for the unit management planning of all Florida State Parks. As part of this planning process, prior to the unit management plan being presented to its Acquisition and Restoration Council for consideration, the Office of Park Planning is now required to connect and communicate with the area's agency that is responsible for the local comprehensive plan to determine if the park unit management plan is in compliance with the comprehensive plan. Specifically, we want to make sure we are accurately citing the future land use and zoning designations for the park, and would like to confirm that our proposed developments in the conceptual land use section comply with those designations. Please feel free to review the existing facilities section as well.

We are looking to have our Big Lagoon, Perdido Key and Tarkiln Bayou Preserve State Parks' multi-unit management plan reviewed (attached). Please let me know who the point of contact is regarding this request, what the process is and what a possible turn-around time would be for your office to conduct a review.

Thank you, in advance, for your time, help and direction!

Demi P. Baxley
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Administrative Assistant to Chief, Steven Outshaw
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