

Saltwater Marsh Ulumay Wildlife Sanctuary

Brevard County Natural Resource Management
Reference Wetland Community



OVERVIEW

LOCATION

Brevard County
Latitude 28.3764001554 N, Longitude -80.6772860265 E

COMMUNITY DESCRIPTION

Salt marsh is a largely herbaceous community that occurs in the portion of the coastal zone affected by tides and seawater and protected from large waves, either by the broad, gently sloping topography of the shore, by a barrier island, or by location along a bay or estuary. The width of the intertidal zone depends on the slope of the shore and the tidal range. Salt marsh may have distinct zones of vegetation, each dominated by a single species of grass or rush. Saltmarsh cordgrass (*Spartina alterniflora*) dominates the seaward edge and borders of tidal creeks, areas most frequently inundated by the tides.



Saltwater Marsh Ulumay Wildlife Sanctuary

Brevard County Natural Resource Management
Reference Wetland Community

COMMUNITY DESCRIPTION (cont)

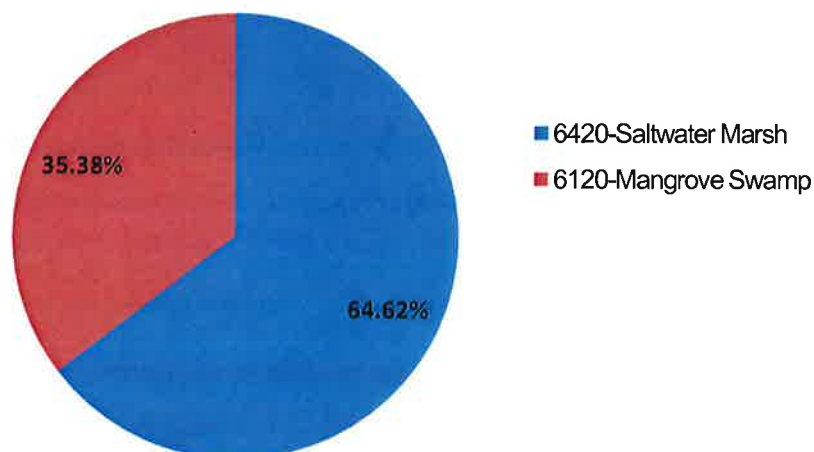
Needle rush (*Juncus roemerianus*) dominates higher, less frequently flooded areas. Other characteristic species include Carolina sea lavender (*Limonium carolinianum*), perennial saltmarsh aster (*Symphyotrichum tenuifolium*), wand loosestrife (*Lythrum lineare*), marsh fimbry (*Fimbristylis spadicea*), and shoreline seapurslane (*Sesuvium portulacastrum*). The landward edge of the marsh is influenced by freshwater influx from the uplands and may be colonized by a mixture of high marsh and inland species, including needle rush, sawgrass (*Cladium jamaicense*), saltmeadow cordgrass (*Spartina patens*), Gulf cordgrass (*Spartina spartinae*), and sand cordgrass (*Spartina bakeri*), among others.

FUNCTIONAL WETLAND ASSESSMENT

- Landscape Location Score
Landscape Scale Index (LSI)

<i>FLUCFCS_legend</i>	<i>Sum of Acres</i>	<i>LSI_Value</i>	<i>Landcover Percent</i>	<i>Landscape Location Score (=LSI_Value* Landcover Percent)</i>
6420-Saltwater Marsh	45.48	10	0.646	6.462
6120-Mangrove Swamp	24.91	10	0.354	3.538
TOTAL	70.39	20.00	1.00	10.00

Landcover Percent within 100 m buffer



FUNCTIONAL WETLAND ASSESSMENT (cont)

➤ Water Environment

Water Environment	Score¹
Water Quality Treatment Score	5
Hydrologic Indicator Score	5
Water Environment Score	10

¹ The Water Environment Score is a sum of the Water Quality Treatment and the Hydrologic Indicator Score.

➤ Vegetative Community

Vegetative Community	Percentage	Score²
Wetland Vegetation	85	10
Exotic Vegetation	15	7
Vegetative Community Score		8.5

² The Vegetative Community Score is calculated as the average of the wetland vegetation and the exotic vegetation score unless; 1) the wetland vegetation is < 30% or 2) the percent of exotic vegetation is greater than the percent of wetland vegetation. If either of these two conditions exist the Vegetative Community Score equals zero (0).

Invasive exotics are present in less than 15%

Florida Exotic Pest Plant Council (FLEPPC) Category I Species

Brazilian pepper (Schinus terebinthifolius)

ASSESSMENT SCORE



$$(10 + 10 + 8.5) / 30 = 0.950$$

Saltwater Marsh Ulumay Wildlife Sanctuary

Brevard County Natural Resource Management
Reference Wetland Community



**Location Map - Saltwater Marshes
Ulumay Wildlife Sanctuary
Brevard County, Florida**

-  6420-Saltwater Marsh
-  Ulumay Wildlife Sanctuary

Mangrove Swamp

Sebastian Inlet State Park

Brevard County Natural Resource Management
Reference Wetland Community



OVERVIEW

LOCATION

Brevard County

Latitude 27.8752898263 N, Longitude -80.4642015971 E

COMMUNITY DESCRIPTION

Mangrove swamp is a dense forest occurring along relatively flat, low wave energy, marine and estuarine shorelines. The dominant plants of mangrove swamp are red mangrove (*Rhizophora mangle*), black mangrove (*Avicennia germinans*), white mangrove (*Laguncularia racemosa*), and buttonwood (*Conocarpus erectus*). These four species can occur either in mixed stands or often in differentiated, monospecific zones that reflect varying degrees of tidal influence, levels of salinity, and types of substrate.²⁹⁸ Red mangrove often dominates the lowest (or deep-water) zone, followed by black mangrove in the



Mangrove Swamp Sebastian Inlet State Park

Brevard County Natural Resource Management
Reference Wetland Community

COMMUNITY DESCRIPTION (cont)

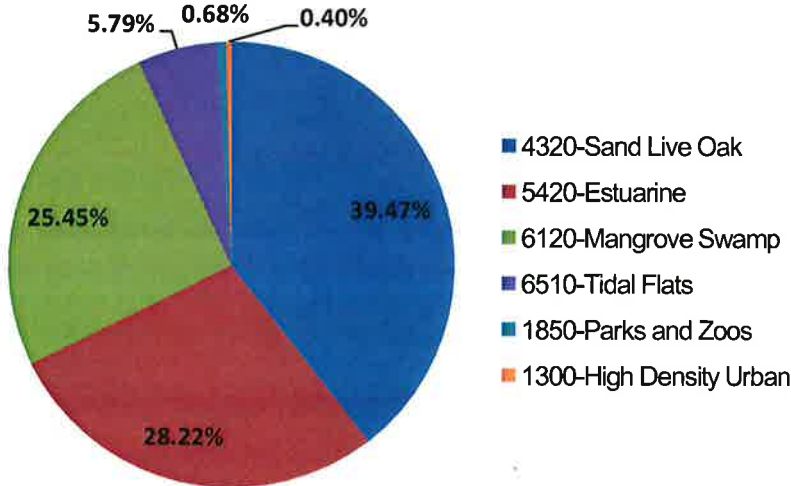
intermediate zone, and white mangrove and buttonwood in the highest, least tidally-influenced zone. Buttonwood often occupies an ecotone, or transition zone, to the adjacent upland community.

FUNCTIONAL WETLAND ASSESSMENT

- Landscape Location Score
Landscape Scale Index (LSI)

<i>FLUCFCS_legend</i>	<i>Sum of Acres</i>	<i>LSI_Value</i>	<i>Landcover Percent</i>	<i>Landscape Location Score (=LSI_Value* Landcover Percent)</i>
4320-Sand Live Oak	49.38	10	0.395	3.947
5420-Estuarine	35.30	10	0.282	2.822
6120-Mangrove Swamp	31.84	10	0.254	2.545
6510-Tidal Flats	7.24	10	0.058	0.579
1850-Parks and Zoos	0.85	3.42	0.007	0.023
1300-High Density Urban	0.51	0.91	0.004	0.004
TOTAL	125.11	44.33	1.00	9.92

Landcover Percent within 100 m buffer



FUNCTIONAL WETLAND ASSESSMENT (cont)

➤ Water Environment

Water Environment	Score¹
Water Quality Treatment Score	4.5
Hydrologic Indicator Score	5
Water Environment Score	9.5

¹ The Water Environment Score is a sum of the Water Quality Treatment and the Hydrologic Indicator Score.

➤ Vegetative Community

Vegetative Community	Percentage	Score²
Wetland Vegetation	85	10
Exotic Vegetation	15	7
Vegetative Community Score		8.5

² The Vegetative Community Score is calculated as the average of the wetland vegetation and the exotic vegetation score unless; 1) the wetland vegetation is < 30% or 2) the percent of exotic vegetation is greater than the percent of wetland vegetation. If either of these two conditions exist the Vegetative Community Score equals zero (0).

Invasive exotics are present in less than 15%

Florida Exotic Pest Plant Council (FLEPPC) Category I Species

Brazilian pepper (Schinus terebinthifolius)

ASSESSMENT SCORE

$$(9.92 + 9.5 + 8.5) / 30 = 0.931$$

Mangrove Swamp Sebastian Inlet State Park

Brevard County Natural Resource Management
Reference Wetland Community



**Location Map - Mangrove Swamps
Sebastian Inlet State Park
Brevard County, Florida**

- 6120-Mangrove Swamp
- Sebastian Inlet State Park

Wetland Scrub

Three Forks Conservation Area

Brevard County Natural Resource Management
Reference Wetland Community



OVERVIEW

LOCATION

Brevard County
Latitude 27.8404694875 N, Longitude -80.7860135026 E

COMMUNITY DESCRIPTION

Wetland Scrub is vegetated with hydrophytic trees and shrubs that can withstand an extended hydroperiod. Wetland Scrub systems are highly variable in size, shape, and species composition. As a result of the hydrology and fire history, shrubs are common throughout. Common species include coastalplain willow (*Salix caroliniana*), small red maple (*Acer rubrum*), myrtle dahoon (*Ilex cassine* var. *myrtifolia*), fetterbush (*Lyonia lucida*), wax myrtle (*Myrica cerifera*) and common buttonbush (*Cephalanthus occidentalis*). The herbaceous layer is also variable and includes a wide array of species including maidencane



Wetland Scrub

Three Forks Conservation Area

Brevard County Natural Resource Management
Reference Wetland Community

COMMUNITY DESCRIPTION (cont)

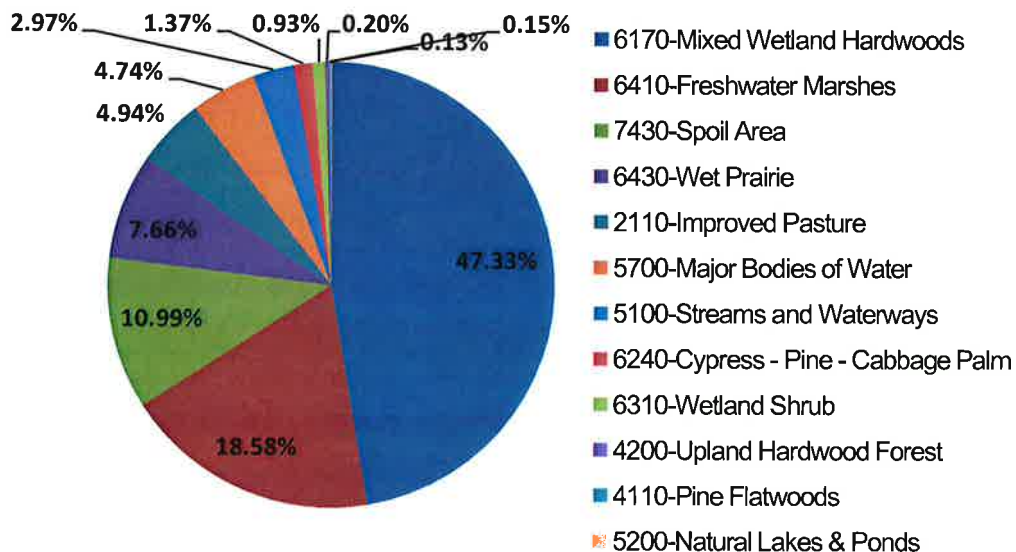
(*Panicum hemitomon*), Virginia chain fern (*Woodwardia virginica*), arrowheads (*Sagittaria* spp.), lizard's tail (*Saururus cernuus*), false nettle (*Boehmeria cylindrica*), beaksedges (*Rhynchospora* spp.), bladderworts (*Utricularia* spp.), and royal fern (*Osmunda regalis* var. *spectabilis*). Vines may be present, particularly coral greenbrier (*Smilax walteri*), laurel greenbrier (*Smilax laurifolia*), and eastern poison ivy (*Toxicodendron radicans*).

FUNCTIONAL WETLAND ASSESSMENT

➤ Landscape Location Score Landscape Scale Index (LSI)

FLUCFCS_legend	Sum of Acres	LSI_Value	Landcover Percent	Landscape Location Score (=LSI_Value* Landcover Percent)
6170-Mixed Wetland Hardwoods	415.62	10	0.473	4.733
6410-Freshwater Marshes	163.17	10	0.186	1.858
7430-Spoil Area	96.54	9.08	0.110	0.998
6430-Wet Prairie	67.23	10	0.077	0.766
2110-Improved Pasture	43.35	6.96	0.049	0.344
5700-Major Bodies of Water	41.66	10	0.047	0.474
5100-Streams and Waterways	26.06	10	0.030	0.297
6240-Cypress - Pine - Cabbage Palm	12.07	10	0.014	0.137
6310-Wetland Shrub	8.14	10	0.009	0.093
4200-Upland Hardwood Forest	1.75	10	0.002	0.020
4110-Pine Flatwoods	1.33	10	0.002	0.015
5200-Natural Lakes & Ponds	1.14	10	0.001	0.013
TOTAL	878.06	116.04	1.00	9.75

Landcover Percent within 100 m buffer



FUNCTIONAL WETLAND ASSESSMENT (cont)

➤ Water Environment

Water Environment	Score¹
Water Quality Treatment Score	3.99
Hydrologic Indicator Score	5
Water Environment Score	8.99

¹ The Water Environment Score is a sum of the Water Quality Treatment and the Hydrologic Indicator Score.

➤ Vegetative Community

Vegetative Community	Percentage	Score²
Wetland Vegetation	70	9
Exotic Vegetation	30	4
Vegetative Community Score		6.5

² The Vegetative Community Score is calculated as the average of the wetland vegetation and the exotic vegetation score unless; 1) the wetland vegetation is < 30% or 2) the percent of exotic vegetation is greater than the percent of wetland vegetation. If either of these two conditions exist the Vegetative Community Score equals zero (0).

Invasive exotics are present in less than 30%

Florida Exotic Pest Plant Council (FLEPPC) Category I Species

Brazilian pepper (Schinus terebinthifolius)

Primrose Willow (Ludwigia peruviana)

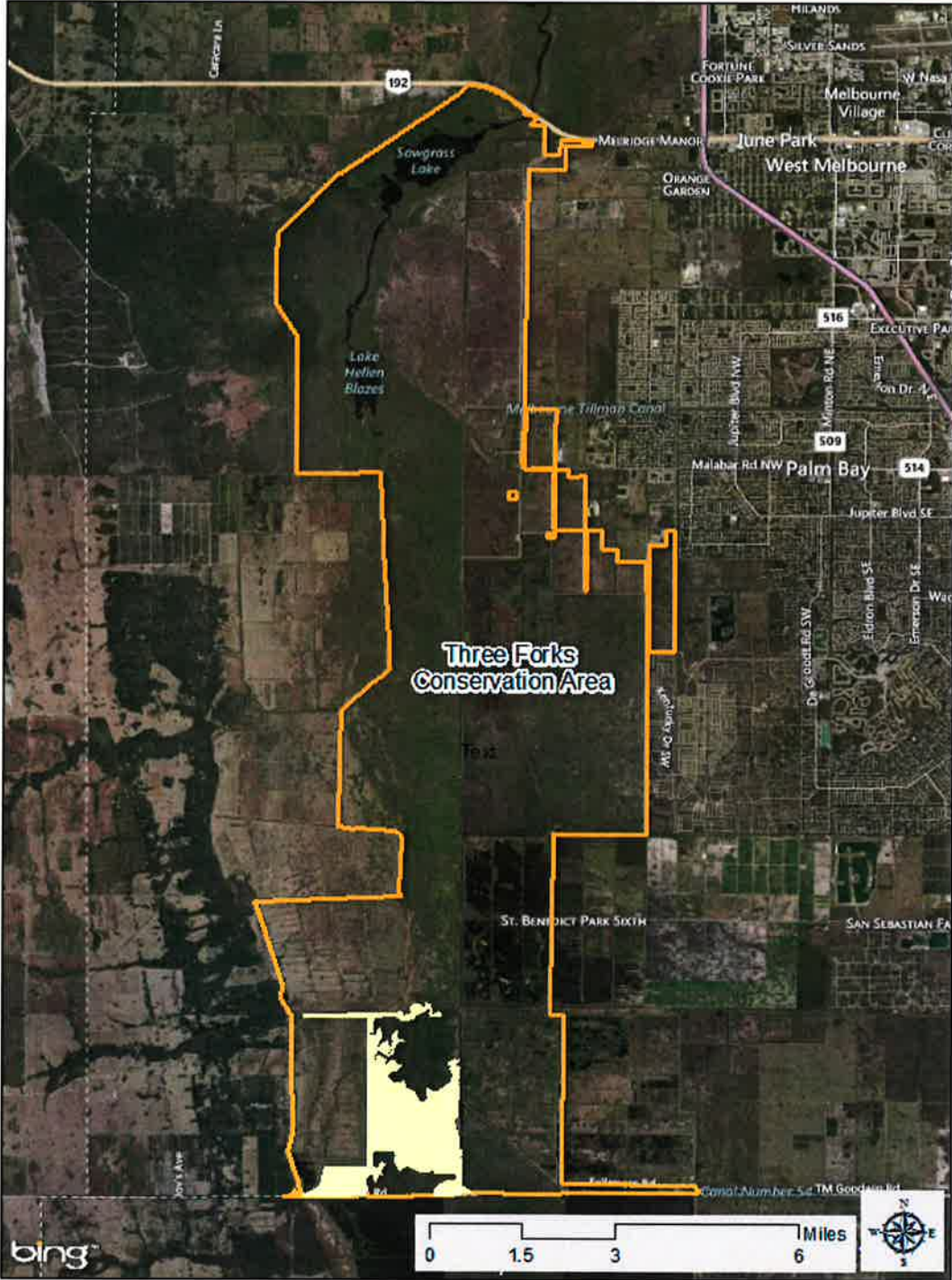
ASSESSMENT SCORE

$$(9.75 + 8.99 + 6.5) / 30 = 0.841$$

Wetland Scrub

Three Forks Conservation Area

Brevard County Natural Resource Management
Reference Wetland Community



Location Map - Wetland Scrub
Three Forks Conservation Area
Brevard County, Florida

-  6310-Wetland Scrub
-  Three Forks Conservation Area

Wetland Scrub

River Lakes Conservation Area

Brevard County Natural Resource Management
Reference Wetland Community



OVERVIEW

LOCATION

Brevard County
Latitude 28.2893606192 N, Longitude -80.7788960996 E

COMMUNITY DESCRIPTION

Wetland Scrub is vegetated with hydrophytic trees and shrubs that can withstand an extended hydroperiod. Wetland Scrub systems are highly variable in size, shape, and species composition. AS a result of the hydrology and fire history, shrubs are common throughout. Common species include coastalplain willow (*Salix caroliniana*), small red maple (*Acer rubrum*), myrtle dahoon (*Ilex cassine* var. *myrtifolia*), fetterbush (*Lyonia lucida*), wax myrtle (*Myrica cerifera*) and common buttonbush (*Cephalanthus occidentalis*). The herbaceous layer is also variable and includes a wide array of species including maidencane



Wetland Scrub

River Lakes Conservation Area

Brevard County Natural Resource Management
Reference Wetland Community

COMMUNITY DESCRIPTION (cont)

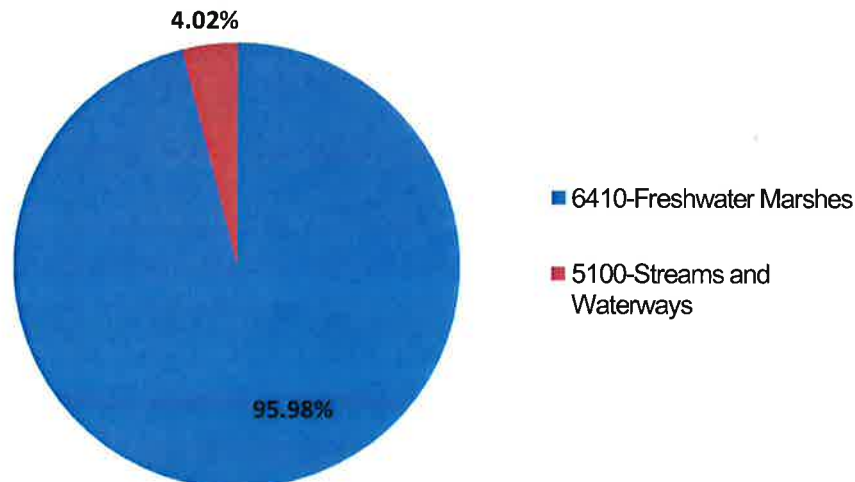
(*Panicum hemitomon*), Virginia chain fern (*Woodwardia virginica*), arrowheads (*Sagittaria* spp.), lizard's tail (*Saururus cernuus*), false nettle (*Boehmeria cylindrica*), beaksedges (*Rhynchospora* spp.), bladderworts (*Utricularia* spp.), and royal fern (*Osmunda regalis* var. *spectabilis*). Vines may be present, particularly coral greenbrier (*Smilax walteri*), laurel greenbrier (*Smilax laurifolia*), and eastern poison ivy (*Toxicodendron radicans*).

FUNCTIONAL WETLAND ASSESSMENT

- Landscape Location Score
Landscape Scale Index (LSI)

<i>FLUCFCS_legend</i>	<i>Sum of Acres</i>	<i>LSI_Value</i>	<i>Landcover Percent</i>	<i>Landscape Location Score (=LSI_Value* Landcover Percent)</i>
6410-Freshwater Marshes	102.12	10	0.960	9.598
5100-Streams and Waterways	4.28	10	0.040	0.402
TOTAL	106.40	20.00	1.00	10.00

Landcover Percent within 100 m buffer



FUNCTIONAL WETLAND ASSESSMENT (cont)

➤ Water Environment

Water Environment	Score¹
Water Quality Treatment Score	4.98
Hydrologic Indicator Score	5
Water Environment Score	9.98

¹ The Water Environment Score is a sum of the Water Quality Treatment and the Hydrologic Indicator Score.

➤ Vegetative Community

Vegetative Community	Percentage	Score²
Wetland Vegetation	70	9
Exotic Vegetation	30	4
Vegetative Community Score		6.5

² The Vegetative Community Score is calculated as the average of the wetland vegetation and the exotic vegetation score unless; 1) the wetland vegetation is < 30% or 2) the percent of exotic vegetation is greater than the percent of wetland vegetation. If either of these two conditions exist the Vegetative Community Score equals zero (0).

Invasive exotics are present in less than 30%

Florida Exotic Pest Plant Council (FLEPPC) Category I Species

Brazilian pepper (Schinus terebinthifolius)

Primrose Willow (Ludwigia peruviana)

ASSESSMENT SCORE

(Landscape Location + Water Environment + Vegetative Community)/30 =

$$(10 + 9.98 + 6.5) / 30 = 0.883$$

Wetland Scrub

River Lakes Conservation Area

Brevard County Natural Resource Management
Reference Wetland Community



**Location Map - Wetland Scrub
River Lakes Conservation Area
Brevard County, Florida**

-  6310-Wetland Shrub
-  River Lakes Conservation Area

Bay Swamp

St. Sebastian River Preserve State Park

Brevard County Natural Resource Management
Reference Wetland Community



OVERVIEW

LOCATION

Brevard County

Latitude 27.8524621439 N, Longitude -80.5917447513E

COMMUNITY DESCRIPTION

Bay Swamps are an evergreen forested wetland of bay species situated at the base of a slope or in a depression. Loblolly bay (*Gordonia lasianthus*), sweetbay (*Magnolia virginiana*), or swamp bay (*Persea palustris*) form an open to dense tree canopy and are also dominant in the understory along with fetterbush (*Lyonia lucida*), large gallberry (*Ilex coriacea*), dahoon (*I. cassine*), myrtle dahoon (*I. cassine* var. *myrtifolia*), wax myrtle (*Myrica cerifera*), red maple (*Acer rubrum*), or Carolina willow (*Salix caroliniana*). Composition of the understory varies regionally. Slash pine (*Pinus elliottii*) or Loblolly pine (*P. taeda*) are often found in the canopy, as well as sweetgum (*Liquidambar styraciflua*).



Bay Swamp

St. Sebastian River Preserve State Park

Brevard County Natural Resource Management
Reference Wetland Community

COMMUNITY DESCRIPTION (cont)

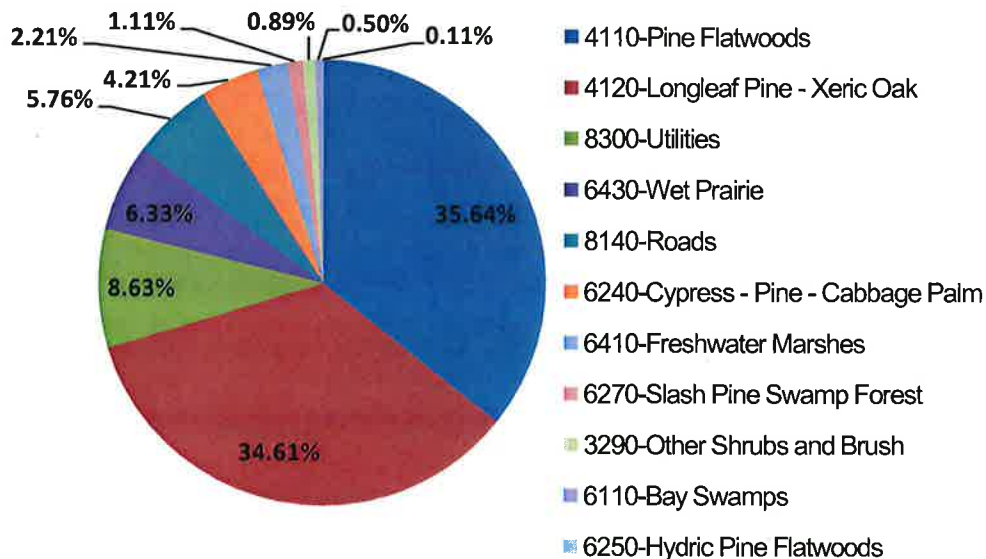
The canopy and understory do not generally form distinct strata but may appear as a dense, tall thicket. Vines, especially laurel greenbrier (*Smilax laurifolia*), coral greenbrier (*S. walteri*), and muscadine (*Vitis rotundifolia*), may be abundant and contribute to the often impenetrable nature of the understory. Herbs are absent or few, and typically consist of ferns such as cinnamon fern (*Osmunda cinnamomea*), netted chain fern (*Woodwardia areolata*), and Virginia chain fern (*W. virginica*).

FUNCTIONAL WETLAND ASSESSMENT

➤ Landscape Location Score Landscape Scale Index (LSI)

FLUCFCS Legend	Sum of Acres	LSI Value	Landcover Percent	Landscape Location Score (=LSI_Value* Landcover Percent)
4110-Pine Flatwoods	59.219895	10	0.356	3.564
4120-Longleaf Pine - Xeric Oak	57.516285	10	0.346	3.461
8300-Utilities	14.346212	2.43	0.086	0.210
6430-Wet Prairie	10.52398	10	0.063	0.633
8140-Roads	9.570417	1.91	0.058	0.110
6240-Cypress - Pine - Cabbage Palm	6.9938081	10	0.042	0.421
6410-Freshwater Marshes	3.6751105	10	0.022	0.221
6270-Slash Pine Swamp Forest	1.8418448	10	0.011	0.111
3290-Other Shrubs and Brush	1.4783683	10	0.009	0.089
6110-Bay Swamps	0.8297886	10	0.005	0.050
6250-Hydric Pine Flatwoods	0.1880281	10	0.001	0.011
TOTAL	166.18	94.34	1.00	8.88

Landcover Percent within 100 m buffer



FUNCTIONAL WETLAND ASSESSMENT (cont)

➤ Water Environment

Water Environment	Score¹
Water Quality Treatment Score	4.95
Hydrologic Indicator Score	5
Water Environment Score	9.95

¹ The Water Environment Score is a sum of the Water Quality Treatment and the Hydrologic Indicator Score.

➤ Vegetative Community

Vegetative Community	Percentage	Score²
Wetland Vegetation	95	11
Exotic Vegetation	5	8
Vegetative Community Score		9.5

² The Vegetative Community Score is calculated as the average of the wetland vegetation and the exotic vegetation score unless; 1) the wetland vegetation is < 30% or 2) the percent of exotic vegetation is greater than the percent of wetland vegetation. If either of these two conditions exist the Vegetative Community Score equals zero (0).

Invasive exotics present in less than 5%

Florida Exotic Pest Plant Council (FLEPPC) Category I Species

Brazilian pepper (Schinus terebinthifolius)

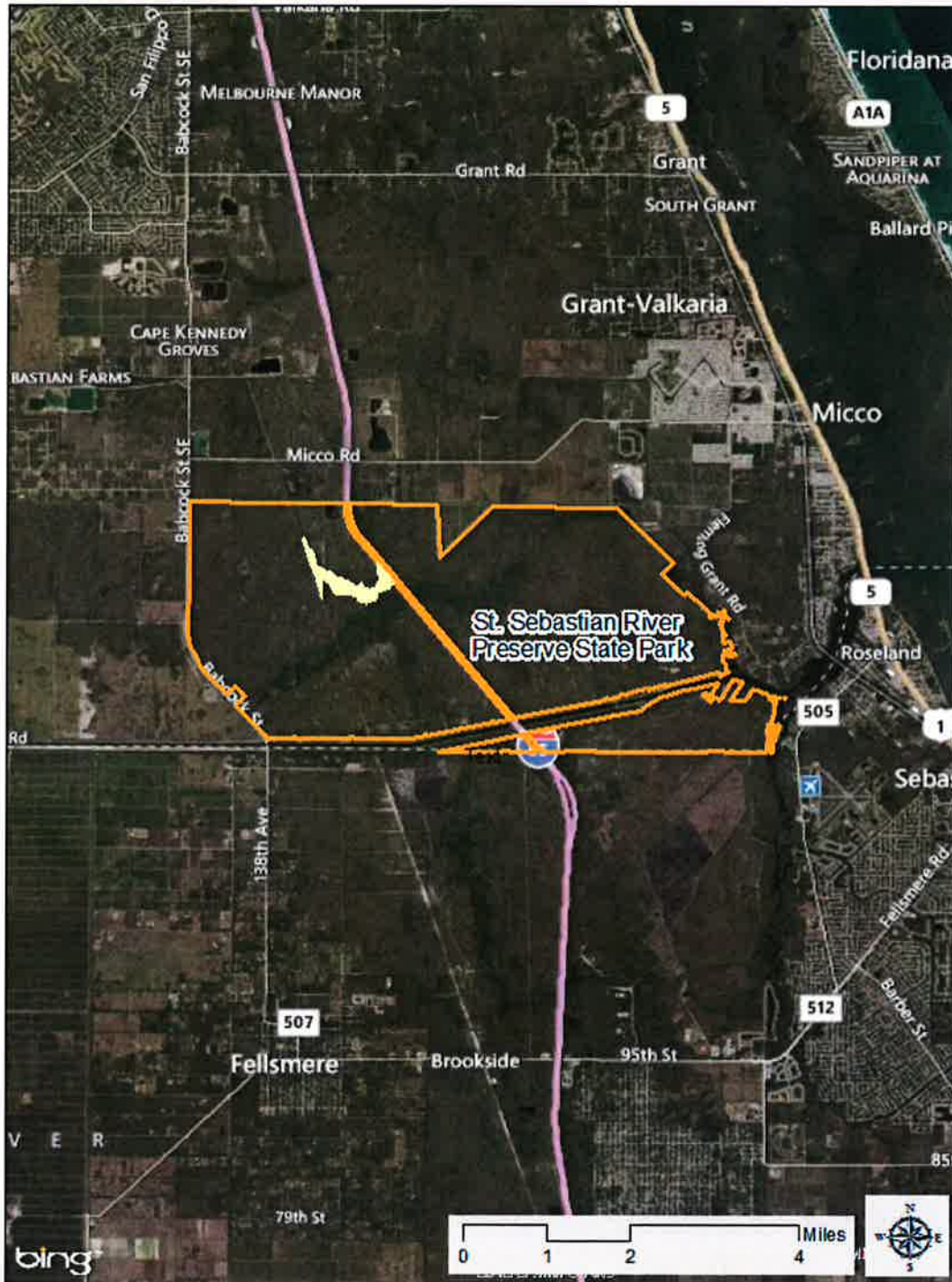
ASSESSMENT SCORE

$$(8.88 + 9.95 + 9.5) / 30 = 0.943$$

Bay Swamp

St. Sebastian River Preserve State Park

Brevard County Natural Resource Management
Reference Wetland Community



Location Map - Bay Swamp
St. Sebastian River Preserve State Park
Brevard County, Florida

- 6110-Bay Swamps
- St. Sebastian River Preserve State Park

Cabbage Palm Hammock

River Lakes Conservation Area

Brevard County Natural Resource Management
Reference Wetland Community



OVERVIEW

LOCATION

Brevard County
Latitude 28.2121665738 N, Longitude -80.8345821717E

COMMUNITY DESCRIPTION

Cabbage Palm Hammocks is a closed-canopy forest of hydrophytic trees occurring on frequently or permanently flooded hydric soils adjacent to stream and river channels and in depressions and oxbows within floodplains. Trees are often buttressed, and the understory and groundcover are sparse. The canopy is dominated by cabbage palms (*Sabal palmetto*) but may contain other trees such as laurel oak (*Quercus laurifolia*), live oak (*Q. virginiana*) or southern red cedar (*Juniperus virginiana* var. *silicicola*) Cabbage palm hammocks can often occur within a complex mixture of communities including alluvial forest, bottomland forest, and baygall.



Cabbage Palm Hammock

River Lakes Conservation Area

Brevard County Natural Resource Management
Reference Wetland Community

COMMUNITY DESCRIPTION (cont)

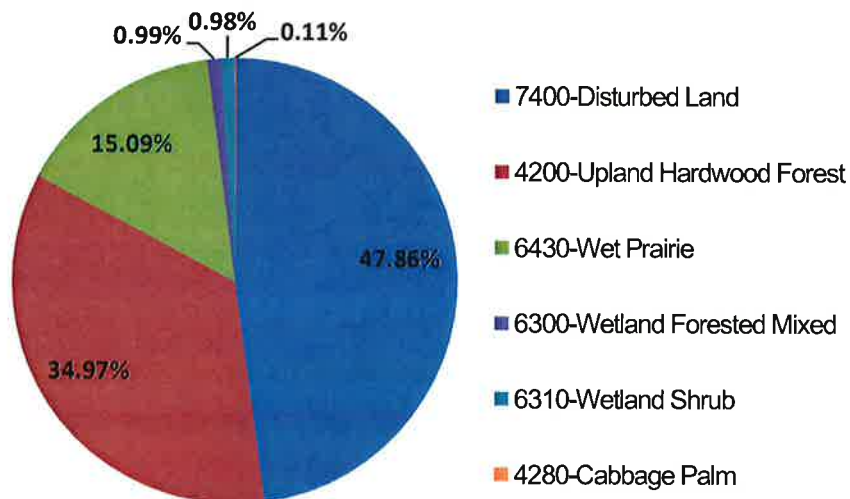
This produces a variable assemblage of canopy and subcanopy species, with less flood tolerant trees and shrubs found on small hummocks and ridges within the wetland. A groundcover of flood tolerant ferns and herbs are found in some cabbage palm hammocks, including lizard's tail (*Saururus cernuus*), false nettle (*Boehmeria cylindrica*), royal fern (*Osmunda regalis* var. *spectabilis*) and smartweed (*Polygonum* sp.). Eastern poison ivy (*Toxicodendron radicans*) is a frequent vine.

FUNCTIONAL WETLAND ASSESSMENT

➤ Landscape Location Score Landscape Scale Index (LSI)

<i>FLUCFCS_legend</i>	<i>Sum of Acres</i>	<i>LSI_Value</i>	<i>Landcover Percent</i>	<i>Landscape Location Score (=LSI_Value* Landcover Percent)</i>
7400-Disturbed Land	57.75	9.08	0.479	4.346
4200-Upland Hardwood Forest	42.20	10	0.350	3.497
6430-Wet Prairie	18.21	10	0.151	1.509
6300-Wetland Forested Mixed	1.20	10	0.010	0.099
6310-Wetland Shrub	1.18	10	0.010	0.098
4280-Cabbage Palm	0.13	10	0.001	0.011
TOTAL	120.67	59.08	1.00	9.56

Landcover Percent within 100 m buffer



Cabbage Palm Hammock River Lakes Conservation Area

Brevard County Natural Resource Management
Reference Wetland Community

FUNCTIONAL WETLAND ASSESSMENT (cont)

➤ Water Environment

Water Environment	Score¹
Water Quality Treatment Score	5
Hydrologic Indicator Score	5
Water Environment Score	10

¹ The Water Environment Score is a sum of the Water Quality Treatment and the Hydrologic Indicator Score.

➤ Vegetative Community

Vegetative Community	Percentage	Score²
Wetland Vegetation	65	8
Exotic Vegetation	20	7
Vegetative Community Score		7.5

² The Vegetative Community Score is calculated as the average of the wetland vegetation and the exotic vegetation score unless; 1) the wetland vegetation is < 30% or 2) the percent of exotic vegetation is greater than the percent of wetland vegetation. If either of these two conditions exist the Vegetative Community Score equals zero (0).

Invasive exotics are present in less than 20%

Florida Exotic Pest Plant Council (FLEPPC) Category I Species

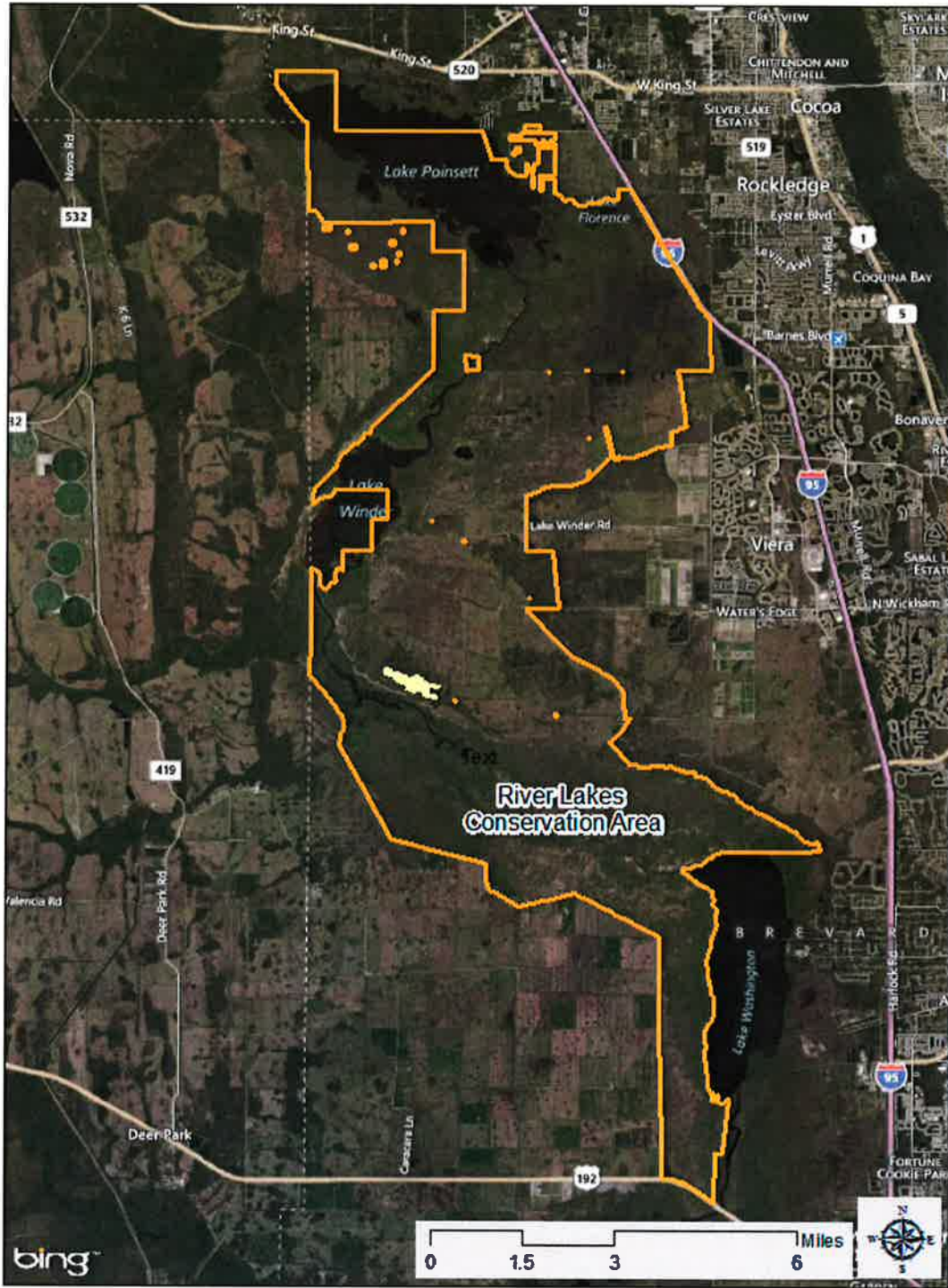
Brazilian pepper (Schinus terebinthifolius)

ASSESSMENT SCORE

$$(9.56 + 10 + 7.5) / 30 = 0.902$$

Cabbage Palm Hammock River Lakes Conservation Area

Brevard County Natural Resource Management
Reference Wetland Community



**Location Map - Cabbage Palm Hammock
River Lakes Conservation Area
Brevard County, Florida**

-  4280-Cabbage Palm
-  River Lakes Conservation Area

Cabbage Palm Hammock

Indian River Lagoon Preserve State Park

Brevard County Natural Resource Management
Reference Wetland Community



OVERVIEW

LOCATION

Brevard County

Latitude 27.9373607132 N, Longitude -80.5030258371E

COMMUNITY DESCRIPTION

Cabbage Palm Hammocks are a closed-canopy forest of hydrophytic trees occurring on frequently or permanently flooded hydric soils adjacent to stream and river channels and in depressions and oxbows within floodplains. Trees are often buttressed, and the understory and groundcover are sparse. The canopy is dominated by cabbage palms (*Sabal palmetto*) but may contain other trees such as laurel oak (*Quercus laurifolia*), live oak (*Q. virginiana*) or southern red cedar (*Juniperus virginiana* var. *silicicola*). Cabbage palm hammocks can often occur within a complex mixture of communities including alluvial forest, bottomland forest, and baygall.



Cabbage Palm Hammock Indian River Lagoon Preserve State Park

Brevard County Natural Resource Management
Reference Wetland Community

COMMUNITY DESCRIPTION (cont)

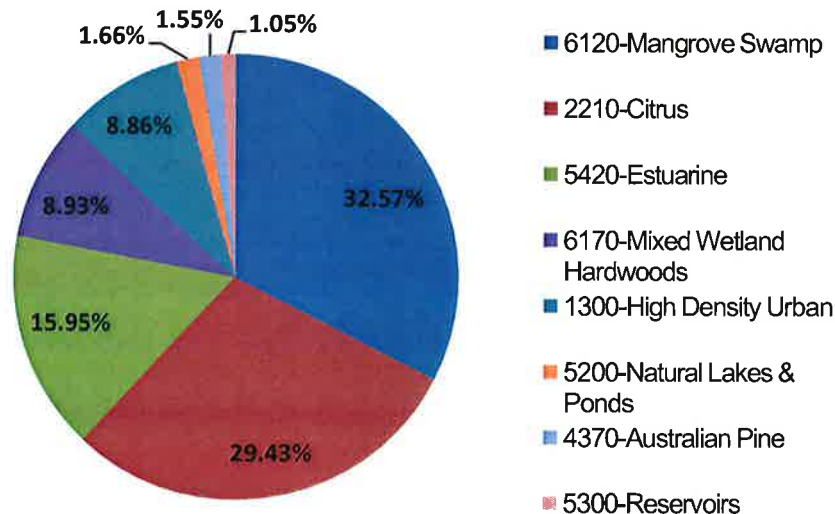
This produces a variable assemblage of canopy and subcanopy species, with less flood tolerant trees and shrubs found on small hummocks and ridges within the wetland. A groundcover of flood tolerant ferns and herbs are found in some cabbage palm hammocks, including lizard's tail (*Saururus cernuus*), false nettle (*Boehmeria cylindrica*), royal fern (*Osmunda regalis* var. *spectabilis*) and smartweed (*Polygonum* sp.). Eastern poison ivy (*Toxicodendron radicans*) is a frequent vine.

FUNCTIONAL WETLAND ASSESSMENT

➤ Landscape Location Score Landscape Scale Index (LSI)

FLUCFCS_legend	Sum of		Landscape Location Score (=LSI_Value* Landcover)	
	Acres	LSI_Value	Percent	Percent
6120-Mangrove Swamp	25.14	10	0.326	3.257
2210-Citrus	22.72	7.02	0.294	2.066
5420-Estuarine	12.31	10	0.159	1.595
6170-Mixed Wetland				
Hardwoods	6.89	10	0.089	0.893
1300-High Density Urban	6.84	0.91	0.089	0.081
5200-Natural Lakes & Ponds	1.28	10	0.017	0.166
4370-Australian Pine	1.20	8.87	0.016	0.137
5300-Reservoirs	0.81	10	0.011	0.105
TOTAL	77.20	66.80	1.00	8.30

Landcover Percent within 100 m buffer



Cabbage Palm Hammock

Indian River Lagoon Preserve State Park

Brevard County Natural Resource Management
Reference Wetland Community

FUNCTIONAL WETLAND ASSESSMENT (cont)

➤ Water Environment

Water Environment	Score¹
Water Quality Treatment Score	2.5
Hydrologic Indicator Score	5
Water Environment Score	7.5

¹ The Water Environment Score is a sum of the Water Quality Treatment and the Hydrologic Indicator Score.

➤ Vegetative Community

Vegetative Community	Percentage	Score²
Wetland Vegetation	70	9
Exotic Vegetation	25	5
Vegetative Community Score		7.0

² The Vegetative Community Score is calculated as the average of the wetland vegetation and the exotic vegetation score unless; 1) the wetland vegetation is < 30% or 2) the percent of exotic vegetation is greater than the percent of wetland vegetation. If either of these two conditions exist the Vegetative Community Score equals zero (0).

Invasive exotics are present in less than 25%

Florida Exotic Pest Plant Council (FLEPPC) Category I Species

Brazilian pepper (Schinus terebinthifolius)

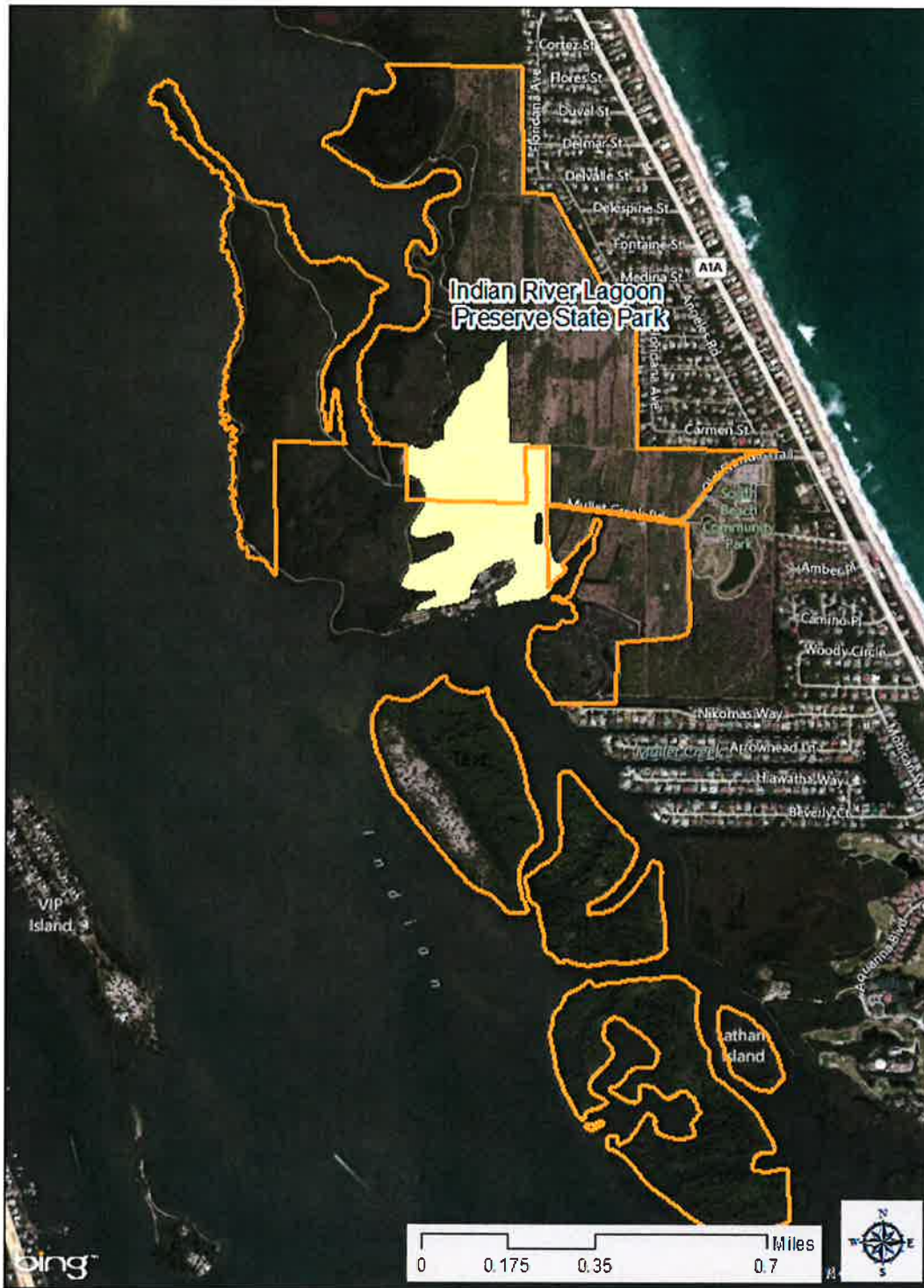
ASSESSMENT SCORE

$$(8.3 + 7.5 + 7.0) / 30 = 0.760$$

Cabbage Palm Hammock

Indian River Lagoon Preserve State Park

Brevard County Natural Resource Management



Location Map - Cabbage Palm Hammock
Indian River Lagoon Preserve State Park
Brevard County, Florida

4280-Cabbage Palm

Indian River Lagoon Preserve State Park

Cypress

Three Forks Conservation Area

Brevard County Natural Resource Management
Reference Wetland Community



OVERVIEW

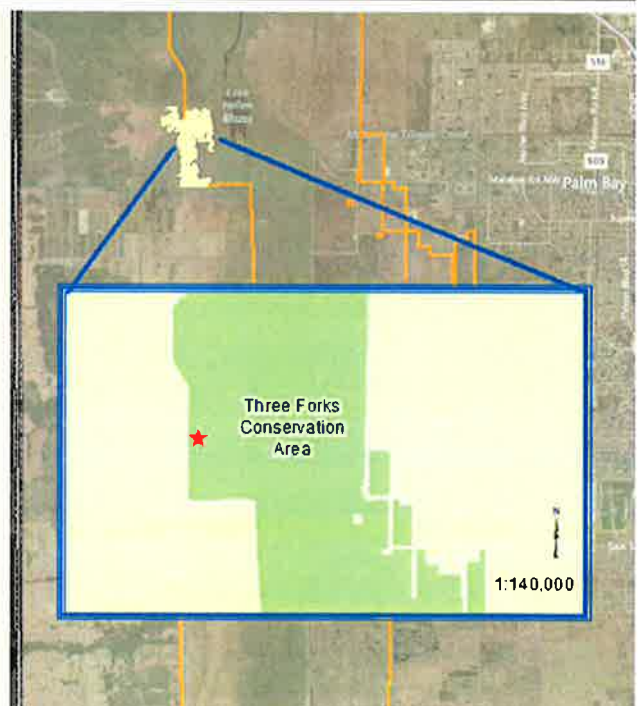
LOCATION

Brevard County

Latitude 28.0109407722 N, Longitude -80.8121163428E

COMMUNITY DESCRIPTION

Cypress is a basin wetland vegetated with hydrophytic trees and shrubs that can withstand an extended hydroperiod. Cypress wetlands are highly variable in size, shape, and species composition. While mixed species canopies are common, the dominant trees are pond cypress (*Taxodium ascendens*). Other typical canopy and subcanopy trees include slash pine (*Pinus elliottii*), red maple (*Acer rubrum*), dahoon (*Ilex cassine*), swamp bay (*Persea palustris*), sweetbay (*Magnolia virginiana*), loblolly bay (*Gordonia lasianthus*), laurel oak (*Quercus laurifolia*), sweetgum (*Liquidambar styraciflua*), water oak (*Quercus nigra*) and American elm (*Ulmus americana*).



COMMUNITY DESCRIPTION (cont)

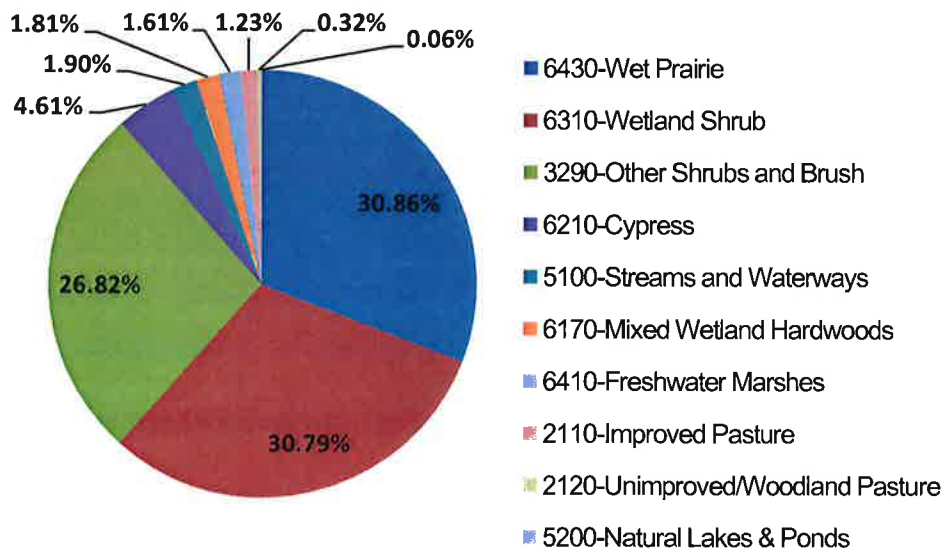
Depending on the hydrology and fire history, shrubs may be found throughout a cypress swamp or they may be concentrated around the perimeter. Common species include Carolina willow (*Salix caroliniana*), myrtle dahoon (*Ilex cassine* var. *myrtifolia*), fetterbush (*Lyonia lucida*), wax myrtle (*Myrica cerifera*) and common buttonbush (*Cephalanthus occidentalis*). The herbaceous layer is also variable and includes a wide array of species including maidencane (*Panicum hemitomon*), Virginia chain fern (*Woodwardia virginica*), arrowheads (*Sagittaria* spp.), lizard's tail (*Saururus cernuus*), false nettle (*Boehmeria cylindrica*), beaksedges (*Rhynchospora* spp.), bladderworts (*Utricularia* spp.), and royal fern (*Osmunda regalis* var. *spectabilis*).

FUNCTIONAL WETLAND ASSESSMENT

➤ Landscape Location Score Landscape Scale Index (LSI)

FLUCFCS_legend	Sum of Acres	LSI_Value	Landcover Percent	Landscape Location Score (=LSI_Value* Landcover Percent)
6430-Wet Prairie	115.61	10	0.309	3.086
6310-Wetland Shrub	115.35	10	0.308	3.079
3290-Other Shrubs and Brush	100.47	10	0.268	2.682
6210-Cypress	17.28	10	0.046	0.461
5100-Streams and Waterways	7.12	10	0.019	0.190
6170-Mixed Wetland Hardwoods	6.78	10	0.018	0.181
6410-Freshwater Marshes	6.03	10	0.016	0.161
2110-Improved Pasture	4.62	6.96	0.012	0.086
2120-Unimproved/Woodland Pasture	1.19	8.03	0.003	0.025
5200-Natural Lakes & Ponds	0.21	10	0.001	0.006
TOTAL	374.65	94.99	1.00	9.96

Landcover Percent within 100 m buffer



FUNCTIONAL WETLAND ASSESSMENT (cont)

➤ Water Environment

Water Environment	Score¹
Water Quality Treatment Score	4.88
Hydrologic Indicator Score	5
Water Environment Score	9.88

¹ The Water Environment Score is a sum of the Water Quality Treatment and the Hydrologic Indicator Score.

➤ Vegetative Community

Vegetative Community	Percentage	Score²
Wetland Vegetation	85	10
Exotic Vegetation	15	7
Vegetative Community Score		8.5

² The Vegetative Community Score is calculated as the average of the wetland vegetation and the exotic vegetation score unless; 1) the wetland vegetation is < 30% or 2) the percent of exotic vegetation is greater than the percent of wetland vegetation. If either of these two conditions exist the Vegetative Community Score equals zero (0).

Invasive exotics are present in less than 15%

Florida Exotic Pest Plant Council (FLEPPC) Category I Species

Brazilian pepper (Schinus terebinthifolius)

Japanese Climbing Fern (Lygodium japonicum)

ASSESSMENT SCORE

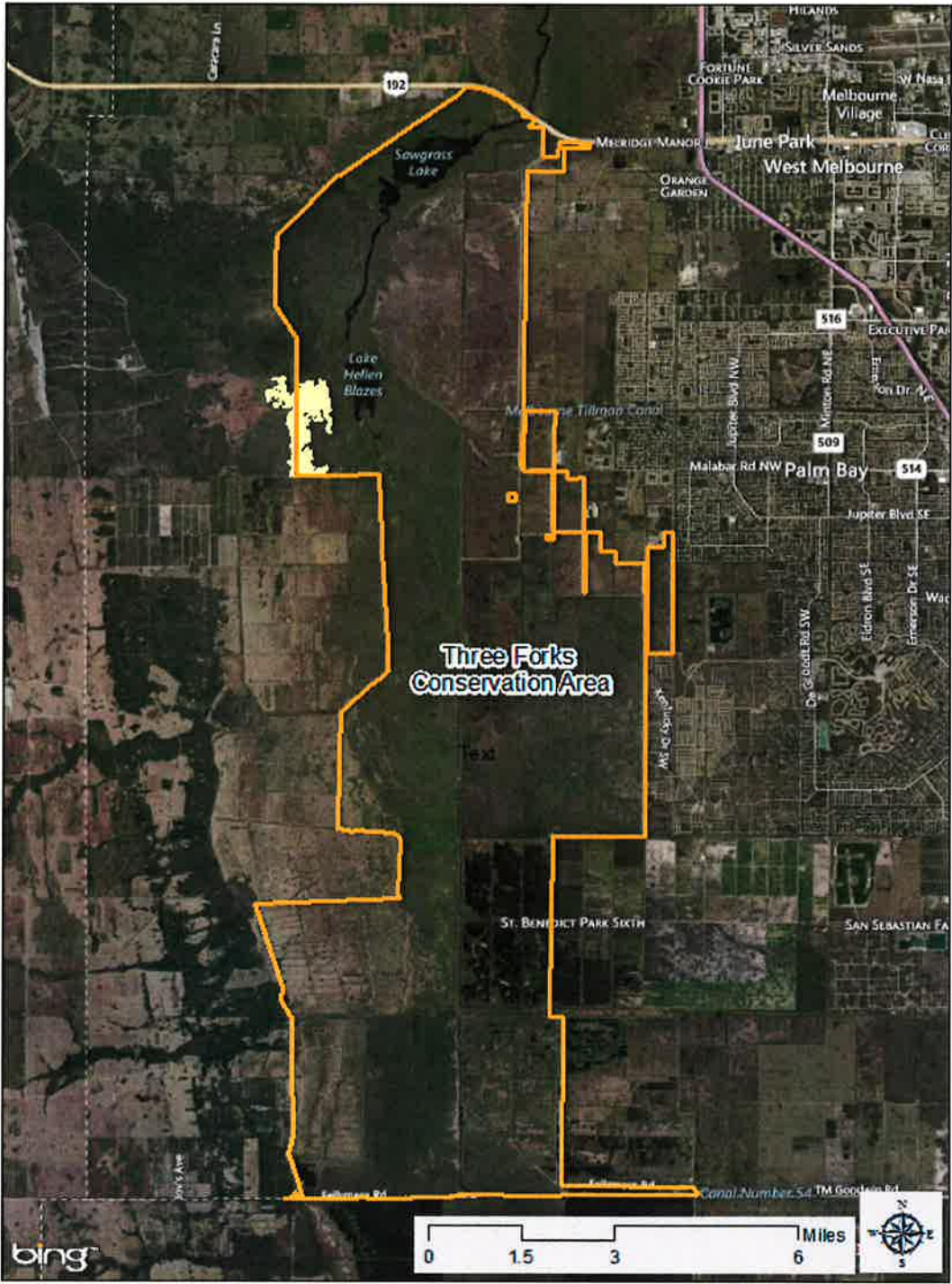
(Landscape Location + Water Environment + Vegetative Community)/30 =

$$(9.96 + 9.88 + 8.5) / 30 = 0.945$$

Cypress

Three Forks Conservation Area

Brevard County Natural Resource Management
Reference Wetland Community



**Location Map - Cypress
Three Forks Conservation Area
Brevard County, Florida**

-  6210-Cypress
-  Three Forks Conservation Area

Wetland Forest Mixed Kings Park

Brevard County Natural Resource Management
Reference Wetland Community



OVERVIEW

LOCATION

Brevard County

Latitude 28.4407538546 N, Longitude -80.6888681754 E

COMMUNITY DESCRIPTION

Wetland Forest Mixed are composed of a large variety of conifer and hardwood species tolerant of hydric conditions yet neither hardwoods or conifers achieve a 66 percent dominance of the crown canopy composition. The evergreen hardwood or palm forest has a variable understory typically dominated by palms and ferns occurring on moist soils. While species composition varies, the community generally has a closed canopy of pines, oaks and palms, an open understory, and a sparse to a moderate groundcover of grasses and ferns. The canopy is dominated by slash pine (*Pinus elliotii*), laurel oak (*Quercus laurifolia*) and/or live oak (*Q. virginiana*) with varying amounts of



Wetland Forest Mixed Kings Park

Brevard County Natural Resource Management
Reference Wetland Community

COMMUNITY DESCRIPTION (cont)

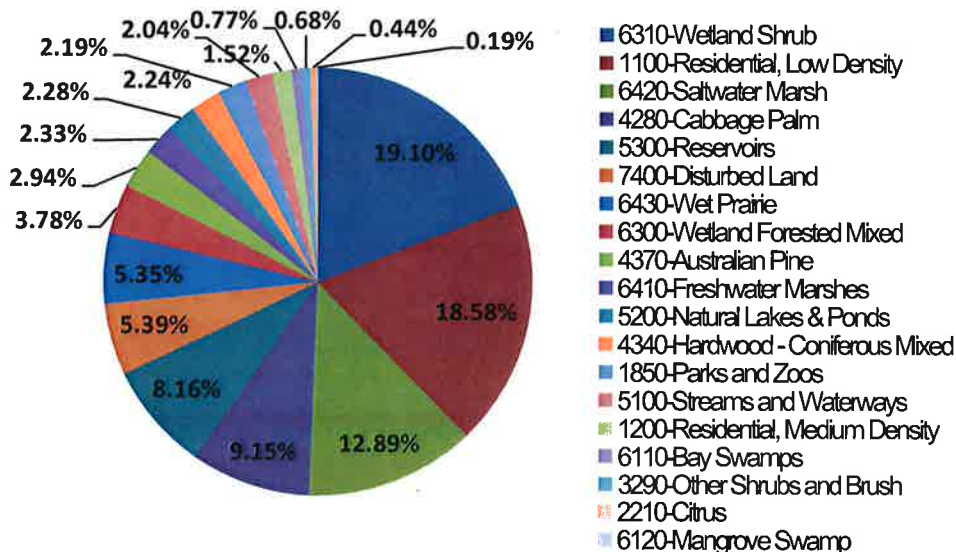
cabbage palm (*Sabal palmetto*), American elm (*Ulmus americana*), southern red cedar (*Juniperus virginiana*) and red maple (*Acer rubrum*). In addition to saplings of canopy species, the understory may contain a number of small trees and shrubs. Various woody species that may be present including small-leaf viburnum (*Viburnum obovatum*), swamp bay (*Persea palustris*), wax myrtle (*Myrica cerifera*) and dwarf palmetto (*Sabal minor*), American beautyberry (*Callicarpa americana*), and needle palm (*Rhapidophyllum hystrix*). Vines may be frequent and diverse; common species are eastern poison ivy (*Toxicodendron radicans*), peppervine (*Ampelopsis arborea*), greenbriers (*Smilax* spp.), summer grape (*Vitis aestivalis*), and muscadine (*Vitis rotundifolia*).

FUNCTIONAL WETLAND ASSESSMENT

➤ Landscape Location Score Landscape Scale Index (LSI)

FLUCFCS_ Legend	Sum of		Landscape		Landscape Location Score [LSI_Value* Landscape Percent]
	Acres	LSI_Value	Percent	Percent	
6310-Wetland Shrub	54.84	10	0.191	1.910	
1100-Residential, Low Density	53.36	3.57	0.186	0.663	
6420-Saltwater Marsh	37.02	10	0.129	1.289	
4280-Cabbage Palm	26.26	10	0.091	0.915	
5300-Reservoirs	23.44	10	0.082	0.816	
7400-Disturbed Land	15.48	9.08	0.054	0.489	
6430-Wet Prairie	15.37	10	0.054	0.535	
6300-Wetland Forested Mixed	10.87	10	0.038	0.378	
4370-Australian Pine	8.45	8.87	0.029	0.261	
6410-Freshwater Marshes	6.68	10	0.023	0.233	
5200-Natural Lakes & Ponds	6.56	10	0.023	0.228	
4340-Hardwood - Coniferous Mixed	6.42	10	0.022	0.224	
1850-Parks and Zoos	6.29	3.42	0.022	0.075	
5100-Streams and Waterways	5.85	10	0.020	0.204	
1200-Residential, Medium Density	4.35	2.81	0.015	0.043	
6110-Bay Swamps	2.20	10	0.008	0.077	
3290-Other Shrubs and Brush	1.95	10	0.007	0.068	
2210-Citrus	1.25	7.02	0.004	0.031	
6120-Mangrove Swamp	0.54	10	0.002	0.019	
TOTAL	287.18	164.77	1.00	8.46	

Landcover Percent within 100 m buffer



Wetland Forest Mixed Kings Park

Brevard County Natural Resource Management
Reference Wetland Community

FUNCTIONAL WETLAND ASSESSMENT (cont)

➤ Water Environment

Water Environment	Score¹
Water Quality Treatment Score	2.85
Hydrologic Indicator Score	3.3
Water Environment Score	6.15

¹ The Water Environment Score is a sum of the Water Quality Treatment and the Hydrologic Indicator Score.

➤ Vegetative Community

Vegetative Community	Percentage	Score²
Wetland Vegetation	75	9
Exotic Vegetation	20	7
Vegetative Community Score		8.0

² The Vegetative Community Score is calculated as the average of the wetland vegetation and the exotic vegetation score unless; 1) the wetland vegetation is < 30% or 2) the percent of exotic vegetation is greater than the percent of wetland vegetation. If either of these two conditions exist the Vegetative Community Score equals zero (0).

Invasive exotics present in less than 20%

Florida Exotic Pest Plant Council (FLEPPC) Category I Species

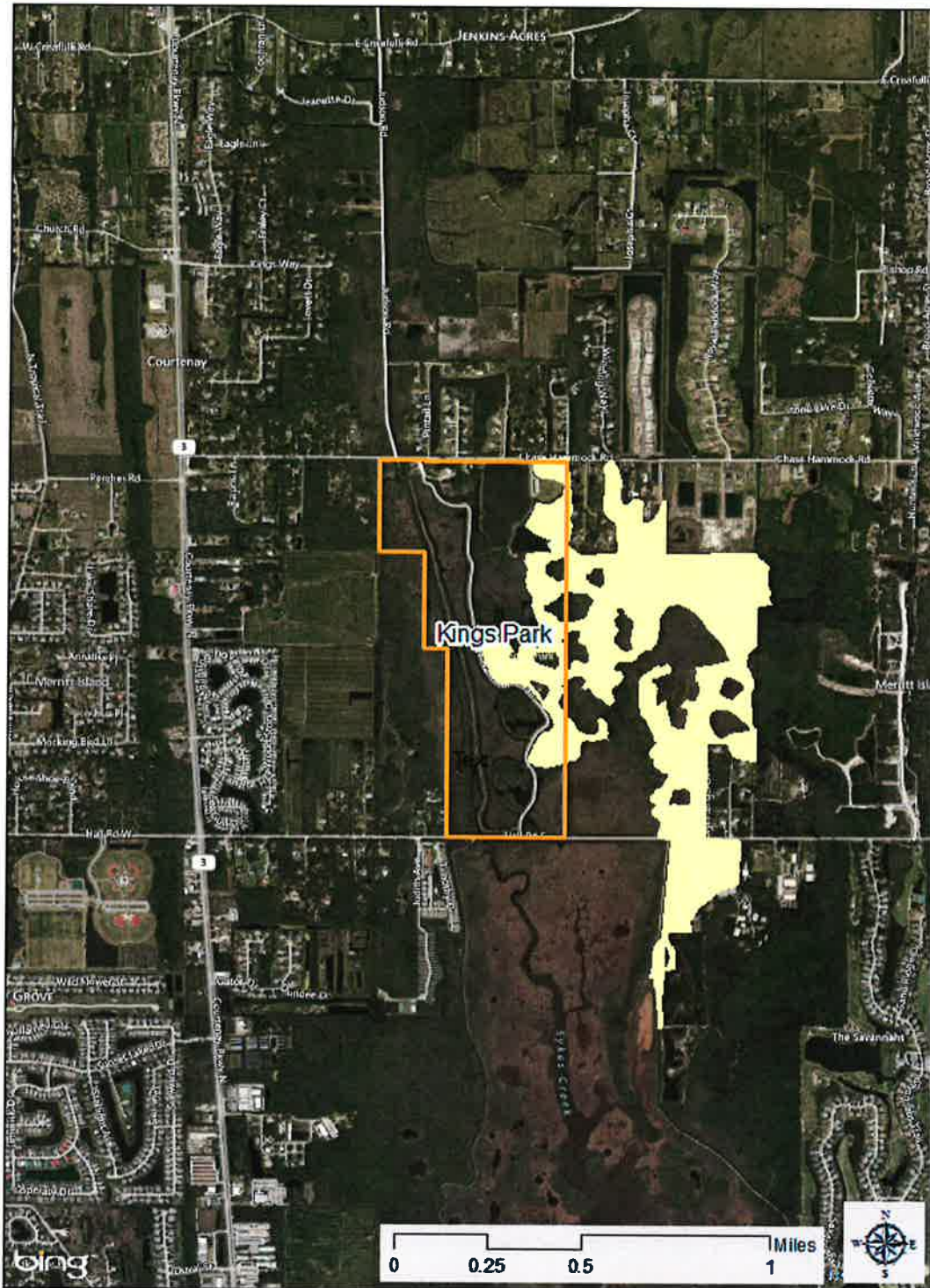
Brazilian pepper (Schinus terebinthifolius)

ASSESSMENT SCORE

$$(8.46 + 6.15 + 8.0) / 30 = 0.754$$

Wetland Forest Mixed Kings Park

Brevard County Natural Resource Management



**Location Map - Wetland Forest Mixed
Kings Park
Brevard County, Florida**

-  6300-Wetland Forested Mixed
-  Kings Park

Saltwater Marsh

Thousand Island Conservation Area

Brevard County Natural Resource Management
Reference Wetland Community



OVERVIEW

LOCATION

Brevard County

Latitude 28.3108118851 N, Longitude -80.6888681754 E

COMMUNITY DESCRIPTION

Saltwater marsh is a largely herbaceous community that occurs in the portion of the coastal zone affected by tides and seawater and protected from large waves, either by the broad, gently sloping topography of the shore, by a barrier island, or by location along a bay or estuary. The width of the intertidal zone depends on the slope of the shore and the tidal range. Salt marsh may have distinct zones of vegetation, each dominated by a single species of grass or rush. Saltmarsh cordgrass (*Spartina alterniflora*) dominates the seaward edge and borders of tidal creeks, areas most frequently inundated by the tides.



Saltwater Marsh

Thousand Island Conservation Area

Brevard County Natural Resource Management
Reference Wetland Community

COMMUNITY DESCRIPTION (cont)

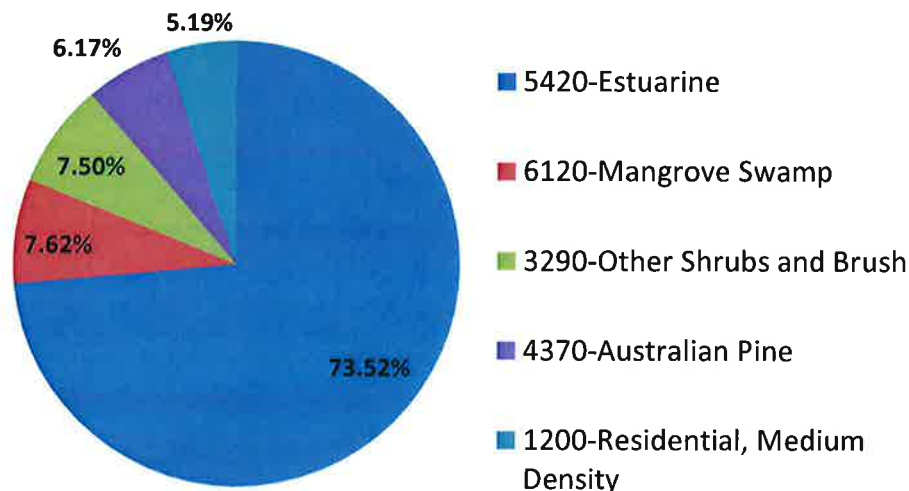
Needle rush (*Juncus roemerianus*) dominates higher, less frequently flooded areas. Other characteristic species include Carolina sea lavender (*Limonium carolinianum*), perennial saltmarsh aster (*Symphyotrichum tenuifolium*), wand loosestrife (*Lythrum lineare*), marsh fimbry (*Fimbristylis spadicea*), and shoreline seapurslane (*Sesuvium portulacastrum*). The landward edge of the marsh is influenced by freshwater influx from the uplands and may be colonized by a mixture of high marsh and inland species, including needle rush, sawgrass (*Cladium jamaicense*), saltmeadow cordgrass (*Spartina patens*), Gulf cordgrass (*Spartina spartinae*), and sand cordgrass (*Spartina bakeri*), among others.

FUNCTIONAL WETLAND ASSESSMENT

➤ Landscape Location Score Landscape Scale Index (LSI)

<i>FLUCFCS_legend</i>	<i>Sum of Acres</i>	<i>LSI_Value</i>	<i>Landcover Percent</i>	<i>Landscape Location Score (=LSI_Value* Landcover Percent)</i>
5420-Estuarine	38.26	10	0.735	7.352
6120-Mangrove Swamp	3.97	10	0.076	0.762
3290-Other Shrubs and Brush	3.90	10	0.075	0.750
4370-Australian Pine	3.21	8.87	0.062	0.547
1200-Residential, Medium Density	2.70	2.81	0.052	0.146
TOTAL	52.05	41.68	1.00	9.56

Landcover Percent within 100 m buffer



FUNCTIONAL WETLAND ASSESSMENT (cont)

➤ Water Environment

Water Environment	Score¹
Water Quality Treatment Score	4.92
Hydrologic Indicator Score	3.3
Water Environment Score	8.22

¹ The Water Environment Score is a sum of the Water Quality Treatment and the Hydrologic Indicator Score.

➤ Vegetative Community

Vegetative Community	Percentage	Score²
Wetland Vegetation	95	11
Exotic Vegetation	5	8
Vegetative Community Score		9.5

² The Vegetative Community Score is calculated as the average of the wetland vegetation and the exotic vegetation score unless; 1) the wetland vegetation is < 30% or 2) the percent of exotic vegetation is greater than the percent of wetland vegetation. If either of these two conditions exist the Vegetative Community Score equals zero (0).

Invasive exotics are present in less than 5%

Florida Exotic Pest Plant Council (FLEPPC) Category I Species

Brazilian pepper (Schinus terebinthifolius)

ASSESSMENT SCORE

(Landscape Location + Water Environment + Vegetative Community)/30 =

$$(9.56 + 8.22 + 9.5) / 30 = 0.909$$

Saltwater Marsh

Thousand Island Conservation Area

Brevard County Natural Resource Management
Reference Wetland Community



**Location Map - Saltwater Marsh
Thousand Island Conservation Area
Brevard County, Florida**

-  6420-Saltwater Marsh
-  Thousand Islands Conservation Area

Wet Prairie

St. Johns National Wildlife Refuge

Brevard County Natural Resource Management
Reference Wetland Community



OVERVIEW

LOCATION

Brevard County

Latitude 28.5582465392 N, Longitude -80.8944214826 E

COMMUNITY DESCRIPTION

Wet prairie is an herbaceous community found on continuously wet, but not inundated, soils on somewhat flat or gentle slopes between lower lying depression marshes, shrub bogs, or dome swamps and slightly higher wet or mesic flatwoods, or dry prairie. It is typically dominated by dense wiregrass (*Aristida stricta* var. *beyrichiana*) in the drier portions, along with foxtail clubmoss (*Lycopodiella alopecuroides*), cutover muhly (*Muhlenbergia expansa*), yellow butterwort (*Pinguicula lutea*), and savannah meadowbeauty (*Rhexia alifanus*). In the wetter portions, wiregrass may occur with, or be replaced by, species in the sedge family, such as plumed



Wet Prairie

St. Johns National Wildlife Refuge

Brevard County Natural Resource Management
Reference Wetland Community

COMMUNITY DESCRIPTION (cont)

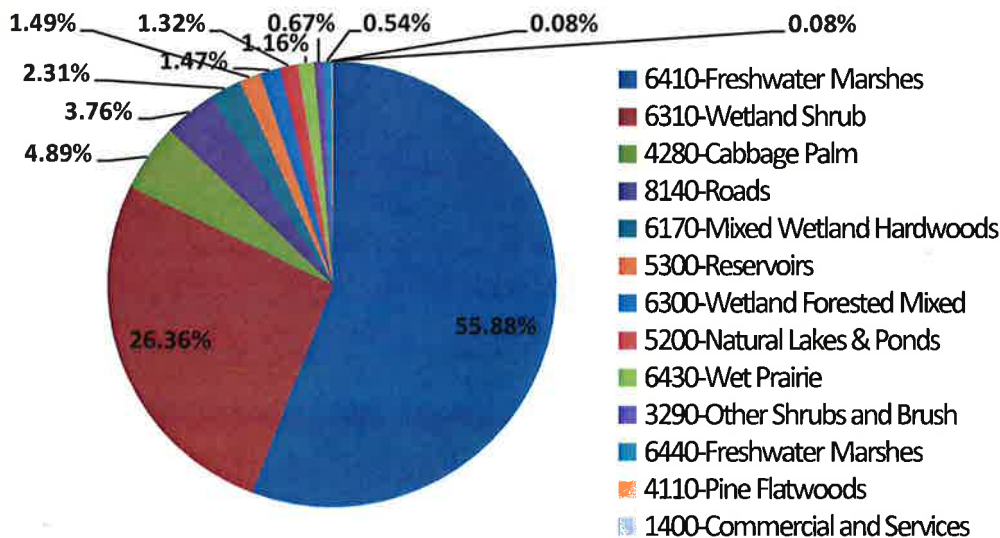
beaksedge (*Rhynchospora plumosa*), featherbristle beaksedge (*R. oligantha*), Baldwin's nutrush (*Scleria baldwinii*), or slenderfruit nutrush (*S. georgiana*), plus longleaved threeawn (*Aristida palustris*). Also common in wetter areas are carnivorous species, such as pitcher plants (*Sarracenia* spp.), sundews (*Drosera* spp.), butterworts (*Pinguicula* spp), and bladderworts (*Utricularia* spp.). Other characteristic species in this community include toothache grass (*Ctenium aromaticum*), pineland rayless goldenrod (*Bigelowia nudata*), flattened pipewort (*Eriocaulon compressum*), water cowbane (*Oxypolis filifolia*), and coastalplain yellow-eyed grass (*Xyris ambigua*).

FUNCTIONAL WETLAND ASSESSMENT

- Landscape Location Score
Landscape Scale Index (LSI)

FLUCFCS_legend	Sum of		Landscape Location Score (=LSI_Value* Landcover Percent)	
	Acres	LSI_Value	Percent	Landcover Percent
6410-Freshwater Marshes	597.91	10	0.559	5.588
6310-Wetland Shrub	282.06	10	0.264	2.636
4280-Cabbage Palm	52.34	10	0.049	0.489
8140-Roads	40.19	1.91	0.038	0.072
6170-Mixed Wetland Hardwoods	24.67	10	0.023	0.231
5300-Reservoirs	15.98	10	0.015	0.149
6300-Wetland Forested Mixed	15.77	10	0.015	0.147
5200-Natural Lakes & Ponds	14.08	10	0.013	0.132
6430-Wet Prairie	12.38	10	0.012	0.116
3290-Other Shrubs and Brush	7.15	10	0.007	0.067
6440-Freshwater Marshes	5.77	10	0.005	0.054
4110-Pine Flatwoods	0.85	10	0.001	0.008
1400-Commercial and Services	0.85	0.91	0.001	0.001
TOTAL	1070.00	112.82	1.00	9.69

Landcover Percent within 100 m buffer



FUNCTIONAL WETLAND ASSESSMENT (cont)

➤ Water Environment

Water Environment	Score¹
Water Quality Treatment Score	4.63
Hydrologic Indicator Score	5
Water Environment Score	9.63

¹ The Water Environment Score is a sum of the Water Quality Treatment and the Hydrologic Indicator Score.

➤ Vegetative Community

Vegetative Community	Percentage	Score²
Wetland Vegetation	75	9
Exotic Vegetation	25	5
Vegetative Community Score		7.0

² The Vegetative Community Score is calculated as the average of the wetland vegetation and the exotic vegetation score unless; 1) the wetland vegetation is < 30% or 2) the percent of exotic vegetation is greater than the percent of wetland vegetation. If either of these two conditions exist the Vegetative Community Score equals zero (0).

Invasive exotics are present in less than 25%

Florida Exotic Pest Plant Council (FLEPPC) Category I Species

Brazilian pepper (Schinus terebinthifolius)

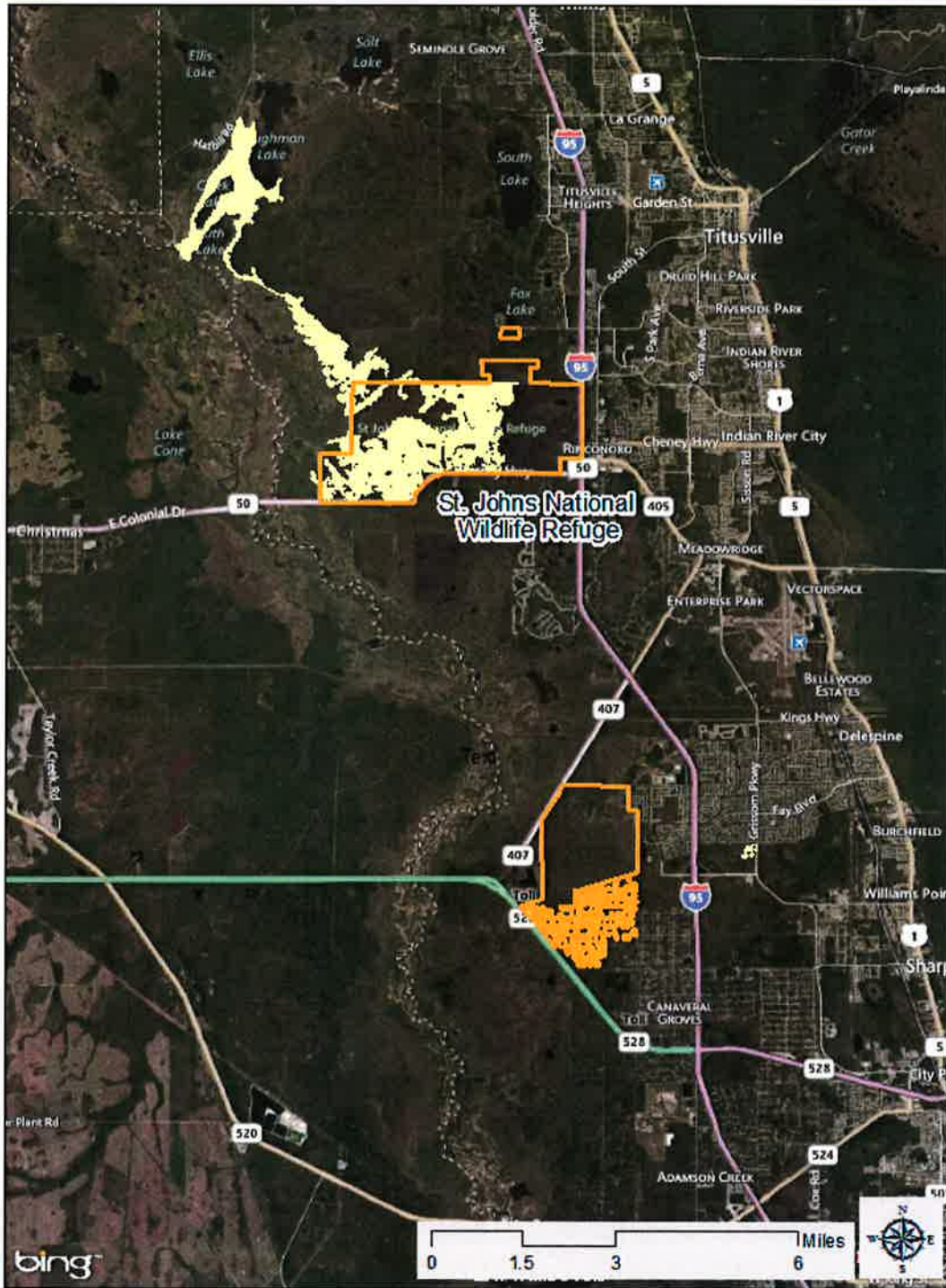
ASSESSMENT SCORE

$$(9.69 + 9.63 + 7.0) / 30 = 0.877$$

Wet Prairie

St. Johns National Wildlife Refuge

Brevard County Natural Resource Management
Reference Wetland Community



Location Map - Wet Prairie
St. John's National Wildlife Refuge
Brevard County, Florida

-  6430-Wet Prairie
-  St. Johns National Wildlife Refuge

Landscape-Level Polygon Development (12/27/13):

Landscape-Level Wetlands are defined as wetlands that are **EITHER** 1) five (5) acres or larger; **OR** 2) located within the Landscape-Level polygon **AND** the Army Corps of Engineers (ACOE) determines the wetland is hydrologically connected to the St. Johns River or Indian River Lagoon System.

The polygon developed to be used to identify the potential presence of land-scape level wetlands was created by assimilating information from several data sources. The initial map utilized was the current FEMA map. Zones A, AE, AO, FW, and VE were utilized to identify wetlands that interact with adjacent wetlands that are connected to floodplains of the St. Johns River and the Indian River Lagoon.

Additional data was utilized to further refine the flood plains. Modeled water elevations were used for the St. Johns River. New draft FEMA maps were assessed and an additional data set from Brevard County was included that identifies depressional areas that undergo flooding problems in large-scale rain events.

The inclusion of these data sources results in a polygon that likely approximates the locations of landscape level wetland systems that are influenced by large-scale flooding events within the county.

The table below indicates where the additional data sources modified (Data_Modifier shape file) the FEMA flood zones that were utilized as the initial map.

Township, Range	Rationale	Activity
20 S, 35	Brevard Depressional, FEMA revision	Merger Brevard layer, review FEMA
21 S, 36	Brevard Depressional, FEMA revision	Merger Brevard layer, review FEMA
23 S, 35	Brevard Depressional, FEMA revision	Merger Brevard layer, review FEMA
23 S, 36	Brevard Depressional, FEMA revision	Merger Brevard layer, review FEMA
23 S, 37	Brevard Depressional, FEMA revision	Merger Brevard layer, review FEMA
24 S, 36	Brevard Depressional, FEMA revision	Merger Brevard layer, review FEMA
25 S, 36	SJRWMD data, elevation data	Incorporate flood elevation into FEMA poly
25 S, 36	SJRWMD data, elevation data	Incorporate flood elevation into FEMA poly
29 S, 36	SJRWMD data, elevation data	Incorporate flood elevation into FEMA poly
29 S, 37	SJRWMD data, elevation data	Incorporate flood elevation into FEMA poly
30 S, 37	SJRWMD data, elevation data	Incorporate flood elevation into FEMA poly
Delespine	SJRWMD data, elevation data	Incorporate flood elevation into FEMA poly
Delespine	SJRWMD data, elevation data	Incorporate flood elevation into FEMA poly

The activities utilized to incorporate additional data, included revising line work to incorporate areas where additional data was available and merging polygons that were not included in the initial FEMA maps. The wetland community map (CLCV polygon) was also used to include wetland systems that are connected to the floodplain polygon. These contiguous systems were included in the developed floodplain polygon. It is anticipated that the resulting polygon reflects the areas that the SJR floodplain and increased precipitation have an effect on the wetland systems that are contained within them. The

Brevard County – Wetland Study

resulting land-scape level polygon approximates a five to ten year floodplain for the St. Johns River system.

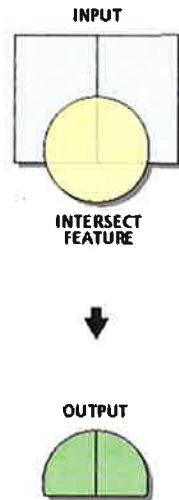
GIS Procedure:

Spatial data layer of Cooperative Land Cover (CLCV) was clipped with Brevard County Boundary layer.

- The *CLCV_Brevard* layer was reselected based on field *LC_name* = wetland land cover types producing *CLC_wetlands* layer.
- A wetland field was added to *CLC_wetlands* layer and was calculated equal to 100.
- Overlapping boundaries of wetlands were dissolved (dissolve item = wetlands).
- A spatial intersection was performed with FEMA flood zones A, AE, AO, FW and VE where the input feature was *CLC_wetlands* and the intersect feature was FEMA_Floodzones with zones A, AE, AO, FW, and VE selected.
- The resulting polygon was then edited to move the polygon edge to correspond with St. Johns River floodplain water elevations and the available LIDAR land elevation data.
- A layer of the Federally managed lands and an additional layer of the municipalities are overlaid on the Land-scape level polygon to identify areas that are not under the jurisdiction of the County.

Intersect

Computes a geometric intersection of the input features. Features or portions of features which overlap in all layers and/or feature classes will be written to the output feature class.



Data Sources:

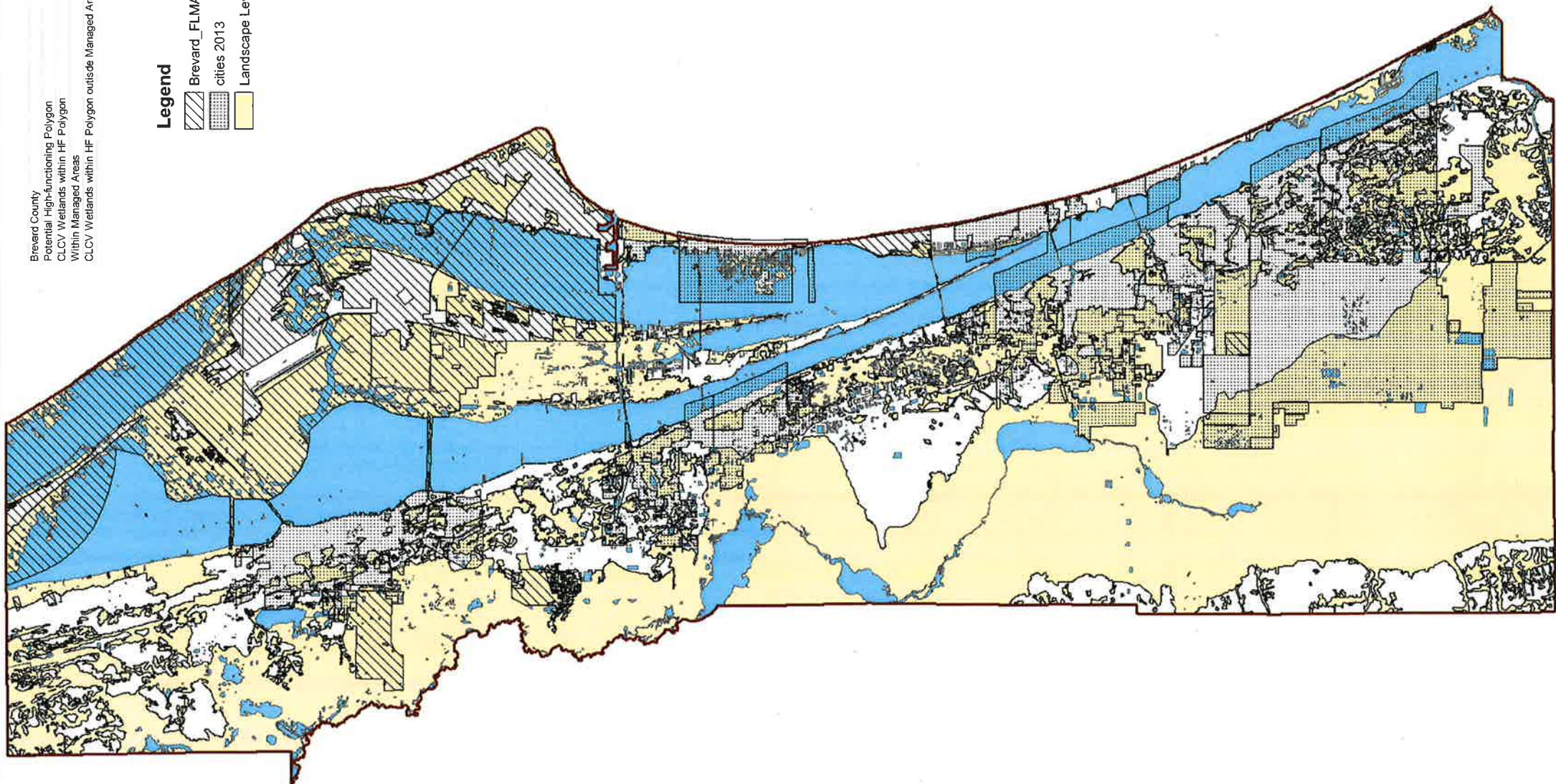
Brevard County

Florida Geographic Data Library (www.fgdl.org)

Florida Natural Areas Inventory (<http://www.fnai.org/LandCover.cfm>)




St. Johns River Water Management District

Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), Effective dates from 1987-1997. (Draft FIRM data also utilized).



Brevard County
 Potential High-functioning Polygon 828,161.2 acres
 CLCV Wetlands within HF Polygon 423,639.1 acres
 Within Managed Areas 226,133.5 acres
 CLCV Wetlands within HF Polygon outside Managed Areas 147,661.2 acres
 78,472.3 acres

Legend

-  Brevard_FLMA_Federal_2013
-  cities 2013
-  Landscape Level Polygon

BKL, Inc.
 Consulting Ecologists
 225 Fifth Avenue, Suite 2
 Indialantic, Florida 32903
 321-951-7964



ATTACHMENT D

ORDINANCE NO. 12-33

ORDINANCE AMENDING ARTICLE III, CHAPTER 62, OF THE CODE OF ORDINANCES OF BREVARD COUNTY; ENTITLED "THE COMPREHENSIVE PLAN", SETTING FORTH PLAN AMENDMENT 2012-1.4; AMENDING SECTION 62-501, ENTITLED "CONTENTS OF THE PLAN"; SPECIFICALLY AMENDING SECTION 62-501, PART I, ENTITLED CONSERVATION ELEMENT; PART XV, ENTITLED GLOSSARY; PROVIDING FOR INTERNAL CONSISTENCY WITH THESE AMENDMENTS; PROVIDING LEGAL STATUS; PROVIDING A SEVERABILITY CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, Section 163.3161 et. seq., Florida Statutes (1987) established the Local Government Comprehensive Planning and Land Development Regulation Act; and

WHEREAS, Section 163.3167, Florida Statutes, requires each County in the State of Florida to prepare and adopt a Comprehensive Plan as scheduled by the Department of Community Affairs; and

WHEREAS, on September 8, 1988, the Board of County Commissioners of Brevard County, Florida, approved Ordinance No. 88-27, adopting the 1988 Brevard County Comprehensive Plan, hereafter referred to as the 1988 Plan; and

WHEREAS, Sections 163.3184 and 163.3187, and 163.3189, Florida Statutes, established the process for the amendment of comprehensive plans pursuant to which Brevard County has established procedures for amending the 1988 Plan; and

WHEREAS, Brevard County initiated amendments and accepted application for amendments to the Comprehensive Plan on December 30, 2011, for adoption as the Spring Plan Amendment Cycle 2012-1; and

WHEREAS, the Board of County Commissioners of Brevard County, Florida, have provided for the broad dissemination of proposals and alternatives, opportunity for written comments, public hearings after due public notice, provisions for open discussion, communication programs and consideration of and response to public comments concerning the provisions contained in the 1988 Plan and amendments thereto; and

WHEREAS, Section 62-181, Brevard County Code designated the Brevard County Planning and Zoning Board as the Local Planning Agency for the unincorporated areas of Brevard County, Florida, and set forth the duties and responsibilities of said local planning agency; and

WHEREAS, on September 24, 2012 the Brevard County Local Planning Agency held a duly noticed public hearing on Plan Amendment 2012-1.4, and considered the findings and advice of the Technical Advisory Groups, and all interested parties submitting comments; and

WHEREAS, on October 9, 2012, the Brevard County Board of County Commissioners held a duly noticed public hearing, and considered the findings and recommendations, and all interested parties submitting written or oral comments, and the recommendations of the Local Planning Agency, and upon thorough and complete consideration and deliberation, approved for the adoption of Plan Amendment 2012-1.4; and

WHEREAS, Plan Amendment 2012-1.4 adopted by this Ordinance complies with the requirements of the Local Government Comprehensive Planning and Land Development Regulation Act; and

WHEREAS, Plan Amendment 2012-1.4 adopted by this Ordinance is based upon findings of fact as included in the data and analysis.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF BREVARD COUNTY, FLORIDA, as follows:

Section 1. Authority. This ordinance is adopted in compliance with, and pursuant to the Local Government Comprehensive Planning and Land Development Regulations Act, Sections 163.3184 and 163.3187, Florida Statutes.

Section 2. Purpose and Intent. It is hereby declared to be the purpose and intent of this Ordinance to clarify, expand, correct, update, modify and otherwise further the provisions of the 1988 Brevard County Comprehensive Plan.

Section 3. Adoption of Comprehensive Plan Amendments. Pursuant to Plan Amendment 2012-1.4 to the 1988 Comprehensive Plan, Article III, Chapter 62-504, Brevard County Code, the 1988 Brevard County Comprehensive Plan is hereby amended as specifically shown in Exhibit A. Exhibit A is hereby incorporated into and made part of this Ordinance.

Section 4. Legal Status of the Plan Amendments. After and from the effective date of this Ordinance, the plan amendment, Plan Amendment 2012-1.4, shall amend the 1988 Comprehensive Plan and become part of that plan and the plan amendment shall retain the legal status of the 1988 Brevard County Comprehensive Plan established in Chapter 62-504 of the Code of Laws and Ordinances of Brevard County, Florida, as amended.

Section 5. Severability. If any section, paragraph, subdivision, clause, sentence or provision of this Ordinance shall be adjudged by any court of competent jurisdiction to be invalid, such judgment shall not affect, impair, invalidate, or nullify the remainder of this Ordinance, but the effect thereof shall be confined to the section, paragraph, subdivision, clause, sentence or provision immediately involved in the controversy in which such judgment or decree shall be rendered.

Section 6. Effective Date. The plan amendment shall become effective once the state land planning agency issues a final order determining the adopted amendment to be in compliance in accordance with Florida Statutes, Section 163.3184(9), or until the Administration Commission

issues a final order determining the amendment to be in compliance in accordance with Florida Statutes, Section 163.3184(10). A certified copy of the ordinance shall be filed with the Office of the Secretary of State, State of Florida, within ten days of enactment.

DONE AND ADOPTED in regular session, this 9th day of October, 2012.

ATTEST:



Laurie S. Rice

Laurie S. Rice
Chief Deputy Clerk

**BOARD OF COUNTY COMMISSIONERS
OF BREVARD COUNTY, FLORIDA**

By: *Chuck Nelson*

Chuck Nelson, Chairman

Approved by the Board on October 9, 2012.

EXHIBIT A

2012-1.4 COMPREHENSIVE PLAN AMENDMENT

Proposed Text Amendment

For ease of reference the entirety of Objectives 5 and 6 are shown below. Additions to the Objectives are shown as underlined and deletions are shown as ~~struck through~~.

Wetlands

Objective 5

Preserve, protect, restore, and replace wetlands to achieve no net loss of functional wetlands in Brevard County after September, 1990. The County shall ensure the protection of wetlands and wetland functional values by prioritizing protective activities with avoidance of impacts as the first priority, minimization of impacts as the second priority, and mitigation for impacts as the third priority.

Policy 5.1

Brevard County shall utilize the same methodology, soil types, hydrological requirements and vegetation types as the FDEP and the SJRWMD in delineating wetlands.

Policy 5.2

Brevard County shall adopt regulations which promote no net loss of functional wetlands. At a minimum, the following criteria shall be included in the land development regulations:

Criteria:

- A. The basis for no net loss shall be established as of the effective date of the required ordinance.
- B. Wetlands shall be considered functional unless the applicant demonstrates that the water regime has been permanently altered, either artificially or naturally, in a manner to preclude the area from maintaining surface water or hydroperiodicity necessary to sustain wetland functions.
- C. If an activity is undertaken which degrades or destroys a functional wetland, the person performing such an activity shall be responsible for repairing and maintaining the wetland. If it is not feasible or desirable for the responsible person to perform the repair and maintenance of the wetland, then the responsible person shall mitigate for the wetland loss. Mitigation can include, but not be limited to: wetland restoration, wetland replacement, wetland enhancement, monetary compensation or wetland preservation.

- D. Wetland activity conducted by a public agency may not be utilized for wetland mitigation credit by private persons unless approved by Brevard County.
- E. The following land use and density restrictions within wetlands are established as a maximum density or most intense land use that may be considered only if the other criteria established in Conservation Element Policy 5.2 are met:
1. Residential land uses within wetlands, that are a part of a formal subdivision or site plan, on properties containing wetlands shall be limited to the following:
 - a. Residential land uses within wetlands shall be limited to not more than one (1) dwelling unit per five (5) acres unless strict application of this policy renders a legally established parcel as of September 9, 1988, which is less than five (5) acres, as unbuildable. The preceding limitation of one dwelling unit per five (5) acres within wetlands may be applied as a maximum percentage limiting wetland impacts to not more than 1.8% of the total non-commercial and non-industrial acreage on a cumulative basis as set forth in Policy 5.2.E (7), for subdivisions and multi-family parcels greater than five acres in area, New Town Overlays, PUDs, and if applicable, mixed-use land development activities as specified in Policy 5.2.E (6).
 - b. For development activities on property greater than five (5) acres, density may be transferred to an upland portion of the site if consistent with all county land development regulations and compatible with adjacent uses.
 - c. Except as allowable in Policy 5.2.E(1)a, subdivided lots and multi-family parcels shall contain sufficient uplands for the intended use and for any buffering necessary to maintain the function of the wetland(s), and shall be compatible with adjacent uses.
 2. Residential land uses within wetlands and created by metes and bounds, which are not part of a formal subdivision, on properties containing wetlands shall be limited to the following:
 - a. Residential land uses within wetlands shall be limited to not more than one (1) dwelling unit per five (5) acres unless strict

application of this policy would render a legally established parcel as of September 9, 1988, which is less than five (5) acres, as unbuildable. The preceding limitation of one dwelling unit per five (5) acres within wetlands may be applied as a maximum percentage limiting wetland impacts as described in Policy 5.2.E (1)a above. Application of the one-unit-per-five-acres limitation shall limit impacts to wetlands for single family residential development on a cumulative basis, to not more than 1.8% of the total property as defined in Policy 5.2.E (7).

- b. Except as allowable in Policy 5.2.E (2)a, properties shall contain sufficient uplands for the intended use and for any buffering necessary to maintain the function of the wetland(s), and shall be compatible with adjacent uses.
- c. In addition to impacts allowable in Policy 5.2.E (2)a, on properties where sufficient uplands for the intended use and for any buffering necessary to maintain the function of the wetland(s) exist except for access, wetland impacts may be permitted for single access to the uplands.

3. ~~Commercial and industrial land development activities shall be prohibited in wetlands contained in properties designated on the Future Land Use Map as commercial and industrial after February 23, 1996, and in surrounding buffers for such wetlands, with specifications based on the Buffer Zones for Water, Wetlands, and Wildlife in the East Central Florida Region, (1990, Brown, M.T., Schaefer, and K. Brandt, published by the Center for Wetlands, University of Florida), except for certain commercial development at I-95 interchanges that are consistent with the following criteria:~~

- a. ~~There will be no less than 100,000 square feet of commercial building within a project;~~
- b. ~~There is current overcapacity on the adjacent roadways, and it is projected that roadway capacity within four (4) miles of the intersection will be no more than 80% of the congestion ratio (the ratio of projected volume to maximum allowable volume) after 500,000 square feet of commercial space has been developed within one-half mile of the intersection of the off-ramp with the connecting roadway;~~
- c. ~~Wetland mitigation shall equal or exceed 125% of the mitigation which is otherwise required;~~

- d. — The development is located within one-half mile of the intersection of the off-ramp with the connecting roadway;
- e. — There will be no more than two curb cuts on each quadrangle of the interchange within one-half mile of the connection of the off-ramp and the connecting roadway; and
- f. — A maximum of forty (40) acres shall be allotted in proximity to the interchange, counting both sides.

4. — Commercial and industrial land development activities may be permitted in wetlands contained in properties designated on the Future Land Use Map as commercial and industrial prior to February 23, 1996, only if all of the following criteria are met:

- a. — The property is substantially surrounded by land(s) developed as commercial or industrial as of February 23, 1996, and has sufficient infrastructure in place to serve the commercial or industrial use.
- b. — The proposed land development activity will not result in increased flooding problems on adjacent properties.
- e. — The wetland is not classified by the Florida Land Use, Cover and Forms Classification System (1985) as a Stream and Lake Swamp (FLUCS 615), Cypress (FLUCS 621), Atlantic White Cedar (FLUCS 623), Wetland Forested Mixed (FLUCS 630), or Wet Prairies (FLUCS 643).

For wetlands specified in 5.2.F.3(c), the wetland functionality shall be maintained and protected by a 15-foot natural, native vegetative buffer for isolated wetlands and by a 50-foot natural, native vegetative buffer for other wetlands. The Forested Wetlands Location Map depicts the location of the following wetland types (FLUCS 615, 621, 623, 630, and 643), which also possess commercial or industrial zoning classifications and Future Land Use Map designations as of February 23, 1996, and is incorporated herein by this reference.

3. Commercial and industrial land development activities shall be prohibited in wetlands contained in properties designated on the Future Land Use Map as commercial or industrial, and in surrounding upland buffers for such wetlands, except as provided below for I-95 interchanges, mitigation qualified roadways, abutting properties, and access to uplands. In no instance shall a proposed land development activity result in increased flooding on adjacent properties. Where the State does not require a buffer,

wetland buffers specifications shall be established in land development regulations and be based on peer-reviewed publications to include, but not be limited to, Buffer Zones for Water, Wetlands, and Wildlife in the East Central Florida Region, (1990, Brown, M.T., Schaefer, and K. Brandt, published by the Center for Wetlands, University of Florida). Where impacts are permitted, the applicant is encouraged to propose innovative wetland preservation alternatives.

- a. Impacts to wetlands are permissible for commercial or industrial land development activities on a property that is designated as commercial or industrial on the Future Land Use map, and is located within one-half mile of the intersection of the off-ramp of the I-95 interchange with the connecting roadway. The one-half mile radius shall extend from the end of the limited access boundary of I-95. This shall not include those interchanges where I-95 intersects a limited access highway as defined by Florida Statute. Where the State does not require mitigation for any wetland impact, mitigation shall be provided to meet the County's no net loss policy as defined in Objective 5.
- b. In mitigation qualified roadways, commercial or industrial land development activities may be permitted in wetlands contained in properties designated for commercial or industrial land uses on the Future Land Use Map. Mitigation qualified roadways are depicted and identified in a table on Map 8.

An amendment to the Comprehensive Plan shall be required to add a mitigation qualified roadway to Map 8 and the associated table. High functioning wetlands and landscape level systems of connected wetlands shall be identified through a study, and these wetlands shall be protected unless the proposed impacts are found to be in the public interest, or overriding public benefit. Where the State does not require mitigation for any wetland impact, mitigation shall be provided to meet the County's no net loss policy as defined in Objective 5.

- c. Commercial or industrial land development activities may be permitted in wetlands contained in properties designated for commercial or industrial land uses on the Future Land Use

Map prior to February 23, 1996, if the property abuts land(s) developed as commercial or industrial as of December 31, 2010, and has sufficient infrastructure available to serve the commercial or industrial use. This shall not apply to properties that are addressed under Policies 5.2.E.3.a, b, and d. High functioning wetlands and landscape level systems of connected wetlands shall be identified through a study, and these wetlands shall be protected unless the proposed impacts are found to be in the public interest, or overriding public benefit. Where the State does not require mitigation for any wetland impact, mitigation shall be provided to meet the County's no net loss policy as defined in Objective 5.

- d. Impacts to wetlands for commercial or industrial land development activities limited solely to providing access to uplands, and for no other purpose than providing access as required by Brevard County land development regulations may be permitted in wetlands contained in properties designated on the Future Land Use Map as commercial or industrial of February 23, 1996, only if all of the following criteria are met:
 - (i) Sufficient uplands exist for the intended use except for access to uplands.
 - (ii) The property was not subdivided from a larger property after December 31, 2010. This shall not preclude a single shared access through wetlands for properties subdivided after December 31, 2010.
 - (iii) Where the State does not require mitigation for any wetland impact, mitigation shall be provided to meet the County's no net loss policy as defined in Objective 5.

4. Institutional and Residential Professional development activities within wetlands shall be limited to the following:

- a. Institutional or Residential Professional land development on properties which contain wetlands and which are designated on the Future Land Use Map as Neighborhood Commercial or Community Commercial shall be considered commercial as set forth in Policy 5.2.E.3. The property shall have sufficient infrastructure available to serve the use.

- b. Institutional or Residential Professional land development on properties which contain wetlands and which are designated on the Future Land Use Map as residential shall be limited to properties of at least 5 acres unless strict application of this policy renders a legally established parcel as of September 9, 1988, which is less than 5 acres, as unbuildable.
5. In the event that the denial of commercial or industrial development activities in wetlands results in an inordinate burden under the Bert Harris Property Rights Act or a taking under state or federal law, an affected property owner may appeal such denial to the Board of County Commissioners in the manner provided in Section 62-507(b)(2), Code of Ordinances of Brevard County, Florida.
6. Beginning on January 1, 2010, mixed-use land development activities may be permitted in wetlands only if all of the following are met:
- a. The land development activities that impact wetlands must be part of a mixed use development that includes a minimum of three of the following land uses: residential, commercial (retail services and/or office), recreation/open space and institutional uses. Industrial land uses shall be prohibited in mixed use land development activities within wetlands. For purposes of this policy mixed use land development activities shall be consistent with the following criteria:
 - (i) The mixed use land development activity includes a variety of densities, intensities and types designed to promote walking between uses and utilizes a variety of transportation modes such as bicycles, transit and automobiles; and
 - (ii) The residential component of the land development activity is an integrated part of the project and comprises not less than 30% of the gross square footage of land uses within the development as shown on a site plan or a Sketch Plan complying with the standards set forth in Chapter 11, Policy 9.9.2.

- (iii) The development is in conformance with an integrated site plan or commercial subdivision which includes both vertical and horizontal mix of uses within a defined area.
 - b. Impacts to wetlands from mixed-use development activities (including without limitation impacts resulting from associated improvements such as sidewalks, parking areas and driveways) do not exceed the limitation set forth in Policy 5.2 E(7); and
 - c. To the extent direct impacts to wetlands are caused by a particular building or buildings within a mixed-use development, not less than 30% of the gross square footage of such building or buildings must be for residential use; or such building or buildings shall be physically attached to a building having not less than 30% of its gross square footage permitted for residential use.
- 7. Impacts to wetlands from residential and mixed-use land development activities, on a cumulative basis, shall not exceed 1.8% of the non-commercial and non-industrial acreage of a DRI, PUD, parcel acreage or, if the project is within a New Town Overlay (as defined in Chapter 11, Policy 9.2), 1.8% of the non-commercial and non-industrial acreage within the applicable New Town Overlay.
- 8. ~~The utilization of fill should~~ Allowable wetland impacts shall be kept to a minimum and related ~~primarily~~ to structural building area requirements, on-site disposal system requirements, the 100 year flood elevation requirement for first floor elevations, required stormwater management and parking, and ~~to one primary required~~ access to the on site structures. Minimization shall include application for available land development regulation waivers that would result in reduced wetland impacts.
- 9. Dumping of solid or liquid wastes shall be prohibited.
- 10. Applying or storing pesticides and herbicides should be prohibited unless such application is required for protection of the public health or removal of invasive, exotic, or nuisance plant species for management and mitigation or conservation purposes approved by Brevard County or removal of invasive, exotic, or nuisance plant species for management and mitigation or conservation purposes approved by Brevard County.

11. The County shall develop incentives to minimize impacts to highly functional wetlands.

F. Agricultural Activities

1. An exemption for agricultural pursuits, utilizing best management practices, which do not result in permanent degradation or destruction of the wetlands shall be included within the land development regulation.
2. Wetland impacts for activities listed in agricultural zoning classifications as permitted, permitted with conditions, or approved by the Board of County Commissioners as a Conditional Use on properties designated as bona fide agricultural lands per F.S. 193.461 and 823.14, may be allowed subject to the following criteria:
 - a. The property shall be classified as bona fide agricultural per F.S. 193.461 and 823.14 for not less than ten consecutive years as of the date of the proposed impact;
 - b. The property shall have Agriculture Future Land Use designation or DRI Future Land Use designation and the proposed use is consistent with the defined agricultural uses under an approved DRI Development Order.
 - c. Upon approval of the impact, no less than 50 percent of the property area shall retain bona fide agricultural use pursuant to F.2.a above;
 - d. High functioning wetlands and landscape level systems of connected wetlands shall be identified through a study, and these wetlands shall be protected unless the proposed impacts are found to be in the public interest, or overriding public benefit; and
 - e. The property shall have an agricultural zoning classification or be zoned PUD and the proposed use is consistent with the defined agricultural uses in the PUD zoning resolution or approved Preliminary Development Plan.

Where the allowable use is residential, residential policies shall apply. Sufficient buffer setbacks of the activity from incompatible land uses shall

be provided. Buffer setbacks shall be established through the land development regulations. The property shall meet all other State regulatory criteria.

Policy 5.3

Wetland regulations adopted by Brevard County should avoid duplication of wetland regulation unless regulated activities will result in the destruction and/or degradation of functional wetlands. Where the wetland degradation or destruction has been permitted by FDEP or SJRWMD based on FDEP and SJRWMD professional staff application of criteria and evaluation the County shall apply the land use and density requirements of Policy 5.2 and the avoidance, minimization of impacts, and mitigation priorities established by Objective 5. Any permitted wetland degradation or destruction shall provide for mitigation as designated in the Conservation Element.

Policy 5.4

Wetlands artificially created for wastewater treatment or disposal or for wetland stock nurseries shall not be subject to these regulations and shall not be used to fulfill the requirements of this objective (Objective 5).

Policy 5.5

Natural, isolated wetlands should be incorporated into water management systems where practical and appropriate, as an alternative to destruction of wetlands. Whenever wetlands are utilized within water management systems, quality of the water discharged to the wetlands, hydroperiods and stage elevations should be designed to maintain or enhance the wetland.

Policy 5.6

Wetlands policy should provide allowances to promote redevelopment, and urban and industrial infill.

Minerals

Objective 6

Brevard County shall continue to implement regulations regarding mining, borrow operations and private lakes which protect environmental systems and permit appropriate utilization of the mineral resources.

Policy 6.1

Mining regulations entitled *Land Alteration* shall continue to include, at a minimum, the following provisions to prevent adverse effects on water quality and quantity.

Criteria:

- A. Mining operations are not permitted within Type 1 aquifer recharge areas, as defined by this Comprehensive Plan.
- B. Mining operations are not permitted within Type 2 aquifer recharge areas which are being used for a drinking water supply or where there is potential for private drinking water supply systems.
- C. Mining operations are not permitted within the 10-year floodplain of the St. Johns River or freshwater tributaries of the Indian River Lagoon or wetlands as protected within this Plan.
- D. Mining operations located within the watersheds of Class I surface waters shall not have adverse impacts on water quality and quantity of potable surface water sources.

Policy 6.2

The County's mining regulations shall continue to include, at a minimum, the following provisions to minimize adverse impacts to environmental resources.

Criteria:

- A. Mining operations should not adversely impact protected wetlands or other water dependent systems, and shall be set back a minimum of 100 feet from such wetlands, except as allowable per Policy 5.2.F.
- B. Mining operations shall not cause salt water intrusion. Monitoring by the mining operator shall be required to insure this requirement.

Policy 6.3

The County's mining regulations shall continue to include, at a minimum, the following provisions.

Criteria:

- A. Mining operations within any zoning classification shall require a Conditional Use Permit.
- B. Reclaimed mines shall have a minimum five (5) feet horizontally to one (1) foot vertically (5:1) side slopes to a normal water depth of at least five (5) feet below the water surface; subaqueous side slopes deeper than five (5) feet shall be no steeper than 2:1, and a littoral zone.
- C. When the borrow pit (lake) is to be utilized in conjunction with residential development, stormwater shall not be released directly into lakes with

depths greater than eight (8) feet. Pretreatment of stormwater, for example via swales, shall be required.

Policy 6.4

A reclamation plan and proof of financial responsibility must be submitted and approved prior to the commencement of the mining operation. The reclamation plan shall address the following concerns, at a minimum.

Criteria:

- A. Average depth;
- B. Bottom contours and littoral zones;
- C. Revegetation plan, showing plant materials;
- D. Control of stormwater runoff and drainage;
- E. Recreational amenities, if any;
- F. Stocking with fish, if any; and
- G. Maintenance plan.

Policy 6.5

A concept plan to bind the operational scope and other physical features of the operation shall be submitted and approved prior to the commencement of the mining operation. The concept plan shall address the following criteria, at a minimum.

Criteria:

- A. Size and location of operation;
- B. Location of equipment and equipment storage;
- C. Extent of buffering and setbacks;
- D. Side slopes;
- E. Points of ingress and egress; and
- F. A vicinity map depicting removal routes that trucks and other vehicles will use to haul to sites or areas external to the borrow site.

- G. The required reclamation plan shall also be included.

Policy 6.6

Brevard County shall continue to implement regulations for land excavation operations in addition to those for commercial borrow operations. These regulations are titled *Private Lakes* and shall continue to include, at a minimum, the following:

Criteria:

- A. Definition of regulated land excavation operations. The construction of a private lake will not be used or constructed as a commercial borrow operation by virtue of its intended use, and maximum size.
- B. Exemptions, including the construction of swimming pools, and water retention areas required in conjunction with an approved site plan or subdivision plat.
- C. The minimum size to be regulated.
- D. Setbacks shall continue to be established in the private lake regulations from property lines and rights-of-way lines of a publicly owned road, street, highway, drainage, or public or private utility easements, and cable TV easements.
- E. Regulated excavations shall not be permitted within:
 - 1. Type 1 aquifer recharge areas as identified within this Plan or within;
 - 2. Type 2 aquifer recharge areas being utilized as sources for public drinking water supplies.
 - 3. Below the ten-year floodplain of freshwater tributaries of the Indian River Lagoon or the St. Johns River.
- F. Limitations shall be adopted on length of time that excavations may occur and hours of operation.
- G. Requirements for side slopes of the completed excavation.
- H. Maximum permitted depths.

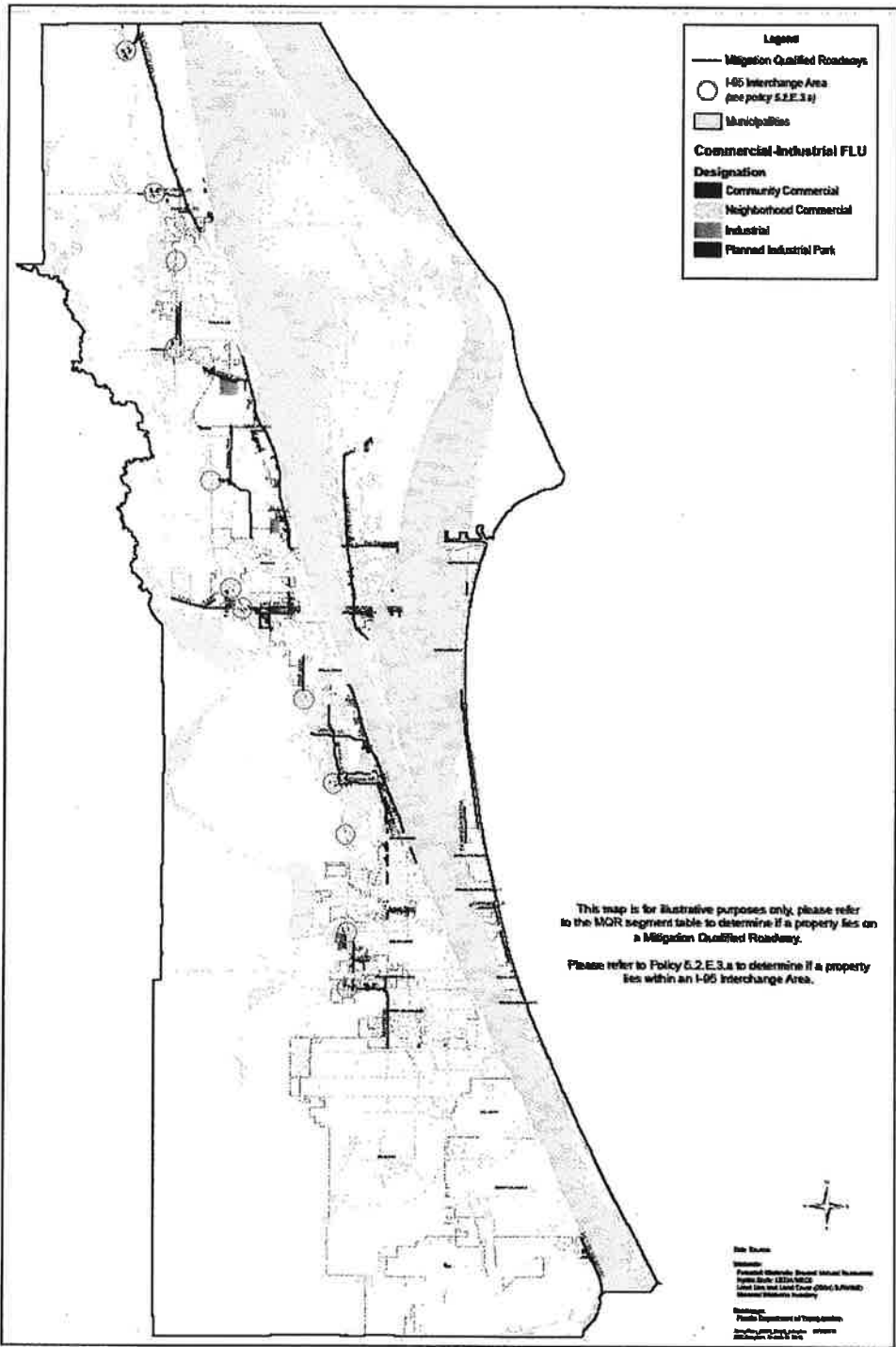
I. Reclamation requirements.

APPENDIX

LIST OF MAPS

Map	Title
1	General Soils
2	Vegetation
3	Biologically Diverse Habitat
4	Floodplains
5	Water Quality of Rivers, Lakes, Bays, and Harbors
6	Wetlands
7	Marine Facilities
<u>8</u>	<u>Mitigation Qualified Roadways</u>

Brevard County - Comprehensive Plan



Mitigation Qualified Roadways/I-95 Interchange Areas

Map 8

MQR SEGMENT NAME (Segments apply ONLY in unincorporated areas of Brevard County)	FROM	TO
Stuck Way Rd (CR 5A)	I-95 interchange area*	U.S. Highway 1
U.S. Highway 1	County Line Rd	Kingman Rd (Titusville City Northern Boundary)
SR 46 / Main St	I-95 interchange area*	Approx. 300' west of Turpentine Rd
SR 46 / Main St	I-95 interchange area*	U.S. Highway 1
Parrish Rd	Singleton Ave	U.S. Highway 1
Cheney Hwy (SR 50)	I-95 interchange area*	Approx. 3,500' west of I-95 interchange area*
South Street	Cheney Hwy (SR 50)	Fox Lake Rd
Columbia Blvd (SR 405)	Woodland Hills Dr	U.S. Highway 1
U.S. Highway 1	Titusville City Boundary	Cocoa City Boundary
Griscom Pkwy	Titusville City Boundary	Cocoa City Boundary
Port St. John Pkwy	I-95 interchange area*	Griscom Pkwy
Kings Hwy	U.S. Highway 1	Approx. 529' west of Koesaw
Curtis Blvd	Fay Blvd	Approx. 210' east of Song Dr
Fay Blvd	Carole Ave	Adobe Ave
Canaveral Groves Blvd	U.S. Highway 1	Approx. 350' west of Morris Ave
SR 520	I-95 interchange area*	Benny Ln
SR 524	SR 520	Cocoa City Boundary
Friday Rd	SR 520	Cocoa City Boundary
Lake Dr	SR 520	Cocoa City Boundary
School St	Clearlake Rd	Pineda St
King St (SR 520)	I-95 interchange area*	Cocoa City Boundary
Peachtree St	Clearlake Rd	Pineda St
Pineda St	Peachtree St	School St
Burnett Rd	Lake Dr	Fluckebam Rd
Range Rd	Lake Dr	Fluckebam Rd
Fluckebam Rd	Burnett Rd	Approx. 700' east of Range Rd
Clearlake Rd	SR 520	Tate St
Pike Blvd	I-95 interchange area*	Eyster Blvd
U.S. Highway 1	Rockledge City Boundary	Post Rd (Melbourne City Boundary)
Murrell Rd	Wickham Rd	Rockledge City Boundary
Viera Blvd	Stadium Pkwy	U.S. Highway 1
Spyglass Hill Rd	Murrell Rd	Pinehurst Ave
Wickham Rd	I-95 interchange area*	New Haven Ave (SR 192)
Sunbree Blvd	Wickham Rd	U.S. Highway 1
Pineda Cswy	Wickham Rd	RR Crossing
Aurora Rd	Citrus St	Melbourne City Boundary (Approx. 235' east of Alpha Dr)
Croton Rd	Carlton Dr	Melbourne City Boundary (Approx. 100' north of Leewood Blvd)
John Rhodes Blvd	Melbourne City Boundary (N end of Lamplighter Village)	New Haven Ave (SR 192)
Elbs Rd	John Rhodes Blvd	Distribution Dr
New Haven Ave (SR 192)	I-95 interchange area*	Minton Road
Babcock St	Micco Rd	Approx. 680' north of Micco Rd
Micco Rd	Babcock Road	Approx. 1,510' east of Babcock St
US 1/SR 5/DiDee Hwy	Senne St (Grant - Valkaria City Boundary)	Sebastian Inlet Bridge (South Brevard County Line)
Micco Rd	US 1/SR 5/DiDee Hwy	Approx. 340' west of Pine Ridge Trail
N Courtenay Pkwy	Pine Island Rd	SR 520
Courtenay Pkwy	SR 520	Approx. 470' south of Island Beach Blvd.
Sea Ray Dr	N Courtenay Parkway	Banana River Dr
Marine Harbor Dr	N Courtenay Parkway	Tropical Tr
Tropical Tr	Marine Harbor Dr	Barge Canal
N Banana River Dr	Barge Canal	Stafford Ave
Merritt Island Cswy (SR 520)	Indian River Lagoon (east shore)	New Found Harbor (west shore)
Merritt Island Cswy (SR 520)	Newfound Harbor (east shore)	Banana River (west shore)
Milford Point Dr	Merritt Island Cswy	Approx. 629' north of Merritt Island Cswy
Banana River Dr	Merritt Island Cswy	Approx. 1,200' south of Merritt Island Cswy
Newfound Harbor Dr	Merritt Island Cswy	Approx. 179' south of Kessler Dr
Atlantic Ave	Grant	Barlow
Orlando Ave (SR A1A)	11th St (Cocoa Beach City Boundary)	Atlantic Ave (SR A1A)
Atlantic Ave/SR A1A	Indian Village Trail (Cocoa Beach City Boundary)	Groose Pointe Ave (Indianalantic City Boundary)
SR 515/S Patrick Dr	Pineda Cswy	Satellite Beach City Boundary (Approx. 185' north of Siena Ct)
Eau Gallie Blvd	Harbor City Parkway	SR A1A

* - Please refer to Policy 5.2.E.3.a

Reverse Side of Map 8

Text Amendment to Part XV Glossary

Overriding public benefit - means the result of a development action by a private property owner that substantially preserves, restores or enhances those natural functions which define areas of critical concern, environmentally sensitive areas, shorelines or water bodies, identified by the County Comprehensive Plan, NRMO or state or federal agencies. An overriding public benefit shall include but not be limited to proposals which preserve, restore or enhance floodplain, wetland, shoreline or prime aquifer recharge functions and provide for the dedication of associated lands to the County or other acceptable public entity or agency.

ATTACHMENT E

ORDINANCE NO. 13- 03

ORDINANCE AMENDING ARTICLE III, CHAPTER 62, OF THE CODE OF ORDINANCES OF BREVARD COUNTY; ENTITLED "THE COMPREHENSIVE PLAN", SETTING FORTH PLAN REMEDIAL AMENDMENT 2013-R; AMENDING SECTION 62-501, ENTITLED "CONTENTS OF THE PLAN"; SPECIFICALLY AMENDING SECTION 62-501, PART I, ENTITLED CONSERVATION ELEMENT; PROVIDING FOR INTERNAL CONSISTENCY WITH THESE AMENDMENTS; PROVIDING LEGAL STATUS; PROVIDING A SEVERABILITY CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, Section 163.3161 et. seq., Florida Statutes (1987) established the Local Government Comprehensive Planning and Land Development Regulation Act; and

WHEREAS, Section 163.3167, Florida Statutes, requires each County in the State of Florida to prepare and adopt a Comprehensive Plan as scheduled by the Department of Community Affairs; and

WHEREAS, on September 8, 1988, the Board of County Commissioners of Brevard County, Florida, approved Ordinance No. 88-27, adopting the 1988 Brevard County Comprehensive Plan, hereafter referred to as the 1988 Plan; and

WHEREAS, Sections 163.3184 and 163.3187, and 163.3189, Florida Statutes, established the process for the amendment of comprehensive plans pursuant to which Brevard County has established procedures for amending the 1988 Plan; and

WHEREAS, Brevard County initiated amendments and accepted application for amendments to the Comprehensive Plan on December 30, 2011, for adoption as the Spring Plan Amendment Cycle 2012-1; and

WHEREAS, on October 9, 2012, the Brevard County Board of County Commissioners held a duly noticed public hearing, and considered the findings and recommendations, and all interested parties submitting written or oral comments, and the recommendations of the Local Planning Agency, and upon thorough and complete consideration and deliberation, approved for the adoption of Plan Amendment 2012-1.4; and

WHEREAS, on November 8, 2012, Mary Sphar, Sandra Clinger, and Sierra Club, Inc., timely filed a Petition for Administrative Hearing with the State Department of Administrative Hearings (DOAH), challenging portions of Plan Amendment 2012-1.4; and

WHEREAS, the parties wish to avoid the expense, delay, and uncertainty of lengthy litigation and have entered into a settlement agreement to resolve all matters raised in the Petition, and agree it is in their respective best interests to do so; and

Officially filed with the
Secretary of State on 02-15-2013.

WHEREAS, Remedial Plan Amendment 2013-R adopted by this Ordinance satisfies the requirements of the settlement agreement and complies with the requirements of the Local Government Comprehensive Planning and Land Development Regulation Act; and

WHEREAS, Remedial Plan Amendment 2013-R adopted by this Ordinance is based upon findings of fact as included in the data and analysis.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF BREVARD COUNTY, FLORIDA, as follows:

Section 1. Authority. This ordinance is adopted in compliance with, and pursuant to the Local Government Comprehensive Planning and Land Development Regulations Act, Sections 163.3184 and 163.3187, Florida Statutes.

Section 2. Purpose and Intent. It is hereby declared to be the purpose and intent of this Ordinance to clarify, expand, correct, update, modify and otherwise further the provisions of the 1988 Brevard County Comprehensive Plan.

Section 3. Adoption of Comprehensive Plan Amendments. Pursuant to Remedial Plan Amendment 2013-R to the 1988 Comprehensive Plan, Article III, Chapter 62-504, Brevard County Code, the 1988 Brevard County Comprehensive Plan is hereby amended as specifically shown in Exhibit A. Exhibit A is hereby incorporated into and made part of this Ordinance.

Section 4. Legal Status of the Plan Amendments. After and from the effective date of this Ordinance, the plan amendment, Remedial Plan Amendment 2013-R, shall amend the 1988 Comprehensive Plan and become part of that plan and the plan amendment shall retain the legal status of the 1988 Brevard County Comprehensive Plan established in Chapter 62-504 of the Code of Laws and Ordinances of Brevard County, Florida, as amended.

Section 5. Severability. If any section, paragraph, subdivision, clause, sentence or provision of this Ordinance shall be adjudged by any court of competent jurisdiction to be invalid, such judgment shall not affect, impair, invalidate, or nullify the remainder of this Ordinance, but the effect thereof shall be confined to the section, paragraph, subdivision, clause, sentence or provision immediately involved in the controversy in which such judgment or decree shall be rendered.

Section 6. Effective Date. The plan amendment shall become effective once the state land planning agency issues a final order determining the adopted amendment to be in compliance in accordance with Florida Statutes, Section 163.3184(9), or until the Administration Commission issues a final order determining the amendment to be in compliance in accordance with Florida Statutes, Section 163.3184(10). A certified copy of the ordinance shall be filed with the Office of the Secretary of State, State of Florida, within ten days of enactment.

DONE AND ADOPTED in regular session, this 7th day of February, 2013.

ATTEST:



Scott Ellis, Clerk

**BOARD OF COUNTY COMMISSIONERS
OF BREVARD COUNTY, FLORIDA**

By: 

Andy Anderson, Chairman

Approved by the Board on February 7th, 2013.

EXHIBIT A

2013-R REMEDIAL COMPREHENSIVE PLAN AMENDMENT

Proposed Text Amendment

For ease of reference the entirety of Objectives 5 and 6 are shown below. Additions to the Objectives are shown as underlined and deletions are shown as ~~struck through~~.

Wetlands

Objective 5

Preserve, protect, restore, and replace wetlands to achieve no net loss of functional wetlands in Brevard County after September, 1990. The County shall ensure the protection of wetlands and wetland functional values by prioritizing protective activities with avoidance of impacts as the first priority, minimization of impacts as the second priority, and mitigation for impacts as the third priority.

Policy 5.1

Brevard County shall utilize the same methodology, soil types, hydrological requirements and vegetation types as the FDEP and the SJRWMD in delineating wetlands.

Policy 5.2

Brevard County shall adopt regulations which promote no net loss of functional wetlands. At a minimum, the following criteria shall be included in the land development regulations:

Criteria:

- A. The basis for no net loss shall be established as of the effective date of the required ordinance.
- B. Wetlands shall be considered functional unless the applicant demonstrates that the water regime has been permanently altered, either artificially or naturally, in a manner to preclude the area from maintaining surface water or hydroperiodicity necessary to sustain wetland functions.
- C. If an activity is undertaken which degrades or destroys a functional wetland, the person performing such an activity shall be responsible for repairing and maintaining the wetland. If it is not feasible or desirable for the responsible person to perform the repair and maintenance of the wetland, then the responsible person shall mitigate for the wetland loss. Mitigation can include, but not be limited to: wetland restoration, wetland replacement, wetland enhancement, monetary compensation or wetland preservation.

- D. Wetland activity conducted by a public agency may not be utilized for wetland mitigation credit by private persons unless approved by Brevard County.
- E. The following land use and density restrictions within wetlands are established as a maximum density or most intense land use that may be considered only if the other criteria established in Conservation Element Policy 5.2 are met:
1. Residential land uses within wetlands, that are a part of a formal subdivision or site plan, on properties containing wetlands shall be limited to the following:
 - a. Residential land uses within wetlands shall be limited to not more than one (1) dwelling unit per five (5) acres unless strict application of this policy renders a legally established parcel as of September 9, 1988, which is less than five (5) acres, as unbuildable. The preceding limitation of one dwelling unit per five (5) acres within wetlands may be applied as a maximum percentage limiting wetland impacts to not more than 1.8% of the total non-commercial and non-industrial acreage on a cumulative basis as set forth in Policy 5.2.E (7), for subdivisions and multi-family parcels greater than five acres in area, New Town Overlays, PUDs, and if applicable, mixed-use land development activities as specified in Policy 5.2.E (6).
 - b. For development activities on property greater than five (5) acres, density may be transferred to an upland portion of the site if consistent with all county land development regulations and compatible with adjacent uses.
 - c. Except as allowable in Policy 5.2.E(1)a, subdivided lots and multi-family parcels shall contain sufficient uplands for the intended use and for any buffering necessary to maintain the function of the wetland(s), and shall be compatible with adjacent uses.
 2. Residential land uses within wetlands and created by metes and bounds, which are not part of a formal subdivision, on properties containing wetlands shall be limited to the following:
 - a. Residential land uses within wetlands shall be limited to not more than one (1) dwelling unit per five (5) acres unless strict

application of this policy would render a legally established parcel as of September 9, 1988, which is less than five (5) acres, as unbuildable. The preceding limitation of one dwelling unit per five (5) acres within wetlands may be applied as a maximum percentage limiting wetland impacts as described in Policy 5.2.E (1)a above. Application of the one-unit-per-five-acres limitation shall limit impacts to wetlands for single family residential development on a cumulative basis, to not more than 1.8% of the total property as defined in Policy 5.2.E (7).

- b. Except as allowable in Policy 5.2.E (2)a, properties shall contain sufficient uplands for the intended use and for any buffering necessary to maintain the function of the wetland(s), and shall be compatible with adjacent uses.
 - c. In addition to impacts allowable in Policy 5.2.E (2)a, on properties where sufficient uplands for the intended use and for any buffering necessary to maintain the function of the wetland(s) exist except for access, wetland impacts may be permitted for single access to the uplands.
3. Commercial and industrial land development activities shall be prohibited in wetlands contained in properties designated on the Future Land Use Map as commercial or industrial, and in surrounding upland buffers for such wetlands, except as provided below for I-95 interchanges, mitigation qualified roadways, abutting properties, and access to uplands. In no instance shall a proposed land development activity result in increased flooding on adjacent properties. Where the State does not require a buffer, wetland buffers specifications shall be established in land development regulations and be based on peer-reviewed publications to include, but not be limited to, Buffer Zones for Water, Wetlands, and Wildlife in the East Central Florida Region, (1990, Brown, M.T., Schaefer, and K. Brandt, published by the Center for Wetlands, University of Florida). Where impacts are permitted, the applicant is encouraged to propose innovative wetland preservation alternatives.
- a. Impacts to wetlands are permissible for commercial or industrial land development activities on a property that is designated as commercial or industrial on the Future Land

Use map, and is located within one-half mile of the intersection of the off-ramp of the I-95 interchange with the connecting roadway. The one-half mile radius shall extend from the end of the limited access boundary of I-95. This shall not include those interchanges where I-95 intersects a limited access highway as defined by Florida Statute. Where the State does not require mitigation for any wetland impact, mitigation shall be provided to meet the County's no net loss policy as defined in Objective 5.

- b. In mitigation qualified roadways, commercial or industrial land development activities may be permitted in wetlands contained in properties designated for commercial or industrial land uses on the Future Land Use Map. Mitigation qualified roadways are depicted and identified in a table on Map 8.

An amendment to the Comprehensive Plan shall be required to add a mitigation qualified roadway to Map 8 and the associated table. High functioning wetlands and landscape level systems of connected wetlands shall be identified through a study, and these wetlands shall be protected unless the proposed impacts are found to be in the public interest, or overriding public benefit.¹ Where the State does not require mitigation for any wetland impact, mitigation shall be provided to meet the County's no net loss policy as defined in Objective 5.

- c. Commercial or industrial land development activities may be permitted in wetlands contained in properties designated for commercial or industrial land uses on the Future Land Use Map prior to February 23, 1996, if the property abuts land(s) developed as commercial or industrial as of December 31, 2010, and has sufficient infrastructure available to serve the

¹ The Board authorized a study to identify high functioning wetlands and landscape level systems. Impacts to high functioning and landscape level wetlands are not permitted until the study is complete and subsequent plan amendment and land development regulations are enacted to incorporate definitions that contain meaningful and predictable standards. In the interim, impact to wetlands described by the State (FDEP or SJRWMD) as: 1) low quality or low functioning with a total cumulative impact of less than 5 acres; or 2) less than 0.1 acre of impact to isolated wetlands where the State does not require mitigation, may be approved by the Board.

commercial or industrial use. This shall not apply to properties that are addressed under Policies 5.2.E.3.a, b, and d. High functioning wetlands and landscape level systems of connected wetlands shall be identified through a study, and these wetlands shall be protected unless the proposed impacts are found to be in the public interest, or overriding public benefit.¹ Where the State does not require mitigation for any wetland impact, mitigation shall be provided to meet the County's no net loss policy as defined in Objective 5.

- d. Impacts to wetlands for commercial or industrial land development activities limited solely to providing access to uplands, and for no other purpose than providing access as required by Brevard County land development regulations may be permitted in wetlands contained in properties designated on the Future Land Use Map as commercial or industrial of February 23, 1996, only if all of the following criteria are met:
 - (i) Sufficient uplands exist for the intended use except for access to uplands.
 - (ii) The property was not subdivided from a larger property after December 31, 2010. This shall not preclude a single shared access through wetlands for properties subdivided after December 31, 2010.
 - (iii) Where the State does not require mitigation for any wetland impact, mitigation shall be provided to meet the County's no net loss policy as defined in Objective 5.

- 4. Institutional and Residential Professional development activities within wetlands shall be limited to the following:
 - a. Institutional or Residential Professional land development on properties which contain wetlands and which are designated on the Future Land Use Map as Neighborhood Commercial or Community Commercial shall be considered commercial as set forth in Policy 5.2.E.3. The property shall have sufficient infrastructure available to serve the use.
 - b. Institutional or Residential Professional land development on properties which contain wetlands and which are designated

on the Future Land Use Map as residential shall be limited to properties of at least 5 acres unless strict application of this policy renders a legally established parcel as of September 9, 1988, which is less than 5 acres, as unbuildable.

5. In the event that the denial of commercial or industrial development activities in wetlands results in an inordinate burden under the Bert Harris Property Rights Act or a taking under state or federal law, an affected property owner may appeal such denial to the Board of County Commissioners in the manner provided in Section 62-507(b)(2), Code of Ordinances of Brevard County, Florida.
6. Beginning on January 1, 2010, mixed-use land development activities may be permitted in wetlands only if all of the following are met:
 - a. The land development activities that impact wetlands must be part of a mixed use development that includes a minimum of three of the following land uses: residential, commercial (retail services and/or office), recreation/open space and institutional uses. Industrial land uses shall be prohibited in mixed use land development activities within wetlands. For purposes of this policy mixed use land development activities shall be consistent with the following criteria:
 - (i) The mixed use land development activity includes a variety of densities, intensities and types designed to promote walking between uses and utilizes a variety of transportation modes such as bicycles, transit and automobiles; and
 - (ii) The residential component of the land development activity is an integrated part of the project and comprises not less than 30% of the gross square footage of land uses within the development as shown on a site plan or a Sketch Plan complying with the standards set forth in Chapter 11, Policy 9.9.2.
 - (iii) The development is in conformance with an integrated site plan or commercial subdivision which includes both vertical and horizontal mix of uses within a defined area.

- b. Impacts to wetlands from mixed-use development activities (including without limitation impacts resulting from associated improvements such as sidewalks, parking areas and driveways) do not exceed the limitation set forth in Policy 5.2 E(7); and
 - c. To the extent direct impacts to wetlands are caused by a particular building or buildings within a mixed-use development, not less than 30% of the gross square footage of such building or buildings must be for residential use; or such building or buildings shall be physically attached to a building having not less than 30% of its gross square footage permitted for residential use.
- 7. Impacts to wetlands from residential and mixed-use land development activities, on a cumulative basis, shall not exceed 1.8% of the non-commercial and non-industrial acreage of a DRI, PUD, parcel acreage or, if the project is within a New Town Overlay (as defined in Chapter 11, Policy 9.2), 1.8% of the non-commercial and non-industrial acreage within the applicable New Town Overlay.
 - 8. Allowable wetland impacts shall be kept to a minimum and related to structural building area requirements, on-site disposal system requirements, the 100 year flood elevation requirement for first floor elevations, required stormwater management and parking, and required access to the on site structures. Minimization shall include application for available land development regulation waivers that would result in reduced wetland impacts.
 - 9. Dumping of solid or liquid wastes shall be prohibited.
 - 10. Applying or storing pesticides and herbicides should be prohibited unless such application is required for protection of the public health or removal of invasive, exotic, or nuisance plant species for management and mitigation or conservation purposes approved by Brevard County or removal of invasive, exotic, or nuisance plant species for management and mitigation or conservation purposes approved by Brevard County.
 - 11. The County shall develop incentives to minimize impacts to highly functional wetlands.

F. Agricultural Activities

1. An exemption for agricultural pursuits, utilizing best management practices, which do not result in permanent degradation or destruction of wetlands shall be included within the land development regulation.
2. Wetland impacts for activities listed in agricultural zoning classifications as permitted, permitted with conditions, or approved by the Board of County Commissioners as a Conditional Use on properties designated as bona fide agricultural lands per F.S. 193.461 and 823.14, may be allowed subject to the following criteria:
 - a. The property shall be classified as bona fide agricultural per F.S. 193.461 and 823.14 for not less than ten consecutive years as of the date of the proposed impact;
 - b. The property shall have Agriculture Future Land Use designation or DRI Future Land Use designation and the proposed use is consistent with the defined agricultural uses under an approved DRI Development Order;
 - c. Upon approval of the impact, no less than 50 percent of the property area shall retain bona fide agricultural use pursuant to F.2.a above;
 - d. High functioning wetlands and landscape level systems of connected wetlands shall be identified through a study, and these wetlands shall be protected unless the proposed impacts are found to be in the public interest, or overriding public benefit;¹ and
 - e. The property shall have an agricultural zoning classification.

Where the allowable use is residential, residential policies shall apply. Sufficient buffer setbacks of the activity from incompatible land uses shall be provided. Buffer setbacks shall be established through the land development regulations. The property shall meet all other State regulatory criteria.

Policy 5.3

Wetland regulations adopted by Brevard County should avoid duplication of wetland regulation unless regulated activities will result in the destruction and/or degradation of functional wetlands. Where the wetland degradation or destruction has been permitted by FDEP or SJRWMD based on FDEP and SJRWMD professional staff application of criteria and evaluation the County shall apply the land use and density requirements of Policy 5.2 and the avoidance, minimization of impacts, and mitigation priorities established by Objective 5. Any permitted wetland degradation or destruction shall provide for mitigation as designated in the Conservation Element.

Policy 5.4

Wetlands artificially created for wastewater treatment or disposal or for wetland stock nurseries shall not be subject to these regulations and shall not be used to fulfill the requirements of this objective (Objective 5).

Policy 5.5

Natural, isolated wetlands should be incorporated into water management systems where practical and appropriate, as an alternative to destruction of wetlands. Whenever wetlands are utilized within water management systems, quality of the water discharged to the wetlands, hydroperiods and stage elevations should be designed to maintain or enhance the wetland.

Policy 5.6

Wetlands policy should provide allowances to promote redevelopment, and urban and industrial infill.

Minerals

Objective 6

Brevard County shall continue to implement regulations regarding mining, borrow operations and private lakes which protect environmental systems and permit appropriate utilization of the mineral resources.

Policy 6.1

Mining regulations entitled *Land Alteration* shall continue to include, at a minimum, the following provisions to prevent adverse effects on water quality and quantity.

Criteria:

- A. Mining operations are not permitted within Type 1 aquifer recharge areas, as defined by this Comprehensive Plan.

- B. Mining operations are not permitted within Type 2 aquifer recharge areas which are being used for a drinking water supply or where there is potential for private drinking water supply systems.
- C. Mining operations are not permitted within the 10-year floodplain of the St. Johns River or freshwater tributaries of the Indian River Lagoon or wetlands as protected within this Plan.
- D. Mining operations located within the watersheds of Class I surface waters shall not have adverse impacts on water quality and quantity of potable surface water sources.

Policy 6.2

The County's mining regulations shall continue to include, at a minimum, the following provisions to minimize adverse impacts to environmental resources.

Criteria:

- A. Mining operations should not adversely impact protected wetlands or other water dependent systems, and shall be set back a minimum of 100 feet from such wetlands, except as allowable per Policy 5.2.F.¹
- B. Mining operations shall not cause salt water intrusion. Monitoring by the mining operator shall be required to insure this requirement.

Policy 6.3

The County's mining regulations shall continue to include, at a minimum, the following provisions.

Criteria:

- A. Mining operations within any zoning classification shall require a Conditional Use Permit.
- B. Reclaimed mines shall have a minimum five (5) feet horizontally to one (1) foot vertically (5:1) side slopes to a normal water depth of at least five (5) feet below the water surface; subaqueous side slopes deeper than five (5) feet shall be no steeper than 2:1, and a littoral zone.
- C. When the borrow pit (lake) is to be utilized in conjunction with residential development, stormwater shall not be released directly into lakes with depths greater than eight (8) feet. Pretreatment of stormwater, for example via swales, shall be required.

Policy 6.4

A reclamation plan and proof of financial responsibility must be submitted and approved prior to the commencement of the mining operation. The reclamation plan shall address the following concerns, at a minimum.

Criteria:

- A. Average depth;
- B. Bottom contours and littoral zones;
- C. Revegetation plan, showing plant materials;
- D. Control of stormwater runoff and drainage;
- E. Recreational amenities, if any;
- F. Stocking with fish, if any; and
- G. Maintenance plan.

Policy 6.5

A concept plan to bind the operational scope and other physical features of the operation shall be submitted and approved prior to the commencement of the mining operation. The concept plan shall address the following criteria, at a minimum.

Criteria:

- A. Size and location of operation;
- B. Location of equipment and equipment storage;
- C. Extent of buffering and setbacks;
- D. Side slopes;
- E. Points of ingress and egress; and
- F. A vicinity map depicting removal routes that trucks and other vehicles will use to haul to sites or areas external to the borrow site.
- G. The required reclamation plan shall also be included.

Policy 6.6

Brevard County shall continue to implement regulations for land excavation operations in addition to those for commercial borrow operations. These regulations are titled *Private Lakes* and shall continue to include, at a minimum, the following:

Criteria:

- A. Definition of regulated land excavation operations. The construction of a private lake will not be used or constructed as a commercial borrow operation by virtue of its intended use, and maximum size.
- B. Exemptions, including the construction of swimming pools, and water retention areas required in conjunction with an approved site plan or subdivision plat.
- C. The minimum size to be regulated.
- D. Setbacks shall continue to be established in the private lake regulations from property lines and rights-of-way lines of a publicly owned road, street, highway, drainage, or public or private utility easements, and cable TV easements.
- E. Regulated excavations shall not be permitted within:
 1. Type 1 aquifer recharge areas as identified within this Plan or within;
 2. Type 2 aquifer recharge areas being utilized as sources for public drinking water supplies.
 3. Below the ten-year floodplain of freshwater tributaries of the Indian River Lagoon or the St. Johns River.
- F. Limitations shall be adopted on length of time that excavations may occur and hours of operation.
- G. Requirements for side slopes of the completed excavation.
- H. Maximum permitted depths.
- I. Reclamation requirements.

ATTACHMENT F

ORDINANCE NO. 14-18

ORDINANCE AMENDING ARTICLE III, CHAPTER 62, OF THE CODE OF ORDINANCES OF BREVARD COUNTY; ENTITLED "THE COMPREHENSIVE PLAN", SETTING FORTH PLAN AMENDMENT 2014-1.4; AMENDING SECTION 62-501, ENTITLED "CONTENTS OF THE PLAN"; SPECIFICALLY AMENDING SECTION 62-501, PART I, ENTITLED CONSERVATION ELEMENT AND CONSERVATION ELEMENT MAP SERIES; PART XV, ENTITLED GLOSSARY; PROVIDING FOR INTERNAL CONSISTENCY WITH THESE AMENDMENTS; PROVIDING LEGAL STATUS; PROVIDING A SEVERABILITY CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, Section 163.3161 et. seq., Florida Statutes (1987) established the Local Government Comprehensive Planning and Land Development Regulation Act; and

WHEREAS, Section 163.3167, Florida Statutes, requires each County in the State of Florida to prepare and adopt a Comprehensive Plan as scheduled by the Department of Community Affairs; and

WHEREAS, on September 8, 1988, the Board of County Commissioners of Brevard County, Florida, approved Ordinance No. 88-27, adopting the 1988 Brevard County Comprehensive Plan, hereafter referred to as the 1988 Plan; and

WHEREAS, Sections 163.3184 and 163.3187, and 163.3189, Florida Statutes, established the process for the amendment of comprehensive plans pursuant to which Brevard County has established procedures for amending the 1988 Plan; and

WHEREAS, Brevard County initiated amendments and accepted application for amendments to the Comprehensive Plan on December 31, 2013, for adoption as the Spring Plan Amendment Cycle 2014-1; and

WHEREAS, the Board of County Commissioners of Brevard County, Florida, have provided for the broad dissemination of proposals and alternatives, opportunity for written comments, public hearings after due public notice, provisions for open discussion, communication programs and consideration of and response to public comments concerning the provisions contained in the 1988 Plan and amendments thereto; and

WHEREAS, Section 62-181, Brevard County Code designated the Brevard County Planning and Zoning Board as the Local Planning Agency for the unincorporated areas of Brevard County, Florida, and set forth the duties and responsibilities of said local planning agency; and

WHEREAS, on May 5, 2014 the Brevard County Local Planning Agency held a duly noticed public hearing on Plan Amendment 2014-1.4, and considered the findings and advice of the Technical Advisory Groups, and all interested parties submitting comments; and

WHEREAS, on May 29, 2014, the Brevard County Board of County Commissioners held a duly noticed public hearing, and considered the findings and recommendations, and all interested parties submitting written or oral comments, and the recommendations of the Local Planning Agency, and upon thorough and complete consideration and deliberation, approved for the adoption of Plan Amendment 2014-1.4; and

WHEREAS, Plan Amendment 2014-1.4 adopted by this Ordinance complies with the requirements of the Local Government Comprehensive Planning and Land Development Regulation Act; and

WHEREAS, Plan Amendment 2014-1.4 adopted by this Ordinance is based upon findings of fact as included in the data and analysis.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF BREVARD COUNTY, FLORIDA, as follows:

Section 1. Authority. This ordinance is adopted in compliance with, and pursuant to the Local Government Comprehensive Planning and Land Development Regulations Act, Sections 163.3184 and 163.3187, Florida Statutes.

Section 2. Purpose and Intent. It is hereby declared to be the purpose and intent of this Ordinance to clarify, expand, correct, update, modify and otherwise further the provisions of the 1988 Brevard County Comprehensive Plan.

Section 3. Adoption of Comprehensive Plan Amendments. Pursuant to Plan Amendment 2014-1.4 to the 1988 Comprehensive Plan, Article III, Chapter 62-504, Brevard County Code, the 1988 Brevard County Comprehensive Plan is hereby amended as specifically shown in Exhibit A. Exhibit A is hereby incorporated into and made part of this Ordinance.

Section 4. Legal Status of the Plan Amendments. After and from the effective date of this Ordinance, the plan amendment, Plan Amendment 2014-1.4, shall amend the 1988 Comprehensive Plan and become part of that plan and the plan amendment shall retain the legal status of the 1988 Brevard County Comprehensive Plan established in Chapter 62-504 of the Code of Laws and Ordinances of Brevard County, Florida, as amended.

Section 5. Severability. If any section, paragraph, subdivision, clause, sentence or provision of this Ordinance shall be adjudged by any court of competent jurisdiction to be invalid, such judgment shall not affect, impair, invalidate, or nullify the remainder of this Ordinance, but the effect thereof shall be confined to the section, paragraph, subdivision, clause, sentence or provision immediately involved in the controversy in which such judgment or decree shall be rendered.

Section 6. Effective Date. The plan amendment shall become effective once the state land planning agency issues a final order determining the adopted amendment to be in compliance in accordance with Florida Statutes, Section 163.3184(9), or until the Administration Commission

issues a final order determining the amendment to be in compliance in accordance with Florida Statutes, Section 163.3184(10). A certified copy of the ordinance shall be filed with the Office of the Secretary of State, State of Florida, within ten days of enactment.

DONE AND ADOPTED in regular session, this 29th day of May, 2014.

ATTEST:



Scott Ellis

Scott Ellis, Clerk

**BOARD OF COUNTY COMMISSIONERS
OF BREVARD COUNTY, FLORIDA**

By:



Mary Bolin Lewis, Chairman

Approved by the Board on **MAY 29 2014**, 2014.

EXHIBIT A

2014-1.4 COMPREHENSIVE PLAN AMENDMENT

Additions to the Objective are shown as underlined and deletions are shown as ~~struck-through~~.

Wetlands

Objective 5

Preserve, protect, restore, and replace wetlands to achieve no net loss of functional wetlands in Brevard County after September, 1990. The County shall ensure the protection of wetlands and wetland functional values by prioritizing protective activities with avoidance of impacts as the first priority, minimization of impacts as the second priority, and mitigation for impacts as the third priority.

Conservation Element, Policy 5.2.E.3.

- b. In mitigation qualified roadways, commercial or industrial land development activities may be permitted in wetlands contained in properties designated for commercial or industrial land uses on the Future Land Use Map. Mitigation qualified roadways are depicted and identified in a table on Map 8.

An amendment to the Comprehensive Plan shall be required to add a mitigation qualified roadway to Map 8 and the associated table. ~~High functioning wetlands and landscape level systems of connected wetlands shall be identified through a study, and~~ Impacts to high functioning and landscape level wetlands shall be prohibited ~~protected~~ unless the proposed impacts are found to be in the public interest, or overriding public benefit.¹ Where the State does not require mitigation for any wetland impact, mitigation shall be provided to meet the County's no net loss policy as defined in Objective 5.

- c. Commercial or industrial land development activities may be permitted in wetlands contained in properties designated for commercial or industrial land uses on the Future Land Use Map prior to February 23, 1996, if the property abuts land(s) developed as commercial or industrial as of December 31, 2010, and has sufficient infrastructure available to serve the commercial or industrial use. This shall not apply to properties that are addressed under Policies 5.2.E.3.a, b, and d. ~~High functioning and landscape level systems of connected wetlands shall be identified through a study, and~~ Impacts to high functioning and landscape level wetlands shall be prohibited ~~protected~~ unless the proposed impacts are found to be in the public interest, or overriding public benefit.¹ Where the State does not require mitigation for any wetland impact, mitigation shall be provided to meet the County's no net loss policy as defined in Objective 5.

Policy 5.2.F.

2. Wetland impacts for activities listed in agricultural zoning classifications as permitted, permitted with conditions, or approved by the Board of County Commissioners as a Conditional Use on properties designated as bona fide agricultural lands per F.S. 193.461 and 823.14, may be allowed subject to the following criteria:

- a. The property shall be classified as bona fide agricultural per F.S. 193.461 and 823.14 for not less than ten consecutive years as of the date of the proposed impact;
- b. The property shall have Agriculture Future Land Use designation or DRI Future Land Use designation and the proposed use is consistent with the defined agricultural uses under an approved DRI Development Order.
- c. Upon approval of the impact, no less than 50 percent of the property area shall retain bona fide agricultural use pursuant to F.2.a above;
- d. ~~High functioning wetlands and landscape level systems of connected wetlands shall be identified through a study, and~~ Impacts to high functioning or landscape level wetlands shall be prohibited ~~protected unless the proposed impacts are found to be in the public interest, or overriding public benefit.¹; and~~
- e. The property shall have an agricultural zoning classification or be zoned PUD and the proposed use is consistent with the defined agricultural uses in the PUD zoning resolution or approved Preliminary Development Plan.

Where the allowable use is residential, residential policies shall apply. Sufficient buffer setbacks of the activity from incompatible land uses shall be provided. Buffer setbacks shall be established through the land development regulations. The property shall meet all other State regulatory criteria.

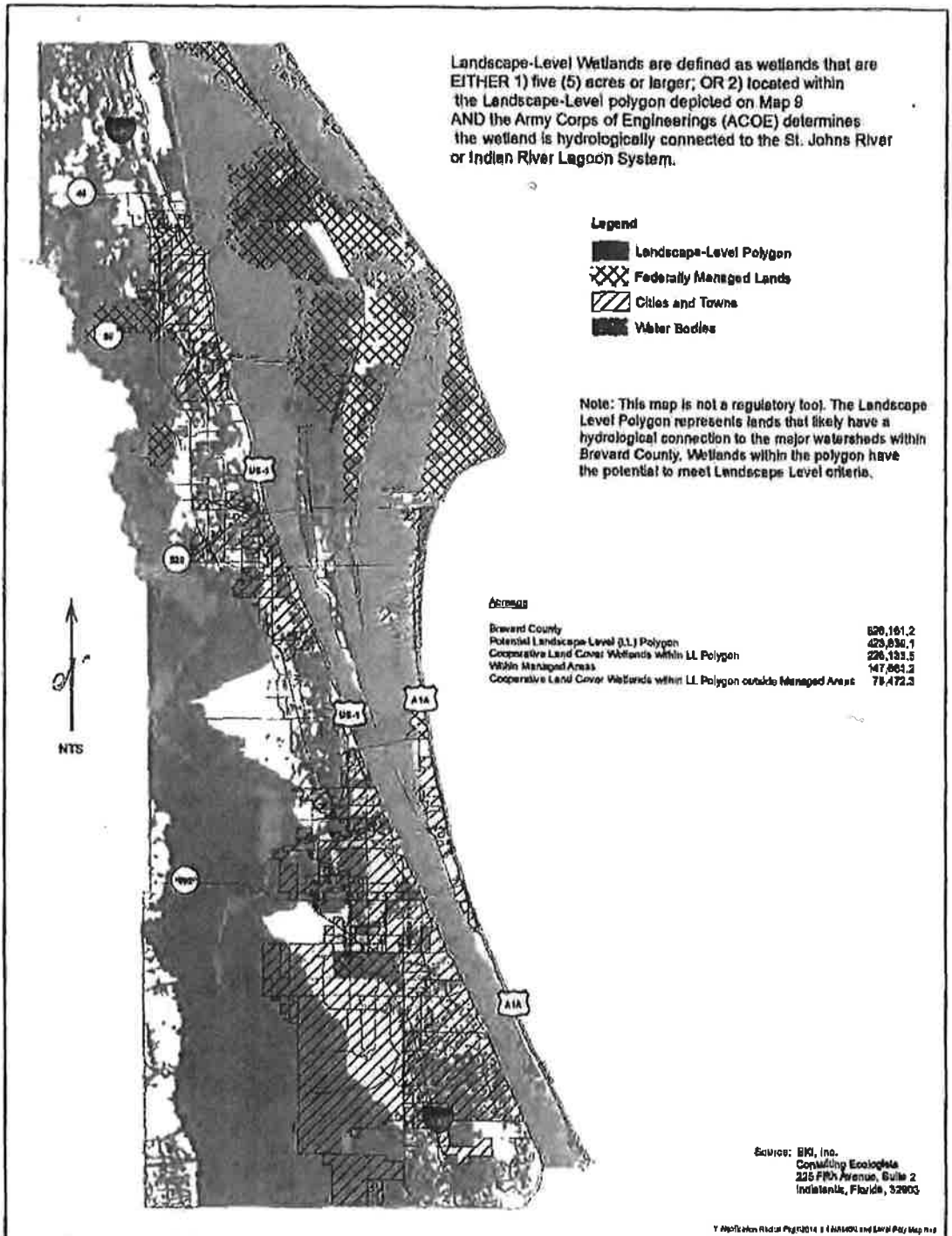
~~¹The Board authorized a study to identify high functioning wetlands and landscape level systems. Impacts to high functioning and landscape level wetlands are not permitted until the study is complete and subsequent plan amendment and land development regulations are enacted to incorporate definitions that contain meaningful and predictable standards. In the interim, impact to wetlands described by the State (FDEP or SJRWMD) as: 1) low quality or low functioning with a total cumulative impact of less than 5 acres; or 2) less than 0.1 acre of impact to isolated wetlands where the State does not require mitigation, may be approved by the Board.~~

APPENDIX

LIST OF MAPS

Map	Title
1	General Soils
2	Vegetation
3	Biologically Diverse Habitat
4	Floodplains
5	Water Quality of Rivers, Lakes, Bays, and Harbors
6	Wetlands
7	Marine Facilities
8	Mitigation Qualified Roadways
9	<u>Landscape Level Polygon</u>

Brevard County - Comprehensive Plan



**Conservation Element
Landscape-Level Polygon Map**

Text Amendment to Part XV Glossary

High Functioning Wetlands - wetlands that score 0.66 or above as determined by the Wetlands Assessment Method established in the Countywide Wetlands Study, prepared BKL, Inc. Consulting Ecologists (September 30, 2013), adopted by the Board and incorporated herein by this reference.

Landscape Level Wetlands - wetlands that are EITHER 1) five (5) acres or larger; OR 2) located within the Landscape Level Polygon depicted on Map 9 AND the U.S. Army Corps of Engineers determines the wetland is hydrologically connected to the St. Johns River or Indian River Lagoon System.

ATTACHMENT G

Wetlands

Objective 5

Preserve, protect, restore, and replace wetlands to achieve no net loss of functional wetlands in Brevard County after September, 1990. The County shall ensure the protection of wetlands and wetland functional values by prioritizing protective activities with avoidance of impacts as the first priority, minimization of impacts as the second priority, and mitigation for impacts as the third priority.

Policy 5.1

Brevard County shall utilize the same methodology, soil types, hydrological requirements and vegetation types as the FDEP and the SJRWMD in delineating wetlands.

Policy 5.2

Brevard County shall adopt regulations which promote no net loss of functional wetlands. At a minimum, the following criteria shall be included in the land development regulations:

Criteria:

- A. The basis for no net loss shall be established as of the effective date of the required ordinance.
- B. Wetlands shall be considered functional unless the applicant demonstrates that the water regime has been permanently altered, either artificially or naturally, in a manner to preclude the area from maintaining surface water or hydroperiodicity necessary to sustain wetland functions.
- C. If an activity is undertaken which degrades or destroys a functional wetland, the person performing such an activity shall be responsible for repairing and maintaining the wetland. If it is not feasible or desirable for the responsible person to perform the repair and maintenance of the wetland, then the responsible person shall mitigate for the wetland loss. Mitigation can include, but not be limited to: wetland restoration, wetland replacement, wetland enhancement, monetary compensation or wetland preservation.
- D. Wetland activity conducted by a public agency may not be utilized for wetland mitigation credit by private persons unless approved by Brevard County.
- E. The following land use and density restrictions within wetlands are established as a maximum density or most intense land use that may be considered only if the other criteria established in Conservation Element Policy 5.2 are met:
 1. Residential land uses within wetlands, that are a part of a formal subdivision or site plan, on properties containing wetlands shall be limited to the following:

- a. Residential land uses within wetlands shall be limited to not more than one (1) dwelling unit per five (5) acres unless strict application of this policy renders a legally established parcel as of September 9, 1988, which is less than five (5) acres, as unbuildable. The preceding limitation of one dwelling unit per five (5) acres within wetlands may be applied as a maximum percentage limiting wetland impacts to not more than 1.8% of the total non-commercial and non-industrial acreage on a cumulative basis as set forth in Policy 5.2.E (7), for subdivisions and multi-family parcels greater than five acres in area, New Town Overlays, PUDs, and if applicable, mixed-use land development activities as specified in Policy 5.2.E (6).
 - b. For development activities on property greater than five (5) acres, density may be transferred to an upland portion of the site if consistent with all county land development regulations and compatible with adjacent uses.
 - c. Except as allowable in Policy 5.2.E(1)a, subdivided lots and multi-family parcels shall contain sufficient uplands for the intended use and for any buffering necessary to maintain the function of the wetland(s), and shall be compatible with adjacent uses.
2. Residential land uses within wetlands and created by metes and bounds, which are not part of a formal subdivision, on properties containing wetlands shall be limited to the following:
 - a. Residential land uses within wetlands shall be limited to not more than one (1) dwelling unit per five (5) acres unless strict application of this policy would render a legally established parcel as of September 9, 1988, which is less than five (5) acres, as unbuildable. The preceding limitation of one dwelling unit per five (5) acres within wetlands may be applied as a maximum percentage limiting wetland impacts as described in Policy 5.2.E (1)a above. Application of the one-unit-per-five-acres limitation shall limit impacts to wetlands for single family residential development on a cumulative basis, to not more than 1.8% of the total property as defined in Policy 5.2.E (7).
 - b. Except as allowable in Policy 5.2.E (2)a, properties shall contain sufficient uplands for the intended use and for any buffering necessary to maintain the function of the wetland(s), and shall be compatible with adjacent uses.
 - c. In addition to impacts allowable in Policy 5.2.E (2)a, on properties where sufficient uplands for the intended use and for any buffering

necessary to maintain the function of the wetland(s) exist except for access, wetland impacts may be permitted for single access to the uplands.

3. Commercial and industrial land development activities shall be prohibited in wetlands contained in properties designated on the Future Land Use Map as commercial or industrial, and in surrounding upland buffers for such wetlands, except as provided below for I-95 interchanges, mitigation qualified roadways, abutting properties, and access to uplands. In no instance shall a proposed land development activity result in increased flooding on adjacent properties. Where the State does not require a buffer, wetland buffers specifications shall be established in land development regulations and be based on peer-reviewed publications to include, but not be limited to, Buffer Zones for Water, Wetlands, and Wildlife in the East Central Florida Region, (1990, Brown, M.T., Schaefer, and K. Brandt, published by the Center for Wetlands, University of Florida). Where impacts are permitted, the applicant is encouraged to propose innovative wetland preservation alternatives.
 - a. Impacts to wetlands are permissible for commercial or industrial land development activities on a property that is designated as commercial or industrial on the Future Land Use map, and is located within one-half mile of the intersection of the off-ramp of the I-95 interchange with the connecting roadway. The one-half mile radius shall extend from the end of the limited access boundary of I-95. This shall not include those interchanges where I-95 intersects a limited access highway as defined by Florida Statute. Where the State does not require mitigation for any wetland impact, mitigation shall be provided to meet the County's no net loss policy as defined in Objective 5.
 - b. In mitigation qualified roadways, commercial or industrial land development activities may be permitted in wetlands contained in properties designated for commercial or industrial land uses on the Future Land Use Map. Mitigation qualified roadways are depicted and identified in a table on Map 8.

An amendment to the Comprehensive Plan shall be required to add a mitigation qualified roadway to Map 8 and the associated table. Impacts to high functioning and landscape level wetlands shall be prohibited unless the proposed impacts are found to be in the public interest, or overriding public benefit. Where the State does not require mitigation for any wetland impact, mitigation shall be provided to meet the County's no net loss policy as defined in Objective 5.

- c. Commercial or industrial land development activities may be permitted in wetlands contained in properties designated for commercial or industrial land uses on the Future Land Use Map prior to February 23, 1996, if the property abuts land(s) developed as commercial or industrial as of December 31, 2010, and has sufficient infrastructure available to serve the commercial or industrial use. This shall not apply to properties that are addressed under Policies 5.2.E.3.a, b, and d. Impacts to high functioning and landscape level wetlands shall be prohibited unless the proposed impacts are found to be in the public interest, or overriding public benefit. Where the State does not require mitigation for any wetland impact, mitigation shall be provided to meet the County's no net loss policy as defined in Objective 5.
 - d. Impacts to wetlands for commercial or industrial land development activities limited solely to providing access to uplands, and for no other purpose than providing access as required by Brevard County land development regulations may be permitted in wetlands contained in properties designated on the Future Land Use Map as commercial or industrial of February 23, 1996, only if all of the following criteria are met:
 - (i) Sufficient uplands exist for the intended use except for access to uplands.
 - (ii) The property was not subdivided from a larger property after December 31, 2010. This shall not preclude a single shared access through wetlands for properties subdivided after December 31, 2010.
 - (iii) Where the State does not require mitigation for any wetland impact, mitigation shall be provided to meet the County's no net loss policy as defined in Objective 5.
4. Institutional and Residential Professional development activities within wetlands shall be limited to the following:
- a. Institutional or Residential Professional land development on properties which contain wetlands and which are designated on the Future Land Use Map as Neighborhood Commercial or Community Commercial shall be considered commercial as set forth in Policy 5.2.E.3. The property shall have sufficient infrastructure available to serve the use.

- b. Institutional or Residential Professional land development on properties which contain wetlands and which are designated on the Future Land Use Map as residential shall be limited to properties of at least 5 acres unless strict application of this policy renders a legally established parcel as of September 9, 1988, which is less than 5 acres, as unbuildable.
5. In the event that the denial of commercial or industrial development activities in wetlands results in an inordinate burden under the Bert Harris Property Rights Act or a taking under state or federal law, an affected property owner may appeal such denial to the Board of County Commissioners in the manner provided in Section 62-507(b)(2), Code of Ordinances of Brevard County, Florida.
6. Beginning on January 1, 2010, mixed-use land development activities may be permitted in wetlands only if all of the following are met:
 - a. The land development activities that impact wetlands must be part of a mixed use development that includes a minimum of three of the following land uses: residential, commercial (retail services and/or office), recreation/open space and institutional uses. Industrial land uses shall be prohibited in mixed use land development activities within wetlands. For purposes of this policy mixed use land development activities shall be consistent with the following criteria:
 - (i) The mixed use land development activity includes a variety of densities, intensities and types designed to promote walking between uses and utilizes a variety of transportation modes such as bicycles, transit and automobiles; and
 - (ii) The residential component of the land development activity is an integrated part of the project and comprises not less than 30% of the gross square footage of land uses within the development as shown on a site plan or a Sketch Plan complying with the standards set forth in Chapter 11, Policy 9.9.2.
 - (iii) The development is in conformance with an integrated site plan or commercial subdivision which includes both vertical and horizontal mix of uses within a defined area.
 - b. Impacts to wetlands from mixed-use development activities (including without limitation impacts resulting from associated improvements such as sidewalks, parking areas and driveways) do not exceed the limitation set forth in Policy 5.2 E(7); and

- c. To the extent direct impacts to wetlands are caused by a particular building or buildings within a mixed-use development, not less than 30% of the gross square footage of such building or buildings must be for residential use; or such building or buildings shall be physically attached to a building having not less than 30% of its gross square footage permitted for residential use.
7. Impacts to wetlands from residential and mixed-use land development activities, on a cumulative basis, shall not exceed 1.8% of the non-commercial and non-industrial acreage of a DRI, PUD, parcel acreage or, if the project is within a New Town Overlay (as defined in Chapter 11, Policy 9.2), 1.8% of the non-commercial and non-industrial acreage within the applicable New Town Overlay.
8. Allowable wetland impacts shall be kept to a minimum and related to structural building area requirements, on-site disposal system requirements, the 100 year flood elevation requirement for first floor elevations, required stormwater management and parking, and required access to the on site structures. Minimization shall include application for available land development regulation waivers that would result in reduced wetland impacts.
9. Dumping of solid or liquid wastes shall be prohibited.
10. Applying or storing pesticides and herbicides should be prohibited unless such application is required for protection of the public health or removal of invasive, exotic, or nuisance plant species for management and mitigation or conservation purposes approved by Brevard County or removal of invasive, exotic, or nuisance plant species for management and mitigation or conservation purposes approved by Brevard County.
11. The County shall develop incentives to minimize impacts to highly functional wetlands.

F. Agricultural Activities

1. An exemption for agricultural pursuits, utilizing best management practices, which do not result in permanent degradation or destruction of the wetlands shall be included within the land development regulation.
2. Wetland impacts for activities listed in agricultural zoning classifications as permitted, permitted with conditions, or approved by the Board of County Commissioners as a Conditional Use on properties designated as bona fide agricultural lands per F.S. 193.461 and 823.14, may be allowed subject to the following criteria:

- a. The property shall be classified as bona fide agricultural per F.S. 193.461 and 823.14 for not less than ten consecutive years as of the date of the proposed impact;
- b. The property shall have Agriculture Future Land Use designation or DRI Future Land Use designation and the proposed use is consistent with the defined agricultural uses under an approved DRI Development Order.
- c. Upon approval of the impact, no less than 50 percent of the property area shall retain bona fide agricultural use pursuant to F.2.a above;
- d. Impacts to high functioning and landscape level wetlands shall be prohibited unless the proposed impacts are found to be in the public interest, or overriding public benefit; and
- e. The property shall have an agricultural zoning classification or be zoned PUD and the proposed use is consistent with the defined agricultural uses in the PUD zoning resolution or approved Preliminary Development Plan.

Where the allowable use is residential, residential policies shall apply. Sufficient buffer setbacks of the activity from incompatible land uses shall be provided. Buffer setbacks shall be established through the land development regulations. The property shall meet all other State regulatory criteria.

Policy 5.3

Wetland regulations adopted by Brevard County should avoid duplication of wetland regulation unless regulated activities will result in the destruction and/or degradation of functional wetlands. Where the wetland degradation or destruction has been permitted by FDEP or SJRWMD based on FDEP and SJRWMD professional staff application of criteria and evaluation the County shall apply the land use and density requirements of Policy 5.2 and the avoidance, minimization of impacts, and mitigation priorities established by Objective 5. Any permitted wetland degradation or destruction shall provide for mitigation as designated in the Conservation Element.

Policy 5.4

Wetlands artificially created for wastewater treatment or disposal or for wetland stock nurseries shall not be subject to these regulations and shall not be used to fulfill the requirements of this objective (Objective 5).

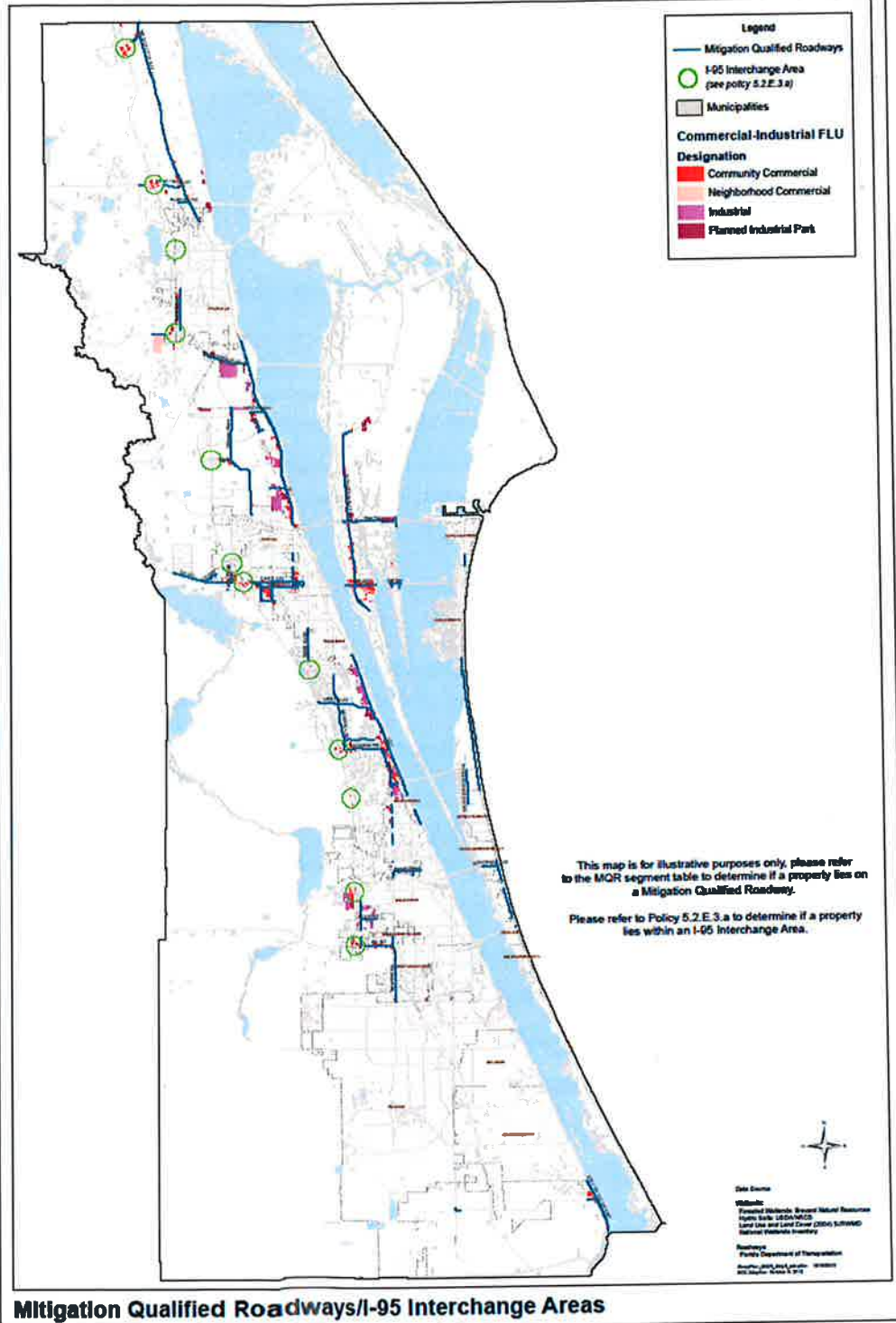
Policy 5.5

Natural, isolated wetlands should be incorporated into water management systems where practical and appropriate, as an alternative to destruction of wetlands. Whenever wetlands are utilized within water management systems, quality of the water discharged to the wetlands, hydroperiods and stage elevations should be designed to maintain or enhance the wetland.

Policy 5.6

Wetlands policy should provide allowances to promote redevelopment, and urban and industrial infill.

Brevard County - Comprehensive Plan



**Map 8
 Mitigation Qualified Roadways**

MQR SEGMENT NAME (Segments apply ONLY in unincorporated areas of Brevard County)	FROM	TO
Stack Way Rd (CR 5A)	I-95 interchange area*	U.S. Highway 1
U.S. Highway 1	County Line Rd	Kingman Rd (Titusville City Northern Boundary)
SR 46 / Main St	I-95 interchange area*	Approx. 300' west of Turpentine Rd
SR 46 / Main St	I-95 interchange area*	U.S. Highway 1
Parrish Rd	Singleton Ave	U.S. Highway 1
Cheney Hwy (SR 50)	I-95 interchange area*	Approx. 3,800' west of I-95 interchange area*
South Street	Cheney Hwy (SR 50)	Fox Lake Rd
Columbia Blvd (SR 405)	Woodland Hills Dr	U.S. Highway 1
U.S. Highway 1	Titusville City Boundary	Cocoa City Boundary
Grisson Pkwy	Titusville City Boundary	Cocoa City Boundary
Port St. John Pkwy	I-95 interchange area*	Grisson Pkwy
Kings Hwy	U.S. Highway 1	Approx. 325' west of Koesaw
Curtis Blvd	Fay Blvd	Approx. 210' east of Song Dr
Fay Blvd	Carole Ave	Adobe Ave
Canaveral Groves Blvd	U.S. Highway 1	Approx. 330' west of Morris Ave
SR 520	I-95 interchange area*	Penny Ln
SR 524	SR 520	Cocoa City Boundary
Friday Rd	SR 520	Cocoa City Boundary
Lake Dr	SR 520	Cocoa City Boundary
School St	Clearlake Rd	Pineda St
King St (SR 520)	I-95 interchange area*	Cocoa City Boundary
Peachtree St	Clearlake Rd	Pineda St
Pineda St	Peachtree St	School St
Burnett Rd	Lake Dr	Pluckebaum Rd
Range Rd	Lake Dr	Pluckebaum Rd
Pluckebaum Rd	Burnett Rd	Approx. 700' east of Range Rd
Clearlake Rd	SR 520	Tate St
Pinke Blvd	I-95 interchange area*	Byster Blvd
U.S. Highway 1	Rockledge City Boundary	Post Rd (Melbourne City Boundary)
Murrell Rd	Wickham Rd	Rockledge City Boundary
Viera Blvd	Stadium Pkwy	U.S. Highway 1
Spyglass Hill Rd	Murrell Rd	Pinehurst Ave
Wickham Rd	I-95 interchange area*	New Haven Ave (SR 192)
Suntree Blvd	Wickham Rd	U.S. Highway 1
Pineda Cswy	Wickham Rd	RR Crossing
Aurora Rd	Citrus St	Melbourne City Boundary (Approx. 235' east of Alpha Dr)
Croton Rd	Carlton Dr	Melbourne City Boundary (Approx. 100' north of Leewood Blvd)
John Rhodes Blvd	Melbourne City Boundary (N end of Lamplighter Village)	New Haven Ave (SR 192)
Ellis Rd	John Rhodes Blvd	Distribution Dr
New Haven Ave (SR 192)	I-95 interchange area*	Minton Road
Babcock St	Micco Rd	Approx. 680' north of Micco Rd
Micco Rd	Babcock Road	Approx. 1,310' east of Babcock St
US 1/SR 5/Divide Hwy	Serne St (Grant - Valkaria City Boundary)	Sebastian Inlet Bridge (South Brevard County Line)
Micco Rd	US 1/SR 5/Divide Hwy	Approx. 340' west of Pine Ridge Trail
N Courtenay Pkwy	Pine Island Rd	SR 520
Courtenay Pkwy	SR 520	Approx. 470' south of Island Beach Blvd.
Sea Ray Dr	N Courtenay Parkway	Banana River Dr
Marine Harbor Dr	N Courtenay Parkway	Tropical Tr
Tropical Tr	Marine Harbor Dr	Barge Canal
N Banana River Dr	Barge Canal	Stafford Ave
Merritt Island Cswy (SR 520)	Indian River Lagoon (east shore)	New Found Harbor (west shore)
Merritt Island Cswy (SR 520)	Newfound Harbor (east shore)	Banana River (west shore)
Milford Point Dr	Merritt Island Cswy	Approx. 625' north of Merritt Island Cswy
Banana River Dr	Merritt Island Cswy	Approx. 1,200' south of Merritt Island Cswy
Newfound Harbor Dr	Merritt Island Cswy	Approx. 175' south of Kessler Dr
Atlantic Ave	Grant	Barlow
Orlando Ave (SR A1A)	11th St (Cocoa Beach City Boundary)	Atlantic Ave (SR A1A)
Atlantic Ave/SR A1A	Indian Village Trail (Cocoa Beach City Boundary)	Grosse Pointe Ave (Indianalantic City Boundary)
SR 513/S Patrick Dr	Pineda Cswy	Satellite Beach City Boundary (Approx. 185' north of Siena Ct)
Eau Gallie Blvd	Harbor City Parkway	SR A1A

* - Please refer to Policy 5.2.E.3.a

Reverse Side of Map 8

Brevard County
Potential High-functioning Polygon
CLCV Wetlands within HF Polygon
Within Managed Areas
CLCV Wetlands within HF Polygon

Leg

