# 2018 FDOT MITIGATION PLAN

Southwest Florida Water Management District 2379 Broad Street Brooksville, FL 34604-6899



Colt Creek State Park

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### INTRODUCTION

The Florida Department of Transportation (FDOT) historically conducted mitigation for wetland impacts associated with roadway construction on a project by project basis. Most of these mitigation activities were creation and enhancement of habitats adjacent to the roadway facilities. Existing and future commercial, industrial and residential developments along these roadways subject these constructed mitigation areas to many limitations and risks in achieving the desired ecological benefits needed to compensate for wetland impacts. These developments also reduce mitigation opportunities as well as increase the cost of mitigation projects, primarily a result of the availability of property and the cost of acquisition.

In 1996, the State Legislature determined that mitigation would be more effectively achieved with regional, long range mitigation planning instead of conducting mitigation on a project by project basis and created the FDOT Mitigation Program (see Section 373.4137, Florida Statutes). A copy of the current statutory language is provided in Appendix A. This program is administered by the state's water management districts, which are responsible for annually developing a mitigation plan.

Mitigation planning is based on an inventory of construction projects that is provided by the FDOT. The minimum planning horizon is three years. However, the FDOT may elect to add to their inventory, projects with projected construction dates that extend beyond this planning horizon. This provides additional time for suitable mitigation projects to be developed, which is essential when mitigation options are limited. The project inventory is updated annually to account for changes that occur as the FDOT projects move through planning, design and permitting phases. Inventory updates include: additions and deletions of construction projects; modifications to projected permitting and construction dates as well as adjustments to projected impact habitat type or acreages. The FDOT is also required to perform an evaluation to identify any projects where impacts may be offset using a mitigation bank. These projects are identified on the inventory of projects but are not included in the FDOT Mitigation Program.

Mitigation for wetland impacts associated with FDOT road improvement projects may be provided by a private or public mitigation bank or a mitigation project adopted into the FDOT Mitigation Program. Mitigation projects that are adopted into the FDOT Mitigation Program are to address significant water resource needs and focus on the needs of the Department of Environmental Protection and the water management districts, such as Surface Water Improvement and Management (SWIM) projects, lands identified for acquisition, restoration or enhancement and control of invasive and exotic plants to the extent the impacts of the road improvement project are offset.

Based on the impact information provided by the FDOT, mitigation options are matched to FDOT road improvement projects such that the State and Federal permitting requirements for mitigation offsets are satisfied. Federal and State mitigation requirements specify that habitats with similar value and function as those being impacted are to be created, enhanced, restored or preserved. Additionally, mitigation projects must be in the same regional watershed as the projected wetland impacts. A map of the regional watersheds in the Southwest Florida Water Management District (District) is provided in Appendix B. In addition to these criteria, Florida statutes specify that the purchase of credits from public or private mitigation banks be considered when such purchase would offset the impact of the FDOT project, provide equal benefits to the water resource as other mitigation options and provide the most cost-effective mitigation option.

The statute establishing the FDOT Mitigation Program requires that the FDOT Mitigation Plan be updated every year by March 1<sup>st</sup>. Approval by the District's Governing Board and the Florida Department of Environmental Protection is required prior to implementation. Before presenting the 2018 FDOT Mitigation Plan for approval, a draft was presented to interested parties for comment at a publicly noticed meeting held on December 21, 2017. On March 22, 2018 the plan was submitted to FDEP and was approved by correspondence to the District in a formal approval letter dated March 28, 2018. The letter states FDEP reviewed and approved the Plan and furthermore, satisfies the requirements of 373.4137(4), Florida Statues. The 2018 FDOT Mitigation Plan contains an updated inventory of all FDOT projects included in the FDOT Mitigation Program, a summary of the evaluation of mitigation bank options performed and a description of the mitigation plan has been developed by the District in accordance with the statutory requirements for the FDOT Mitigation Program.

## **REPAYMENT OF ADVANCE FUNDING**

Pursuant to Chapter 373.4137, F.S., the FDOT provided \$12 million advance mitigation funding. These funds were distributed statewide to various habitat restoration projects proposed by the Water Management Districts. To the extent these projects offset the wetland impacts identified in the inventory, the FDOT received mitigation credit. Of the \$12 million distributed statewide, the District received \$1.9 million designated toward planning and design activities associated with several SWIM-sponsored projects selected for the mitigation program. The savings from cost-effective mitigation (i.e. mitigation projects costs that were less than the funding provided by FDOT) was credited toward reimbursing FDOT for the advance funding. The District officially reimbursed the FDOT \$4.2 million of the program's advance funding. The other Water Management Districts combined contributed \$4.8 million toward this reimbursement.

An analysis of selected mitigation projects demonstrated the tax savings exceeded \$50 million in the Tampa Bay region and \$100 million District-wide when the cost of the District's mitigation projects was compared to money FDOT anticipated expending to conduct traditional project specific mitigation. Because of the substantial program savings demonstrated by the District, in 2009, Legislation that suspended the requirement to reimburse the remaining \$3 million balance in advance funding was passed. The District was credited with reimbursing \$7.2 million of the \$12 million program's advance funding.

## **CONTACT INFORMATION**

Any questions, comments, requests or recommendations for the FDOT Mitigation Program or any of the designated mitigation projects, may be directed to Martha B. Gruber, at:

Southwest Florida Water Management District Project Management Office 7601 US Hwy. 301 Tampa, FL 33637-6759

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## FDOT ROAD IMPROVEMENT PROJECTS

Since the inception of the FDOT Mitigation Program in 1996, there are various transportation entities within the Southwest Florida Water Management District jurisdictional boundaries that have conducted mitigation through the FDOT Mitigation Program. These include FDOT District 1 (Bartow), District 5 (Deland), District 7 (Tampa), District 8 (Florida's Turnpike, Orlando), Tampa-Hillsborough Expressway Authority, and the Tampa International Airport, collectively referred to as FDOT. From 1996 through 2017, there are 180 construction projects with wetland impacts totaling 631.59 acres mitigated through the FDOT Mitigation Program.

Over the years, many FDOT projects for which mitigation projects were developed have been removed from the FDOT Mitigation Program, including 5 projects having a total of 4.46 acres of wetland impact in this year's Plan (includes only projects previously listed in the 2017 Plan). The FDOT projects being deleted and the reasons for deletion are shown in Table One.

Delete Reason	Number of Projects	Wetland Impacts (acres)
Permit application date is outside FDOT planning horizon	0	0
Combined with another FDOT project	0	0
Dropped from the FDOT work program	1	0.2
Wetland impacts to be offset at a private mitigation bank	4	28.5
Permitted without mitigation required	0	0
Mitigation is not available	0	0

**Table One:** FDOT Road Improvement Projects that are deleted in the 2018 FDOT Mitigation Program from impacts included in the 2017 Plan, and the reason for deletion.

Currently, there are 36 construction projects that are active (i.e. not yet fully permitted), of which 5 are newly added in 2018, that require mitigation to be provided through the FDOT Mitigation Program. A total of 7.96 acres of wetland impact associated with these active projects are planned to be offset through the FDOT Mitigation Program.

Tables Two through Fourteen list all the FDOT projects that have been permitted with mitigation provided through the FDOT Mitigation Program. State (Environmental Resource Permit) and Federal (Army Corps of Engineers) permit numbers are shown for projects that have been permitted. Also listed are the FDOT projects that remain in, are added to or deleted from the FDOT Mitigation Program. Projects deleted are highlighted in yellow and projects that are added are highlighted in green. Detailed information, including location, projected permitting and construction dates, impact acreage and impact habitat type for all FDOT projects in the FDOT Mitigation Program is provided in the table appended as Appendix C.

FM No.	Project Description	FDOT Project Status	Total Impacted Acreage	Mitigation Location
	US 301, Balm Road to			
4154892	Gibsonton Drive	Permitted	0.28	SW 82 - Ekker
	McMullen Road from Balm			
4131361	Riverview to Boyette Road	Permitted	0.17	SW 82 – Ekker
	SR 60 from Dover Rd to SR			
4357502	39	Active	1.06	SW 81- Balm Boyette

**Table Two:** FDOT Road Improvement Projects in the Alafia River Basin

**Table Three:** FDOT Road Improvement Projects in the Charlotte Harbor Drainage

		FDOT Project	Total Impacted	
FM No.	Project Description	Status	Acreage	Mitigation Location
	I-75 from Tucker's Grade			SW 52 - Little Pine
4130423	to N. Jones Loop Road	Permitted	1.10	Island Mit. Bank

 Table Four:
 FDOT Road Improvement Projects in the Hillsborough River Basin

			Total	
		FDOT Project	Impacted	
FM No.	Project Description	Status	Acreage	Mitigation Location
	I-4 County Line to			SW 55 - Upper
2012081	Memorial Blvd – Sec 1	Permitted	19.10	Hillsborough 4&5
	I-4 W of Memorial Blvd to			
2012171	W of US 98 – Sec 2	Permitted	3.09	SW 61 - Jennings Tract
	SR 39, Blackwater Creek			
2555361	Bridge Replacement	Permitted	2.14	SW 61 – Jennings Tract
	SR 39 (Alexander St) I-4 to			SW 84 – Colt Creek
2555851	Knights Griffin Road	Permitted	14.20	State Park
	US 92 (SR 600) From			
	Kingsway Rd to McIntosh			SW 77 – Conner
2557092	Rd	Deleted	0.40	Preserve
	US 92 (SR 600) From			
	McIntosh Rd to SR 566			SW 77 – Conner
2557102	(Thonotosassa)	Deleted	0.40	Preserve
	SR 678 (Bearss Ave.)			SW 61 – Jennings
2558591	Florida Ave to Nebraska	Permitted	0.06	Tract
	SR 574 (MLK Blvd) from E			
	of Kingsway Rd to E of			SW 77 – Conner
2558934	McIntosh Rd	Active	0.44	Preserve
	SR 52 (Schrader Hwy)			
	from CR 581 (Bellamy			SW 77 – Conner
2562432	Bro) to Old Pasco Rd	Permitted	2.50	Preserve

	US 41 Bell Lake to Tower			SW 63 – Hillsborough
2563151	Rd	Permitted	1.63	River Corridor
2505151	SR 52 (Schrader Hwy) US	Termitted	1.05	SW 77 – Conner
2563341	41 to CR 581	Deleted	7.41	Preserve
2303311		Deleted	7.11	
	SR 54 US 41 to Cypress			SW 34 – Lake
2563431	Creek	Permitted	16.82	Thonotosassa
	Bruce B Downs Bike Path			
	Amberly Drive to Hunters			
2578071	Green	Permitted	0.50	SW 61 – Jennings Tract
	Bruce B Downs Bike Path			
	Tampa Limits to Amberly			
2578072	Dr	Permitted	0.20	SW 61 – Jennings Tract
		<b>B</b>		
2578391	Alexander St US 92 to 14	Permitted	3.16	SW 61 – Jennings Tract
2570622	Park Rd I-4 (SR 400) to	Decentities d	0.01	SW 84 – Colt Creek
2578622	Sam Allen Rd	Permitted	0.81	State Park
2570622	Sam Allen Rd from	A ativo	4.24	SW 77 – Conner
2578623	Alexander St to Park Rd	Active	4.24	Preserve
2584131	SR 93 (I-275) US 41 to Pasco County Line	Permitted	7.60	SW/61 Jonnings Tract
2304131	I-4 (SR 400) at Alexander	Fermitteu	7.00	SW 61 – Jennings Tract
2584491	St Ramp	Permitted	1.70	SW 61 – Jennings Tract
2304431	St Kamp	Termitted	1.70	SW 01 Semings Hace
	SR 56, Cypress Creek to			
2587341	CR 581 (BB Downs)	Permitted	5.30	SW 61 – Jennings Tract
	I-75 (SR93) from N of			
	SR/CR 54 to North of SR			SW 77 – Conner
2587362	52 (Design-Build)	Permitted	1.24	Preserve
	I-75 Northbound Rest			SW 84 – Colt Creek
4079441	Area	Permitted	2.20	State Park
	I-75 Southbound Rest			SW 84 – Colt Creek
4079442	Area	Permitted	1.00	State Park
	US 301 (SR 39) from S of			CIN 77 C
4000750	CR 54/Eiland Blvd to N of	A	1.00	SW 77 – Conner
4080752	Kossik Rd	Active	1.00	Preserve
4084592	I-75 Fowler Ave to CR 581	Permitted	23.79	SW 84 – Colt Creek State Park
4064592	1-75 FOWIEI AVE LO CK 581	Permitteu	25.79	SW 84 – Colt Creek
	I-75 CR 581 (BB Downs)			State Park and SW 77 -
4084593	to SR 56 (Mainline)	Permitted	15.97	Conner Preserve
		· criticu	13.57	SW 84 – Colt Creek
4084594	I-75 SR 56 to S of CR 54	Permitted	11.63	State Park
4084602	I-75 Off Ramp at CR 581	Permitted	0.48	SW 61 – Jennings Tract
	SR 39 @ Hillsborough			SW 84 – Colt Creek
4089321	River	Permitted	2.29	State Park
-1003321	1/1/61	i chinteu	2.23	JULIE FAIN

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	I-75 (SR 93) from N of SR			0.477
	52 to Pasco/Hernando			SW 77 – Conner
4110142	C/L (design/build)	Permitted	10.77	Preserve
	US 92 – Eureka Springs to			SW 84 – Colt Creek
4113371	Thonotosassa Rd	Permitted	1.45	State Park
	SR 54 from CR 577/Curley			
	Rd to CR 579/Morris			SW 77 – Conner
4165612	Bridge Rd	Permitted	2.58	Preserve
				SW 84 – Colt Creek
	I-75/CR 581 (BB Downs)			State Park and SW 77 –
4218311	to SR 56	Permitted	31.20	Conner Preserve
	175 S of CR 56 to N of CR			SW 84 – Colt Creek
4218314	54	Permitted	16.88	State Park
	175/SR 56 Interchange			
	from W of CR 54 to W of			
4305731	Cypress Ridge Blvd	Deleted	2.88	Mitigation Bank
	I-75/275 from Co Line Rd			SW 77 – Conner
4305732	to SR 56 (Phase III)	Active	1.50	Preserve
	I-75/275 from S of Co			SW 77 – Conner
4305733	Line Rd to Co Line Road	Active	1.50	Preserve
	I-4 from I-4/Selmon			
	Connector to E of Branch			SW 77 – Conner
4317462	Forbes Road	Active	6.00	Preserve
1317102	I275 from	/ cerve	0.00	
	Jefferson/Orange St to N			SW 77 – Conner
4318212	of Bearss Ave	Active	0.50	Preserve
4310212	CR 582/Knights Griff from	Active	0.50	Treserve
	Itchepackesassa Cr to Br			SW 77 – Conner
4242171	#100265	Active	0.20	
4343171		Active	0.28	Preserve
	SR 574/W Reynolds St			C) N/ 77 Common
4247264	from E of Turkey Ck Rd to	Delated	0.00	SW 77 – Conner
4347361	Thonotosassa Rd	Deleted	0.23	Preserve
	SR 56 from Meadow			SW 77 – Conner
4347651	Pointe Blvd to US 301	Active	44.85	Preserve
	SR 52 Extension from E of			
	McKendree Rd to E of US		_	SW 77 – Conner
4351421	301	Active	3.00	Preserve
	SR 60 from Valrico Rd to			SW 77 – Conner
4357501	Dover Rd	Active	0.05	Preserve
	US 41/SR 45/Land o Lakes			
	Blvd. from N end of Ehren			
4376491	Cutoff to N of Caliente	Deleted	1.00	Bank

FM No.	Project Description	FDOT Project Status	Total Impacted Acreage	Mitigation Location
	US 27 Lake Glenada to Hal			SW 49 - Reedy Ck.
1945101	McRae	Permitted	0.39	Mit. Bank
	I-4, East of CR 557 to			SW 49 - Reedy Ck.
2012041	Osceola County (Sec. 6-7,9)	Permitted	2.35	Mit. Bank

 Table Five:
 FDOT Road Improvement Projects in the Kissimmee Ridge Basin

			Total	
		FDOT Project	Impacted	Mitigation
FM No.	<b>Project Description</b>	Status	Acreage	Location
				SW 83 - Little
	US 301, Sun City Center to			Manatee River,
4154893	Balm Road	Permitted	0.65	Lower Tract

			Total	
		FDOT Project	Impacted	Mitigation
FM No.	Project Description	Status	Acreage	Location
	SR 64 (Seg. 1) I-75 to Lena			SW 65 - Rutland
1960222	Rd.	Permitted	2.81	Ranch
	SR 64 (Seg. 2) Lena Rd. to			SW 65 - Rutland
1960223	Lakewood Ranch Rd.	Permitted	0.84	Ranch
	SR 64 (Seg. 3) Lakewood			SW 80 - Hidden
1960224	Ranch to Lorraine Rd.	Permitted	4.06	Harbour
	SR 70 (Seg. 1) I-75 to			SW 65 - Rutland
1961211	Lakewood Ranch Rd.	Permitted	1.40	Ranch
	SR 70 (Seg. 2) Lake Ranch			SW 65 - Rutland
4043232	Rd. to Lorraine Rd.	Permitted	3.62	Ranch
	SR 64 Carlton Arms Blvd. to			SW 80 - Hidden
4161201	I-75	Permitted	0.78	Harbour
	US 301 (Seg. B) Erie Road to			SW 80 - Hidden
4226031	CR 675	Permitted	2.73	Harbour

 Table Eight:
 FDOT Road Improvement Projects in the Myakka River Basin

			Total	
FM No.	<b>Project Description</b>	FDOT Project Status	Impacted Acreage	Mitigation Location
	SR 776 CR 771 to Willow			SW 52 - Little Pine
1937941	Bend Rd.	Permitted	2.08	Island Mit. Bank
	SR 776 CR 771 to Willow			
1937941	Bend Rd.	Permitted	8.83	SW 31 - Cattle Dock
	SR 72 Big Slough to DeSoto			SW 51 - Myakka
1979251	C/L	Permitted	1.49	River State Park

	SR 72 Deer Prairie to Big			SW 51 - Myakka
1980131	Slough	Permitted	0.86	<b>River State Park</b>
	SR 72 Myakka River to Big			SW 51 - Myakka
4138871	Slough	Permitted	6.93	River State Park

			Total	
		FDOT Project	Impacted	Mitigation
FM No.	<b>Project Description</b>	Status	Acreage	Location
	US 27 Levy Co. Line to SR			SW 58 - Ledwith
2386411	326	Permitted	2.37	Prairie
				SW 58 - Ledwith
2386791	US 27 SR 326 to CR 225a	Permitted	1.09	Prairie
				SW 58 - Ledwith
2387191	SR 40 CR 328 to SW 80th	Permitted	0.08	Prairie
	US 27 SR 544 to Blue Heron			SW 76 - Lake
1976791	Вау	Permitted	0.46	Lowery
	I-4 East of CR 557 to			SW 76 - Lake
2012041	Osceola County (Sec. 6-7,9)	Permitted	4.28	Lowery
	US 27 Blue Heron Bay to CR			SW 76 - Lake
4038901	547	Permitted	1.89	Lowery

Table Nine: FDOT Road Improvement Projects in the Ocklawaha River Basin

# Table Ten: FDOT Road Improvement Projects in the Peace River Basin

			Total	
		FDOT Project	Impacted	Mitigation
FM No.	<b>Project Description</b>	Status	Acreage	Location
	US 17 (SR 35) CR 74 to CR			SW 53 - Boran
1937911	764 North	Permitted	0.27	Ranch Mit. Bank
	US 17 (SR35) CR 764 South			SW 53 - Boran
1937981	to CR 764 North	Permitted	0.27	Ranch Mit. Bank
	SR 72 Sarasota Co. Line to			SW 53 - Boran
1938851	SR 70	Permitted	1.19	Ranch Mit. Bank
	US 17 Livingston to Hardee			SW 66 - Circle B
1938991	County Line	Permitted	11.59	Bar Reserve
	US 17 (SR 35) Peace River			SW 66 - Circle B
1940931	to Tropicana Rd.	Permitted	4.42	Bar Reserve
	US 17 (SR 35) SR 64 to			SW 53 - Boran
1941021	Peace River Bridge	Permitted	2.30	Ranch Mit. Bank
	SR 60A (Van Fleet Dr.) CR			SW 66 - Circle B
1971681	555 to Broadway Ave.	Permitted	0.46	Bar Reserve
				SW 47 -
	SR 540 (Cypress Gardens)			Tenoroc/Saddle
1974711	9th Street to Overlook	Permitted	0.41	Creek
	SR 540 (Cypress Gardens)			SW 47 -
	Thornhill Rd. to Recker			Tenoroc/Saddle
1974751	Hwy.	Permitted	5.52	Creek

				CIN/CC Circle D
1075224	US 27 Towerview Rd. to SR	De wee itte el	2.00	SW 66 - Circle B
1975331	540	Permitted	3.90	Bar Reserve
1076004	US 98 - Carpenter's Way to		0.05	SW 66 - Circle B
1976381	Daugherty Road	Permitted	0.35	Bar Reserve
	US 27 SR 544 to Blue Heron			SW 66 - Circle B
1976791	Вау	Permitted	1.50	Bar Reserve
	SR 559 Extension SR 655			SW 66 - Circle B
1977014	(Recker Hwy) to Derby Ave.	Permitted	0.48	Bar Reserve
	US 27 SR 60 to Towerview			SW 66 - Circle B
1977051	Blvd.	Permitted	0.19	Bar Reserve
				SW 66 - Circle B
1977061	US 27 SR 540 to SR 542	Permitted	3.94	Bar Reserve
				SW 66 - Circle B
1977071	US 27 SR 542 to CR 546	Permitted	0.55	Bar Reserve
	Trabue Harborwalk Bike			SW 52 - Little Pine
1984711	Path	Permitted	0.16	Island Mit. Bank
	Ft. Green/Ona (Seg. 2)			
	Vandolah to North of			SW 53 - Boran
1986371	Vandolah Rd.	Permitted	4.27	Ranch Mit. Bank
	Ft. Green/Ona (Seg. 3) SR			SW 53 - Boran
1986381	64 to Vandolah Rd.	Permitted	5.23	Ranch Mit. Bank
	Ft. Green/Ona Road (Seg. 1)			SW 53 - Boran
1986401	Vandolah to SR 62	Permitted	2.08	Ranch Mit. Bank
				SW 47 -
	I-4, East of US 98 to East of			Tenoroc/Saddle
2012092	CR 557 (Sec. 3-5)	Permitted	1.36	Creek
	I-75 Bridge Widening over			SW 52 - Little Pine
4046971	Peace River	Permitted	2.75	Island Mit. Bank
	I-75 Bridge Widening over			SW 69 - Peace
4046971	Peace River	Permitted	3.31	<b>River Restoration</b>
	US 98 Manor Drive to CR			SW 66 - Circle B
4082685	540A	Permitted	0.68	Bar Reserve
			1	SW 66 - Circle B
4110391	US 27 CR 546 to SR 544	Permitted	1.96	Bar Reserve
	US 17 Charlotte C.L. to SW		1	SW 85 - Peace
4154901	Collins	Permitted	2.23	River Mit. Bank
	US 17 Charlotte C.L. to SW		1	SW 53 - Boran
4154901	Collins	Permitted	2.15	Ranch Mit. Bank
	SR 17 @ Mountain Lake			
	Cutoff Intersection			SW 66 - Circle B
4251371	Improvements	Permitted	0.16	Bar Reserve
			-	

			Total	
		FDOT Project	Impacted	Mitigation
FM No.	<b>Project Description</b>	Status	Acreage	Location
	SR 789 Ringling Causeway			SW 88 – Curry
1979421	Blvd.	Permitted	0.27	Creek ROMA
	US 41 Bus. (SR 45) Venice			SW 88 - Curry
1980051	Ave. to US 41 Bypass	Permitted	0.32	Creek ROMA
	I-75 N. River Rd. (CR 577) to			SW 79 - Fox Creek
4063143	SR 681	Permitted	14.55	ROMA
	I-75 N. River Rd. (CR 577) to			SW 88 - Curry
4063143	SR 681	Permitted	0.77	Creek ROMA

 Table Eleven:
 FDOT Road Improvement Projects in the South Coastal Drainage Basin

 Table Twelve:
 FDOT Road Improvement Projects in the Tampa Bay Drainage Basin

			Total	
		FDOT Project	Impacted	Mitigation
FM No.	Project Description	Status	Acreage	Location
	US 301 (Ellenton) 60 <sup>th</sup> Ave.			SW 50 – Terra
1960581	to Erie Rd	Permitted	1.42	Ceia
	SR 676 (Causeway Blvd.) US			SW 71 - Boyd Hill
2555991	301 to US 41	Permitted	0.27	Nature Preserve
				SW 56 -
	SR 676 (Causeway Blvd.) US			Cockroach Bay
2555991	301 to US 41	Permitted	1.08	(Fresh)
	SR 60 Courtney Campbell			SW 45 - Gateway
2556301	to Fish Creek	Permitted	12.20	Tract
				SW 75 -
	SR 60 Cypress St. to Fish			Cockroach Bay
2557031	Creek	Permitted	5.00	(Salt)
				SW 56 -
	SR 60 Cypress St. to Fish			Cockroach Bay
2557031	Creek	Permitted	0.90	(Fresh)
	SR 60 Cypress St. to Fish			SW 67- Apollo
2557031	Creek	Permitted	6.80	Beach
	SR 60 Cypress St. to Fish			SW 62 - Tappan
2557031	Creek	Permitted	3.30	Tract
	SR 676 Maritime Blvd. to SR			SW 45 - Gateway
2557341	60	Permitted	1.50	Tract
	US 301 Sligh Ave. to Tampa			SW 71 - Boyd Hill
2558881	Bypass Canal	Permitted	9.26	Nature Preserve
				SW 56 -
	US 301 Sligh Ave. to Tampa			Cockroach Bay
2558881	Bypass Canal	Permitted	2.77	(Fresh)
				SW 90 - Brooker
				Ck. Buffer
2558935	SR 574 (MLK) @ I-75	Permitted	0.21	Preserve

				CN/ ZO Dahia
2500011	US 19 (SR 55) Whitney Rd.	Downsitto d	0.52	SW 78 – Bahia
2568811	to Seville Dr.	Permitted	0.53	Beach
				SW 56 -
2560042	US 19 (SR 55) Seville Dr. to	Description	0.40	Cockroach Bay
2568812	SR 60	Permitted	0.19	(Fresh)
2560004	US 19 Coachman Rd. to		0.40	SW 78 – Bahia
2568881	Sunset Rd.	Permitted	0.40	Beach
2560054	SR 679 (Bayway) Bunces		0.00	SW 45 - Gateway
2569051	Pass Bridge # 150	Permitted	0.60	Tract
2560242	Gandy Blvd. (SR 694) 9th		0.00	SW 86 - Mobbly
2569312	Street to 4th Street North	Permitted	0.33	Bayou
2560242	Gandy Blvd. (SR 694) 9th		2.00	SW 78 – Bahia
2569312	Street to 4th Street North	Permitted	2.98	Beach
				SW 56 -
	US 19 SR 60 (Drew St.) to			Cockroach Bay
2569571	Railroad Crossing	Permitted	1.33	(Fresh)
				SW 56 -
	CR 296 Connector 40th St.			Cockroach Bay
2569941	to 28th St.	Permitted	1.02	(Fresh)
	CR 296 Connector NB I-275			SW 78 – Bahia
2569942	(Ramp P) to WB SR 686	Permitted	1.11	Beach
				Tampa Bay
2569961	SR 686 AT CR 611 (49TH ST)	Deleted	0.31	Mitigation Bank
	US 19 (SR 55) 49th St. to			SW 71 - Boyd Hill
2570701	118th Avenue	Permitted	0.02	Nature Preserve
				SW 56 –
	US 19 (SR 55) 49th St. to			Cockroach Bay
2570701	118th Avenue	Permitted	0.02	(Salt)
	SR 694 (Gandy Blvd) from E			
	US 19 (SR55) to E of I-275			Tampa Bay
2570861 <sup>1</sup>	(SR 93)	Deleted	12.67	Mitigation Bank
				SW 75 -
	SR 688 (Ulmerton Rd.), US			Cockroach Bay
2571391	19 to 49th Street	Permitted	0.10	(Salt)
	Veteran's Expressway			
	Memorial Hwy. to Gunn		10.46	SW 78 - Bahia
4061511	Hwy.	Permitted		Beach
	I-275 Howard Franklin to			SW 45 - Gateway
2583982	Himes Ave.	Permitted	1.50	Tract
	I-4 (SR 400) @ Selmon	<b>_</b>		SW 86 - Mobbly
2584151	Expressway	Permitted	5.46	Bayou
0504453	I-4 (SR 400) @ Selmon	<b>a</b>		SW 78 – Bahia
2584151	Expressway	Permitted	1.05	Beach
	I-275 Roosevelt to Big	<b>_</b>		SW 45 - Gateway
2588701	Island Gap	Permitted	9.10	Tract
	US 19, CR 816 (Alderman)	<b>_</b>		SW 71 - Boyd Hill
4037701	to SR 582 (Tarpon)	Permitted	0.09	Nature Preserve

		1	SW/45 Catoway
SR 686 (Roosevelt) at 49th	Permitted	0.20	SW 45 - Gateway Tract
	rennitteu	0.20	SW 71 - Boyd Hill
	Permitted	0.10	Nature Preserve
	Fernitteu	0.10	SW 71 - Boyd Hill
e e	Dormittad	0.10	Nature Preserve
	Permitteu	0.10	
	Dormittad	0.07	SW 86 - Mobbly
	Permitteu	0.07	Bayou SW 82 - Ekker
	Dormittad	0.24	Tract
	Permitteu	0.54	SW 78 – Bahia
	Activo	0.20	Beach
-	Active	0.20	
	Downsittod	0.04	SW 86 - Mobbly
to SR 60 Airport Flyover	Permitted	0.94	Bayou
			SW 90- Brooker Creek Buffer
	Downsittod	7 1 0	
36R RPZ (TIA)	Permitted	7.18	Preserve
	De une itte d	0.55	SW 78- Bahia
36R RPZ (TIA)	Permitted	0.55	Beach
Tauiman \/0\\4/	De une itte d	0.00	SW 78 - Bahia
	Permitted	0.66	Beach
, , ,			
	De une itte d	2.20	SW 78 - Bahia
Stormwater	Permitted	3.29	Beach
			SW 90 - Brooker
	Delayed	2.40	Ck. Buffer
North Terminal Phase 1	Deleted	2.48	Preserve
Airfield Drainage Robab			SW 78 - Bahia
-	Permitted	2.85	Beach
	Fernitteu	2.85	Deach
			SW 78 - Bahia
Runway 17-35	Active	6.82	Beach
			SW 78 - Bahia
Taxiway S West Extension	Deleted	0.43	Beach
			SW 90 - Brooker
			Ck. Buffer
North Terminal Airside 2	Active	3.64	Preserve
			SW 90 - Brooker
			Ck. Buffer
North Terminal Airside 3	Active	4.74	Preserve
			SW 90 - Brooker
			Ck. Buffer
North Terminal Airside 4	Active	3.66	Preserve
	North Terminal Airside 2 North Terminal Airside 3	East-West Trail, Coopers Bayou to BayshorePermittedHimes Ave. at Hillsborough Ave.PermittedSR 688 (Ulmerton Rd.) Lake Seminole to Wild AcresPermittedSR 688 (Ulmerton Rd.) Lake Seminole to Wild AcresPermittedSR 688 (Ulmerton Rd.) Lake Seminole to Wild AcresPermittedSR 60 (Memorial Hwy) from I-275 to SpruceActiveI-275 @ I-275 NB Off-Ramp to SR 60 Airport FlyoverPermitted36R RPZ (TIA)Permitted36R RPZ (TIA)PermittedTaxiway V&WPermittedTaxiway B rehab, Bridge and N. Terminal StormwaterPermittedNorth Terminal Phase 1DeletedAirfield Drainage Rehab (fkaTaxiway Noverpass)PermittedRunway 17-35ActiveTaxiway S West ExtensionDeletedNorth Terminal Airside 2ActiveNorth Terminal Airside 3Active	East-West Trail, Coopers Bayou to BayshorePermitted0.10Himes Ave. at Hillsborough Ave.Permitted0.10SR 688 (Ulmerton Rd.) Lake Seminole to Wild AcresPermitted0.07US 92 Eureka Springs to Thonotosassa Rd.Permitted0.34SR 60 (Memorial Hwy) from I-275 to SpruceActive0.20I-275 @ I-275 NB Off-Ramp to SR 60 Airport FlyoverPermitted0.9436R RPZ (TIA)Permitted0.55Taxiway V&WPermitted0.66Taxiway B rehab, Bridge and N. Terminal Stormwater2.48Airfield Drainage Rehab (fkaTaxiway N Overpass)Permitted2.85Runway 17-35Active6.82Taxiway S West ExtensionDeleted0.43North Terminal Airside 2Active3.64North Terminal Airside 3Active4.74

				SW 90 - Brooker
				Ck. Buffer
4143481	Taxiway A Extension	Active	0.43	Preserve
				SW/79 Dabia
4143481	East Development Area (Drew Park Improvements)	Deleted	0.63	SW 78 - Bahia Beach
4145461	(Drew Park improvements)	Deleteu	0.03	Dedcii
				SW 78 - Bahia
4143481	South Development Area	Active	5.24	Beach
	High Speed Txwy for			SW 78 - Bahia
4143481	RW18R (fna Taxiway "W3")	Permitted	2.20	Beach
	Cargo/ Ground Support			SW 78 - Bahia
4143481	Equip. Facility	Permitted	0.63	Beach
	US 301, Balm Road to			SW 82 - Ekker
4154892	Gibsonton Drive	Permitted	11.85	Tract
	US 301, Balm Road to			SW 78 – Bahia
4154892	Gibsonton Drive	Permitted	1.50	Beach
	US 301, Sun City Center to	<b>-</b>	1.00	SW 71 - Boyd Hill
4154893	Balm Road	Permitted	1.99	Nature Preserve
4454000	US 301, Sun City Center to	Dama itta d	1.00	SW 82 - Ekker
4154893	Balm Road	Permitted	1.99	Tract
	US 92 (SR 600 / Gandy) Pelican Sound to Gandy			SW 86 - Mobbly
4168381	Bridge	Permitted	0.90	Bayou
4100501	US 92 (SR 600 / Gandy)	rennitted	0.50	Bayou
	Pelican Sound to Gandy			SW 78 – Bahia
4168381	Bridge	Permitted	0.67	Beach
	I-275 (Howard Frkl) Fm N of			
	Howard Frankland to S of			
4229042	SR 60	Deleted	11.20	Mitigation Bank
	I-275 (Howard Frkl) Fm N of			
	Howard Frankland to S of			Other Mitigation
4229044	SR 60	Deleted	4.00	Offsite
	SR 60 -			
	Pinellas/Hillsborough C.L.			SW 86 - Mobbly
4245611	to Rocky Point Dr.	Permitted	0.13	Bayou
	I-275/SR 93 Southbound @			SW 70 – Ft
4230801	Bunces Pass	Active	0.10	DeSoto
4245422	I-75 AT BIG BEND RD SB		0.50	11.1
4245132	OFF RAMP	Deleted	0.50	Unknown
	SR 579 (PIN Byway S) from			
4271432	N of Yacht Club Ln to S of Madonna Blvd	Deleted	0.34	SW 70 – Ft DeSoto
42/1432	SR 597 Dale Mabry from	Deleted	0.54	Desolo
	County Line Rd to N of			SW 87 - Alligator
4290081	Brinson Rd	Permitted	0.25	Lake
7250001	Britisoff Ku	i crimiteu	0.25	LUNC

	9 <sup>th</sup> St S (MLK Street) from			
4305011	7 <sup>th</sup> Ave S to 8 <sup>th</sup> Ave S	Deleted	0.50	Mitigation Bank
	Veteran's Expressway Gunn			SW 78 - Bahia
4293501	Hwy. to Van Dyke	Permitted	3.56	Beach
	I-4 (SR 400) FM I-75			
	(SR93A) TO EAST OF			
4303351	WILLIAMS ROAD	Deleted	0.28	Mitigation Bank
	BIG BEND RD FROM E OF			
	DICKMAN ROAD TO W OF			SW 78 - Bahia
4305022	WYANDOTTE ROAD	NEW	0.03	Beach
	US19 (SR 55) FROM N OF			
4007004	CR 95 TO S OF PINE RIDGE		1.00	
4337991	WAY S	Deleted	1.00	Mitigation Bank
	10th 9 11th Ave at Dreaker			SW 90 - Brooker
4360561	10th & 11th Ave at Brooker	NEW	0.20	Ck. Buffer
4300301	Creek Bridge #157235 MADISON AVE FROM US 41	INEVV	0.20	Preserve
	TO 78TH ST (CR 573)			SW 78 - Bahia
4370021	10 /811 31 (CK 3/3)	Active	4.00	Beach
4370021		Active	4.00	Deach
	I-75/SR 93A from Manatee			SW 78 - Bahia
4373121	County Line to N of CR 579	NEW	0.20	Beach
	US 301/SR 43 FM			SW 90 - Brooker
	FALKNERBURG RD TO			Ck. Buffer
4376401	SLIGH AVE	Active	0.50	Preserve
	US 301/SR 43 FM			
	FALKNERBURG RD TO			
4376401	SLIGH AVE	Deleted	1.00	Mitigation Bank
	S MAYDELL DR AT PALM			
	RIVER BRIDGE			
4394121		Deleted	0.50	Mitigation Bank
	SR 682/PINELLAS BAYWAY			CMUZO Delate
4205254	FROM SR 699 GULF BLVD	Activo	0.50	SW 78 - Bahia
4395251	TO TOLL PLAZA	Active	0.50	Beach
	Lee Roy Selmon Crosstown Extension - Temporary Haul			SW 82 - Ekker
9999999	Road	Permitted	0.21	Tract
	lighted in green are newly add		0.21	Hact

Projects highlighted in green are newly added to the Program.

Projects highlighted in yellow have been removed from the Program and acreages do not count towards totals.

<sup>1</sup>An additional 6.95 acres of impacts for this FM will be mitigated elsewhere and is not included in this table.

	en. 1901 Road improvement	Total		
		FDOT Project	Impacted	Mitigation
FM No.	<b>Project Description</b>	Status	Acreage	Location
	SR 52 (Shcrader Hwy) from			
	W of Suncoast Pkwy to E of			
2563231	US 41 (SR 45)	Deleted	16.52	Mitigation Bank
	SR 52 Hicks to Moon Lake			SW 74 - Serenova
2563161	Rd.	Permitted	1.57	- Sites 2,3,4,8
	SR 52 Moon Lake to			SW 77 - Conner
2563221	Suncoast Parkway	Permitted	6.54	Preserve
	US 41 (SR 45) From N of			
	Connerton Blvd to S of SR			
2563242	52	Deleted	7.56	Mitigation Bank
	US 41 (SR 45) Tower Rd. to			SW 77 - Conner
2563241	Ridge Road	Permitted	8.85	Preserve
	SR 54 - Rowan Rd. to			SW 77 - Conner
2563321	Mitchell Bypass	Permitted	3.68	Preserve
				SW 54 - Anclote
2563361	SR 54 Mitchell to Gunn	Permitted	6.60	Parcel
	SR 54 - Gunn Highway to			SW 77 - Conner
2563371	Suncoast Parkway	Permitted	6.00	Preserve
				SW 54 - Anclote
2563391	SR 54 N. Suncoast to US 41	Permitted	7.00	Parcel
	SR 586 (Curlew Rd.) CR 1 to			SW 77 - Conner
2568151	Fisher Road	Permitted	0.08	Preserve
	SR 682 (Bayway Bridge) SR			SW 70 - Ft.
2569031	679 to W. Toll Plaza	Permitted	0.65	DeSoto Park
	SR 694 (GANDY BLVD)			
	FROM 40TH ST N TO E OF I-			
2569314	275	Deleted	1.00	Mitigation Bank
	SR 688 (Ulmerton Rd.)			SW 77 - Conner
2570501	Oakhurst Rd. to 119th St.	Permitted	0.23	Preserve
	SR 699 (Gulf Blvd.) - 192nd			
	Ave. to			SW 70 - Ft.
2570831	Walsingham/Ulmerton Rd.	Permitted	0.11	DeSoto Park
	SR 60, Clearwater Harbor			SW 45 - Gateway
2570931	Bridge Replacement	Permitted	1.50	Tract
	US 19 (SR 55) Jump Court to			SW 77 - Conner
4058223	Ft. Island Trail	Permitted	8.84	Preserve
	US 98 Hernando Co. Line to			SW 77 - Conner
2571741	US 19	Permitted	1.42	Preserve
	CR 578 (County Line Rd.) US			SW 77 - Conner
2572982	19 to East Rd.	Permitted	0.55	Preserve
	CR 578 (CLR) FROM East Rd			SW 77 - Conner
2572983	to Mariner Blvd	Permitted	0.21	Preserve

**Table Thirteen:** FDOT Road Improvement Projects in the Upper Coastal Drainage Basin

2572985 Sund I-75 to 4110142 US 1	578 (County Line Rd.) coast Parkway to US 41 (SR 93) from N of SR 52 Pasco/Hernando C/L (design-build)	Permitted	0.30	SW 77 - Conner Preserve
4110142 I-75 to US 1	(SR 93) from N of SR 52 Pasco/Hernando C/L		0.50	TTESETVE
to 4110142 US 1	Pasco/Hernando C/L			1
4110142 US 1				SW 77 - Conner
US 1		Permitted	4.33	Preserve
	9 - Republic Drive to CR	rennited	4.55	SW 77 - Conner
4037711	816 (Alderman Rd.)	Permitted	0.09	Preserve
		remitted	0.05	rieserve
US	19 (SR 55) Green Acres			SW 77 - Conner
4058222	to Jump Ct.	Permitted	0.53	Preserve
				SW 77 - Conner
4079513 SR 5	0 US 19 to Mariner Dr.	Permitted	1.25	Preserve
	688 (Ulmerton) - Wild			
511	Acres to El			SW 77 - Conner
4091541 Ce	entro/Ranchero Blvd.	Permitted	0.64	Preserve
	SR 679 (Pinellas Bay	rennitied	0.01	Treserve
	cture E) at Intercoastal			SW 70 - Ft.
4107552	Waterway	Permitted	0.23	DeSoto Park
	50/SR 50A Bypass from	rennitied	0.23	Desoto Faik
	ad St to Jefferson N St	Deleted	1.00	Mitigation Bank
	19 (SR 55) Continuous	Deleted	1.00	SW 77 - Conner
4188602	Right Turn Lane	Permitted	0.41	Preserve
4100002		remitted	0.41	rieserve
US 1	.9 (SR 55) From N of CR			
	to N of Nebraska Ave	Deleted	0.10	Mitigation Bank
	9 (SR 55) From S of Live			
	St to N of Brittany Park			SW 77 – Conner
4348071	Blvd	Active	0.10	Preserve
	County Trail from Pasco			
	C/L to S Terminus of			
4357191	Starkey Trail	Deleted	2.00	Mitigation Bank
	Good Neighbor Trail			
	Connector Fm W of			
	uncoast Parkway to			
	minus of Starkey Trail	Deleted	0.25	Mitigation Bank
	Good Neighbor Trail			<u> </u>
	Connector Fm W of			
	uncoast Parkway to			
	minus of Starkey Trail	Deleted	0.15	Mitigation Bank
	S 19/US 98/ SR 55/ S			-
	Suncoast Blvd from			
	ando County Line to W			
4375141	Green Acres	NEW	0.40	Mitigation Bank
	t US 19/ SR 595 from			
	hawk St to N of Tilden			
4376231	St/Skinner Blvd	NEW	0.40	Mitigation Bank

	US 19 (SR55) @ JOES CREEK BETWEEN 44TH AVE N AND			
4379401	46TH AVE N	Deleted	0.24	Mitigation Bank
	US 98/US 19/SR 55/N			
	SUNCOAST BLVD AT			
	INTERSECTION OF SR 44/NE			
4394001	5TH ST	/Deleted	1.98	Mitigation Bank
Projects highlighted in green are newly added to the Program				

Projects highlighted in green are newly added to the Program. Projects highlighted in yellow have been removed from the Program and acreages do not count towards totals.

Table Fourt	een: FDOT Road Improvement	Projects in the Withl	acoochee River	Basin
			Total	

			Total	
		FDOT Project	Impacted	Mitigation
FM No.	<b>Project Description</b>	Status	Acreage	Location
	I-4 East of CR 557 to			SW 59 - Hampton
2012041	Osceola County (Seg. 6-7,9)	Permitted	3.86	Tract
	I-4 East of US 98 to East of			SW 59 - Hampton
2012092	CR 557 (Sec. 3-5)	Permitted	18.69	Tract
	I-75 Hernando Co. Line to			SW 84 - Colt
2426263	Florida Turnpike	Permitted	2.18	Creek State Park
	I-75 Hernando Co. Line to			Green Swamp
2426263	Florida Turnpike	Deleted	4.78	Mitigation Bank
	I-75 Hernando Co. Line to			Withlacoochee
2426263	Florida Turnpike	Deleted	0.78	Mitigation Bank
				SW 92 -Halpata
2571651	US 41 from SR 44 to SR 200	Deleted	0.70	Tastanki Preserve
				SW 64 -
				Withlacoochee
2571631	SR 44 US 41 to CR 470	Permitted	7.92	S.F Baird
				SW 64 -
	SR 44 CR 470 to			Withlacoochee
2571641	Withlacoochee River	Permitted	13.23	S.F Baird
				SW 64 -
	US 41 (SR 45) Watson St. to			Withlacoochee
2571841	SR 44 East	Permitted	0.06	S.F Baird
	I-75 (SR 93) from			
	Pasco/Hernando C/L to			SW 84 – Colt
4110113	US98/N SR50/Cortez Blvd	Permitted	7.08	Creek State Park
	I-75 (SR 93) from			
	Pasco/Hernando C/L to			SW 84 – Colt
4110114	US98/N SR50/Cortez Blvd	Permitted	0.34	Creek State Park
	I-75 (SR 93) from N of SR 52			
	to Pasco/Hernando C/L			SW 84 - Colt
4110142	(design-build)	Permitted	3.05	Creek State Park
				SW 57 - Lake
4063291	I-75 Lk. Panasoffkee Bridge	Permitted	5.93	Panasoffkee

				1
				SW 64 -
				Withlacoochee
4092071	CR 470 (Gospel Isle)	Permitted	0.23	S.F Baird
	SR 50 from Windmere			
	Rd/Bronson BI to US			SW 84 - Colt
4167324	98/McKethan Rd	Active	0.04	Creek State Park
	SR 50/SR 50A Bypass from			SW 84 - Colt
4167351	Broad St to Jefferson N St	Active	1.00	Creek State Park
	SR 50 from Lockart Rd to E			
4300512	of Remington Rd	Deleted	0.60	Mitigation Bank
	SR 35 (US 301) from CR 470			Colt Creek State
4301321	to SR 44	NEW	7.03	Park
	SR50/700/US98/Cortez			
	from E of SR50/Cortez BL to			SW 84 – Colt
4326971	W of Live Oak Dr	Active	0.10	Creek State Park
4326971	W of Live Oak Dr SR 575 Over Withlacoochee	Active	0.10	Creek State Park
4326971 4358941		Active Deleted	0.10	Creek State Park Dropped
	SR 575 Over Withlacoochee			
	SR 575 Over Withlacoochee River Bridge #140031			
	SR 575 Over Withlacoochee River Bridge #140031 Good Neighbor Trail			
4358941	SR 575 Over Withlacoochee River Bridge #140031 Good Neighbor Trail Connector Fm W of	Deleted	0.20	Dropped
4358941	SR 575 Over Withlacoochee River Bridge #140031 Good Neighbor Trail Connector Fm W of	Deleted	0.20	Dropped Mitigation Bank
4358941	SR 575 Over Withlacoochee River Bridge #140031 Good Neighbor Trail Connector Fm W of Suncoast Pkwy to Terminus	Deleted	0.20	Dropped Mitigation Bank SW 84 – Colt

Projects highlighted in yellow have been removed from the Program and acreages do not count towards totals.

#### **MITIGTION BANK EVALUATION**

Chapter 373.4137, F.S., which establishes the FDOT Mitigation Program, requires that the District consider the "purchase of credits from public or private mitigation banks permitted under s. 373.4136 and associated federal authorization and shall include the purchase as a part of the mitigation plan when the purchase would offset the impact of the transportation project, provide equal benefits to the water resources than other mitigation options being considered, and provide the most cost-effective mitigation option." Very few mitigation banks were available for use for approximately the first ten years of the FDOT Mitigation Program. As mitigation banks became available, the purchase of mitigation bank credits was considered in accordance with the statute. To date, mitigation for 16 FDOT road improvement projects is provided at one or more mitigation banks with funding that has passed through the District. The road improvement projects and the mitigation banks that have been used are listed in Table Fifteen. Descriptions of the mitigation banks used are included in the FDOT Mitigation Program.

			Total
FM No.	Project Description	Mitigation Location	Impacted Acreage
	, <b>,</b>	SW 53 - Boran Ranch Mit.	
1937911	US 17 (SR 35) CR 74 to CR 764 North	Bank	0.27
		SW 52 - Little Pine Island Mit.	
1937941	SR 776 CR 771 to Willow Bend Road	Bank	2.08
	US 17 (SR35) CR 764 South to CR 764	SW 53 - Boran Ranch Mit.	
1937981	North	Bank	0.27
		SW 53 - Boran Ranch Mit.	
1938851	SR 72 Sarasota Co. Line to SR 70	Bank	1.19
	US 17 (SR 35) SR 64 to Peace River	SW 53 - Boran Ranch Mit.	
1941021	Bridge	Bank	2.30
1945101	US 27 Lake Glenada to Hal McRae	SW 49 - Reedy Ck. Mit. Bank	0.39
	US 41 Bus. (SR 45) Venice Ave. to US		
1980051	41 Bypass	SW 88 - Curry Creek ROMA	0.32
		SW 52 - Little Pine Island Mit.	
1984711		Bank	0.16
	Ft. Green/Ona (Seg. 2) Vandola to	SW 53 - Boran Ranch Mit.	
1986371	North of Vandolah	Bank	4.27
	Ft. Green/Ona (Seg. 3) SR 64 to	SW 53 - Boran Ranch Mit.	
1986381	Vandolah Rd.	Bank	5.23
	Ft. Green/Ona Road (Seg. 1)	SW 53 - Boran Ranch Mit.	
1986401	Vandolah to SR 62	Bank	2.08
	I-4, East of CR 557 to Osceola County		
2012041	( , , ,	SW 49 - Reedy Ck. Mit. Bank	2.35
	I-75 Bridge Widening over Peace	SW 52 - Little Pine Island Mit.	
4046971	River	Bank	2.75

**Table Fifteen:** FDOT Road Improvement Projects for which mitigation is provided by mitigation bank credit purchased through the FDOT Mitigation Program.

4063143	I-75 N. River Rd. (CR 577) to SR 681	SW 79 - Fox Creek ROMA	14.55
4063143	I-75 N. River Rd. (CR 577) to SR 681	SW 88 - Curry Creek ROMA	0.77
	I-75 from Tucker's Grade to N. Jones	SW 52 - Little Pine Island Mit.	
4130423	Loop Road	Bank	1.10
4154901	US 17 Charlotte C.L. to SW Collins	SW 85 - Peace River Mit. Bank	2.23
		SW 53 - Boran Ranch Mit.	
4154901	US 17 Charlotte C.L. to SW Collins	Bank	2.15

The largest difficulty in performing a mitigation bank analysis when the FDOT Mitigation Plan is developed is determining whether mitigation bank credit will be available and whether the purchase would be the most cost-effective mitigation option at the time the FDOT project is submitted for permitting. With mitigation bank options and FDOT mitigation needs constantly changing, this mitigation bank analysis becomes quickly outdated.

This situation is best remedied by performing an evaluation as to whether a mitigation bank may be used at the time the permit application is being prepared. This concept was included in the 2012 Mitigation Plan. Also in 2012, revisions to the statute that directs how the FDOT Mitigation Program is to be implemented require that the FDOT perform a mitigation bank analysis when determining which projects are submitted for inclusion in the FDOT Mitigation Program. The initial inventory is developed in July of each year and finalized in December of that year for the Plan to be finalized by March 1<sup>st</sup> of the following year. These factors, combined with the federal permitting requirement that a mitigation bank being used or proposed to be used for 22 FDOT projects that have not been fully permitted as of 2018. These projects are listed in Table Sixteen. Since mitigation for these projects is provided outside the FDOT Mitigation Program, project descriptions for these mitigation banks are not included in the FDOT Mitigation Program. Project Details section.

FM No.	Project Description	Proposed Impact Acres
2426263	I-75 Hernando Co. Line to Florida Turnpike	4.78
2426263	I-75 Hernando Co. Line to Florida Turnpike	0.78
	SR 52 (SCHRADER HWY) FROM W OF	
2563231	SUNCOAST PKWY TO E OF US 41 (SR 45)	16.52
2563242	US 41 from Ridge Rd to N of SR 52	7.56
2563341	SR 52 (SCHRADER HWY) US 41 to CR 581	7.41
	SR 694 (GANDY BLVD) FROM 40TH ST N TO E	
2569314	OF I-275	1.00

**Table Sixteen:** FDOT Road Improvement Projects for which mitigation is proposed to be provided by mitigation bank credit purchased directly by the FDOT<sup>1</sup>.

	SR 694 (GANDY BLVD) FROM 40TH ST N TO E	
2569314	OF I-275	1.00
2569961	SR 686 AT CR 611 (49TH ST)	0.31
	SR 694 (GANDY BLVD) FROM EAST US19 (SR55)	
2570861	TO E OF I-275 (SR93)	12.67
	SR 50/SR 50A BYPASS FROM BROAD ST TO	
4167351	JEFFERSON N ST	1.00
	I275 (HOWARD FRKL) FM N OF HOWARD	
4229042	FRANKLAND TO S OR SR 60	19.05
	SR 50 FROM LOCKART RD TO E OF REMINGTON	
4300512	RD	0.60
	US 19 (SR 55) FROM N OF CR 95 TO N OF	
4337961	NEBRASKA AVE	0.10
	US19 (SR 55) FROM N OF CR 95 TO S OF PINE	
4337991	RIDGE WAY S	1.00
	TRI-COUNTY TRAIL FROM PASCO CO/L TO S	
4357191	TERMINUS OF STARKEY TRAIL	2.00
	GOOD NEIGHBOR TRL CONNECTOR FM W OF	
4357201	SUNCOAST PKWY TO TERMINUS OF	0.15
	GOOD NEIGHBOR TRL CONNECTOR FM W OF	
4357201	SUNCOAST PKWY TO TERMINUS OF	0.10
	GOOD NEIGHBOR TRL CONNECTOR FM W OF	
4357201	SUNCOAST PKWY TO TERMINUS OF	0.25
	US 301/SR 43 FM FALKNERBURG RD TO SLIGH	
4376401	AVE	1.00
	US 19/US 98/ SR 55/ S Suncoast Blvd from	
4375141	Hernando County Line to W Green Acres	0.40
	Alt US 19/ SR 595 from Mohawk St to N of	
4376231	Tilden St/Skinner Blvd	0.40
	US 41/SR45/LAND O LAKES BLVD FR N OF	
4376491	EHREN CUTOFF TO N OF CALIENTE	1.00
	US 19 (SR55) @ JOES CREEK BETWEEN 44TH	
4379401	AVE N AND 46TH AVE N	0.24
	US 98/US 19/SR 55/N SUNCOAST BLVD AT	
4394001	INTERSECTION OF SR 44/NE 5TH ST	1.98
	S MAYDELL DR AT PALM RIVER BRIDGE	
4394121	REPLACEMENT	0.50

<sup>1</sup>This a partial list of all mitigation bank credits purchased by the FDOT since not all FDOT Districts report this information with the inventories submitted for inclusion in the 2018 FDOT Mitigation Plan. Mitigation bank names are not given here as the bank name was not provided in most cases. Projects highlighted in green are newly added to the Program.

As mentioned previously, statutory changes made in 2012 direct the FDOT to determine which projects to include or exclude from the mitigation plan by investigating the use of credits from a permitted mitigation bank before those projects are submitted for inclusion in the Plan. The FDOT is required to evaluate public and private mitigation banks that have both state and federal permits as of December

2017 and have a service area in which the wetland impact is located. The cost analysis performed is a comparison of the cost per impact acre established by statute with the cost per credit based on information provided by the mitigation banker. Also, the FDOT's ongoing due diligence includes review of the type and amount of mitigation credits available to determine whether wetland impacts could be offset with a public or private mitigation bank. These road improvement projects will remain in or are added to the District's 2018 FDOT Mitigation Plan, until the time permit applications are prepared for these projects and an updated mitigation analysis will be conducted by the FDOT to determine whether changes to the road improvement project or the available mitigation bank options now make it feasible to offset impacts at the mitigation bank instead of through the FDOT Mitigation Program.

## FDOT MITIGATION PROJECTS

There are a total 38 mitigation projects that have been established through the FDOT Mitigation Program contributing to the habitat protection and restoration priorities of various resource agencies. The distribution of projects among resource agencies and the number of FDOT Mitigation projects sponsored are listed in Table Seventeen.

Project Resource Agency	Number of Projects
Southwest Florida Water Management District	11
Florida Department of Environmental Protection	4
Florida Division of Forestry	1
Florida Fish and Wildlife Conservation Commission	1
Alachua County	1
Hillsborough County	9
Manatee County	1
Pinellas County	4
Polk County	2
Sarasota County	2 (Regional Offsite
	Mitigation Areas)
City of Tampa	1
City of St. Petersburg	1

Table Seventeen: Resource Agencies sponsoring FDOT Mitigation projects.

Two notable mitigation projects are Ft. DeSoto Park (SW 70), a Pinellas County project, and Circle B Bar Reserve (SW 66), a Polk County project. The seagrass restoration at Ft. DeSoto is recognized by the National Oceanic and Atmospheric Administration with a Coastal America Partnership Award and Circle B Bar Reserve is recognized by both the Audubon of Florida and USA Today for the wildlife use of the habitats that have been restored. The four mitigation banks used by the FDOT Program are not included above.

The statute establishing the FDOT Mitigation Program specifies that mitigation projects focus on activities of the Water Management Districts and the Department of Environmental Protection such as Surface Water Improvement and Management (SWIM) projects, land acquisition and control of invasive and exotic plants to the extent these projects meet mitigation requirements for the FDOT road improvement projects. Mitigation projects that include these specified elements are tallied in the following Table.

Table Eighteen: FDOT Mitigation Projects that include elements specified by Chapter 373.4137, F.S.

Project Type	Number of Projects
SWIM Projects	15
Land Acquisition	7
Aquatic/ Exotic Plant Control	14

The number of proposed FDOT projects having substantial wetland impacts for the FDOT Mitigation Program have declined, especially in recent years. With mitigation available through a private mitigation bank or a mitigation project already adopted into the FDOT Mitigation Program, there has been a need to add only one new mitigation project to the Program since 2008. The three projects that were added in 2009 were removed the following year when the FDOT mitigation needs changed and these projects were no longer needed. All mitigation projects that remain in the Program will be evaluated to identify which have available mitigation that exceeds the projected need by the FDOT. For these projects, options to reduce excess mitigation will be explored. Furthermore, the ecological benefit projected to be achieved by the active mitigation projects (currently being used for mitigation) is being verified by the Army Corps of Engineers when permitting FDOT road improvement projects. Nearly 75% of all the existing mitigation projects have been completed and are in the perpetual management phase. Table Nineteen summarizes the status of all mitigation projects.

Project Status	Number of Projects
Perpetual Management	14
Monitoring and Perpetual Management	21
Maintenance and Monitoring	1
Construction and Maintenance	1
Design and Permitting	0

Table Nineteen: Status of FDOT Mitigation Projects<sup>1</sup>

<sup>1</sup> Excludes Mitigation Banks, Regional Off-site Mitigation Areas (ROMAs) and projects implemented by DEP; some projects are in more than one status because they are being implemented in phases.

Tables Twenty through Twenty-Eight summarize information for all active District mitigation projects. Detailed site descriptions for each active Mitigation Project are included in the following FDOT Mitigation Project Details report section. Additional project sites such as ROMAs and Private Mitigation Banks where credit was historically purchased through the FDOT Mitigation Program and are not currently considered active projects for this year's Annual Plan are included in Table Twenty-Nine. Project details for these ROMAs and Private Mitigation Banks can be found in previous annual mitigation Plans.

Table Twenty: F	DOT Mitigation Projects in the Alafia River Basin
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Project II	Project Name	SWIM Project?	Mitigatio n Bank?	ROMA?	Landowner	Status
SW 81	Balm- Boyette- Stallion Hammock Restoration	Yes	No	No	Hillsborough County and Trustees of the Internal Improvement Trust Fund	Construction and Maintenance

#### Table Twenty-One: FDOT Mitigation Projects in the Hillsborough River Basin

Project ID	Project Name	SWIM Project?	Mitigatio n Bank?	ROMA?	Landowner	Status
SW 34	Lake Thonotosassa Shoreline Restoration	Yes	No	No	SWFWMD	Perpetual Management

SW 55	Upper Hillsborough 4&5	No	No	No	SWFWMD	Monitoring and Perpetual Management
SW 61	Cypress Creek Preserve, West- Jennings Tract	No	No	No	Hillsborough County	Monitoring and Perpetual Management
SW 63	Hillsborough River Corridor	No	No	No	SWFWMD	Perpetual Management
SW 77	Conner Preserve	No	No	No	SWFWMD	Perpetual Management
SW 84	Colt Creek State Park, Phase 2	no	No	No	SWFWMD and Trustees of Internal Improvement Trust Fund	Monitoring and Perpetual Management
SW 84	Colt Creek State Park, Phase 3	No	No	No	SWFWMD and Trustees of Internal Improvement Trust Fund	Monitoring and Perpetual Management

# Table Twenty-Two: FDOT Mitigation Projects in the Little Manatee River Basin

Project ID	Project Name	SWIM Project?	Mitigation Bank?	ROMA?	Landowner	Status
SW 83	Little Manatee River- Lower Tract	No	No	No	Hillsborough County	Monitoring and Maintenance

# Table Twenty-Three: FDOT Mitigation Projects in the Manatee River Basin

Project ID	Project Name	SWIM Project?	Mitigation Bank?	ROMA?	Landowner	Status
SW 50	Terra Ceia Restoration	Yes	No	No	Trustees of Internal Improvement Trust Fund	Monitoring and Perpetual Management

SW 65	Rutland Ranch- South Tract	No	No	No	SWFWMD	Monitoring and Perpetual Management
SW 80	Hidden Harbour	No	No	No	Manatee County	Monitoring and Perpetual Management

# Table Twenty-Four: FDOT Mitigation Projects in the Myakka River Basin

Project ID	Project Name	SWIM Project?	Mitigation Bank?	ROMA?	Landowner	Status
SW 31	Cattle Dock Point, Phase II	Yes	No	No	Trustees of Internal Improvement Trust Fund	Monitoring and Perpetual Management

# **Table Twenty-Five:** FDOT Mitigation Projects in the Peace River Basin

Project ID	Project Name	SWIM Project?	Mitigation Bank?	ROMA?	Landowner	Status
SW 66	Circle B Bar Preserve	No	No	No	Polk County and SWFWMD	Monitoring and Perpetual Management

## Table Twenty-Six: FDOT Mitigation Projects in the Tampa Bay Drainage

Project ID	Project Name	SWIM Project?	Mitigatio n Bank?	ROMA ?	Landowner	Status
SW 45	Gateway Restoration	Yes	No	No	Pinellas County	Perpetual Management
SW 56	Cockroach Bay Restoration - Freshwater	Yes	No	No	Hillsborough County	Monitoring and Perpetual Management
SW 62	Tappan Tract	Yes	No	No	City of Tampa	Perpetual Management
SW 67	Apollo Beach Nature Preserve	Yes	No	No	Hillsborough County	Perpetual Management
SW 71	Boyd Hill Nature Preserve	No	No	No	City of St. Petersburg	Monitoring and Perpetual Management

SW 75	Cockroach Bay Restoration - Saltwater	Yes	No	No	Hillsborough County	Monitoring and Perpetual Management
SW 78	Bahia Beach	Yes	No	No	Hillsborough County	Monitoring and Perpetual Management
SW 82	Ekker Tract	Yes	No	No	SWFWMD	Monitoring and Perpetual Management
SW 86	Mobbly Bayou Wilderness Preserve, Phase 1	Yes	No	No	Pinellas County and City of Oldsmar	Monitoring and Perpetual Management
SW 86	Mobbly Bayou Wilderness Preserve, Phase 2	Yes	No	No	Pinellas County and City of Oldsmar	Cancelled in 2016, will be constructed as a SWIM project
SW 87	Alligator Lake Mgmt. Area	Yes	No	No	Pinellas County	Monitoring and Perpetual Management
SW 90	Brooker Creek Buffer Preserve	No	No	No	Hillsborough County	Perpetual Management

# Table Twenty-Seven: FDOT Mitigation Projects in the Upper Coastal Drainage

Project ID	Project Name	SWIM Project?	Mitigatio n Bank?	ROMA?	Landowner	Status
SW 54	Anclote Parcel	No	No	No	SWFWMD	Monitoring and Perpetual Management
SW 70	Ft. DeSoto Park	Yes	No	No	Pinellas County	Perpetual Management
SW 74	Serenova Preserve- Sites 2, 3, 4, 8	No	No	No	SWFWMD	Monitoring and Perpetual Management

SW 77	Conner Preserve	No	No	No	SWFWMD	Perpetual Management
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Project ID	Project Name	SWIM Project?	Mitigatio n Bank?	ROMA ?	Landowner	Status
SW 59	Hampton Tract	No	No	No	SWFWMD	Monitoring and Perpetual Management
SW 84	Colt Creek State Park, Phase 2	No	No	No	SWFWMD and Trustees of Internal Improvement Trust Fund	Monitoring and Perpetual Management
SW 84	Colt Creek State Park, Phase 3	No	No	No	SWFWMD and Trustees of Internal Improvement Trust Fund	Monitoring and Perpetual Management
SW 84	Colt Creek State Park, Phase 4 (Fussel Tract)	No	No	No	SWFWMD	Deleted; Mitigation not Needed
SW 92	Halpata Tastanaki Preserve	No	No	No	SWFWMD	Perpetual Management

 Table Twenty-Eight:
 FDOT Mitigation Projects in the Withlacoochee River Basin

# Table Twenty-Nine: Additional FDOT Mitigation Projects currently Inactive

Project ID	Project Name	SWIM Project?	Mitigatio n Bank?	ROMA?	Landowner	Status
SW 47	Tenoroc- Bridgewater Tract	No	No	No	Florida Fish & Wildlife	N/A (Implemented by the FDEP)
SW 49	Reedy Creek Mitigation Bank	No	Yes	No	Private	N/A
SW 51	Myakka River State Park	No	No	No	Trustees of Internal Improvement Trust Fund	N/A (Implemented by the FDEP)

SW 52	Little Pine Island Mitigation Bank	No	Yes	No	Private	N/A
SW 53	Boran Ranch Mitigation Bank	No	Yes	No	Private	N/A
SW 57	Lake Panasoffkee Restoration	Yes	No	No	SWFWMD	Perpetual Management
SW 58	Barr Hammock- Ledwith Prairie	No	No	No	Alachua County	Perpetual Management
SW 64	Withlacoochee State Forest- Baird Tract	No	No	No	Trustees of the Internal Improvement Trust Fund/Divisio n of Forestry	N/A (Implemented by the FDEP)
SW 69	I-75 Peace River Bridge Restoration	No	No	No	FDOT	Perpetual Management
SW 76	Lake Lowery Tract	No	No	No	Polk County and SWFWMD	Perpetual Management
SW 79	Fox Creek ROMA	No	No	Yes	Sarasota County	N/A
SW 85	Peace River Mitigation Bank	No	Yes	No	Private	N/A
SW 88	Curry Creek ROMA	No	No	Yes	Sarasota County	N/A

## FDOT MITIGATION PROJECT DETAILS

#### SW-87 ALLIGATOR LAKE MANAGEMENT AREA MITIGATION PLAN

#### BACKGROUND INFORMATION:

Project Name	Alligator Lake M	lanagement Area	Project Number	SW-87/D053		
Project Type	Creation and enh	nancement				
Landowner	Pinellas County		Management Entity	Pinellas County		
County	Pinellas		Watershed	Tampa Bay Drainage		
Water bodies	Alligator Lake, Tampa Bay		Water body Designations	SWIM Water Body		
• •	<b>Project implementation status:</b> (As of December 2017):		Monitoring and Perpetual Management			
Project utilization:		Permitted FDOT projects: 2				
(As of December 2017)		Planned, not yet permitted, FDOT projects: 0				
S/T/R:	S/T/R:		9/29S/16E			

# **IMPACT INFORMATION** (As of December 2017):

Watershed	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
Tampa Bay Drainage	4290081	SR 597 Dale Mabry from County Line Rd to N of Brinson Rd	0.25	44007155.014	2013-00588
Tampa Bay Drainage	4289541	I-75 (SR93A) NB on Ramp from EB/WB I-4 to South of Bypass Canal	0.31	43042183.000	2015-02605
		Total:	0.56		

# MITIGATION INFORMATION (As of December 2017):

Habitat	Mitigation Type	Watershed	Acreage
Marsh	Creation	Tampa Bay Drainage	3.54
Marsh	Enhancement	Tampa Bay Drainage	2.67
Stream	Creation	Tampa Bay Drainage	1.31
Mixed wetland hardwoods	Enhancement	Tampa Bay Drainage	2.46
Mixed wetland hardwoods (forested shelf)	Creation	Tampa Bay Drainage	1.31
		Total:	11.29

#### **PROJECT DESCRIPTION**

A. Overall project goals: The Alligator Lake Management Area is a 53-acre preserve owned and managed by Pinellas County located adjacent to the City of Safety Harbor in northeastern Pinellas County. The preserve includes two parcels bordering the 70-acre Alligator Lake, a man-made freshwater lake. Alligator Lake outfalls into Tampa Bay, a state-designated SWIM priority waterbody. The project goal includes the substantial enhancement, restoration and creation of appropriate wetland and upland habitats within a 34-acre portion of the preserve. This project provides ecological benefits for wildlife since the habitat value was degraded by extensive coverage of exotic and nuisance species, and most of surrounding property is dominated by residential land use. The habitat improvements provide more opportunities for wildlife use within the Preserve as well as Alligator Lake, and the area also provides water quality treatment and attenuation of contributing basin runoff before discharging into Alligator Lake and Tampa Bay. These goals are consistent with the ecosystem restoration and management plan developed for this property by various entities including but not limited to Pinellas County, SWFWMD's SWIM Program, the design consultant, and various members of the public.

Β. Brief description of pre-construction habitat conditions: The project includes proposed improvements to habitats within the eastern half (22.7 acres) of the "North Parcel" and the entire "South Parcel" (8.7 acres) that border Alligator Lake. Habitats include upland shrub, live oak hammock, mixed wetland hardwoods, willow shrub wetlands, cabbage palm, exotic wetland forest and marsh habitat. The County conducted an initial eradication of some dense Brazilian pepper in 2004 in 8.7 acres of upland shrub habitats, resulting in the establishment of predominantly invasive nuisance species such as ragweed, saltbush, and euthamia. The largest and least disturbed habitat in the project area includes live oak hammocks (total 9.3 acres) within the north parcel. The hammock borders mixed forested wetlands (total 3.9 acres) that have dominant cover provided by water oak with scattered swamp bay and slash pine. Of note within the north parcel is a low-quality shrub marsh (2.2 acres) that generated vegetation within a borrow pit. Primrose willow and Carolina willow provide dense and dominant cover of the shrub system, with elderberry, buttonbush and wax myrtle along the perimeter. A portion of the previously channelized Alligator Creek is located through the North Parcel and connects to Alligator Lake. In general, the extensive exotic and nuisance vegetation at the preserve degraded the ability and opportunity for the habitats to support and sustain many wildlife species. Detailed descriptions for some of the listed habitats follow below.

In areas characterized as Other Shrubs & Brush, prior to roller-chopping in 2004, the upland shrub areas (total 8.7 acres) were previously dominated by Brazilian pepper (*Schinus terebinthifolius*). The combination of dense pepper mulch and the removal of the canopy opened the area for extensive recruitment and establishment of invasive and nuisance species. Ragweed (*Ambrosia artemesiifolia*) has become very dominant. Other common species include herbs such yellow nutgrass (*Cyperus esculentus*), hairy indigo (*Indigofera hirsuta*), and guineagrass (*Panicum maximum*), as well as shrubs such as elderberry (*Sambucus Canadensis*), saltbush (*Baccharis halimifolia*), lantana (*Lantana camara*) and wax myrtle (*Myrica cerifera*). The shrub marsh on the north parcel is a borrow pit with complete coverage of primrose willow (*Ludwigia peruviana*) and some Carolina willow (*Salix caroliniana*). The habitat value is very low quality for these shrub areas.

Areas characterized as Mixed Wetland Hardwoods occur in four separate areas of the project area and total 4 acres. Dominant canopy coverage is provided by water oak (*Quercus nigra*), laurel oak (*Quercus laurifolia*) and swamp bay (*Persea palustris*), with scattered slash pine (*Pinus elliottii*), cabbage palm

(Sabal palmetto) and live oak (Quercus virginiana). There was some variation of subcanopy and understory vegetation within the various wetland hardwood locations. Oak and bay saplings are common, along with wax myrtle, smaller cabbage palm and scattered buttonbush (*Cephalanthus occidentalis*). However, nuisance and exotic canopy-forming species such as Brazilian pepper, Carolina willow and carrotwood (*Cupaniopsis anacardiodes*) are frequently interspersed. The hardwood habitat in the southwest corner of the North Parcel had the highest quality of the four delineated areas, with a groundcover dominated by Virginia chain fern (*Woodwardia virginica*) and cinnamon fern (*Osmunda cinnamomea*). The remaining wetland hardwood areas had a mixture of coverage provided byswamp fern (*Blechnum serrulatum*) and various vine species.

Pine – Mesic Oak habitat is located within one area of the North Parcel. Several large longleaf pines (*Pinus palustris*) provide canopy over a sub-canopy dominated by water oak and camphor (*Cinnamomum camphora*). Other sub-canopy species include cabbage palm, swamp bay and Chinaberry (*Melia azedarach*). The dominant groundcover species was saw palmetto (*Serenoa repens*) which provided approximately 30% coverage. Air potato (*Dioscorea bulbifera*) and grapevine (*Vitis munsoniana*) were abundant in all vegetative strata. Severe fire suppression of this community was evident by the remnant saw palmetto cover and dense accumulations of needle litter surrounding the longleaf pine. The smaller diameter water oaks and camphor trees became well established since fire exclusion.

The live oak hammocks (FLUCCS 427) account for the largest proportion of land area in the north parcel. Though composition and habitat quality vary considerably, all areas mapped as this habitat are dominated by live oak, occupy the highest elevations of the parcel and exhibit varying amounts of fire suppression. Other canopy species include laurel oak, water oak, longleaf pine and southern magnolia (*Magnolia grandiflora*). Saw palmetto and live oak saplings co-dominate the subcanopy/shrub layer, with additional coverage provided by cabbage palm and American beautyberry (*Callicarpa americana*). There were exotic and nuisance species such as camphor tree (*Cinnamomun camphora*) and various vine species became a problem in the oak hammocks.

**C. Brief description of construction activities and current habitat conditions:** Pinellas County has a proposed habitat restoration plan that focuses on improving the existing upland and wetland habitats that provide some ecological value, while replacing most of the low-quality upland ruderal, wetland shrub and exotic hardwood habitat by creating additional mixed forested wetlands. Since there are three documented rookeries adjacent to the project area, establishing additional marsh habitat provides foraging opportunities for wading birds. By enhancing and creating forested wetland that buffers the marshes, there are also more roosting and nesting opportunities. For the low-quality willow marsh in the North Parcel, floating tussock and underlying sediments were dredged and removed, followed by planting of appropriate herb species. To provide additional rookery and nesting opportunities for wading birds, clean fill obtained from constructing Wetland #3 was used to create four small temperate hardwood islands in the constructed marsh. Additional temperate hardwoods were created on both parcels to displace the remaining upland shrub and to buffer the adjacent constructed wetlands. To provide additional habitat diversity, the cabbage palm habitat in the south parcel and pine-mesic oak habitat in the north parcel were enhanced to provide appropriate pine flatwood habitat.

The creation of Marsh Areas 1, 2 and 3 displace most of the ruderal shrub habitat and occur in areas classified as FLUCCS 329 (Other Shrubs and Brush). The marshes have gradual slopes of 8:1 to 10:1, providing zonation for establishing diverse marsh habitat suitable for a variety of wading bird species.

Steeper slopes (4:1) will be near the center of the marshes to provide small open-water components, providing both a refuge for fish and concentrated foraging opportunities for wading birds during the dry season. Marshes 1, 3 and 4 are hydrologically connected to Alligator Lake. Marsh 2 has a smaller contributing watershed and will have a higher upland overflow elevation to the lake, providing the opportunity to establish a slightly more obligate marsh condition. Common herb species planted include spikerush (*Eleocharis insterstincta*), soft rush (*Juncus effusus*), maidencane (*Panicum hemitomon*), pickerelweed (*Pontederia cordata*), arrowhead (*Sagittaria lancifolia*), giant bulrush (*Scirpus californicus*), sand cordgrass (*Spartina bakeri*), and fireflag (*Thaliageniculata*).

The remaining upland shrub areas will be restored as temperate hardwood habitat and the creation of mixed wetland hardwoods. The temperate hardwood habitat will be primarily buffering the marsh and forested wetland creation areas on both parcels. Proposed hardwood habitat plantings include red-cedar (*Juniperus virginiana*), live oak (*Quercus virginiana*), beauty-berry (*Callicarpa americana*), seagrape (*Coccoloba uvifera*), Florida swamp privet (*Forestiera segregate*), firebush (*Hamelia patens*), yaupon (*Ilex vomitoria*), wax-myrtle (*Myrica cerifera*), chickasaw plum (*Prunus angustifolia*), tough buckthorn (*Sideroxylon tenax*), bluestems (*Andropogon* spp.), chaffhead (*Carphephorus* spp.), Florida tickseed (*Coreopsis floridana*), Elliott's lovegrass (*Eragrostis elliottii*), blanket flower (*Gaillardia pulchella*), beach sunflower (*Helianthus debilis*), blazing star (*Liatris* spp.), spotted bee-balm (*Monarda punctata*), hairawn muhly (*Muhlenbergia capillaries*), seaside goldenrod (*Solidago sempervirens*), climbing aster (*Symphyotrichum carolinianum*) and gamagrass (*Tripsacum dactyloides*).

Pine – Mesic Oak habitat enhancement will be conducted by eradication of nuisance and exotic vegetation, followed by cool-season prescribed burn to minimize some of the pine needle and bark litter. Supplemental plantings will be provided by longleaf pine and saw palmetto.

The low-quality habitat Willow and Elderberry habitat were improved by removing the vegetation and underlying muck sediments, re-grading and planting with desirable vegetation. Marsh 4 habitat was established with the same plant species referenced under the previously discussed marsh creation areas. Clean fill resulting from constructing Marsh 3 will be used to construct four hummocks of temperate hardwood habitat.

A ditched portion of Alligator Creek meanders through the site and discharges directly into Alligator Lake. The ditch banks were extensively covered with dense Brazilian pepper that was eradicated. The water flow from the ditch was diverted by a weir to equally discharge into Marshes 3 and 4. This will provide water quality treatment before both marshes discharge into Alligator Lake.

The eradication and control of nuisance/exotic vegetation within the project area is conducted by a licensed herbicide applicator. Maintenance is conducted as needed, quarterly during the first five years after construction and continuing thereafter to ensure that success criteria are met.

Monitoring for FDOT mitigation credit will be conducted semi-annually for a minimum five years postconstruction. The monitoring evaluations will include vegetative and habitat conditions, water level relative to flow regimes and inundation, wildlife use and coverage of nuisance and exotic vegetation. Annual monitoring reports will be prepared to document conditions and various activities implemented during the previous year. The same monitoring stations will be designated throughout the monitoring period for photo references. Habitat conditions will be annually documented for the entire site, not just at the monitoring stations. Success criteria includes a minimum of 90% survivorship of planted material for a year after planting and a total 85% coverage of naturally recruited and planted desirable species. Exotic and nuisance species will be maintained at less than 5% coverage within both the enhanced, restored and created habitats.

# D. Brief explanation of how this work serves to offset the impacts of the specified DOT project(s):

Since Alligator Lake habitat activities included a high percentage of wetland creation constructed in 2011, the project was originally selected to the FDOT program to primarily provide appropriate mitigation credits for long-range, low-quality FDOT wetland impacts that will occur in the Tampa Bay Drainage basin. This provides more time for the proposed habitat conditions to mature and provide high quality ecological benefits well in advance of mitigating for future wetland impacts. The FDOT projects with impacts originally proposed to be offset by this mitigation project were deleted from the FDOT mitigation program because permitting and construction dates now occur outside the planning horizon that FDOT uses for compiling the project inventory that is used to develop the FDOT Mitigation Plan, or because mitigation was no longer required.

**E.** Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: At the time the FDOT projects were submitted for inclusion in the FDOT Mitigation Program, the Tampa Bay Mitigation Bank had insufficient credit to offset the identified wetland impacts. Consideration of the Tampa Bay Mitigation Bank as a mitigation option will be given as the FDOT develops its inventory of road improvement projects for future updates to this Plan.

F. Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: The proposed habitat improvements associated with this project are within a designated SWIM project.

## **PROJECT IMPLEMENTATION**

<ul> <li>Project Development:</li> </ul>	2008
<ul> <li>Design and Permitting:</li> </ul>	2008
Construction:	2011
<ul> <li>Monitoring:</li> </ul>	2012, 2013, 2014, 2015, 2016, 2017
Maintenance:	2011-Present
<ul> <li>Perpetual Management:</li> </ul>	Ongoing

## Entity responsible for construction: Private Contractor selected by Pinellas County

# Entity responsible for monitoring and maintenance: SWFWMD

*Entity responsible for perpetual management:* Pinellas County is responsible for county land and/or private contractor selected by SWFWMD for FDOT site.

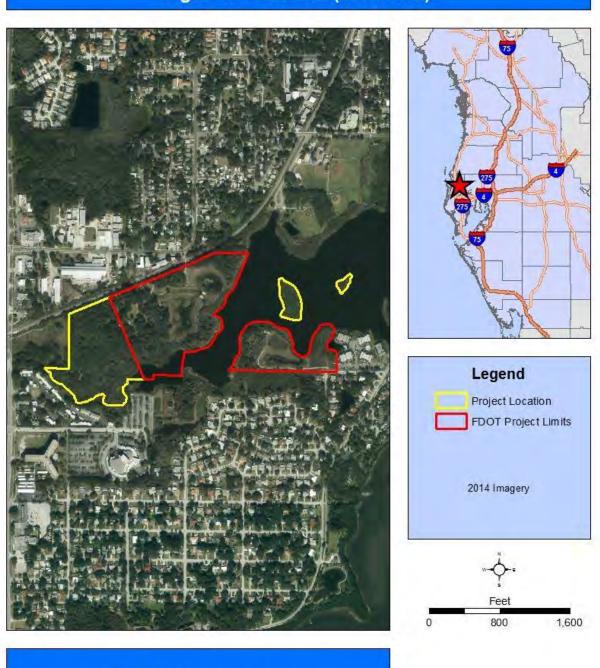
Cost for 2017 Monitoring: \$10,480.85

Cost for 2017 Maintenance: \$26,600.00

#### Total Cost for FDOT Mitigation Including 2017 M&M: \$969,854.44

# ATTACHMENTS

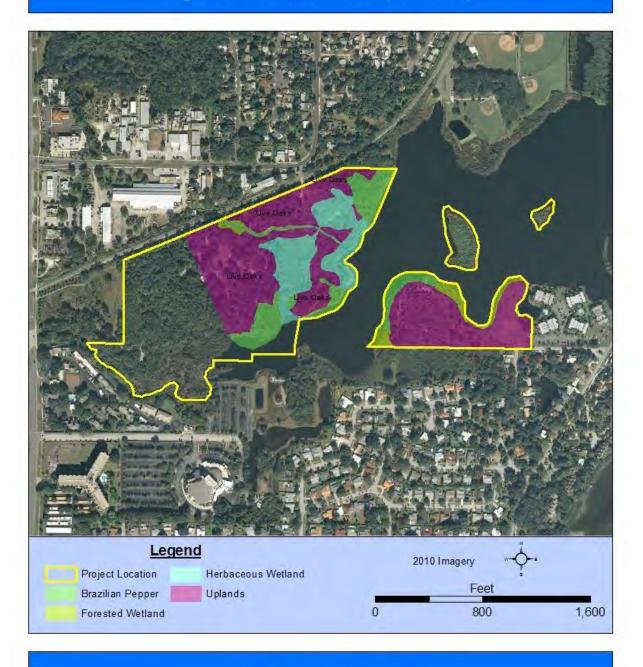
- 1. Figure A-Location
- 2. Figure B-Pre-Construction (2010)
- 3. Figure C-Post-Construction (2014)
- 4. Photographs (2014 & 2016)



# SW 87 - Alligator Lake Management Area Figure A - Location (9/29S/16E)

FDOT Mitigation Plan

# SW 87 - Alligator Lake Management Area Figure B - Pre-Construction (9/29S/16E)



# SW 87 - Alligator Lake Management Area Figure C - Post-Construction (9/29S/16E)

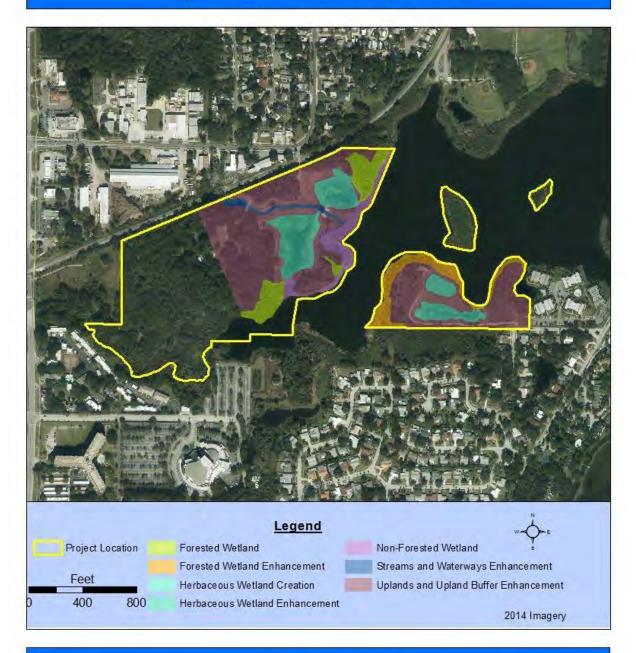




Photo of a Limpkin observed foraging near qualitative station i. (October 2016)



Photo taken from qualitative monitoring marsh 1. Transect 2, facing southwest. (October 2016)



Photo taken from qualitative monitoring marsh 3. Transect 2, facing southwest. (October 2016)



Photo taken from qualitative station E, facing west. (October 2016)



Alligator Lake South Tract. (2014)

#### SW-54 ANCLOTE PARCEL MITIGATION PLAN

#### **BACKGROUND INFORMATION:**

Project Name	Anclote Parcel		Project Number	SW-54/D017		
Project Type	Wetland enhancement, preservation; Upland Enhancement					
Landownor	Southwest F	lorida Water	Management	Southwest Florida Water		
Landowner	Landowner Managem		Entity	Management District		
County	Pasco		Watershed	Upper Coastal		
Water bodies	<b>bodies</b> Anclote River		Water body Designations	None		
Project impleme (As of December		Monitoring and Perpetual Management		ment		
Project utilizatio	Project utilization:		Permitted FDOT projects: 2			
(As of December 2017)		Planned, not yet permitted, FDOT projects: None				
S/T/R:		7,18/26S/17E				

#### **IMPACT INFORMATION** (As of December 2017):

Watershed	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
Anclote River	2563361	SR 54 Mitchell to Gunn	6.60	43016251.002	1999-05202
Anclote River	2563391	SR 54 Suncoast to US 41	7.00	43016251.000	1995-04576
		Total Impact Acreage:	13.60		

#### MITIGATION INFORMATION (As of December 2017):

Habitat	Mitigation Type	Watershed	Acreage
River, mixed hardwood floodplain forest, mixed forested wetland, pine flatwoods, oak hammocks	Enhancement and Preservation	Anclote River	179
Freshwater marsh	Creation	Anclote River	6
		Total:	185

#### **PROJECT DESCRIPTION**

A. Overall project goals: Public agency (SWFWMD) acquisition, enhancement, and long-term management of 179 acres of high quality habitat including a portion of the Anclote River and associated mixed hardwood floodplain forest, mixed forested wetland (cypress dominant), buffers of pine flatwoods, and oak hammocks. Mitigation also includes creation of 6-acres of freshwater marsh (Figure B) in a borrow pit that existed on the property. Perpetual management primarily includes prescribed burns.

**B.** Brief description of pre-construction habitat conditions: Prior to public acquisition, the tract's habitats were in relatively high-quality condition except for the borrow pit and the lack of prescribed

burn management in the uplands. Wetland and upland conditions adjacent to the Anclote River includes high quality habitat characteristics that form wildlife habitat corridors connecting to adjacent public lands associated with over 18,000 acres of property owned and managed by the SWFWMD (Figure A - J.B. Starkey Wilderness Preserve and Serenova Tract). The mixed forested wetland habitat includes a diversity of tree species such as bald cypress, water oak, laurel oak, swamp tupelo and red maple. The wetlands are bordered by pine flatwoods and live oak hammocks.

**C. Brief description of construction activities and current habitat conditions:** For preservation mitigation credit, the FDOT mitigation program reimbursed the WMD for the 185-acre acquisition. A 10-acre borrow pit was filled to provide 6 acres of marsh habitat for FDOT mitigation, surrounded by a 4-acre perimeter of planted cypress used as County mitigation for Starkey Blvd.

As of 2016, the project continues to be maintained through the District's Land Management Program. The created marsh includes a large area of cattails that will be treated in the winter of 2016-17.

D. Brief explanation of how this work serves to offset the impacts of the specified DOT project(s):

The mitigation creates and preserves wetlands providing functions like those lost due to the expansion of two SR 54 roadway segments located two miles south of the mitigation area. The preserved wetlands are buffered by the preservation and enhancement of upland habitat. There are no additional wetland impacts associated with other roadway projects proposed for mitigation at the Anclote Parcel. The acquisition, preservation, and enhancement of this 185-acre tract appropriately and adequately mitigates for the 13.60 acres of wetland impact at a cumulative ratio of approximately 14 to 1.

E. Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: No mitigation banks were proposed in the Upper Coastal drainage basin during mitigation selection.

**F.** Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: No SWIM projects were proposed in the Upper Coastal basin during the mitigation selection process.

## **PROJECT IMPLEMENTATION**

- Project commencement: 1999
- Parcel acquired: 2000
- Monitor: 2014, 2015, 2016, 2017
- Maintenance: 2015-Present
- Perpetual Management: Ongoing

## Entity responsible for construction: SWFWMD

## Entity responsible for monitoring and maintenance: SWFWMD

## Entity responsible for perpetual management: SWFWMD

Cost for 2017 monitoring: \$8,063.00

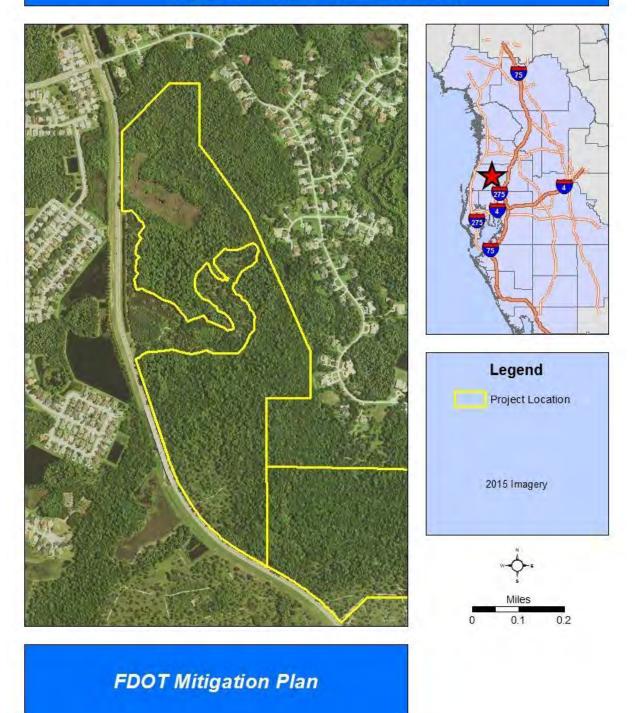
**Cost for 2017 maintenance:** \$4,475.00

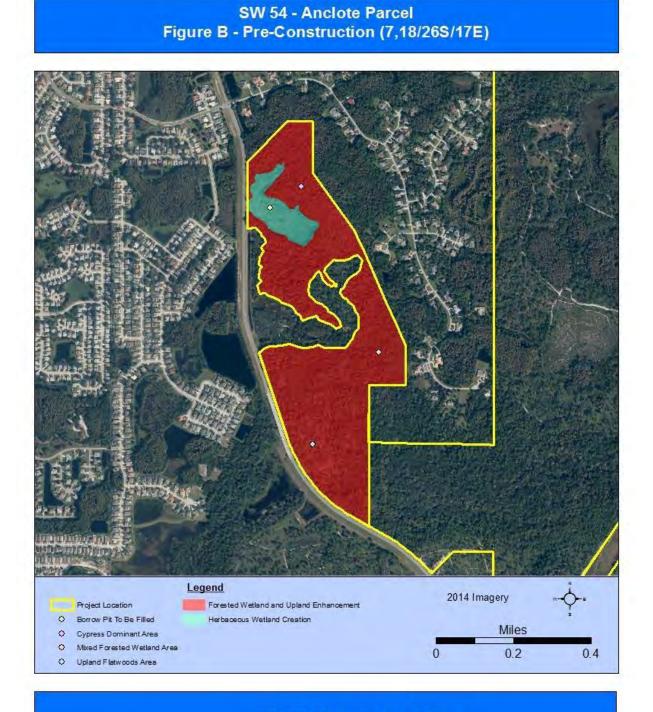
Total Cost for FDOT Mitigation Including 2017 M&M: \$751,181.93

# ATTACHMENTS

- 1. Figure A-Location
- 2. Figure B-Pre-Construction (2014)
- 3. Figure C-Post-Construction (2014)
- 3. Photographs (undated, 2014)

# SW 54 - Anclote Parcel Figure A - Location (7,18/26S/17E)





# SW 54 - Anclote Parcel Figure C - Post-Construction (7,18/26S/17E)





The mixed forested wetland within the northern portion of the tract is dominated by bald cypress, with additional dense canopy coverage provided by red maple, tupelo, dahoon holly, and a perimeter of water and laurel oaks.



The Anclote River meanders through the southern portion of the site. The river has an incised channel predominantly bordered with forested wetlands dominated by laurel oak, red maple and cabbage palm.



One of the flatwood communities at the site. These areas have not received prescribed burns for several years, allowing the overgrowth of palmetto and generation of wax myrtle and oak species.



One of several small oak hammocks located along the perimeter of some wetlands and sand deposits formed due to periodic overflow of the Anclote River.



Cypress at Anclote Parcel. (2014)

## SW-67 APOLLO BEACH NATURE PRESERVE MITIGATION PLAN

Project Name	Apollo Beach N	ature Preserve Project Number		SW-67/D024	
Project Type	Wetland creati	on			
Landowner	Hillsborou	Management		Hillsborough County/Southwest Florida Water Management District	
County	Hillsborough		Watershed	Tampa Bay Drainage	
Water bodies	Tamp	ba Bay	Water body Designations	SWIM Water Body	
Project implement (As of December 2		Perpetual Mana	Perpetual Management		
Project utilization:		Permitted FDOT projects: 1			
(As of December 2	017)	Planned, not yet permitted, FDOT projects: None			
S/T/R:		16,17/31S/19E			

#### **BACKGROUND INFORMATION:**

#### **IMPACT INFORMATION** (As of December 2017):

	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
Tampa Bay Drainage	2557031	SR 60 Cypress St. to Fish Creek <sup>1</sup>	6.80	43002958.003	2002-05816
		Total Impact Acreage:	6.80		

<sup>1</sup>Additional mitigation for other impacts associated with this project are provided at Cockroach Bay (Freshwater - SW-56), the Tappan Tract (SW-62) and Cockroach Bay (Saltwater - SW-75).

#### **MITIGATION INFORMATION** (As of December 2017):

Habitat	Mitigation Type	Watershed	Acreage
Intertidal low marsh and mangroves	Creation	Tampa Bay Drainage	13.8
		Total:	13.8

#### **PROJECT DESCRIPTION**

**A. Overall project goals:** This project involved the creation of various coastal habitats to replace an extensive spoil disposal area constructed in 1955 from adjacent dredged material from Tampa Bay. The total project area is 38 acres, on a site purchased through Hillsborough County's Environmental Lands Acquisition and Protection Program (ELAPP). The tract is owned and managed by Hillsborough County, with the habitat creation constructed in collaboration with the SWFWMD SWIM section. The constructed habitats and associated acreage include intertidal low marsh and mangroves (13.8 acres), intertidal high marsh (7.2 acres), intertidal open water (10.8 acres), dunes (1.2 acres), and upland enhancement (5.0 acres). The designated area mitigating for the FDOT wetland impacts include only the13.8 acres of created low marsh, with mangrove species naturally recruiting in the low marsh.

Β. Brief description of pre-construction habitat conditions: Prior to construction in 2004, most of the pre-construction site was low-quality upland habitat from numerous plant species that colonized the site in the 47 years since construction of the filled Apollo Beach peninsula. With sterile dredged soils creating a spoil "plateau" and minimal seed sources of desirable upland species, the "plateau" (average elev. 9-10 ft.) offered little opportunity for desirable species to colonize. Cogon grass (Imperata brasiliensis) was the most dominant ground cover species. Other herbs included purple sedge (Cyperus ligularis), hurricane grass (Fimbristylis spathacea), licorice weed (Scoparia dulcis), seaside evening primrose (Oenothera humifusa), and camphor daisy (Haploppus phyllocephalus). Shrub and tree species were present in the form of scattered individuals and small, dense pockets. Dominant species included Brazilian pepper (Schinus terebinthifolius), salt-bush (Baccharis angustifolia), wax myrtle (Myrica cerifera), lantana (Lantana camara), cabbage palm (Sabal palmetto), and Australian pine (Casuarina equisetifolia). A narrow strip of intertidal wetland exists along the outer, waterward edge of the site. Woody vegetation in this zone consists mainly of white mangrove (Lagucularia racemosa) and black mangrove (Avicennia germains), with scattered Brazilian pepper and coinvine (Dalbergia castaphyllum). Herbs include sea purslane (Sesuvium portulacastrum), saltmeadow cordgrass (Spartina patens), and saltwort (Batis maritima).

**C. Brief description of construction activities and current habitat conditions:** In 2004, most of the spoil material was hauled off-site and the project site was graded to create low and high marsh habitat. The construction emphasized an interconnected network of open water channels and deeper pools, a myriad of planted marsh platforms at various elevations, saltern habitat, sinuous edge communities, and areas of upland enhancement and restoration. The open water component is particularly important in the design to provide feeding and resting habitat for the Florida manatee that frequent the area due to the neighboring warm-water discharge from the Tampa Electric Company's (TECO) Big Bend Power Station.

The intertidal low marsh and mangrove wetland zone (13.8 acres) is designated to mitigate for the FDOT wetland impacts. This zone (elevations 0.5 to +2.0 ft.) was planted with *Spartina alterniflora*, and mangrove species have naturally recruited during the initial growing seasons (photographs). The existing eastern shoreline is dominated by mangroves and was preserved to inhibit erosion and provide a seed source for mangrove seedling recruitment.

Monitoring was conducted semi-annually through 2008, at which time success criteria were met with minimal need for maintenance. The success criteria included a total 85% cover of planted and recruited desirable species. The habitat conditions attract substantial diversity of wildlife and vegetation species. Additional maintenance work is planned for this site in 2017 but is expected to be minimal.

**D.** Brief explanation of how this work serves to offset the impacts of the specified DOT project(s): The 6.80 acres of the saltwater marsh impacts associated with the above referenced FDOT project are mitigated by the creation of 13.8 acres of intertidal low marsh and mangrove habitat. The FDOT mitigation area is buffered with the creation of other estuarine habitats, increasing the ecological value and wildlife benefits of the designated mitigation. No additional FDOT wetland impacts are proposed for mitigation at the project site.

E. Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: During the selection of the mitigation, the Tampa Bay Mitigation Bank (TBMB) was

the only proposed mitigation bank within the Tampa Bay Drainage Basin; however, the bank was not under construction nor did it have any credits available to sell.

**F.** Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: The Apollo Beach restoration project is a SWIM project. Constructed through the SWFWMD SWIM section, the site is owned and managed by Hillsborough County.

# **PROJECT IMPLEMENTATION**

•	Planning and design:	Completed 2002
٠	Construction:	Completed 2003-2004
•	Monitor:	2007, 2008, 2014, 2015, 2016, 2017
•	Maintenance:	2005-Present
٠	USACE release letter submitted:	May 19, 2017
٠	Perpetual Management:	Ongoing

## Entity responsible for construction: SWFWMD SWIM section

*Entity responsible for monitoring and maintenance:* SWFWMD is responsible for FDOT site; however, quantitative monitoring will no longer be performed, and site will go into perpetual maintenance.

*Entity responsible for perpetual management:* Hillsborough County-Regional Parks & Conservation Land Management is responsible for county lands and/or private contractor selected by SWFWMD for FDOT site.

Cost for 2017 monitoring: \$6,610.98

**Cost for 2017 maintenance:** \$1,7800.00

## Total Cost for FDOT Mitigation Including O&M: \$511,551.12

## ATTACHMENTS

- 1. Figure A-Location
- 2. Figure B-Pre-Construction (1999)
- 3. Figure C-Post-Construction (2014)
- 4. Photographs (2016)

# SW 67 - Apollo Beach Nature Preserve Figure A - Location (16,17/31S/19E)



# SW 67 - Apollo Beach Nature Preserve Figure B - Pre-Construction (16,17/31S/19E)



# SW 67 - Apollo Beach Nature Preserve Figure C - Post-Construction (16,17/31S/19E)





View of intertidal channel and lagoon in the northeast corner. (2016)



Picture taken on southeast section of site. (2016)



View of salt marsh enhancement north section. (2016)



Low marsh tidal creek. (2016)

# SW-78 BAHIA BEACH MITIGATION PLAN

## BACKGROUND INFORMATION:

Project Name	Bahia	Beach	Project Number	SW-78/D034
Project Type	Wetland Creatio	n, enhancement; l	Jpland Enhanceme	ent
Landowner	Hillsborough County		Management Entity	Hillsborough County/ Southwest Florida Water Management District
County	Hillsborough		Watershed	Tampa Bay Drainage
Water bodies	Tamp	ba Bay	Water body Designations	SWIM Water Body
• •	<b>Project implementation status:</b> (As of December 2017):		Monitoring and Perpetual Management	
Project utilization:		Permitted FDOT projects: 17		
(As of December 2017)		Planned, not yet permitted, FDOT projects: 3		
S/T/R:		1/32S/18E		

# IMPACT INFORMATION (As of December 2017):

	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
Tampa Bay Drainage	2568811	US 19 (SR 55) Whitney Rd to Seville Dr.	0.53	44025287.003	2006-02199
Tampa Bay Drainage	2568881	US 19 Coachman Rd to Sunset Rd	0.40	44011760.011	2001-04383
Tampa Bay Drainage	2569312	Gandy Blvd (SR 694) 9 <sup>th</sup> St to 4 <sup>th</sup> St North	2.98	43011339.007	2010-00652
Tampa Bay Drainage	2569942	CR 296 Connector NB I-275 (Ramp P) to WB SR 686	1.11	43018980.001	2004-09454
Tampa Bay Drainage	2584151	I-4 (SR 400)@ Selmon Expressway	1.05	44012347.014	2008-01855
Tampa Bay Drainage	4061511	Veteran's Expressway Memorial Hwy. to Gunn Hwy.	10.46	49007864.023	2009-03478
Tampa Bay Drainage	4125311	I275 (SR 93) from W of SR 60/Memorial to N of Spruce St	0.20	Not Submitted	Not Submitted
Tampa Bay Drainage	4143481	36R RPZ	0.55	49008387.026	2004-12399

		Total:	45.33		
Tampa Bay Drainage	4373121	I-75 / SR 93A from Manatee County Line to N of CR 579	0.60	Not Submitted	Not Submitted
Tampa Bay Drainage	4305022	Big Bend Rd From E of Dickman Road to W of Wyandotte Rd	0.03	Not Submitted	Not Submitted
Tampa Bay Drainage	4305011	9 <sup>th</sup> St S (MLK Street) from 7 <sup>th</sup> Ave S to 8 <sup>th</sup> Ave S	0.50	Not Submitted	Not Submitted
Tampa Bay Drainage	4293501	Veteran's Expressway Gunn Hwy. to Van Dyke	3.56	43007864.027	1990-03369
Tampa Bay Drainage	4168381	US 92 (SR 600/Gandy) Pelican Sound to Gandy Bridge	0.67	43011339.006	2009-03493
Tampa Bay Drainage	4154892	US 301 Balm Rd to Gibsonton Dr	1.50	43031128.000	2006-04230
Tampa Bay Drainage	4143481	South Development Area – Includes CONRAC Car Rental Facility	5.24	49008387.067	2002-01521*
Tampa Bay Drainage	4143481	Cargo/ Ground Support Equip. Facility	0.63	49008387.045	2002-01521*
Tampa Bay Drainage	4143481	High Speed Txwy for RW18R (fna Taxiway "W3")	2.20	49008387.028	2002-01521*
Tampa Bay Drainage	4143481	Runway 17-35	6.82	49008387.043*	2002-01521*
Tampa Bay Drainage	4143481	Airfield Drainage Rehab (fka Taxiway N Overpass)	2.85	49008387.062	2002-01521*
Tampa Bay Drainage	4143481	Taxiway B rehab, Bridge and N. Terminal Stormwater	3.29	43008387.054	2002-01521*
Tampa Bay Drainage	4143481	Taxiway V&W	0.66	49008387.037	2002-01521*

Projects highlighted in green are newly added to the Program. Projects highlighted in yellow have been removed from the Program and acreages do not count towards totals.

Habitat	Mitigation Type	Watershed	Acreage
Freshwater wetlands	Creation	Tampa Bay Drainage	36.33
Oligohaline wetlands	Creation	Tampa Bay Drainage	12.70
Mixed forested wetland	Creation	Creation Tampa Bay Drainage	
Forested Wetland	Enhancement	Tampa Bay Drainage	
Saltmarsh	Enhancement	Tampa Bay Drainage	16.13
Mangrove	Enhancement	Tampa Bay Drainage	31.00
		Total:	138.41

#### **MITIGATION INFORMATION** (As of December 2017):

#### **PROJECT DESCRIPTION**

**A. Overall project goals:** The Bahia Beach tract was acquired in 2001 by Hillsborough County through their Environmental Lands Acquisition and Protection Program (ELAPP), one of several contiguous habitat tracts owned and managed by the County west of Ruskin. The project is being co-sponsored and managed by the Hillsborough County Conservation Section and SWFWMD to conduct a variety of habitat improvements including freshwater and oligohaline wetland creation within an existing upland fallow field, enhancement of forested wetland hammock habitat, and enhancement of saltmarsh/mangrove habitat.

**B.** Brief description of pre-construction habitat conditions: As part of the acquisition agreement, the previous landowner removed the citrus trees from the upland area, historically pine flatwoods, which subsequently became vegetated with Bahia grass (*Paspalum notatum*), natalgrass (*Rhynchelytrum repens*), dog fennel (*Eupatorium capillifolium*) having moderate cover and with Brazilian pepper (*Schinus terebinthifolus*) having extensive coverage. This field was bordered to the west by two large parallel upland-cut drainage ditches dredged to convey contributing storm and surface water when the grove was present. The steeply sloped ditches are tidally connected, allowing the generation of white and black mangrove species in the lower elevations and Brazilian pepper along the slopes and top-of-bank. These deep ditches connected with the mosquito ditches and swales dredged through the salt-marsh and mangroves, allowing saltwater intrusion to move further inland than historic conditions. The deep ditches and spoil ridges substantially hindered wildlife movement from the hammock to the created marsh habitats.

A forested wetland of coastal hydric hammock is located west of the ditches. The coastal hammock had a dominant canopy coverage of cabbage palm, with scattered slash pine, red cedar (*Juniperus virginiana*), and oaks (*Quercus virginiana*, *Q. laurifolia*). Brazilian pepper provided minor to moderate canopy and sub-canopy cover within the hammock in less dense canopy areas. Other sub-canopy species included cabbage palm, salt-bush (*Baccharis halmifolia*), wax myrtle (*Myrica cerifera*), and saw palmetto (*Serenova repens*). Ground cover varies depending on the shade coverage, but included sawgrass (*Caladium jamaicense*), broomsedge (*Andropogon glomeratus*), swamp fern (*Blechnum serrulatum*), fleabane (*Pluchea odorata*), and various sedges. Where the canopy was slightly opened, there were also a few pockets of sawgrass, black needle rush (*Juncus roemerianus*), and cordgrass (*Spartina patens*) within the hammock.

A temperate hardwood habitat is in the northeast corner of the tract. The minor canopy coverage was comprised of cabbage palm, slash pine, and laurel oak. Groundcover included saw palmetto, sawgrass,

and swamp fern. Exotic species coverage included Brazilian pepper, lead tree (*Leucaena leucocephala*) and cogon grass (*Imperata cyclindrica*).

A large mosaic of salt-marsh and mangrove habitat is located west of the coastal hardwood hammock. The mangrove habitat includes red, black and white mangrove species. The marsh habitat had saltwort (*Batis maritima*), glasswort (*Salicornia bigelovii*) and salt grass (*Distichlis spicata*). Shrub-size mangroves transition into the marsh component. This saltwater habitat had interconnecting mosquito ditches with adjacent spoil piles covered with Brazilian pepper. In part due to the altered hydrology from the ditching, the transition between the hammock and saltwater habitat had generated a dense stand of Brazilian pepper.

**C. Brief description of construction activities and current and proposed habitat conditions:** In 2003, twelve (12) piezometers were installed in the fallow field to measure groundwater elevations and salinity with a total of 41 sampling events between August 2003, and June 2008. The groundwater data was collected over the extended period to identify seasonal and annual fluctuations and was used to establish the hydroperiods and final grades within the wetland creation areas. The salinity data was used to determine plant species composition. Salinity levels in the piezometers along the western portion of the field range from 1-5 ppt (oligohaline), in part due to the twin parallel tidally-connected ditches along the perimeter of the coastal hydric hammock. The original construction design schedule was delayed, and monitoring was extended to evaluate and incorporate habitat design revisions due to changes in the contributing ground and surface water because of the residential development that was constructed southwest of the project site.

The fallow field was graded to create a dominance of freshwater marshes transitioning to oligohaline marsh habitat closer to the forested wetland hammock, and buffered from Mira Lago by creating mixed forested wetland habitat along the eastern perimeter of the created marsh habitat. Treated stormwater that discharged from Mira Lago and flowed via the ditches to Tampa Bay will receive additional treatment and attenuation and will increase groundwater recharge by the construction of the created wetlands. The hammock, salt-marsh, mangrove habitat, and temperate hardwood areas were enhanced with the eradication of Brazilian pepper. However, due to the potential for off-site drainage alterations, no construction to remove the associated mosquito ditches was conducted in these areas. The combination of constructed and enhanced wetland habitats with different habitat features and functions provides corridors for wildlife using the ecosystems on this tract and the adjacent public lands.

Hydrologic modeling resulted in the design of oligohaline marsh creation that will displace the twin ditches along the hammock perimeter and freshwater marsh creation. The freshwater marsh has grade elevations of -0.5 to 3.0 feet NAVD88, with ten separate freshwater marsh basins constructed at various elevations to provide a range of hydroperiods within the marsh. These areas will be primarily planted with softstem bulrush (*Schoenoplectus tabernaemontani*), arrowhead (*Sagittaria lancifolia*), pickerelweed (*Pontederia cordata*), marshhay cordgrass (*Spartina patens*) and sand cordgrass (*Spartina bakeri*). The created oligohaline marsh habitat will be graded to elevations -0.5 to 2 feet NAVD88. Plantings will primarily include needle rush (*Juncus roemerianus*), sawgrass, and marshhay cordgrass.

The creation of mixed forested wetland occurred along the southeastern project boundary, graded to elevations of 3.0 to 4.0 feet NAVD88. This forested wetland provides a buffer from the Mira Lago development and the constructed marsh, as well as roosting and nesting opportunities for wading birds. This forested wetland was planted with species representative of the coastal hydric hammocklocated

on the western side of the marsh, including cabbage palm, laurel oak, slash pine, red cedar, swamp bay, red maple and sand cordgrass. For additional buffer, pine flatwood habitat was created along the southern boundary of the site adjacent to Shell Point Road. The area was graded to elevations of 4.0 to 5.0 feet NAVD88. The pine flatwoods will act as a buffer between the created wetlands and Shell Point Road, and will be planted with cabbage palm, slash pine, and saw palmetto.

The primary maintenance activity includes herbicide treatment of exotic and nuisance vegetation. After a minimum five years and once the desired habitat conditions and mitigation success has been achieved, perpetual maintenance will be conducted as part of normal land management activities.

A minimum five years of semi-annual monitoring will be conducted and will include a comprehensive qualitative assessment of habitats, including but not limited to plant health and survivorship, recruited plant species, cumulative plant coverage, exotic and nuisance species coverage, wildlife activity and recommended actions to further enhance habitat conditions. Annual monitoring reports will document habitat conditions, any problems and solutions and anticipated maintenance and management activities for the following year. After success criteria is achieved, sufficient monitoring will be periodically conducted each year to evaluate the habitat conditions and presence of exotic and nuisance species to coordinate maintenance events.

Success criteria require a minimum 90% survivorship of planted material for a minimum one-year postinstallation. Any plant mortality will be replaced with appropriate species to be agreed upon between Hillsborough County and the SWFWMD. Plant coverage for the created wetlands is required to include a minimum 80% coverage of planted and recruited desirable species. Exotic and nuisance vegetation eradication will be conducted to achieve the no more than 10% coverage success criteria. Hydrologic enhancement will result in soils that are at a minimum saturated to the surface between 5 and 12.5 percent of the growing season. As of 2017, the site is generally meeting success criteria.

**D.** Brief explanation of how this work serves to offset the impacts of the specified DOT project(s): Most of the anticipated wetland impacts proposed for mitigation at the Bahia Beach project include wetlands associated with long-range future expansion activities at Tampa International Airport (TIA). Due to proximity to Tampa Bay and the high quantity of ditched wetlands, most of the proposed wetland impact areas at TIA are low quality systems. There will be future roadway proposals and associated wetland impacts that will be evaluated for potential mitigation at Bahia Beach. The combination of various wetland creation and enhancement activities at Bahia Beach will provide appropriate mitigation options to compensate for impacts associated with a combination of forested and non-forested freshwater and saltwater wetland impacts.

E. Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: The FDOT projects that remain in the program are either permitted or appropriate credit is unavailable at a mitigation bank.

**F.** Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: The Bahia Beach project is a SWIM-sponsored project adjacent to a SWIM water body (Tampa Bay), to be constructed on property owned and managed by Hillsborough County.

## **PROJECT IMPLEMENTATION**

- Design and Permitting: 2003-2010
- Construction: 2012-2013
- Monitoring: 2014 (time zero), 2015, 2016, 2017
- Maintenance: 2014-Present
- Perpetual Management: 2018

#### Entity responsible for construction: SWFWMD

#### Entity responsible for monitoring and maintenance: SWFWMD

*Entity responsible for perpetual management:* Hillsborough County-Regional Parks & Conservation Land Management is responsible for county lands and/or private contractor selected by SWFWMD for FDOT site.

Cost for 2017 monitoring: \$22,958.08

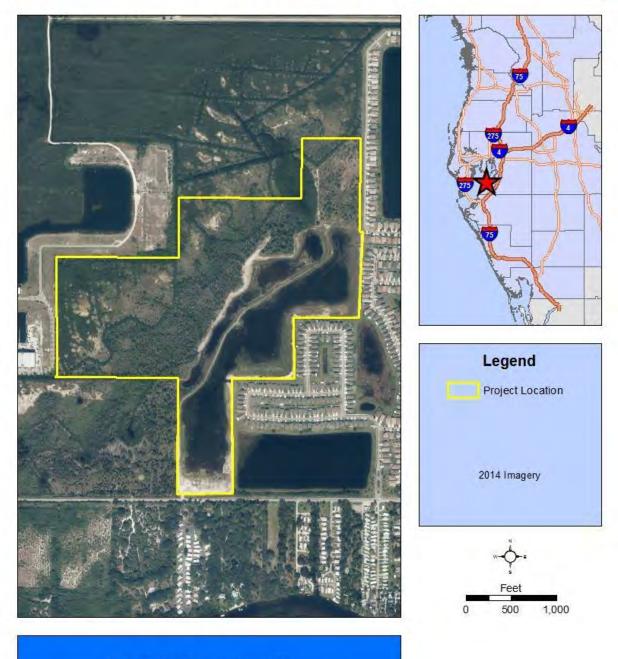
Cost for 2017 maintenance: \$31,680.00

#### **Total Cost for FDOT Mitigation Including O&M**: \$1,710,509.97

#### ATTACHMENTS

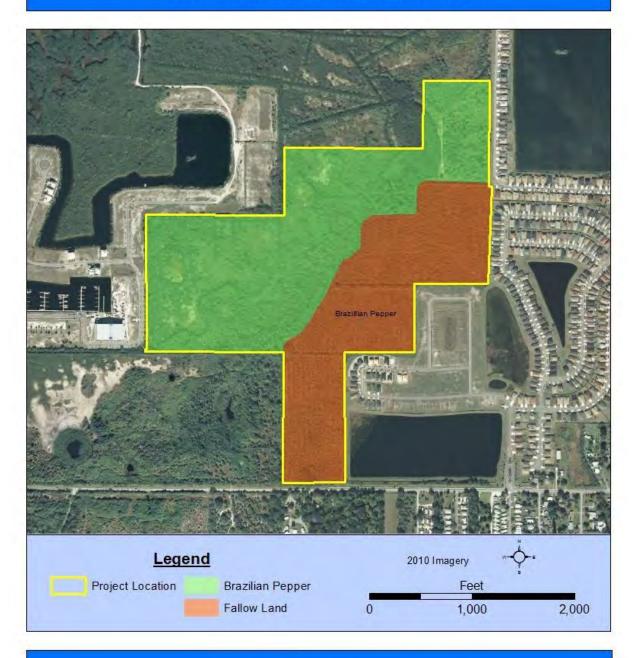
- 1. Figure A-Location
- 2. Figure B-Pre-Construction (2010)
- 3. Figure C-Post-Construction (2014)
- 3. Photographs (2016)

# SW 78 - Bahia Beach Figure A - Location (1/32S/18E)

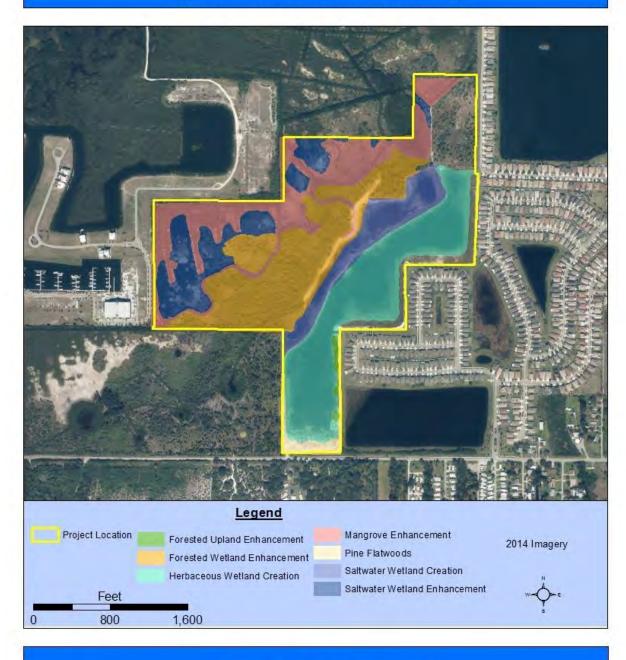


FDOT Mitigation Plan

# SW 78 - Bahia Beach Figure B - Pre-Construction (1/32S/18E)



# SW 78 - Bahia Beach Figure C - Post-Construction (1/32S/18E)





View within the salt marsh enhancement area. (2016)



View within the salt marsh enhancement area. (2016)



View within the oligohaline marsh creation area. (2016)



View within the freshwater marsh creation area. (2016)

### SW-81 BALM BOYETTE – STALLION HAMMOCK MITIGATION PLAN

Project Name	Balm Boyette – S	tallion Hammock	Project Number	SW-81/D037	
Project Type	Wetland Enhance	ement			
Landowner	of the Interna	inty and Trustees I Improvement Fund	Management Entity	Hillsborough County	
County	Hillsbo	orough	Watershed	Alafia River	
Water bodies	Pringle Branch		Water body Designations	None	
<b>Project implementation status:</b> (As of December 2017):		Construction and Maintenance			
Project utilization:		Permitted FDOT projects: 0			
(As of December 2017)		Planned, not yet permitted, FDOT projects: 1			
S/T/R:		12,13,14/31S/20E;7,8,15,16,17,18,20,21,22/31S/21E			

#### **BACKGROUND INFORMATION:**

### **IMPACT INFORMATION** (As of December 2017):

Watershed	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
Alafia River	4357502	SR 60 from Dover Rd to SR 39	1.06		
		Total:	1.06		

Two projects previously designated for mitigation at this site have been moved to the Ekker Tract (SW 82)

#### **MITIGATION INFORMATION** (As of December 2017):

Habitat	Mitigation Type	Watershed	Acreage
Restoration	Streambed (1500 linear feet X 6 feet wide)	Alafia River	0.21
Wetlands and surface waters	Water Quality Improvement	Alafia River	57
Forested-shrub wetland	Restoration, Creation and Enhancement	Alafia River	25
		Total:	82.21

#### **PROJECT DESCRIPTION**

**A. Overall project goals:** The Balm Boyette Scrub Preserve is a 4,933-acre tract acquired by Hillsborough County Parks, Recreation and Conservation Department through their Environmental Lands Acquisition and Protection Program (ELAPP), and the portion of the property designated for the FDOT mitigation project was acquired by FDEP and is managed by Hillsborough County. Most of the tract has high quality wetland and upland habitat communities. The eastern third of the tract was mined for phosphate ore in the 1960's and has partially reclaimed landscape features comprised of wide linear open water pits, steep upland side slopes and rolling upland terrain. Prior to mining, there were three wetland tributaries that formed the headwaters of a forested wetland referred to as Stallion Hammock with an interior meandering creek named Pringle Branch. This creek is a tributary of Fishhawk Creek and the Alafia River. The majority of two tributaries were mined, resulting in two isolated lobes of forested wetlands that historically connected to Stallion Hammock. The main objective of the designated mitigation area includes improving the contributing hydrology from the open water pit areas through the forested and shrub wetland component that naturally recruited within proximity of the historic eastern tributary. The combination of restoring and enhancing wetland habitat for both tributaries will improve the wildlife habitat conditions and corridor connections in the eastern portion of the tract and particularly within the vicinity of Stallion Hammock.

**B.** Brief description of pre-construction habitat conditions: At 4,933 acres, the Balm Boyette Scrub Preserve represents one of the largest contiguous tracts of public lands in Hillsborough County. There is a great diversity of wildlife, vegetation and habitat communities on the property, and the tract contains some of the largest undeveloped xeric habitat remaining in the County. The phosphate mining area within the eastern third of the property represents the largest area of displaced habitat on the tract, and it has been the goal of Hillsborough County to restore and enhance some wetland habitat and associated hydrologic flow patterns to improve the remaining Stallion Hammock. These same goals have been proposed in the SWFWMD's SWIM habitat restoration plan since the mid-1990's.

Review of the 1968 aerial photography taken during the mining operations show mine pits, spoil ribbons, and a drainage ditch replacing the eastern tributary. Reclamation resulted in a wetland slough contoured from a pit that connects to Stallion Hammock. However, the contributing basin flow through the wetland was short-circuited with the construction of a large north-south ditch that connects to mine pits located north and south of the wetland. As a result, this wetland tributary slough has a minimal hydroperiod, resulting in substantial coverage of opportunistic transitional species such as elderberry (*Sambucus canadensis*), wax myrtle (*Myrica cerifera*), salt-bush (*Baccharis halimifolia*) and blackberry (*Rubus* spp.).

**C. Brief description of construction activities and current habitat conditions:** Site evaluation, including data from three shallow monitoring well with a continuous recorder, a bathymetric study, earthwork estimates, and concept plans were conducted from 2005-2009. Necessary surface water modeling and construction plan preparation were completed in 2011. Hydrologic flow patterns and an increase in the wetland hydroperiod will be achieved by constructing a block at the ditch outfall of the wetland and diverting the contributing water flow from the northern pit to another revised culvert outfall located several hundred feet upstream.

**D.** Brief explanation of how this work serves to offset the impacts of the specified DOT project(s): This FDOT mitigation project was initiated to offset the wetland impacts of four FDOT road improvement projects requiring mitigation in the Alafia River basin. However, the original roadway impacts designated for mitigation at this site have all since been removed. Environmental Resource Permitting (ERP) rules allow the donation of money to be considered as mitigation when that money is used in a District or DEP endorsed environmental restoration project.

E. Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: During the time of mitigation selection for the initial four proposed wetland impacts there were no existing or proposed mitigation banks in the Alafia basin.

F. Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: This Balm Boyette project has been proposed for restoration and enhancement by Hillsborough County and the SWIM program for several years but could not proceed due to insufficient funding sources. However, money has now been designated by FDEP and transferred to the District's SWIM program to complete the work. The 90% design drawings were paid for with FDOT Program funds and a percentage of the mitigation achieved proportional to the amount of FDOT funds spent compared to the total project funds spent will be designated for use by FDOT projects.

### **PROJECT IMPLEMENTATION**

•	Planning:	2005-2016
•	Design:	2009-2011, 2016
•	Construction:	2017-2018
•	Monitoring:	No monitoring yet
•	Maintenance	2018-2023

• Perpetual Management: 2023 (estimated)

### Entity responsible for construction: SWFWMD

#### Entity responsible for monitoring and maintenance: SWFWMD

*Entity responsible for perpetual management:* Hillsborough County is responsible for county land and/or private contractors selected by SWFWMD for the FDOT site.

Cost for 2017 monitoring: \$0

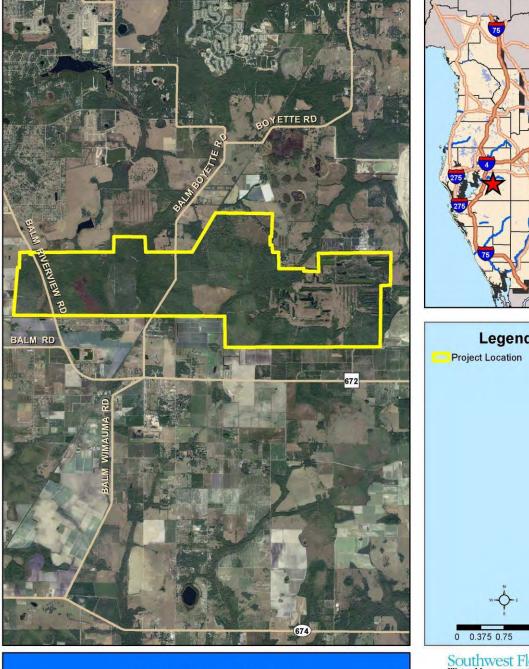
Cost for 2017 maintenance: \$0

Total FDOT Mitigation Cost Including O&M: \$350,000

#### ATTACHMENTS

1. Figure A-Location

# SW 81 - Balm Boyette-Stallion Hammock Restoration Figure A - Location







#### SW-71 BOYD HILL NATURE PRESERVE MITIGATION PLAN

Project Name	Boyd Hill Nat	ture Preserve	Project Number	SW-71/D028
Project Type	Wetland enhance	ement; upland enl	hancement; open v	water enhancement
Landowner	City of St. Petersburg		Management Entity	City of St. Petersburg/ Southwest Florida Water Management District
County	Pine	ellas	Watershed	Tampa Bay Drainage
Water bodies	Lake M	aggiore	Water body Designations	SWIM Water Body
	<b>Project implementation status:</b> (As of December 2017):		Monitoring and Perpetual Management	
Project utilization:		Permitted FDOT projects: 7		
(As of December 2017)		Planned, not yet permitted, FDOT projects: None		
S/T/R:		35,36/31S/16E;1/32S/16E;6/32S/17E		

#### **BACKGROUND INFORMATION:**

## **IMPACT INFORMATION** (As of December 2017):

	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
Tampa Bay Drainage	2555991	SR 676 (Causeway Blvd.) US 301 to US 41	0.27	43027063.000	2004-05583
Tampa Bay Drainage	2558881	US 301 Sligh Ave. to Tampa Bypass Canal <sup>1</sup>	9.26	43024246.001	2002-06711
Tampa Bay Drainage	2570701	US 19 (SR 55) 49th St. to 118th Avenue	0.02	44000188.002	2002-06325
Tampa Bay Drainage	4037701	US 19, CR 816 (Alderman) to SR 582 (Tarpon)	0.09	44022085.001	NW-14
Tampa Bay Drainage	4062561	East-West Trail, Coopers Bayou to Bayshore	0.10	44022718.000	2001-05298
Tampa Bay Drainage	4082011	Himes Ave. at Hillsborough Ave.	0.10	44002448.002	2002-08419
Tampa Bay Drainage	4154893	US 301, Sun City Center to Balm Road <sup>2</sup>	1.99	43034464.000	2008-03613
		Total Impact Acreage:	11.83		

<sup>1</sup>The freshwater marsh and ditch impacts associated with these projects are being mitigated with habitat activities conducted at Cockroach Bay – Freshwater (SW 56).

<sup>2</sup> Additional wetland impacts are being mitigated on-site by FDOT, the Ekker Tract (SW 82), and the Little Manatee River – Lower Tract (SW 83).

Habitat	Mitigation Type	Watershed	Acreage
Freshwater forested hardwood wetlands	Enhancement	Tampa Bay Drainage	96.6
Upland	Enhancement	Tampa Bay Drainage	21.4
Open water	Enhancement	Tampa Bay Drainage	1.0
		Total:	119

## **MITIGATION INFORMATION** (As of December 2017):

## **PROJECT DESCRIPTION**

**A. Overall project goals:** The enhancement of freshwater forested hardwood wetlands (96.6 acres) and adjacent buffers of upland forested habitat (21.4 acres), and pond (1 acre) by eradication of the extensive cover of exotic and nuisance species was followed by supplemental planting of appropriate tree species. Enhancement activities are part of an overall plan of eradication and maintenance to control undesirable vegetation within the 245-acre Preserve owned and managed by the City of St. Petersburg.

**B.** Brief description of pre-construction habitat conditions: The enhancement areas include two designated portions of the Preserve (Figure B). The northwest area includes hardwood hammock wetlands, dominated by laurel oak with additional coverage of Brazilian pepper, water oak, live oak, red maple, cabbage palm and a sparse understory dominated by ferns. The area also includes upland hardwood hammock that buffers the adjacent forested wetlands. These hammocks are dominated by live oak, scattered longleaf pine, Brazilian pepper, extensive vines, and where the Brazilian pepper was not dense, an understory of scattered saw palmetto. The density of Brazilian pepper varied with an average sub-canopy cover of 30%. The pepper was much larger and provided more coverage within the wetland portion.

The southeast enhancement area includes approximately half of a forested wetland floodplain associated with Lake Maggiore and is one of the largest forested freshwater wetland habitats within peninsular Pinellas County. This wetland has a more extended hydroperiod than the wetlands in the northeast part of the Preserve. This wetland receives stormwater flow from the contributing basin which is high density residential. The wetland treats stormwater before flowing into Lake Maggiore. During high water conditions, the lake overflows into this wetland, providing even more opportunity for water quality treatment and flood attenuation. Prior to enhancement activities, dominant vegetation within this area included red maple, Brazilian pepper, sweet bay, Carolina willow, primrose willow, elderberry, and grapevine over much of the outer shrub components. Ground cover was sparse due to the heavy shade cover from Brazilian pepper, elderberry and grapevine, but there are various fern species present. Historically, the City could only annually budget and conduct 5-10 acres of habitat enhancement at the Preserve. At that rate, exotics eradication could not be successful due to the continuous seed source recruiting and generating back into previously enhanced areas. Therefore, the combination of mitigation and grant funding allowed the City to hire private contractors to eradicate exotics throughout the Preserve over a shorter duration. An additional 27 acres of enhancement was added to the south mitigation area in 2016 with the primary purpose of Brazilian pepper removal.

**C. Brief description of construction activities and current habitat conditions:** The City contracted with private environmental consultants and contractors to eradicate the extensive cover of nuisance and exotic vegetation beginning in 2004. The dominant species eradicated from all areas was Brazilian

pepper, which had moderate to very dense cover within the wetland as well as upland habitats. Secondary species eradication included herbicide control and long-term maintenance of primrose willow, elderberry, guinea grass and grapevine. Pepper eradication included a phased approach of herbicide treatment (Garlon) for initial mortality, hand tools and mechanical removal, and transport to the on-site mulching facility. Areas of eradication have exhibited good vegetative coverage of planted and regenerated desirable tree, shrub and herb species. An extensive schedule of herbicide applications continues to minimize recruitment and regeneration of exotic & nuisance species.

Herbicide treatment of regenerating and other exotic and nuisance species was conducted bi-monthly through 2007, then quarterly through 2010. Supplemental tree and shrub species were planted in areas with minimal tree cover due to existing dense pepper. Dominant tree plantings in wetlands included sweetgum, red maple, popash, with pines and live oak in the uplands. The Preserve periodically implements prescribed burns as necessary within the uplands to maintain appropriate vegetative species and density.

In addition, the City received grants toward funding exotic and nuisance species removal within the remaining areas (primarily upland habitats) of the Preserve not providing mitigation credit. This total eradication effort further minimizes the exotic and nuisance species seed sources that recruit into the wetlands. Wildlife species depend on many upland and wetland ecosystems for various functions and values within their life cycles. Preserve staff continues herbicide treatments to maintain enhanced habitat conditions. Monitoring reports were discontinued after 2009.

As of 2015, much of the mitigation areas were no longer meeting success criteria and an intensive effort to control nuisance species in the south mitigation area began. Existing and new mitigation areas underwent heavy maintenance in 2016. The current condition of the site is nuisance/exotic vegetation coverage for stations in the Northwest Mitigation Area ranged from 0-55% (down from 0-100% during baseline monitoring), with majority of sites demonstrating nuisance/exotic cover of less than 25% (down from 25-45% during baseline monitoring). With continued maintenance the site will trend toward success.

D. Brief explanation of how this work serves to offset the impacts of the specified DOT project(s):

The FDOT impacts designated for mitigation at the Preserve include a dominance of freshwater forested and shrub wetlands. The wetland enhancement areas at the Preserve include portions of some of the largest forested freshwater wetlands remaining within peninsular Pinellas County. With the other habitat enhancements conducted at the Preserve, Boyd Hill provides adequate and appropriate mitigation for the wetland impacts with large-scale, regionally significant and extensive habitat improvements. Boyd Hill is one of the few areas of remnant, large native habitats surrounded by an urban landscape. As a result, the exotics eradication and planting were critical toward attracting and maintaining important wildlife habitat in Pinellas County.

E. Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: The Tampa Bay Mitigation Bank (TBMB) is the only mitigation bank within the Tampa Bay basin. However, at the time of mitigation selection, bank construction had not commenced, and credit sales were not available.

F. Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body:

Several SWIM projects have been selected to provide FDOT mitigation for saltwater wetland and freshwater marsh impacts in this basin. At the time of mitigation nomination, none of the SWIM projects in the basin had the opportunity to provide appropriate mitigation for forested freshwater wetland impacts. However, the adjacent Lake Maggiore sediment dredging activity was a SWFWMD-SWIM and City of St. Petersburg sponsored habitat improvement project and the Boyd Hill Nature Preserve project was selected due to the opportunity to appropriately mitigate the proposed wetland impacts with ecologically beneficial habitat improvements.

### **PROJECT IMPLEMENTATION**

- Exotics eradication: 2004-2005
- Monitoring: 2011, 2014, 2015, 2016, 2017
- Maintenance: 2005-2009
- Perpetual Management: Ongoing

*Entity responsible for construction:* The City of St. Petersburg is responsible for overall site management and/or private contractors selected by SWFWMD for the FDOT site.

### Entity responsible for monitoring and maintenance: SWFWMD

*Entity responsible for perpetual management:* City of St. Petersburg is responsible for city lands and/or private contractors selected by SWFWMD for FDOT site.

Cost for 2017 monitoring: \$14,499.72

Cost for 2017 maintenance: \$60,885.00

Total Cost for FDOT Mitigation Including O&M: \$674,288.40

### ATTACHMENTS

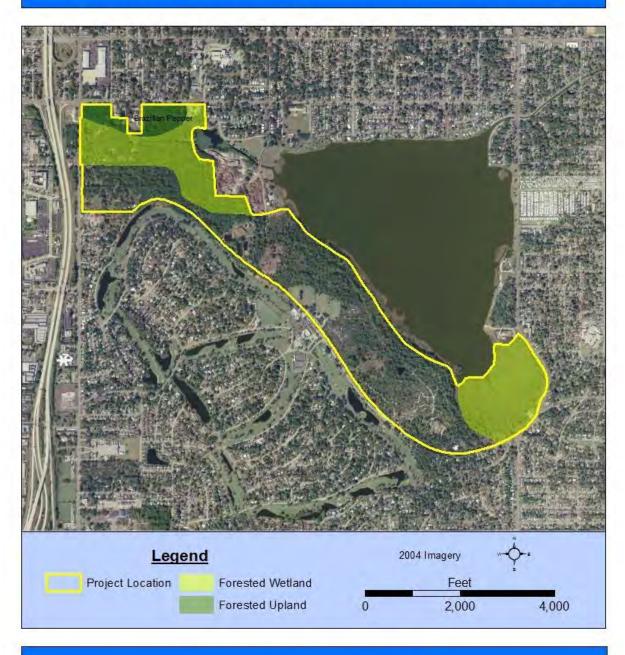
- 1. Figure A-Location
- 2. Figure B-Pre-Construction (2004)
- 3. Figure C-Post-Construction (2014)
- 3. Photographs (2014, 2016)



# SW 71 - Boyd Hill Nature Preserve Figure A - Location (35,36/31S/16E;1/32S/16E;6/32S/17E)

FDOT Mitigation Plan











Open water adjacent to northwest mitigation area. (2014)



Facing south in Northwest Mitigation Area of forested wetland enhancement. (2016)



Facing south in Northwest Mitigation area of forested wetland enhancement. (2016)



In southwest mitigation area facing east of forested upland enhancement. (2016)



Facing east in southwest forested upland enhancement area. (2016)

## SW-90 BROOKER CREEK BUFFER PRESERVE MITIGATION PLAN

Project Name	Brooker Creek I	Buffer Preserve	Project Number	SW-90/D056	
Project Type	Wetland and upl	and preservation	and enhancement		
Landowner	Hillsborough County		Management Entity	Hillsborough County/Southwest Florida Water Management District	
County	Hillsborough		Watershed	Tampa Bay Drainage	
Water bodies	Brooker Creek		Water body Designations	None	
• •	<b>Project implementation status:</b> (As of December 2017):		Perpetual Management		
Project utilization:		Permitted FDOT projects: 6			
(As of Decembe	(As of December 2017)		Planned, not yet permitted, FDOT projects: 3		
S/T/R:	S/T/R:		18,19/27S/17E		

## **BACKGROUND INFORMATION:**

## **IMPACT INFORMATION** (As of December 2017):

Watershed	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
Tampa Bay Drainage	2558935	SR 574 (MLK) @ I-75	0.21	44033776.000	No permit required
Tampa Bay Drainage	2570861	SR 694 (Gandy Blvd) from E US19 (SR55) to E of I-275 (SR93)	2.71	Not Submitted	Not Submitted
Tampa Bay Drainage	4143481	North Terminal Airside 2	3.64	49008387.043	2002-01521
Tampa Bay Drainage	4143481	North Terminal Airside 3	4.74	49008387.043	2002-01521
Tampa Bay Drainage	4143481	North Terminal Airside 4	3.66	49008387.043	2002-01521
Tampa Bay Drainage	4143481	Taxiway A Extension	0.43	49008387.043	2002-01521
Tampa Bay Drainage	4143481	36R-RPZ	7.18	49008387.026	2004-12399
Tampa Bay Drainage	4360561	10 <sup>th</sup> and 11 <sup>th</sup> Ave at Brooker Creek Bridge #157235	0.20	Not Submitted	Not Submitted
Tampa Bay Drainage	4376401	US 301/SR 43 FM FALKNERBURG RD TO SLIGH AVE	0.50	Not Submitted	Not Submitted
		Total:	23.27		

Projects highlighted in yellow are deleted from the Plan in 2018. Projects highlighted in green are added to the Plan in 2018. <sup>1</sup> FM 4143481 is used to designate all Tampa International Airport projects. The 49008387.043 ERP is the revised conceptual permit.

Habitat	Mitigation Type	Watershed	Acreage		
Non-forested wetlands	Preservation and Enhancement	Tampa Bay	26 5		
Non-forested wetfallds	Preservation and Enhancement	Drainage	36.5		
Forested wetlands	Preservation and Enhancement	Tampa Bay	145.2		
Forested wetlands	Preservation and Enhancement	Drainage			
Upland Buffer	Preservation and Enhancement	Tampa Bay	30.1		
Opiand Burrer	Preservation and Enhancement	Drainage	50.1		
		Total:	211.8		

**MITIGATION INFORMATION** (As of December 2017):

## **PROJECT DESCRIPTION**

Overall project goals: The Brooker Creek Buffer Preserve (Preserve) is a 489-acre tract located in Α. northwest Hillsborough County along the boundary with Pinellas County. The Preserve was acquired through Hillsborough County's Environmental Lands Acquisition and Protection Program (ELAPP) to preserve, restore, connect and "buffer" the on-site habitat resources with the adjacent 7,500-acre Brooker Creek Preserve in Pinellas County. Approximately half of the Preserve is comprised of wetland habitat, with much of this habitat altered by a combination of large upland-cut rim ditches constructed around the perimeter of the wetlands, and the construction of an elevated driveway berm across one of the wetlands. Proposed construction activities include minor earthwork grading of spoil material deposited adjacent to the ditches to construct strategically placed ditch blocks and the replacement of a crushed culvert under the driveway to restore drainage patterns and hydrologic connections for the onsite wetlands. The proposed project was adopted to the mitigation program in 2008 and expanded in 2009 because of a prior agreement to adopt an additional area to the Preserve. FDOT mitigation funds (\$1.2 million) reimbursed the County's 2009 acquisition of an additional 66.5 acres of upland and wetland habitat adjacent to both the Buffer Preserve and Brooker Creek Preserve. This resulted in providing additional mitigation credits due to the substantial ecological benefits this acquisition provided to preserve, protect and enhance the Brooker Creek wetland floodplain and adjacent uplands to provide a continuous habitat corridor between the two Preserves.

**B.** Brief description of pre-construction habitat conditions: In addition to the wetland habitat, most of the remaining portion of the Preserve is comprised of upland fallow fields and ruderal pasture. The soil characteristics and topography indicate the upland fields adjacent to the wetlands were historically flatwood habitat, transitioning into higher grade elevations historically comprised of sandhill and scrub ecosystems. A remnant scrub oak community is present within the eastern portion of the tract. Most historic upland habitats were converted to citrus grove, with all but one small grove area removed prior to acquisition by the County. These fallow fields were dominated by bahia grass, however ruderal and nuisance herb species were common (e.g. dog fennel, ragweed, goldenrod, lantana).

Most wetlands include mixed forested habitat dominated by bald cypress, red maple, black gum and bay species. Common sub-canopy vegetation included the same hardwood species, buttonbush and wax myrtle, with groundcover dominated by Virginia chain fern and swamp fern. Marsh habitat is not as prevalent in the Preserve and the majority is located within the interior of the large wetland in the

southeast portion of the Preserve. Maidencane and sedges are dominant within the marsh habitat. The rim ditches were constructed along the upland perimeters adjacent to the wetlands. The ditches are typically 20 feet wide at the top-of-bank with depths ranging 4-6 feet and with most of the side slopes steeper than a 1:1 gradient. The side slopes and bottom grade of the ditches typically have minimal vegetative coverage in areas of dense shade from trees along the upland top-of-banks. Ditch segments with minimal canopy shade typically have moderate to dense coverage of peppervine along the banks. The large ditch dimensions reduce the quantity and rate of ground and surface water contributing from the uplands to the wetlands, retaining and diverting flow around the wetland perimeter that historically seeped into the wetlands. The large eastern wetland was bisected by construction of an elevated access roadway to a residence. The one culvert connection under the driveway had collapsed, so the southern portion of the wetland has had altered hydroperiods not only from the rim ditches but also from impounded surface water during flood events. This has resulted in more unstable and variable fluctuations in the depth and duration of surface water, and a sequence of vegetative generation during drier periods and tree mortality during the major rainfall periods.

To provide mitigation credit for wetland impacts associated with a transmission line relocation project, Tampa Electric (TECO) filled a portion of one ditch at the Preserve in 1997. Overall, the site's wetlands represented moderate quality; however, the ditching and driveway berm resulted in adversely impacted hydrologic conditions in adjacent wetlands. The ditch dimensions also hindered wildlife use, access and mobility between the upland and wetland habitats.

The additional 66.5-acre is protected under a conservation easement conveyed to the SWFWMD. The combination of wetland and upland habitat on this additional tract provides good cover and foraging opportunities for wildlife use, with value as a habitat corridor access back and forth to the adjacent Brooker Creek Preserve.

**C. Brief description of construction activities and current habitat conditions:** The construction activities included constructing 100-ft. wide ditch blocks (21) at appropriate locations by grading the adjacent upland spoil material and replacing the crushed culvert. This will result in hydrologic restoration, resulting in enhancement of over 145 acres of existing forested wetland habitat and over 36 acres of non-forested wetland habitat. Specific hydrologic and topographic data of the wetlands were incorporated into a surface water model conducted for the Brooker Creek watershed. Ditch blocks were constructed at 21 strategic locations to restore drainage flow patterns through the wetland cores. Quick temporary vegetative cover of the blocks was provided by seeding with winter rye or brown-top millet. Compared to total backfill of the ditches, the ditch block method allows some surface water to be retained in ditch segments for wildlife drinking and foraging during dry season conditions when water levels are typically below grade elevations. The minimum top-of-block widths of 20 ft. provide crossings for wildlife using the wetland and upland areas and encourage more use and easier access for wildlife that use the habitats associated with public lands in the vicinity.

In 2015, due to observation of moderate to extensive areas of infestation of nuisance and exotic species in the hydrologically enhanced area, it was decided to conduct vegetative enhancement in this area and within a 300-foot upland buffer of this area to provide for additional mitigation on this site. The additional acreage associated with the buffer mitigation has not yet been determined.

Monitoring includes periodic review of the ditch blocks and observation of hydrologic and vegetative shifts of the associated wetlands and will continue for a minimum of three years after construction

completion. Success criteria will include demonstrating the blocks are properly functioning as designed with no erosion problems, vegetative cover of the blocks and desired hydrologic improvements are being achieved within the associated wetlands. Long term management activities will be conducted as necessary to ensure and maintain proper ditch block functions without problems of erosion, scouring, undermining, etc. Although monitoring frequency is not specifically required by the mitigation area construction permits, semi-annual monitoring is conducted.

## D. Brief explanation of how this work serves to offset the impacts of the specified DOT project(s):

The mitigation activities at the Preserve will primarily provide compensation for proposed wetland impacts associated with the long-term expansion at Tampa International Airport (TIA). The proposed TIA wetland impacts areas are low-quality habitats located within10 miles of the proposed mitigation activities. Since the acquisition was conducted in 2009 and ditch block construction occurred in 2015, the habitat acquisition and improvements will occur many years in advance of the majority of proposed TIA wetland impacts. Freshwater wetland impacts associated with other future roadway projects in the Tampa Bay watershed will be evaluated for possible mitigation at the Preserve.

**E.** Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: During the mitigation selection for the proposed wetland impacts in 2008, the Tampa Bay Mitigation Bank (TBMB) was the only existing or proposed mitigation bank within the Tampa Bay Drainage Basin; however, freshwater mitigation credits at the TBMB were not approved for sale.

**F.** Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: The Brooker Creek Buffer Preserve is a SWIM / County co-sponsored project since Brooker Creek flows into Lake Tarpon and Tampa Bay, both designated SWIM water bodies.

## **PROJECT IMPLEMENTATION**

٠	Land Acquisition:	2009
•	Design:	2011
•	Permitting:	2013
٠	Construction:	2015
•	Monitoring:	2015, 2016, 2017
•	Maintenance:	2015-2018
•	USACE release letter submitted:	May 2, 2017
•	Perpetual Management:	Ongoing

## Entity responsible for construction: SWFWMD

*Entity responsible for monitoring and maintenance:* SWFWMD is responsible for FDOT site; however, quantitative monitoring will no longer be performed, and site will go into perpetual maintenance.

*Entity responsible for perpetual management:* Hillsborough County is responsible for county lands and or private contractor selected by SWFWMD for FDOT site.

**Cost for 2017 monitoring:** \$13,464.00

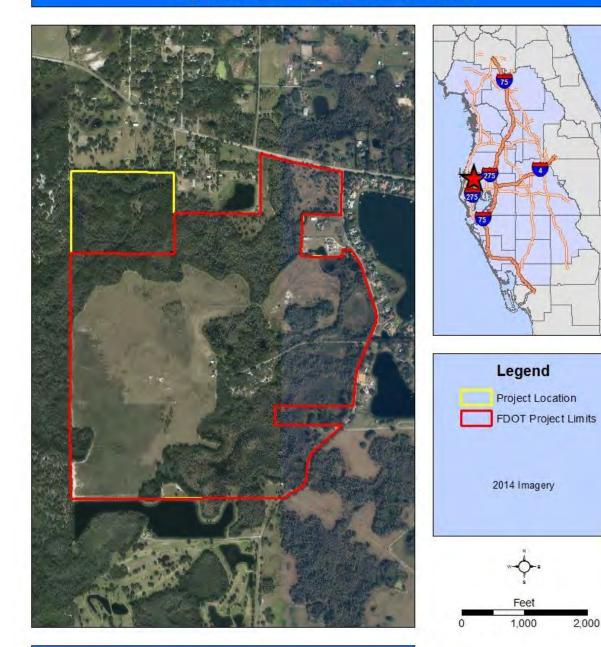
**Cost for 2017 maintenance:** \$74,900.00

**Total Cost for FDOT Mitigation Including O&M**: \$1,727,784.62

## ATTACHMENTS

- 1. Figure A-Location
- 2. Figure B–Pre-Construction (2012)
- 3. Figure C-Post-Construction (2014)
- 4. Photographs (2007)

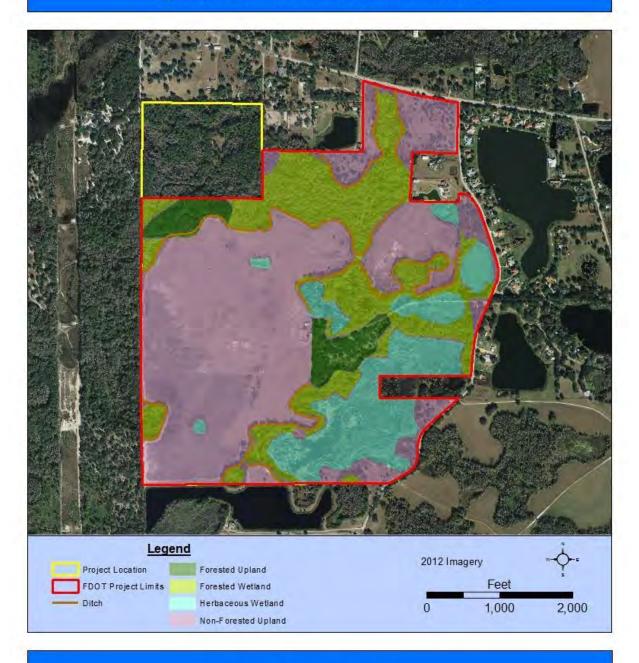
## SW 90 - Brooker Creek Buffer Preserve Figure A - Location (18,19/27S/17E)

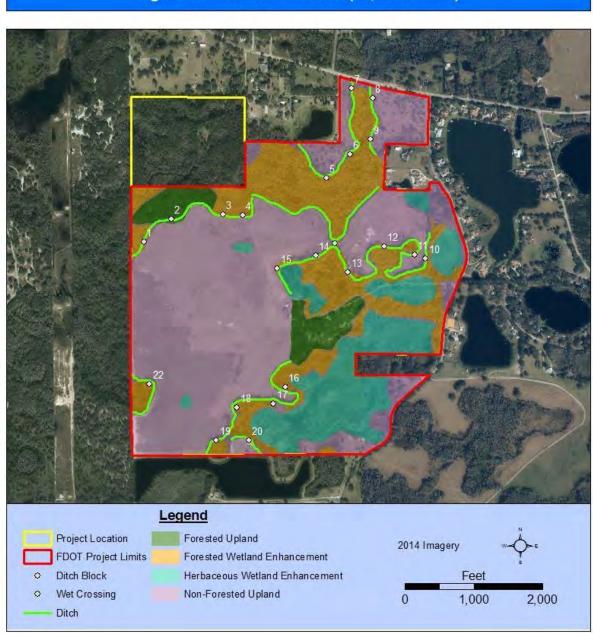


FDOT Mitigation Plan

2,000

## SW 90 - Brooker Creek Buffer Preserve Figure B - Pre-Construction (18,19/27S/17E)





## SW 90 - Brooker Creek Buffer Preserve Figure C - Post-Construction (18,19/27S/17E)



Brooker Creek Flow Channel



Brooker Creek Forested Wetland



Brooker Creek Ditch Block

## SW-31 CATTLE DOCK POINT, PHASE II MITIGATION PLAN

Project Name	Cattle Dock Point, Phase II		Project Number	SW-31/D005
Project Type	Wetland restorat	tion and enhancer	nent; upland creat	ion
	Board of Trustee	es of the Internal		Florida Department of
Landowner	Improvemen	t Trust Fund;	Management	Environmental
Landowner	Southwest F	lorida Water	Entity	Protection/Southwest Florida
	Managem	ent District		Water Management District
County	Charlotte		Watershed	Myakka River
Water bodies	Muakka Pivor (	harlotte Harbor	Water body	SWIM water body
water boules	IVIYAKKA KIVEL, C		Designations	Swilvi water body
Project impleme	entation status:	Phase I: Perpetual Management		
(As of Decembe	r 2017):	Phase II: Monitoring and Perpetual Management		
Project utilization:		Permitted FDOT projects: 1		
(As of December 2017)		Planned, not yet permitted, FDOT projects: None		
S/T/R:		3/41S/21E		

#### **BACKGROUND INFORMATION:**

#### **IMPACT INFORMATION** (As of December 2017):

			Total Impacts		ACOE
Watershed	FM #	Project Name	(ac.)	ERP permit #	Permit #
		SR 776 CR 771 to Willow			
Myakka River	1937941	Bend Road <sup>1</sup>	8.83	43016676.000	1996-01986

<sup>1</sup>This project has an additional 2.08 acres of open water impact mitigated through the purchase of 2.08 credits from the Little Pine Island Mitigation Bank (SW 52). Impact acres from ERP.

#### **MITIGATION INFORMATION** (As of December 2017):

Habitat	Mitigation Type	Watershed	Acreage
Intertidal marsh	Creation	Myakka River	6.0
Upland habitat islands	Creation	Myakka River	1.5
Salt marsh 'platforms'	Creation	Myakka River	8.0
Mangrove littoral zone	Enhancement	Myakka River	1.2
		Total:	16.7

#### **PROJECT DESCRIPTION**

A. Overall project goals: The primary goal of the project was to create intertidal and salt-marsh wetland habitat within heavily disturbed property co-owned by the SWFWMD and FDEP. Prior to construction, this tract was predominately a dredged boat basin that connected to the Myakka River (refer to Figures A and B). Constructed in 2004-2005 (Figure C), Phase II removed extensive exotic vegetation (predominantly Brazilian pepper) that dominated the site, followed by grading the historically filled area to create a mosaic of upland and wetland habitat (Figures C and D, site photos). The Phase I project (total 18 acres) was constructed in 2001 to provide appropriate mitigation for wetland impacts associated with an adjacent segment of SR 776 (Willow Bend Rd. to Collingswood Blvd.). The Phase I habitat improvements were selected to provide SR 776 mitigation a year prior to

commencement of the FDOT Mitigation Program in 1996 and are therefore not included in this document except as supplemental information.

**B.** Brief description of pre-construction habitat conditions: Historically, the filled upland areas (six acres within Phase I, eight acres within Phase II) were formed because of disposal and spreading of material dredged because of constructing the boat basin during the early 1900's (Figure B). The basin was used to load cattle on barges for transport on the Myakka River and downstream to Charlotte Harbor. The uplands were almost completely covered with dense coverage of nuisance/exotic vegetation, particularly Brazilian pepper within Phase II and Australian pine for the peninsula associated with Phase I. A narrow littoral zone of 40-50 ft. (total 1.2 acres) of mangrove habitat was present along the border between the dredged basin and the filled upland (Figures B-D). Overall, except for the minor mangrove fringe habitat, the project area for Phases I and II areas provided extremely limited and poor habitat conditions to support wildlife activities.

**C. Brief description of construction activities and current habitat conditions:** The Phase II project included initial eradication of nuisance and exotic vegetation, followed by grading and removing the filled upland to create appropriate intertidal marsh elevations (total 6.0 acres) and three upland habitat islands (total 1.5 acres) in the marsh. The dredged material was deposited to fill a portion of the boat basin to create salt-marsh "platforms" (total – 8.0 acres).

The intertidal marsh is hydrologically connected to the basin via culverts, and a meandering channel was constructed in the marsh to provide tidal flushing and fish access. After the appropriate grades were established in 2005, the intertidal marsh and salt-marsh were planted to have extensive coverage of herb species such as saltmarsh cordgrass (*Spartina alterniflora*) and black rush (*Juncus roemerianus*) in the low marsh grade elevations, bordered with sand cordgrass (*Spartina bakeri*) and seashore paspalum (*Paspalum vaginatum*) in the high marsh grade elevations. Mangrove species naturally recruited within the salt-marsh areas, particularly in the marsh platforms. Small portions of the marsh platforms also had appropriate elevations that formed rare and unique saltern habitat. The upland islands were also planted to have dense ground cover vegetation, and the existing mangrove littoral zone (1.2 acres) was enhanced with the eradication of Brazilian pepper that had encroached upon the perimeter. The total habitat creation, restoration, and enhancement is 16.7 acres, which does not include the extensive secondary ecological benefits in association with Phase I and open water components of the dredged basin. The basin was not filled to allow access and foraging opportunities for aquatic wildlife species, including manatees and American crocodiles that had been documented at the site.

The success criteria includes a minimum 70% coverage by desirable species in the project area and less than 5% coverage by nuisance and exotic species throughout. Monitoring was conducted four years post-construction to evaluate species survival, percent cover, invasive exotic plants, and maintenance activities conducted to ensure success of habitat conditions. Maintenance of the Phase I area is an integral component of Phase II maintenance to ensure the success of Phase II, as the sites are contiguous to each other. If not maintained in conjunction with Phase II, Phase I will continue to serve as a seed source of nuisance and exotic species to Phase II.

Long term maintenance of the project had been minimal for several years; however, extensive maintenance implemented in 2015 and 2016 has resulted in the site very nearly meeting success criteria in late 2016.

**D.** Brief explanation of how this work serves to offset the impacts of the specified DOT project(s): The wetland and other surface water impacts associated with SR 776 included 2.15 acres of borrow pit, 2.1 acres of open water, 3.1 acres of mangroves, 1.38 acres of exotic shrub habitat, and 2.2 acres of ditches for a total of 10.93 acres of impacts that represented a dominance of low quality habitat. The only high-quality habitat impacted was the mangrove area. The mitigation project includes a mosaic of saltwater wetland habitat creation (14 acres) and upland habitat creation (1.5 acres). The mangrove impacts are appropriately compensated with the enhancement of the existing mangrove habitat (1.2 acres), as well as the mangrove habitat within Phase I and the salt-marsh habitat. The open water impacts were appropriately mitigated with purchasing non-forested wetland credits from the Little Pine Island Mitigation Bank (refer to SW 52). The permitted wetland impacts associated with this SR 776 segment are the only impacts that were designated and permitted for mitigation at Cattle Dock Point, Phase II.

E. Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: Cattle Dock, Phase II provides appropriate wetland mitigation for the predominantly low-quality SR 776 wetland impacts, as well as for the high-quality impacts associated with the mangrove habitat. The mitigation includes creation of similar habitat within proximity to the wetland impacts on publicly-owned land that needed major restoration, and adjacent to other constructed mitigation compensating for wetland impacts associated with the adjacent SR 776 segment (Phase I). Due to the low-quality habitat associated with the open water impacts, the associated mitigation was compensated with purchasing non-forested mitigation bank credits at the adjacent Little Pine Island Mitigation Bank. The mitigation bank could not be nominated to provide mitigation for the mangrove wetland impacts since the bank is in the adjacent Charlotte Harbor Drainage Basin and the wetland impacts occurred in the Myakka River basin.

**F.** Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: Cattle Dock, Phases I and II were SWIM sponsored projects constructed on property co-owned and managed by the SWFWMD and FDEP.

### **PROJECT IMPLEMENTATION**

<ul> <li>Planning and Design:</li> </ul>	1999
<ul> <li>Construction of Phase I:</li> </ul>	2001
<ul> <li>Phase I achieved success criteria:</li> </ul>	2004
• Phase II construction and planting:	2005
Monitoring:	2007, 2008, 2009, 2014, 2015, 2016, 2017
Maintenance:	2005-2009
<ul> <li>Perpetual Management:</li> </ul>	Ongoing

#### Entity responsible for construction: SWFWMD

#### Entity responsible for monitoring and maintenance: SWFWMD

*Entity Responsible for perpetual management:* FDEP is responsible for state lands and or private contractors selected by SWFWMD for FDOT site.

Cost for 2017 monitoring: \$15,661.00

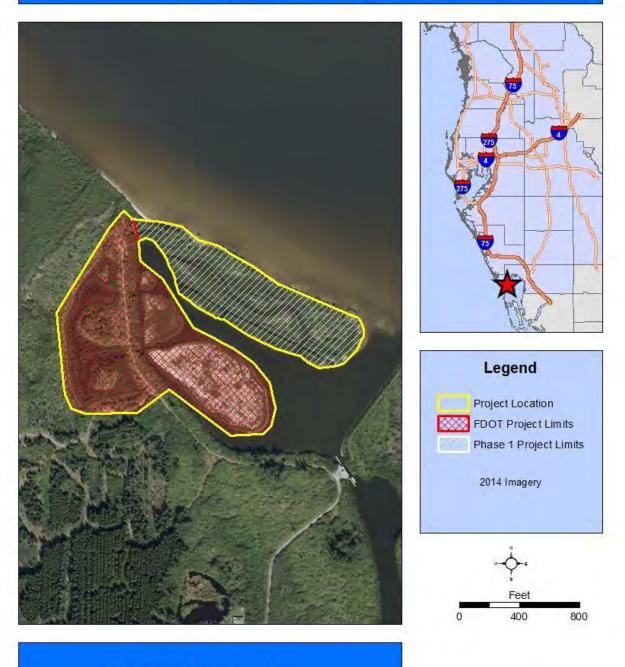
**Cost for 2017 maintenance:** \$25,805.00

## **Total Cost for FDOT Mitigation Including Estimated O&M:** \$881,893.05

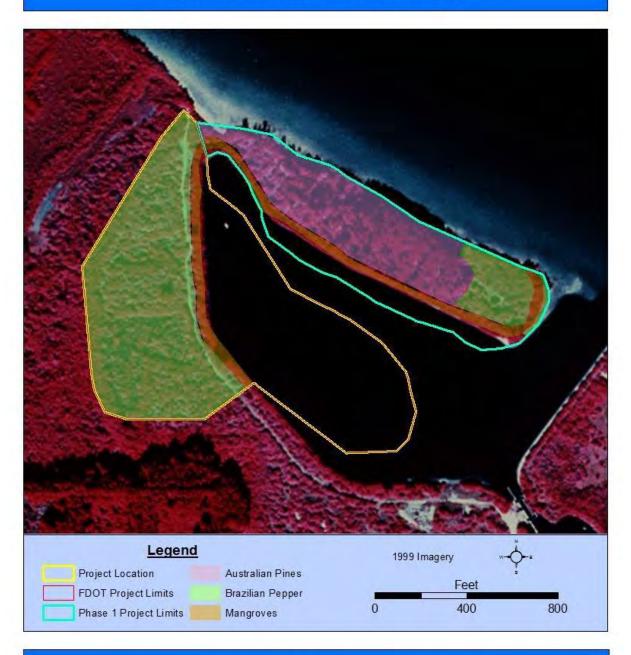
## ATTACHMENTS

- 1. Figure A-Location
- 2. Figure B-Pre-construction (1999)
- 4. Figure C-Post-Construction (2014)
- 5. Photographs (2012, 2016)

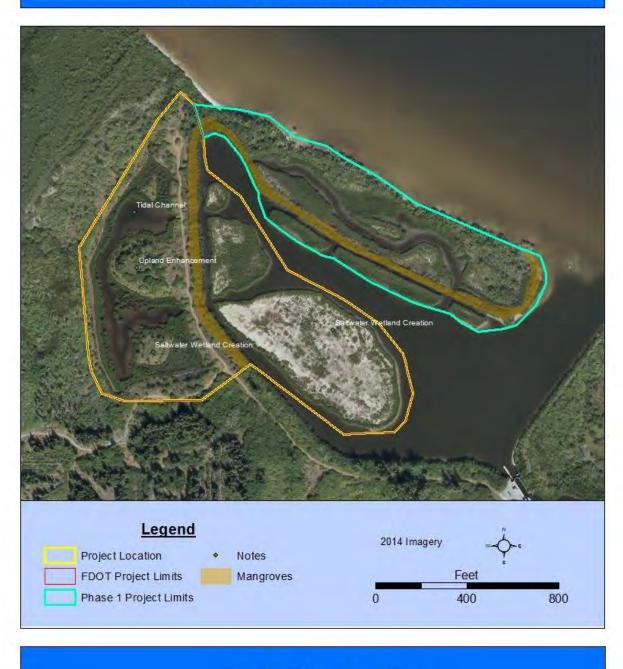
## SW 31 - Cattle Dock Point Figure A - Location (3/41S/21E)



## SW 31 - Cattle Dock Point Figure B - Pre-Construction (3/41S/21E)



## SW 31 - Cattle Dock Point Figure C - Post-Construction (3/41S/21E)





Cattle Dock showing established mangroves along tidal creek (2012).



Cattle Dock showing culverts installed to reconnect tidal flows (2012)



Established mangroves along tidal creek (2016).



High marsh facing northwest on north end of the property. (2016)

## SW-66 CIRCLE B BAR RESERVE MITIGATION PLAN

Project Name	Circle B Bar Reserve		Project Number	SW-66/D023	
Project Type	Wetland creation	n, restoration and e	enhancement		
Landowner	Polk County, So	outhwest Florida	Management	Polk County/Southwest Florida	
Lanuownei	Water Manag	gement District	Entity	Water Management District	
County	Polk		Watershed	Peace River	
Water bodies	Banana Creek Canal, Lake		Water body	SW/INA Water Dedu	
water bodies	Hancock		Designations	SWIM Water Body	
<b>Project implementation status:</b> (As of December 2017):		Monitoring and Perpetual Management			
Project utilization:		Permitted FDOT projects: 13			
(As of December 2017)		Planned, not yet permitted, FDOT projects: None			
S/T/R:		1,2/29S/24E;6/29S/25E			

## **BACKGROUND INFORMATION:**

## **IMPACT INFORMATION** (As of December 2017):

	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
Peace River	1938991	US 17 Livingston to Hardee County Line	11.59	43022736.000	2001-05669
Peace River	1940931	US 17 (SR 35) Peace River to Tropicana Rd.	4.42	43016955.001	2001-02990
Peace River	1971681	SR 60A (Van Fleet Dr.) CR 555 to Broadway Ave.	0.46	44023032.000	2002-00069
Peace River	1975331	US 27 Towerview Rd. to SR 540	3.90	43023834.002	2002-05668
Peace River	1976381	US 98 - Carpenter's Way to Daugherty Road	0.35	44013552.003	2002-06904
Peace River	1976791	US 27 SR 544 to Blue Heron Bay <sup>1</sup>	1.50	43023431.000	2002-02574
Peace River	1977014	SR 559 Extension SR 655 (Recker Hwy) to Derby Ave.	0.48	44035330.000	2009-04277
Peace River	1977051	US 27 SR 60 to Towerview Blvd.	0.19	44023431.003	2004-02920
Peace River	1977061	US 27 SR 540 to SR 542	3.94	43023431.007	2008-02283
Peace River	1977071	US 27 SR 542 to CR 546	0.55	44021373.000	2006-00538
Peace River	4082685	US 98 Manor Drive to CR 540A	0.68	44029183.004	2009-04276

		Improvements Total Impact Acreage:	30.18		
Peace River	4251371	SR 17 @ Mountain Lake Cutoff Intersection	0.16	44023020.001	No permit required
Peace River	4110391	US 27 CR 546 to SR 544	1.96	43033368.000	2008-01942

<sup>1</sup>Additional impacts for this project are within the Ocklawaha Basin and associated mitigation conducted at SW-76 Lake Lowery.

A DECEMBER 2017.		
Habitat	Mitigation Type	

MITICATION INFORMATION (As of December 2017).

Habitat	Mitigation Type	Watershed	Acreage
Forested wetland	Enhancement	Peace River	91
Forested wetland	Restoration	Peace River	64
Marsh	Restoration	Peace River	362
Marsh	Creation	Peace River	4
Marsh (obligate)	Restoration	Peace River	83
		Total:	604

#### **PROJECT DESCRIPTION**

Α. Overall project goals: In late 2000, Polk County and SWFWMD co-purchased approximately 1,256 acres (formerly Circle B Bar Ranch) to convert the property into a wildlife and passive recreational preserve with a long-term objective to restore and enhance upland and wetland habitat throughout the property. The core of the tract had the historic hydrology substantially altered by the construction of the Banana Creek Canal and contributing ditches, converting most historic wetlands into improved pasture. Desired restoration and enhancement of wetlands were added to the FDOT mitigation program in 2001. Following site evaluation, design and permitting from 2001-2004, earthwork construction was conducted in 2005-2006 to remove levees along the western property boundary that blocked and diverted contributing flow from Banana Lake, backfill the majority of the Banana Creek Canal and conveyance ditches to restore sheet flow hydrology, reinforce and elevate two access roads and install culverts to aid in restoring sheet flow hydrology, eradicate pasture grasses, conduct extensive planting and conduct perpetual herbicide maintenance activities.

Brief description of pre-construction habitat conditions: Historically, surface water from Banana Β. Lake maintained a sheet flow hydrology connectivity east through forested and marsh wetland habitat, ultimately flowing into Lake Hancock. During the 1940's, the construction of the Banana Creek Canal between the two lakes, along with connecting tributary ditches, substantially drained the area to convert wetlands into improved pasture. In addition, a large levee was constructed along the western property boundary (Figure B). This impounded water in the forested wetland west of the project area, diverted the ground and surface water away from the wetlands in the Reserve, and forced water to flow directly into the canal. Spoil material rimmed each side of the canal, resulting in water in contributing conveyance ditches being pumped over the berms into the canal to flow directly into Lake Hancock. Several decades of extensive drainage and dewatering converted most of the historic wetland acreage to improved pastures for intensive cattle grazing (refer to site photos). Prior to restoration construction, most of the remnant wetlands were associated with a few forested wetlands bordering the pastures and scattered small ephemeral marsh pockets within the improved pastures. Historically, there were

additional forested wetlands that were lost because of the altered drainage and subsequent muck oxidation resulting in tree fall.

**C. Brief description of construction activities and current habitat conditions:** After the cattle lease was discontinued in 2001, the dewatering pump system was removed, and all pumped drainage ceased being conveyed into the canal to commence partial hydrologic restoration necessary to achieve the desired Bahia grass mortality and regeneration of hydrophytic vegetation. Two pre-existing north-south berms were substantially regraded to provide necessary structural stability and culverts were installed at appropriate locations and elevations to restore the natural sheet-flow wetland hydrology and appropriate hydroperiods. Fill material for the road berm construction was obtained from widening the existing borrow pit within the north side of the property and creating the 2-acre "Gator Pond" marsh within an adjacent upland area. The western access road is a wet crossing constructed with crushed concrete to match adjacent surface grade elevations. After the two access road berms and culverts were constructed, the spoil rim material was used to backfill the Banana Creek Canal segment west of the Center Road and the western boundary levee was removed to restore sheet flow patterns throughout the wetland floodplain.

Restoration of the historic western-to-eastern sheet flow was commenced with backfilling the western half of Banana Creek Canal, collector ditches, and the western levee. The construction of the western road included placement of crushed concrete to match adjacent grade elevations to not restrict the restored sheet flow. The construction of the two berms into the Center and Eastern Roads resulted in top-of-road elevations averaging 1-2 feet above the adjacent water elevations. Eight culvert sets were placed at 500 ft. intervals along the Center and Eastern roads. Each culvert set includes four 24-inch culverts installed at slightly different elevations to provide a 12-inch fluctuation range of water elevations. The culvert invert elevations decrease an average of 6 inches between the culverts in the Center, Eastern and Lakeshore berm roads. With the historic muck oxidation altering grade elevations, there are areas of deeper water pockets, particularly the 3-4 ft. depth adjacent to the southern section of the Center Road. These areas provide valuable open-water and obligate marsh habitat for waterfowl, amphibians, fish and reptile species. Other portions of the restored wetlands have more facultative habitat conditions, with variable surface water depths ranging 6-18 inches for hydroperiod durations of 4-8 months.

After the Circle B Bar Ranch acquisition, additional public land acquisition has occurred around Lake Hancock as part of an effort to partially restore the normal water elevations of the lake by raising the lake's water elevation by 12 inches. With the planned construction of a new lake outfall structure, sheet-flow within the restored wetlands at the Reserve will not be altered; however, the wetlands closest to the lake (primarily east of the Eastern Access Road) will have more stable and longer duration hydroperiods. In turn, this will provide a longer and more stable duration for wildlife foraging opportunities. There are also two 48-inch culverts installed in the middle of both the Center and Eastern Roads. These culverts, which include slide gates, were installed to allow emergency overflow into the remnant eastern portion of the Banana Creek Canal.

Approximately half of the historic western forested wetland areas, earthwork areas and much of the open water areas were further restored with the planting of trees and shrubs. Along with the wetland restoration, pines and myrtles were planted within an adjacent upland buffer where there were no existing forested habitats buffering the south-central boundary of the marsh habitat. Dominant trees planted include cypress (*Taxodium distichum*), black gum (*Nyssa sylvatica* var. *biflora*), pop ash (*Fraxinus*)

*caroliniana*), and red maple (*Acer rubrum*). Additional tree species planted include sweet bay (*Magnolia virginiana*), American holly (*Illex cassine*), sweet gum (*Liquidambar styraciflua*), laurel oak (*Quercus laurifolia*), American elm (*Ulmus americana*). Planted shrubs include buttonbush (*Cephalanthus occidentalis*), with wax myrtle (*Myrica cerifera*) in the higher elevations. Along with the natural regeneration of desirable herbs, there were additional plantings of arrowhead (*Sagittaria lancifolia*), bulrush (*Scirpus validus*), duck potato (*Sagittaria latifolia*), fireflag (*Thalia geniculata*), pickerelweed (*Pontederia cordata*), soft rush, sand cordgrass (*Spartina bakeri*), spikerush (*Eleocharis interstincta*), and spatterdock (*Nuphar luteum*). To provide a habitat buffer, the non-forested upland area adjacent to the south-central perimeter of the restored wetland area near the Gator Pond was planted with dense spacings of longleaf pine (*Pinus palustris*), live oak (*Quercus virginiana*), and waxmyrtle.

Success criteria includes 70% coverage of desirable species and less than 10% cover of exotic species in the forested wetland and shallow marsh system, which has primarily included cattails and primrose willow. An 83-acre obligate, and open water component of the marsh requires less than 10% vegetative coverage and provides less mitigation credit than the shallow marsh components. The restored forested wetlands require 20% canopy coverage and a minimum height of 20 ft. with planted trees before associated mitigation credits can be debited from the ledger. As of 2016, much of the site is in compliance with the success criteria; however, a few areas have been identified as in need of additional treatment to reduce nuisance and exotic species coverage and allow an increase in desirable coverage. Treatment events occurred throughout 2016 and additional work is planned for 2017 to bring the site into full compliance in the coming months. Although monitoring frequency is not specifically required by the mitigation area construction permits, monitoring is conducted semi-annually to evaluate hydrologic and vegetative condition, and wildlife use within the Reserve.

D. Brief explanation of how this work serves to offset the impacts of the specified DOT project(s):

Most of the wetland impacts are associated with disturbed marsh and mixed forested wetland fringes along FDOT right of way within the Peace River watershed, particularly along US Highway 27 and US Highway 17. The roadway wetland impacts have been appropriately and adequately compensated with the restoration and enhancement of large-scale, diverse and regionally-significant wetland ecosystems that benefit the Peace River watershed. The FDOT permits include Uniform Mitigation Assessment Method (UMAM) assessments of the wetland impacts. This information is used to appropriately debit from the available UMAM credits associated with the mitigation habitats associated with this project.

**E.** Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: The permitted mitigation banks currently selling credits in the Peace River watershed basin include the Boran Ranch Mitigation Bank in DeSoto County and the Peace River Mitigation Bank in Hardee County (SW 53 and SW 85 in the FDOT plan). These banks have been selected to provide appropriate mitigation for wetland impacts associated with many roadway projects within the basin. Prior to the establishment of the Peace River Mitigation Bank and after all the available forested wetland mitigation credits were purchased from the Boran Ranch Mitigation Bank, it was necessary to add an additional mitigation project to the FDOT program that had forested wetland credits. This resulted in accepting Polk County's request to include the Circle B Bar Reserve in the FDOT mitigation program. At the time mitigation options were selected, it was estimated that the cost per credit was \$30,000, making the Reserve the more cost-effective option.

F. Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: Even

though enhancement and restoration of the wetland floodplain is not considered a specific SWIM sponsored project, the site is located between two SWIM-sponsored projects, Banana Lake Restoration (conducted in the late 1980's) and the ongoing improvements for Lake Hancock. By restoring and enhancing the wetland functions and values at the Reserve, additional water quality treatment and attenuation reduce the nutrients previously allowed to flow directly into Lake Hancock via the Banana Creek Canal. The enhancement of the entire Peace River watershed has required substantial emphasis on the hydrologic improvements to water quality and quantity within these headwater areas in the basin. In turn, these improvements result in improved water quality and quantity flowing into Charlotte Harbor, another designated SWIM water body.

#### **PROJECT IMPLEMENTATION**

<ul> <li>Planning and design:</li> </ul>	January 2001-Fall 2005
<ul> <li>Construction and planting:</li> </ul>	2005-2006
Monitoring:	2007, 2008, 2009, 2014, 2015, 2016, 2017
Maintenance:	2006-2015
<ul> <li>Perpetual Management:</li> </ul>	Ongoing

*Entity responsible for construction:* SWFWMD Operations Department performed construction in 2005 and 2006.

#### Entity responsible for monitoring and maintenance: SWFWMD

*Entity responsible for perpetual management:* Polk County is responsible for county lands and or private contractors selected by SWFWMD for FDOT site.

Cost for 2017 monitoring: \$18,604.00

**Cost for 2017 maintenance:** \$96,500.00

#### Total Cost for FDOT Mitigation Including O&M: \$2,300,000

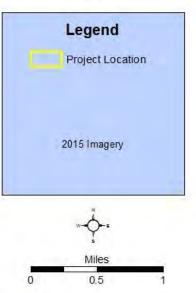
#### ATTACHMENTS

- 1. Figure A-Location
- 2. Figure B-Pre-construction (2014)
- 3. Figure C-Post-construction (2014)
- 4. Photographs (2001, 2005, 2006, 2009, 2013, 2014)

# SW 66 - Circle B Bar Reserve Figure A - Location (1,2/29S/24E;6/29S/25E)



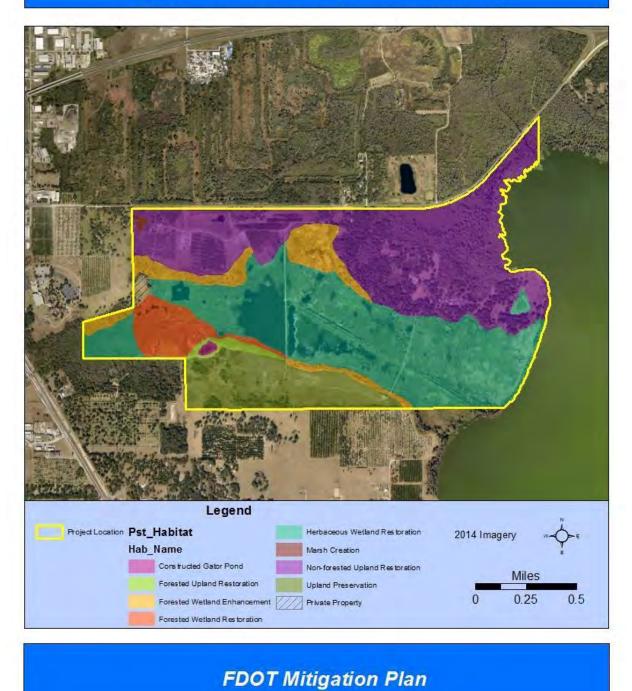




## SW 66 - Circle B Bar Reserve Figure B - Pre-Construction (1,2/29S/24E;6/29S/25E)



## SW 66 - Circle B Bar Reserve Figure C - Post-Construction (1,2/29S/24E;6/29S/25E)



Center Wetland Restoration – Construction of the 2-acre "Gator Pond" in the adjacent southwestern upland pasture provided the fill material necessary to construct the Center Road and Eastern Road. (2005)



Center Wetland Restoration – Obligate marsh zones were planted with small islands of pickerelweed and arrowhead. Fish and other food resources are concentrated as water depth decreases during the dry season. (2009)



Northwest Marsh – The plantings have matured and recruited to provide dense coverage. The marsh provides wildlife habitat as well as water quality benefits. (2009)



Obligate marsh zones created in the Center Wetland restoration area. (2013)



Control structures installed where the center road and the eastern road cross the remnant Banana Creek canal. (2013)



View from main berm road. (2014)



View from main berm road north of education center on Marsh Rabbit Run. (2014)

#### SW-56 COCKROACH BAY (FRESHWATER) MITIGATION PLAN

Project Name	Cockroach Ba	ay-Freshwater Project Number		SW-56/D010
Project Type	Wetland creation	n and Upland enha	incement	
Landowner	Hillsborough County		Management Entity	Hillsborough County/Southwest Florida Water Management District
County	Hillsborough		Watershed	Tampa Bay Drainage
Water bodies	Tampa Bay, C	Cockroach Bay	Water body Designations	SWIM water body
<b>Project impleme</b> (As of December		Monitoring and Perpetual Manager		ment
Project utilization: Permitted FDOT		<b>)T projects:</b> 6		
(As of December 2017) Planned, not ye		permitted, FDOT	projects: None	
<b>S/T/R:</b> 21,22/32S/18E		21,22/32S/18E		

#### **BACKGROUND INFORMATION:**

#### **IMPACT INFORMATION** (As of December 2017):

Watershed	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
Tampa Bay Drainage	2555991	SR 676 (Causeway)-US 301 to US 41 <sup>1</sup>	1.08	43027063.000	2004-05583
Tampa Bay Drainage	2557031	SR 60 Cypress St. to Fish Creek <sup>2</sup>	0.90	43002958.004	2002-05816
Tampa Bay Drainage	2558881	US 301- Sligh to Tampa Canal <sup>1</sup>	2.77	43024246.001	2002-06711
Tampa Bay Drainage	2568812	US 19 (SR 55) – Seville Dr. to SR 60	0.19	44025287.002	2006-02199
Tampa Bay Drainage	2569571	US 19 SR 60 (Drew) to Railroad Crossing	1.33	44011760.000	1994-00606
Tampa Bay Drainage	2569941	CR 296 Connector, 40 <sup>th</sup> St. to 28 <sup>th</sup> St	1.02	43008898.009	2003-01070
		Total Impact Acreage:	7.29		

<sup>1</sup> Wetland impacts are also offset at SW-71 Boyd Hill Nature Preserve.

<sup>2</sup> Wetland impacts are also offset at SW-62 Tappan Tract, SW-75 Cockroach Bay (Saltwater) and SW-67 Apollo Beach.

#### **MITIGATION INFORMATION** (As of December 2017):

Habitat	Mitigation Type	Watershed	Acreage
Freshwater marsh/wet prairie	Creation	Tampa Bay Drainage	23
Coastal Hammock	Restoration	Tampa Bay Drainage	9
		Total:	32

#### **PROJECT DESCRIPTION**

**A. Overall project goals:** Cockroach Bay includes a multi-agency (USACOE, SWFWMD, FDEP, AND Hillsborough County) effort of habitat creation and restoration on property acquired by Hillsborough County (total 651 acres, Figure A). The SWFWMD primarily assisted the County with managing the design, construction and creation of the wetland habitats. This designated mitigation area includes freshwater marsh/wet prairie habitat creation (23 acres) that is buffered by the restoration of coastal hammock habitat buffer (9 acres).

**B.** Brief description of pre-construction habitat conditions: The project site was historically converted from flatwood habitat to row crops. After public acquisition, agricultural activities discontinued, and the area could go fallow, resulting in a dominance of nuisance and exotic species such as Brazilian pepper, elderberry, ragweed, fennel, and various nuisance grass species.

**C. Brief description of construction activities and current habitat conditions:** The wetlandcreation and buffer enhancement activities were constructed in two areas separated from each other by a 20-acre upland area. The initial activity included site clearing to remove nuisance and exotic species. Groundwater monitoring conducted at the sites for a couple years prior to construction aided in determining the appropriate wetland grade elevations necessary to achieve variable hydroperiods within the marshes. Planting of appropriate species within the marsh/wet prairie wetlands was conducted after construction, as well as planting of coastal hammock habitat to provide improved buffers for the wetlands.

As of the fall of 2014 the site was no longer meeting success criteria. Maintenance activities have occurred in 2015 and 2016 and will continue into 2017 to bring the site back into compliance with success criteria. Success criteria will be specified in the permit conditions and reflect an 85% coverage of desirable vegetation, and 10% exotic and nuisance species cover.

**D.** Brief explanation of how this work serves to offset the impacts of the specified DOT project(s): Most of the roadway wetland impacts included low quality marsh habitat. The creation of freshwater marsh/wet prairie habitat (26 acres) and restoration of coastal hammock buffer (7 acres) appropriately

and adequately mitigate for the wetland impacts at a cumulative ratio of 4.3 to 1. Other than the wetland impacts associated with the six roadway projects listed above, no additional wetland impacts will be proposed for mitigation within this project.

**E.** Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: The only mitigation bank in the basin at the time of mitigation selection was the Tampa Bay Mitigation Bank, which is also within the Cockroach Bay area. However, the mitigation bank was not constructed and did not have available mitigation credits during the period of mitigation selection for the wetland impacts.

**F.** Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: This habitat project is part of a large County and SWFWMD SWIM Program effort to create and restore habitat within the Cockroach Bay property. The Cockroach Bay restoration effort is guided by the Cockroach Bay Restoration Alliance, made up of stakeholders including agencies, landowners, and the Tampa Bay Mitigation Bank. Even though there are various restoration phases throughout the

Cockroach Bay Habitat Restoration area, they are all inter-related based on-site conditions. Ecosystems transition from upland to wetland habitat, followed by salinity gradients of freshwater to estuarine wetlands. A braided tidal wetland creation project was also selected north of this project area and constructed in 2005 for the FDOT mitigation program (SW 75 - Cockroach Bay Restoration – Saltwater).

#### **PROJECT IMPLEMENTATION**

- Design and Permitting: 2002-2003
- Construction and Planting: 2003-2005
- Monitoring: 2007, 2008, 2014, 2015, 2016, 2017
- Maintenance: 2015-2017
- Perpetual Management: Ongoing

#### Entity responsible for construction: SWFWMD-SWIM

#### Entity responsible for monitoring and maintenance: SWFWMD

*Entity responsible for perpetual management:* Hillsborough County-Regional Parks & Conservation Land Management is responsible for county lands and/or private contractor selected by SWFWMD for FDOT site.

Cost for 2017 monitoring: \$23,052.00

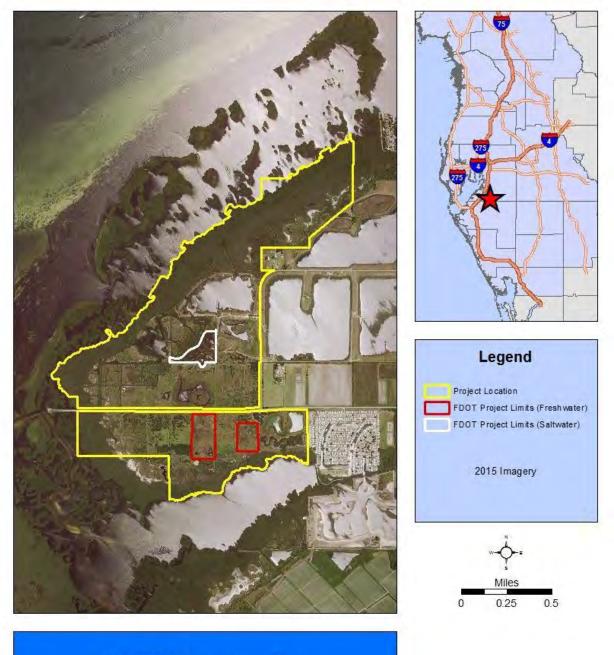
**Cost for 2017 maintenance:** \$45,800.00

#### Total Cost for FDOT Mitigation Including O&M: \$719,978.03

#### ATTACHMENTS

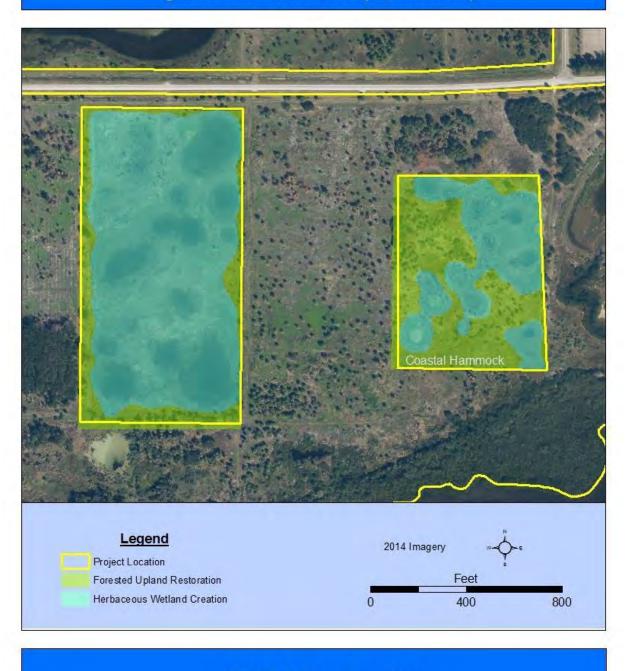
- 1. Figure A-Location
- 2. Figure B-Pre-Construction (1999)
- 3. Figure C-Post-Construction (2014)
- 4. Photographs (2016)

# SW 56 - Cockroach Bay Restoration (Freshwater) Figure A - Location (21,22/32S/18E)



# 1999 Imagery Legend Feet FDOT Project Limits 1,000 0 500

SW 56A - FDOT Project Limits (Cockroach Bay) Figure B - Pre-Construction (21,22/32S/18E)



## SW 56A - FDOT Project Limits (Cockroach Bay) Freshwater Figure C - Post-Construction (21,22/32S/18E)



Freshwater wetland looking east. (2016)



Freshwater monitoring transects looking east into wetland. (2016)



Representative picture looking at freshwater wetland enhancement area. (2016)



Transect in freshwater wetland enhancement area looking northeast. (2016)

#### SW-75 COCKROACH BAY RESTORATION - SALTWATER MITIGATION PLAN

Project Name	Cockroach Bay Restoration – Saltwater		Project Number	SW-75/D032
Project Type	Wetland Creatio	n		
Landowner	Hillsborough County		Management Entity	Hillsborough County/Southwest Florida Water Management District
County	Hillsborough		Watershed	Tampa Bay Drainage
Water bodies	Tampa Bay, Cockroach Bay		Water body Designations	SWIM Water Body
<b>Project impleme</b> (As of December		Monitoring and Perpetual Management		ment
Project utilization: Permitted FDOT		<b>)T projects:</b> 3		
(As of December 2017) Planned, not yet pe		t permitted, FDOT	projects: None	
<b>S/T/R:</b> 4,5/27S/19E				

#### **BACKGROUND INFORMATION:**

#### **IMPACT INFORMATION** (As of December 2017):

	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
Tampa Bay Drainage	2557031	SR 60 Cypress St. to Fish Creek <sup>1</sup>	5.00	43002958.003	2002-05816
Tampa Bay Drainage	2570701	US 19 (SR 55) 49 <sup>th</sup> St to 118 <sup>th</sup> Ave.	0.02	44000188.002	2002-06325
Tampa Bay Drainage	2571391	SR 688 (Ulmerton Rd.), US 19 to 49th Street	0.10	44026223.000	2003-11664
		Total Impact Acreage:	5.12		

<sup>1</sup>Additional mitigation for other impacts associated with this project are provided at Cockroach Bay (Freshwater - SW-56), the Tappan Tract (SW-62) and Apollo Beach (SW-67).

MITIGATION INFORMATION (	(As of December 2017):
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Habitat	Mitigation Type	Watershed	Acreage
Braided tidal marsh	Creation	Tampa Bay Drainage	8.00
Tidal pools and channels	Creation	Tampa Bay Drainage	7.00
		Total:	15.00

#### PROJECT DESCRIPTION

**A. Overall project goals:** Cockroach Bay includes a multi-agency (USACOE, SWFWMD, FDEP and Hillsborough County) effort of habitat creation and restoration conducted on property acquired and managed by Hillsborough County (total 651 acres). The SWFWMD SWIM section primarily assists the County with managing the design, construction and creation of wetland habitats. Hillsborough County also conducts the perpetual management of the public lands at Cockroach Bay. This FDOT portion of the

mitigation project includes braided tidal marsh habitat creation (8 acres) connected in a mosaic of open water tidal pools and channels (7 acres).

**B.** Brief description of pre-construction habitat conditions: Prior to mitigation construction, the wetland creation site was an upland mowed fallow field that was historically a row crop area. The site is bordered to the west by upland oak hammock, previously constructed estuarine marsh habitats, and the mangrove zone along Tampa Bay. This previously created estuarine habitat was designed and constructed to achieve a future tidal connection for the project described here. The connection is evident on the Location aerial (Figure A) in the southwest corner of the project boundary.

#### C. Brief description of construction activities and current habitat conditions:

The construction activities included dredging the uplands to create saltwater marsh habitat, along with tidal pools and channels that connect to the other created estuarine habitat east of the oak hammock. The constructed saltwater marsh habitat includes low marsh with dense coverage of planted smooth cordgrass (*Spartina alterniflora*), and marshhay cordgrass (*Spartina patens*). The high marsh habitat includes dense coverage of planted knotgrass (*Paspalum distichum*) and sand cordgrass (*Spartina bakeri*). The marshes are in a mosaic with the intertidal pools and braided channels. White mangroves (*Laguncularia racemosa*) have also naturally recruited within the marsh habitat. The material dredged during construction was placed into an adjacent shell mine cut east of the site to create additional wetland habitat not associated with the FDOT mitigation program. The site attracts several species of wading birds and fish species migrate from Tampa Bay into the project site.

Semi-annual monitoring with annual monitoring reports were prepared by environmental consultants on contract for the SWFWMD through 2008. Monitoring included qualitative evaluation and photos of the mitigation area to evaluate and document species survival, coverage, wildlife use, exotic and nuisance species coverage, and recommended actions necessary to ensure or enhance success. The project's required success criteria include a total 85% cover of planted and recruited desirable species within the non-open water areas, and less than 10% exotic and nuisance species cover. The site currently meets the success criteria.

#### D. Brief explanation of how this work serves to offset the impacts of the specified DOT project(s):

The wetland impacts include 5 acres of saltwater marsh habitat and 0.1 acre of mangrove impact. The creation of saltwater marsh habitat and connecting intertidal pools and braided channels achieved dense vegetative coverage years in advance of the wetland impacts, and appropriately mitigate for these FDOT impacts. No additional roadway wetland impacts will be proposed for mitigation at the project site. The Cockroach Bay restoration effort has been guided by the Cockroach Bay Restoration Alliance, made up of stakeholders including government agencies, landowners and the Tampa Bay Mitigation Bank. Even though there are various restoration phases throughout the Cockroach Bay Habitat Restoration area, they are all inter-related based on-site conditions. Ecosystems on the property transition from upland to wetland habitat, followed by salinity gradients of freshwater to estuarine wetlands. A freshwater wetland creation and coastal hammock restoration project (total 34 acres) was also selected and constructed in 2004 for the FDOT mitigation program (SW 56 - Cockroach Bay – Freshwater). Because of the extensive planning and evaluation of the restoration and being colocated with on-going restoration efforts that are managed and maintained by Hillsborough County, the designated mitigation areas have been ecologically beneficial and very successful.

**E.** Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: During the time of selecting mitigation for the proposed wetland impacts, the only mitigation bank proposed in the basin was the Tampa Bay Mitigation Bank, which is also within the Cockroach Bay area. However, the mitigation bank was not under construction nor did it have available credits during the time of mitigation selection.

**F.** Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: This project is part of a large Hillsborough County and SWIM effort to create and restore habitat within the Cockroach Bay property.

#### **PROJECT IMPLEMENTATION**

- Planning and design: 2002
- Construction: 2005
- Monitoring: 2007, 2008, 2014, 2015, 2016, 2017
- Maintenance: 2005 2010
- Perpetual Management: Ongoing

#### Entity responsible for construction: SWFWMD

#### Entity responsible for monitoring and maintenance: SWFWMD

*Entity responsible for perpetual management:* Hillsborough County-Regional Parks & Conservation Land Management is responsible for county lands and/or private contractor selected by SWFWMD for FDOT site.

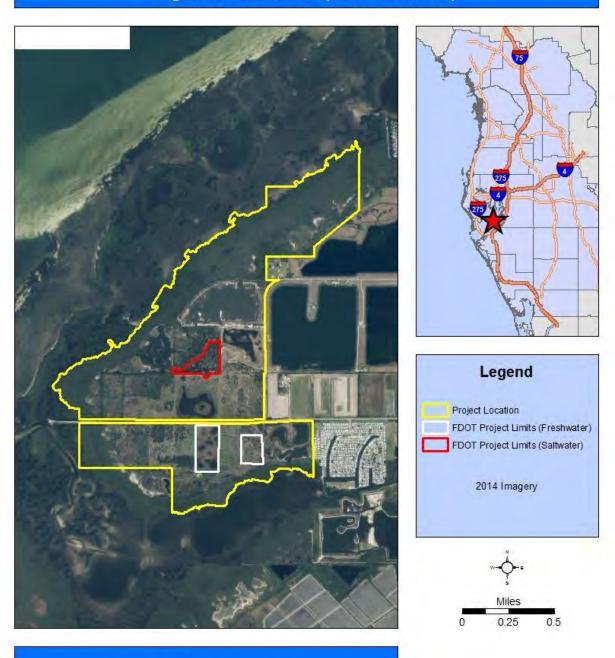
Cost for 2017 monitoring: \$17,092.00

**Cost for 2017 maintenance:** \$8,200.00

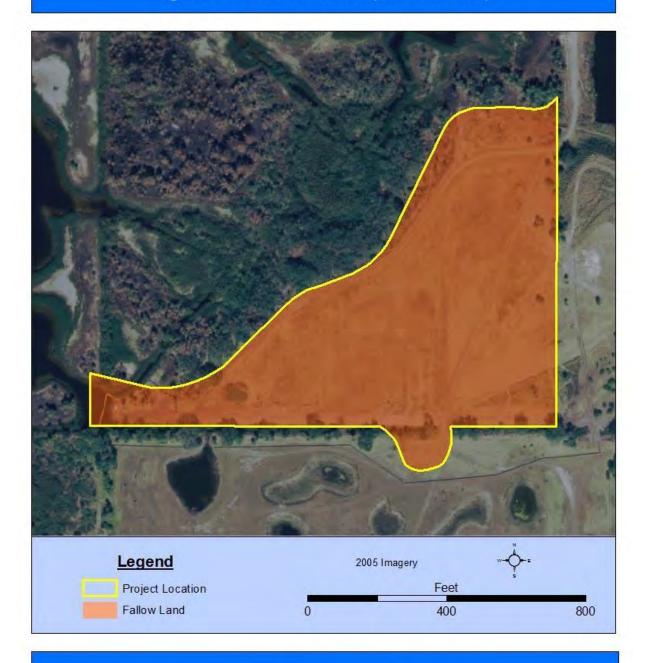
#### Total Cost for FDOT Mitigation Including Estimated O&M: \$596,241.09

#### ATTACHMENTS

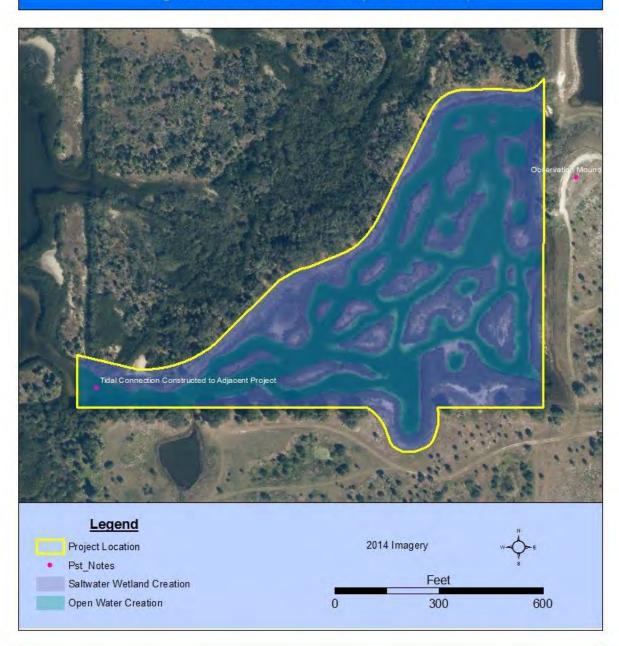
- 1. Figure A-Location
- 2. Figure B-Pre-Construction (2005)
- 3. Figure C-Post-Construction (2014)
- 4. Photographs (2005, 2009, 2016)



# SW 75 - Cockroach Bay Restoration (Saltwater) Figure A - Location (21,22/32S/18E)



## SW 75A - FDOT Project Limits (Cockroach Bay Saltwater) Figure B - Pre-Construction (21,22/32S/18E)



## SW 75A - FDOT Project Limits (Cockroach Bay Saltwater) Figure C - Post-Construction (21,22/32S/18E)



Marsh grades are final, and a backhoe breaches the canal block to open tidal connection and flow into the constructed wetland. (2005)



View from atop the observation mound, dense cordgrass coverage on the marsh zones separated by braided tidal channels. (2009)



View of salt marsh island in northwest corner of site boundary. (2016)



View of salt marsh island created in southeast corner of site boundary. (2016)



View of intertidal creek in eastern section of project boundary. (2016)

#### SW-84 COLT CREEK STATE PARK MITIGATION PLAN

Project Name	Colt Creek	State Park	Project Number	SW-84/D050
Project Type	Wetland preserv	ation, creation, res	storation and enha	ancement
	Southwest F	lorida Water		Florida Department of
Landowner	Managemen	t District and	Management	Environmental
Landowner	Trustees of	the Internal	Entity	Protection/Southwest Florida
	Improvemer	nt Trust Fund		Water Management District
County	Polk		Watershed	Withlacoochee River and Hillsborough River
Water bodies	Withlacoochee River, Gator Creek, Colt Creek		Water body Designations	Outstanding Florida Water
Project impleme	entation status:	Phase I – Perpeti	al Management; I	Phase II – Monitoring and
(As of December	r 2017):	Perpetual Management; Phase III – Monitoring and Perpetual		
		Management		
Project utilization: Permitted FDO		Permitted FDOT	projects: 15	
(As of December 2017) Planned, r			permitted, FDOT	projects: 5
<b>S/T/R:</b> 5,6,8/26S/23E;17,18,19,20,29,30,31,32/25S/23E			1,32/25S/23E	

#### **BACKGROUND INFORMATION:**

## **IMPACT INFORMATION** (As of December 2017):

Watershed	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
Withlacoochee River	2426263	I-75 Hernando Co. Line to Turnpike	2.18	43033330.001	2012-00158
Withlacoochee River	4110113	I-75 (SR 93) from Pasco/Hernando C/L to US98/N SR50/Cortez Blvd	7.08	43041196.001	2013-00641
Withlacoochee River	4110114	I-75 (SR 93) from Pasco/Hernando C/L to US98/N SR50/Cortez Blvd	0.34	43041461.000	2013-03132
Withlacoochee River	4110142	I-75 (SR 93) from N of SR 52 to Pasco/Hernando C/L <sup>1</sup> (design-build)	3.05	43040738.001	2012-02483
Withlacoochee River	4167351	SR 50/SR 50A Bypass from Broad St to Jefferson N St	1.00	Not Submitted	Not Submitted
Withlacoochee River	4167324	SR 50 from Windmere Rd/Bronson Blvd to US 98/McKethan Road	2.00	Not Submitted	Not Submitted

Withlacoochee River	4326971	SR 50/700/US 98/ Cortez from E of SR 50/Cortez Blvd to W of Live Oak Dr	0.25	Not Submitted	Not Submitted
Withlacoochee River	4358941	SR 575 Over Withlacoochee River Bridge	0.20	Not Submitted	Not Submitted
Hillsborough River	2555851	SR 39 (Alexander St) I-4 to Knights Griffin Rd.	14.20	43034467.000	2009-04064
Hillsborough River	2578622	Park Road I-4 (SR 400) to Sam Allen Rd.	0.81	44029780.001	2007-01606
Hillsborough River	4079441	I-75 Northbound Rest Area	2.20	43033020.007	2009-04372
Hillsborough River	4079442	I-75 Southbound Rest Area	1.00	43033020.007	2009-04064
Hillsborough River	4084592	I-75 Fowler Avenue to CR 581	23.79	43021639.006	2007-04495
Hillsborough River	4084593	I-75 - CR 581 (BB Downs) to SR 56 (Mainline)	15.33	43033020.004	2008-03059
Hillsborough River	4084594	I-75 SR 56 to S of CR 54	11.63	43033030.008	2010-00468
Hillsborough River	4089321	SR 39 @ Hillsborough River	2.29	43033500.001	2008-00211
Hillsborough River	4113371	US 92 - Eureka Springs to Thonotosassa Rd. <sup>2</sup>	1.45	43031172.000	2006-04072
Hillsborough River	4218311	I-75 - CR 581 (BB Downs) to SR 56	21.54	43033020.002	2008-01707
Hillsborough River	4218314	I-75 S of CR 54 to N of CR 56	16.88	43033020.000	2007-04508
Withlacoochee River	4301321	SR 35 (US 301) from CR 470 to SR 44	7.03	Not Submitted	Not Submitted
Withlacoochee River	4386522	I-75 (SR93) at Sumter Co. NB Rest Area	0.50	Not Submitted	Not Submitted
		Total:	134.55		

Projects highlighted in yellow have been deleted from the FDOT mitigation program and are not included in totals.

Projects highlighted in green have been added to the FDOT mitigation program this year.

<sup>1</sup>This project has wetland impacts in the Hillsborough, Upper Coastal, and Withlacoochee basins. Additional mitigation in the Hillsborough Basin is provided at the North Tampa Mitigation Bank. Mitigation for impacts in the Withlacoochee basin will be provided at Colt Creek. Impacts in the Upper Coastal are mitigated at the Upper Coastal Mitigation Bank and Conner Preserve while impacts in the Hillsborough basin are mitigated at Conner Preserve.

<sup>2</sup> This project has additional wetland impacts in the Tampa Bay Drainage Basin. The designated mitigation for these impacts includes habitat creation and enhancement at the Ekker Tract (SW 81).

Habitat	Mitigation Type	Watershed	Acreage
Phase II and Phase III	Restoration and Enhancement	Hillsborough River	581.96
Phase II and Phase III	Restoration and Enhancement	Withlacoochee River	2,053.23
		Total:	2,635.19

**MITIGATION INFORMATION** (As of December 2018):

#### **PROJECT DESCRIPTION**

A. Overall project goals: This mitigation project is located within the region referred to as the Green Swamp (Area of Critical State Concern). The Green Swamp is considered a unique and critical natural resource asset with statewide significance. The water related resource values of the Green Swamphave made this region one of the highest priority areas for protection through public acquisition by the State and the SWFWMD. The Green Swamp contains the headwaters of three major rivers, including the Hillsborough, Withlacoochee and Ocklawaha. Public ownership and conservation easements of large tracts of land serve to protect the important upstream reaches of the Hillsborough and Withlacoochee Rivers and the volume of freshwater which they contribute to Tampa Bay, Withlacoochee Bay, Tsala Apopka Lake and many other downstream natural systems and habitats.

The Colt Creek State Park, a high priority land acquisition for over 30 years, was jointly acquired from the Overstreet family by the SWFWMD, FDEP, and Polk County in June 2006. This tract present wetland habitat preservation, restoration and enhancement opportunities that may be used as mitigation in the Hillsborough River and Withlacoochee River watersheds. This project complements two other FDOT mitigation projects in the vicinity. SW 59-Hampton Tract is located immediately to the east of this mitigation project and SW 64-Withlacoochee State Forest-Baird Tract is located north of this mitigation project.

**B.** Brief description of pre-construction habitat conditions: Even though the parcels that comprise this mitigation project provide important ecological value for the region, there have been activities conducted over the years that substantially alter the natural character of these properties. An extensive network of large and small ditches has altered the hydrologic features within the properties, as well adjacent public and private lands. Many upland habitat communities and some wetland areas are sufficiently drained to be converted to improved pasture. In the remaining native upland habitats, regular prescribed burn cycles are eliminated. As a result, pines (*Pinus elliottii*) and hardwoods such as live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*), and red maple (*Acer rubrum*) have recruited and generated in what was formally pine flatwoods. Ditching has drained and short-circuited drainage patterns of the wetlands such that minimal water depth and duration have allowed facultative vegetative species to recruit into wetlands that were historically vegetated by obligate species and to replace canopy once dominated by bald cypress (*Taxodium distichum*).

Additionally, the Colt Creek State Park property includes a 750-Unit residential development proposed by the previous owners. However, after extensive negations with resource agencies, the family agreed

to sell the tract fee simple into public ownership. The purchase was funded by the SWFWMD (\$24.3 million), FDEP (\$24.3 million), and Polk County (\$5 million) and the property is jointly owned by the SWFWMD and the Board of Trustees of the Internal Improvement Trust Fund. The purchase of a portion of the tract within the Hillsborough River basin was funded (\$7.56 million) by the FDOT mitigation program.

#### C. Brief description of construction activities and current habitat conditions:

#### Wetland Preservation – Phase I, Colt Creek Tract

Because the FDOT program funded the acquisition in the Hillsborough Basin, all upland and wetland habitats in this basin were expected to provide preservation mitigation. This purchase was expected to provide the FDOT with mitigation credit from both wetland and upland preservation. However, soon after this purchase, the Army Corps of Engineers no longer recognized upland preservation as a separate form of mitigation. The upland preservation achieved with this purchase is considered in the evaluations completed for wetland restoration and enhancement described below.

#### Wetland Restoration and Enhancement – Phase II, Colt Creek Tract

There are two former wetland areas that were converted to pasture. Both areas will be restored as freshwater marshes. Wetland hydrology in these areas is re-established either through re-grading or the construction of water control structures. Both areas have been replanted. Herb species planted in the freshwater marsh restoration area include soft rush (*Juncus effusus*), arrowhead (*Sagittaria lancifolia*), pickerelweed (*Pontederia cordata*), spikerush (*Eleocharis interstincta*), sand cordgrass (*Spartina bakeri*).

#### Wetland Restoration and Enhancement – Phase III

With strategically located culverts, berm modifications and ditch blocks, wetland hydrology will be restored, and wetland enhancement will result by reversing the effects of the decades of altered wetland hydrologic functions. Principally, mortality of inappropriate vegetative species and regeneration of desirable hydrophytic species will result with the loss of laurel oaks and pines within the wetland cores and live oaks in the outer facultative zones. The mortality of pines and oaks will be more rapid since they cannot sustain long periods of inundation, providing conditions for the generation of cypress saplings and appropriate understory species that have had limited opportunities for recruitment and growth due to extensive shading and insufficient hydrology. However, other hardwood species that can endure longer hydroperiods will still be present and provide diversity and cover (e.g. red maple). In addition to the increase in appropriate vegetative species within the canopy, sub-canopy and ground cover, the restored hydroperiods will provide more nesting, denning and foraging opportunities for wildlife species that utilize wetlands for portions of their life cycles. Dead trees will be allowed to decay in place, providing snags and niches for wildlife use.

There are no permits associated with the mitigation area construction required specific successcriteria. However, pursuant to Special Condition No. 4 of the USACE permit, "the ecological functional lift shall be based on the expectation that all of the proposed aquatic resource enhancements and restored wetland areas will be successfully constructed and function as intended. If any activity is not completed or the aquatic function resource proposed for enhancement/restoration does not function as intended, the UMAM assessment for each habitat type shall be revised accordingly." Although monitoring frequency is not specifically required by the mitigation area construction permits, monitoring has occurred and will continue to ensure compliance with Special Condition No. 4 of the ACOE permit reference above. **D.** Brief explanation of how this work serves to offset the impacts of the specified DOT project(s): The largest percentage of the anticipated wetland impacts in the Hillsborough basin include approximately 30 acres of forested wetland habitats associated with widening Interstate-75 in northern Hillsborough and Pasco Counties. Most of the proposed mitigation activities will consist of wetland restoration and enhancement in the Hillsborough River basin. The wetland habitat improvements will be buffered by upland habitat enhancement, restoration and appropriate management to provide an interdependent mosaic of habitats critical to support wetland-dependent wildlife species. Since both tracts are predominantly bordered by over 260,000 acres of public lands that also have native habitats being enhanced, restored and appropriately managed, there is even more ecological value associated with this selected mitigation project.

**E.** Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: During the time of mitigation selection of the initially listed roadway projects, there were no established or proposed mitigation banks within the Hillsborough or Withlacoochee River Basins. Newer projects will receive all or a portion of their mitigation credit from mitigation banks.

F. Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: During the mitigation selection period, there were no new SWIM-associated projects proposed in the Hillsborough or Withlacoochee basins.

#### **PROJECT IMPLEMENTATION**

#### **Phase I-Wetland Preservation**

•	Land Acquisition:	June 2006
	Earra / logaloreiorni	30116 2000

#### Phase II -Wetland Creation and Restoration

•	Construction and Planting:	2010-2015
•	Monitoring:	2014, 2015, 2016, 2017
•	Maintenance:	2015-2017
•	Perpetual Management:	Ongoing

#### Phase III - Wetland Enhancement

٠	Design & Permitting:	2013-2014
٠	Construction:	2015-2016
٠	Monitoring:	2014, 2015, 2016, 2017
•	Maintenance:	2015-2017
٠	Perpetual Management:	Ongoing

#### Entity responsible for construction: SWFWMD

#### Entity responsible for monitoring and maintenance: SWFWMD

*Entity responsible for perpetual management:* FDEP and private contractors selected by SWFWMD for FDOT site.

Cost for 2017 monitoring: \$36,903.39

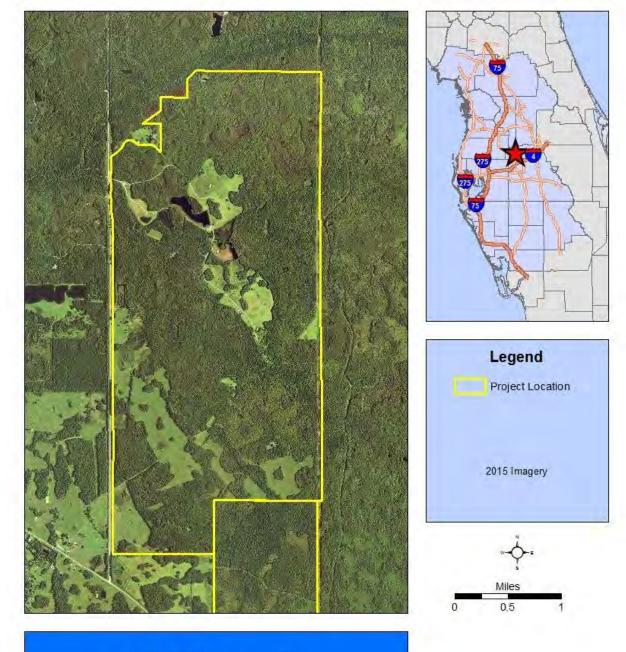
**Cost for 2017 maintenance:** \$78,925.00

#### **Total Cost for FDOT Mitigation Including Land Acquisition and O&M**: \$8,856,932.57

#### ATTACHMENTS

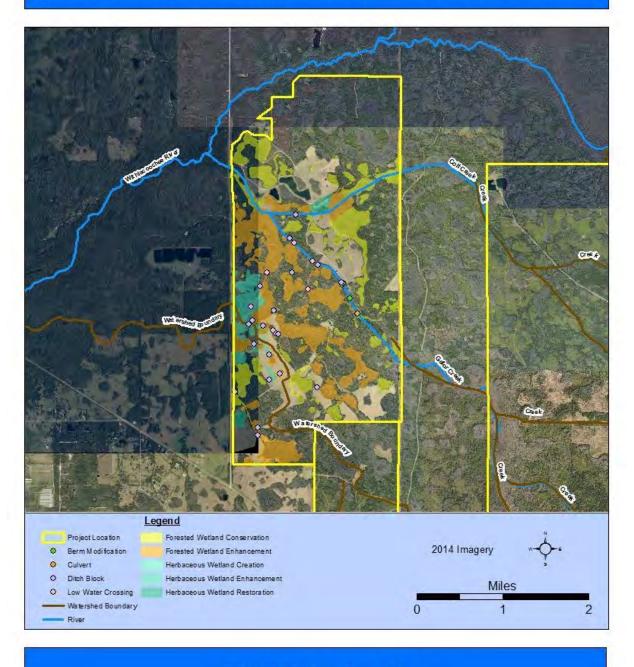
- 1. Figure A–Location Colt Creek State Park
- 2. Figure B-Colt Creek Pre-Construction (2014)
- 3. Figure C-Colt Creek Post-Construction (2014)
- 4. Photographs (2012, 2014)

# SW 84 - Colt Creek State Park Figure A - Location (5,6,8/26S/23E;17,18,19,20,29,30,31,32/25S/23E)

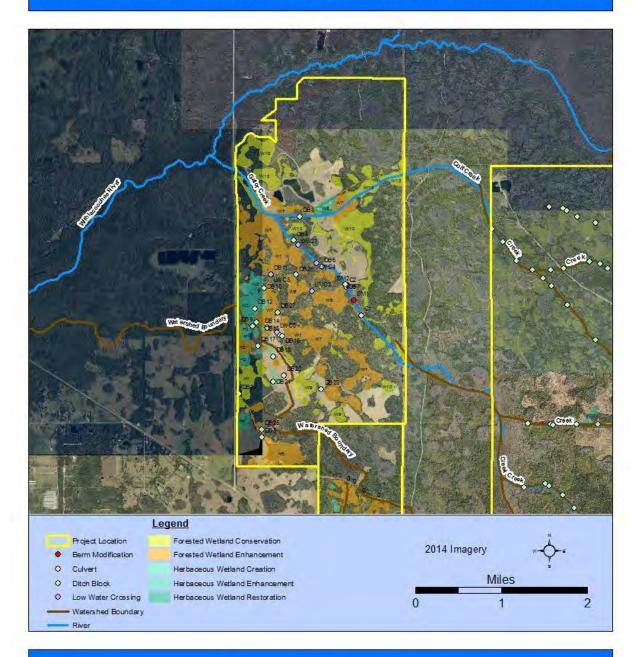


**FDOT Mitigation Plan** 

# SW 84 - Colt Creek State Park Figure B - Pre-Construction (5,6,8/26S/23E;17,18,19,20,29,30,31,32/25S/23E)



## SW 84 - Colt Creek State Park Figure C - Post-Construction (5,6,8/26S/23E;17,18,19,20,29,30,31,32/25S/23E)





Colt Creek Monitoring Site "J"



Colt Creek Monitoring Site "K"



Colt Creek Transect 2



Colt Creek Transect 11

#### SW-77 CONNER PRESERVE MITIGATION PLAN

Project Name	Conner	Preserve Project Number		SW-77/D033	
Project Type	Wetland Enhanc	ement			
Landowner	Southwest F	lorida Water	Management	Southwest Florida Water	
Landowner	Managem	ent District	Entity	Management District	
County	Pasco		Watershed	Upper Coastal Drainage and Hillsborough River	
Water bodies	Fivemile Creek		Water body Designations	None	
<b>Project implementation status:</b> (As of December 2017):		Perpetual Management			
Project utilization:		Permitted FDOT projects: 24			
(As of December	2017)	Planned, not yet permitted, FDOT projects: 25			
S/T/R:		11,12,13,14,23,24/25S/18E;7,8,17,18,19/25S/19E			

#### **BACKGROUND INFORMATION:**

#### IMPACT INFORMATION (As of December 2017):

	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
Upper Coastal	2563231	SR 52 (Schrader Hwy) from W of Suncoast Pkwy to E of US 41 (SR 45)	16.52	Pending	Not Submitted
Upper Coastal	2563221	SR 52 Moon Lake to Suncoast Parkway	6.54	43007396.001	2002-06047
Upper Coastal	2563242	US 41 from Ridge Rd to N of SR 52	7.44	Not Submitted	Not Submitted
Upper Coastal	2563241	US 41 (SR 45) Tower Rd. to Ridge Road	8.85	43033570.000	2008-00329
Upper Coastal	2563321	SR 54 - Rowan Rd. to Mitchell Bypass	3.68	40011641.004	1993-02010
Upper Coastal	2563371	SR 54 - Gunn Highway to Suncoast Parkway	6.00	43021284.000	1999-05203
Upper Coastal	2568151	SR 586 (Curlew Rd.) CR 1 to Fisher Road	0.08	44009837.008	2002-05245
Upper Coastal	2570501	SR 688 (Ulmerton Rd.) Oakhurst Rd. to 119th St.	0.23	44012347.010	2002-04931
Upper Coastal	4058223	US 19 (SR 55) Jump Court to Ft. Island Trail	8.84	43009590.006	2011-02373
Upper Coastal	2571741	US 98 Hernando Co. Line to US 19	1.42	43023430.000	1998-03481

Upper Coastal	2572982	CR 578 (County Line Rd.) US 19 to East Rd.	0.55	44006732.001	No permit required
Upper Coastal	2572983	CR 578 (County Line Rd.) from East Rd to Mariner Blvd	0.21	44006732.003	2010-01912
Upper Coastal	2572985	CR 578 (County Line Rd.) Suncoast Parkway to US 41	0.30	44014061.002	No permit required
Upper Coastal	4110142*	I-75 (SR 93) From N of SR 52 to Pasco/Hernando County Line (design-build) <sup>1</sup>	4.33	43040738.001	2012-02483
Upper Coastal	4037711	US 19 - Republic Drive to CR 816 (Alderman)	0.09	44022085.001	No permit required
Upper Coastal	4058222	US 19 (SR 55) Green Acres to Jump Ct.	0.53	44009590.006	2008-03044
Upper Coastal	4079513	SR 50 US 19 to Mariner	1.25	44035066.000	No permit required
Upper Coastal	4091541	SR 688 (Ulmerton) - Wild Acres to El Centro/Ranchero Blvd.	0.64	44012347.015	2010-03007
Upper Coastal	4091551	SR 688 (Ulmerton Rd) Lake Seminole to Wild Acres	0.07	44011339.007	2010-03007
Upper Coastal	4167351	SR 50/SR 50A Bypass from Broad St to Jefferson N St	1.00	Not Submitted	Not Submitted
Upper Coastal	4188602	US 19 (SR 55) Continuous Right Turn Lane	0.41	44027483.001	2010-00080
Upper Coastal	4327961	SR50/700/US98/Cortez From E of SR50/Cortez Blvd to W of Live Oak Dr	0.25	Not Submitted	Not Submitted
Upper Coastal	4348071	US 19 (SR55) from S of Live Oak St to N of Brittany Park Blvd	0.10	Not Submitted	Not Submitted
Upper Coastal	4357191	Tri-County Trail from Pasco Co/L to S Terminus of Starkey Trail	1.00	Not Submitted	Not Submitted
Hillsborough River	2557092	US 92 (SR 600) from Kingsway Rd to McIntosh Rd	0.40	Not Submitted	Not Submitted
Hillsborough River	2557102	US 92 (SR 600) from McIntosh Rd to SR 566 (Thonotosassa)	0.40	Not Submitted	Not Submitted

	1	SR 574 (MLK Blvd) from			
Hillsborough River	2558934	East of Kingsway Rd to E of McIntosh Rd	0.44	Not Submitted	Not Submitted
Hillsborough River	2562432	SR 52 (Schrader Hwy) from CR 581 (Bellamy) to Old Pasco Rd	2.50	Not Submitted	Not Submitted
Hillsborough River	2563151	US 41 Bell Lake to Tower Road	1.08	44018030.002	1992-41273
Hillsborough River	2563341*	SR 52 US 41 to CR 581	7.41	Not Submitted	Not Submitted
Hillsborough River	2578623	Sam Allen Rd; from Alexander St to Park Rd	4.24	Not Submitted	Not Submitted
Hillsborough River	2587362	I-75 (SR 93) from North of SR/CR 54 to North of SR 52 (Design-Build) <sup>2</sup>	1.24	43040738.002	2009-01384
Hillsborough River	4080752	US 301 (SR 39) from S of CR 54/Eiland Blvd to N of Kossik Rd	1.00	Not Submitted	Not Submitted
Hillsborough River	4084593	I-75/CR 581 (BB Downs) to SR 56 (mainline)	0.64	43033020.004	2008-03059
Hillsborough River	4110142*	I-75 (SR 93) from N OF SR 52 to Pasco/Hernando County Line (design-build) <sup>1</sup>	10.60	43040738.001	2012-02483
Hillsborough River	4110142*	I-75 (SR 93) from N OF SR 52 to Pasco/Hernando County Line (design-build) <sup>1</sup>	0.17	43040738.006	2012-02483
Hillsborough River	4165612	SR 54 from CR 577/Curley Rd to CR 579/Morris Bridge Rd	2.58	43041224.000	2013-00916
Hillsborough River	4305731	I-75/SR56 Interchange from W of CR 54 to W of Cypress Ridge Blvd	0.20	Not Submitted	Not Submitted
Hillsborough River	4305732	I-75/275 from Co Line Rd to SR 56 (Phase III)	1.50	Not Submitted	Not Submitted
Hillsborough River	4305733	I-75/275 from Co Line Rd to Co Line Rd (Phase II)	1.50	Not Submitted	Not Submitted
Hillsborough River	4317462	I-4 from I-4/Selmon Connector to E of Branch Forbes Rd	6.00	Not Submitted	Not Submitted
Hillsborough River	4318212	I-275 from Jefferson/Orange St to N of Bearss Ave	2.00	Not Submitted	Not Submitted

		Total Impact Acreage:	116.74		
Hillsborough River	4357501	SR 60 from Valrico Rd to Dover Rd	0.05	Not Submitted	Not Submitted
Hillsborough River	4351421	SR 52 Extension from E of McKendree Road to E of US 301	1.79	Not Submitted	Not Submitted
Hillsborough River	4347651	SR 56 from Meadow Pointe Blvd to US 301	44.85	Not Submitted	Not Submitted
Hillsborough River	4347361	SR 574/W Reynolds St from E of Turkey Creek Rd to Thonotosassa Rd	0.23	Not Submitted	Not Submitted
Hillsborough River	4343171	CR 582/Knights Griff from Itchepackesassa Ck to Br #100265	0.28	Not Submitted	Not Submitted
Hillsborough River	4338212	I-275 @ I-4 I-275 from Rome to MLK I-4 from I- 275 to Connector	0.50	Not Submitted	Not Submitted
Hillsborough River	4338212	I-275 @ I-4 I-275 from Rome to MLK I-4 from I- 275 to Connector	0.50	Not Submitted	Not Submitted

Projects highlighted in yellow have been deleted from the FDOT mitigation program and are not included in totals.

<sup>1</sup>Additional wetland impacts (13.41 acres) in the Upper Coastal Drainage are offset with purchase of mitigation bank credit from the Upper Coastal Mitigation Bank by the FDOT. Additional wetland impacts (0.36 acres) in the Hillsborough River basin are offset with the purchase of mitigation bank credit from the North Tampa Mitigation Bank by the FDOT. Wetland impacts in the Withlacoochee River basin are offset at Colt Creek State Park (SW 84).

<sup>2</sup> Additional wetland impacts (7.07 acres) are offset by the purchase of mitigation bank credits from the North Tampa Mitigation Bank by the FDOT.

\*These projects have impacts in both basins and are represented by two rows each in the table.

Habitat	Mitigation Type	Watershed	Acreage
Basin swamp, dome swamp	Enhancement	Upper Coastal	482.82
Basin marsh, depression marsh	Enhancement	Upper Coastal	249.88
Basin swamp, dome swamp	Enhancement	Hillsborough River	207.28
Basin marsh, depression marsh, wet prairie	Enhancement	Hillsborough River	224.45
		Total:	1164.43

#### MITIGATION INFORMATION (As of December 2017):

#### **PROJECT DESCRIPTION**

**A. Overall project goals:** The Conner Preserve (total 2,980 acres) was acquired by the SWFWMD for public ownership in 2003 and was adopted into the FDOT mitigation program in 2004. The tract has a diverse mosaic of wetland and upland habitats within a high priority public lands acquisition area since it is located within a core of surrounding public lands in central Pasco County including Cypress Creek

Preserve (7,400-acres), Starkey Wilderness Preserve (18,000-acres), and Cross Bar Ranch (12,500-acres). The overall FDOT mitigation project goal includes enhancement of wetland and upland habitat. There are also several improved pasture islands buffering adjacent wetlands that are being restored into upland habitat communities.

Brief description of pre-construction habitat conditions: The Preserve's habitats consist of pine В. flatwoods, oak hammocks, sandhills, wetlands and improved pastures. Over half of the Preserve is composed of wetlands. The non-forested wetlands include a range of habitat and hydrologic conditions varying from wet prairie, shallow marshes and deeper emergent systems. The forested wetlands are primarily composed of cypress-dominated systems and the remaining predominantly mixed cypress and hardwood communities. Many of the forested wetlands have generated within the outer zones, surrounding marsh habitat, and other forested areas include cypress strands and cypress dome islands within the interior of many marshes. The wetlands are in moderate to high quality condition and have adapted to varying hydrologic conditions. Hydroperiod fluctuations have varied due to rainfall conditions and groundwater influence from wellfields in the vicinity (Cross Bar, Cypress Creek). Theonly area where wetland functions have undergone noticeable herbaceous vegetative shifts is within the easternmost portion of the property nearest Cypress Creek. Many of the emergent marshes within this area have transitioned to more ephemeral and wet prairie systems because of a reduced hydroperiods. From a landscape perspective, prior conversion of upland habitat to improved pastures and minimal land management practices have fragmented the inter-relationship of habitats with adjacent wetland communities. The pastures and previous cattle grazing practices allowed non-native and exotic species to encroach into the wetlands and uplands, particularly pasture grasses, soda apple, skunk vine, camphor trees and Chinese tallow. Repression of fire resulted in inappropriate density and diversity of vegetative species within the uplands, particularly within the buffers closest to the adjacent wetlands. Very dense stands of hardwoods like laurel oaks and wax myrtle minimized appropriate ground cover vegetation and substantially hindered wildlife access between the wetlands and uplands for foraging and nesting opportunities. Several wildlife species have been reported on the Preserve and the most notable listed species observed include Florida scrub jay, bald eagle, Southeastern American kestrel, gopher frog, gopher tortoise, Sherman's fox squirrel and several wading birds.

**C. Brief description of construction activities and current habitat conditions:** Primary wetland enhancement has been achieved through eradication of exotic and nuisance species coverage, beginning with mechanical thinning and control of dense vegetation within the facultative wetland zones and adjacent upland buffers. The inappropriate density of hardwoods and myrtles within the wetland fringes and upland buffers were treated with an initial combination of mechanical thinning (hydro-ax), followed by implementation of a prescribed burn management program (3-5-year cycle), allowing regeneration of appropriate species. Prescribed fire applications at suitable intervals within the marshes have reduced and prevented encroachment of woody shrubs and trees (particularly exotic and nuisance species such as camphor and Chinese tallow), removed detritus, recycled nutrients, and stimulated the regeneration and recruitment of appropriate hydrophytic herbs. Additional wetland enhancement has occurred through enhancement and restoration of adjacent upland habitats. Herbicide eradication of exotic and nuisance vegetation have been implemented to enhance upland habitats that buffer the wetlands, particularly for weedy and/or exotic species such as bahia, persimmon, Chinese tallow, laurel oak, and wax myrtle that had encroached upon the pine flatwoods and sandhill communities.

There are five upland pastures buffering wetlands being restored to their historic habitat conditions of pine flatwoods and sandhill. Restoration of these upland areas have included an intense series of prescribed burns, herbicide application and mechanical disking to eradicate the pasture grasses, followed by direct seeding from upland donor sites within other SWFWMD property, and supplemental planting of appropriate desirable species such as longleaf pine, oaks, tarflower, rusty lyonia, staggerbush and ericaceous shrubs. Due to the availability of donor seed source material and time lag necessary to implement each phase of the restoration activities associated with the upland habitats, each of the five restored uplands had different schedules of implementation. All five pastures received all the preparation, seeding and planting by 2010. Adjacent to the Conner Preserve are two tracts totaling 560-acres of wetland and upland habitat improvements. These improvements were conducted to provide mitigation credit associated with construction-related wetland and upland habitat impacts within the adjacent residential development (Connerton) located south of the Conner Preserve. These two mitigation tracts have achieved success criteria stipulated in their permits, and associated title has been transferred to the SWFWMD for ownership and perpetual management.

Success criteria includes (1) maintaining Bahia grass cover to below 20% cover in the former pastures, (2) greater than 80% cover by desirable sandhill and flatwood species in the former pastures, (3) implementation of regular prescribed fires through the site, (4) maintain less than 2% cover of exotic and nuisance species in the wetlands and (5) maintenance to exclude dense vegetation from reestablishing in the outer zones of the wetlands and adjacent upland buffers. As of 2016, success criteria are being met at the preserve. The Conner Preserve Restoration Plan includes monitoring requirements with qualitative and quantitative evaluation of wildlife, vegetation, and habitat conditions. Monitoring to be conducted semi-annually with annual monitoring reports completed.

**D.** Brief explanation of how this work serves to offset the impacts of the specified DOT project(s): The Preserve has land within the Hillsborough River Basin and the Upper Coastal Basin. Most of the anticipated wetland impacts are associated with roadway projects within a 10-mile radius of the Preserve and will have proposed impacts to wetlands with similar habitats as the wetlands within Conner Preserve.

**E.** Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: FDOT evaluation of mitigation bank options available at the time of permit applications for roadway improvement projects and for the inventory of FDOT roadway improvement projects submitted for inclusion in the 2016 FDOT Mitigation Plan identified impacts that may be offset with the purchase of mitigation bank credit from the Upper Coastal Mitigation Bank and the North Tampa Mitigation Bank (as footnoted in the Impact Information section above).

**F.** Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: At the time of selection, there were no SWIM sponsored projects proposed in the Upper Coastal or Hillsborough Basins that were appropriate for mitigation credit.

#### **PROJECT IMPLEMENTATION**

<ul> <li>Land acquisition:</li> </ul>	2003
• Design:	2004
<ul> <li>Construction/restoration:</li> </ul>	2005-2010

• Monitoring: 2007, 2008, 2012, 2014, 2015, 2016, 2017	<ul> <li>Monitoring:</li> </ul>	2007, 2008, 2012, 2014, 2015, 2016, 2017
--	---------------------------------	--

- Maintenance: 2011-2015
  - USACE release letter submitted: June 28, 2017
  - Perpetual Management: 2016

#### Entity responsible for construction: SWFWMD

*Entity responsible for monitoring and maintenance:* SWFWMD is responsible for FDOT site; however, quantitative monitoring will no longer be performed, and site will go into perpetual maintenance.

#### Entity responsible for perpetual management: SWFWMD

Cost for 2017 monitoring: \$29,586.50

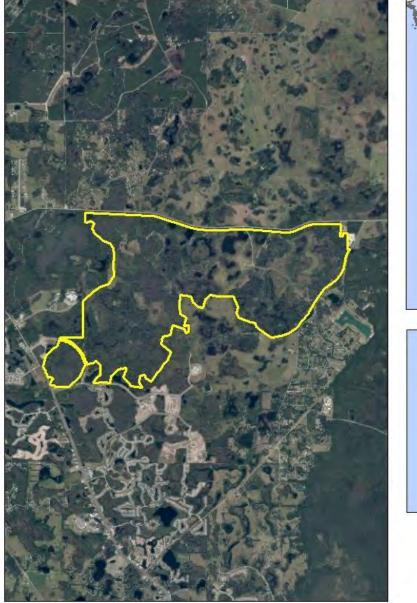
Cost for 2017 maintenance: \$0

#### Total Cost for FDOT Mitigation Including O&M: \$785,899.63

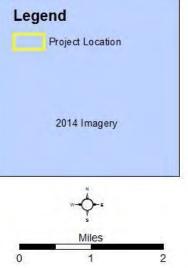
#### ATTACHMENTS

- 1. Figure A-Location
- 2. Figure B-Pre-Construction (2004)
- 3. Figure C-Post-construction (2014)
- 4. Photographs (2017)

## SW 77 - Conner Preserve Figure A - Location (11,12,13,14,23,24/25S/18E;7,8,17,18,19/25S/19E)

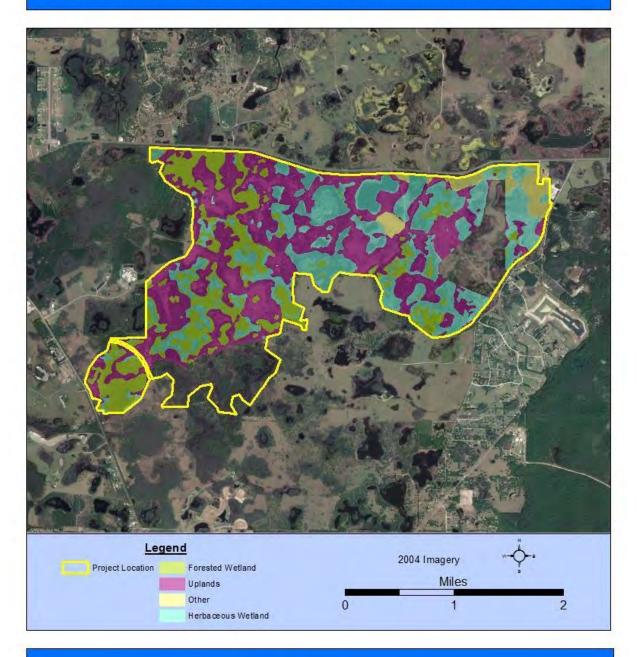




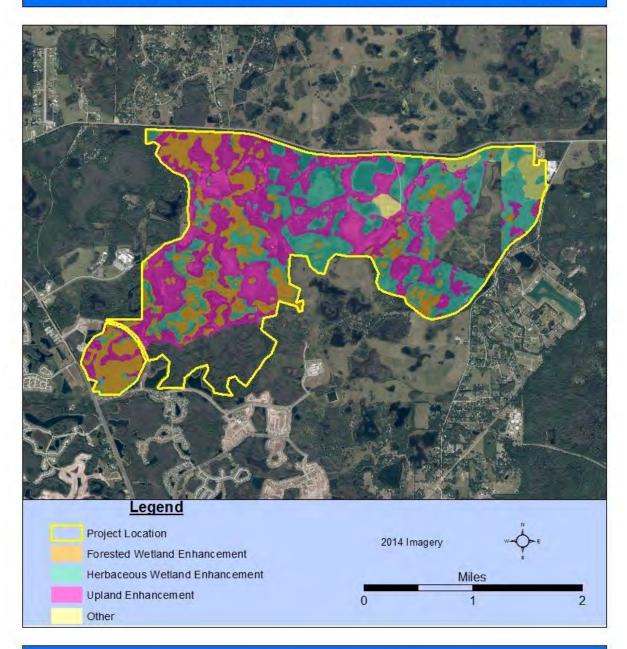


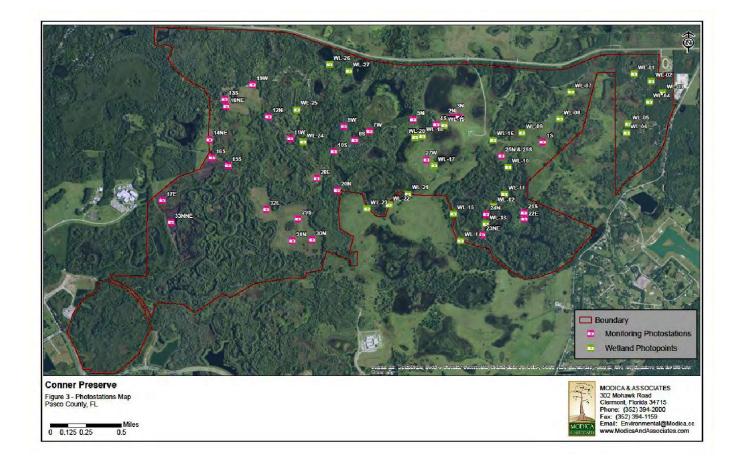
FDOT Mitigation Plan

## SW 77 - Conner Preserve Figure B - Pre-Construction (11,12,13,14,23,24/25S/18E;7,8,17,18,19/25S/19E)



### SW 77 - Conner Preserve Figure C - Post-Construction (11,12,13,14,23,24/25S/18E;7,8,17,18,19/25S/19E)







Upland Restoration Area 1B at Photo station 1S – Looking East



Edge of Wetland Area WL07- Looking East



Saw Palmettos at Photo station 25 N & S – Looking East



Feral Hog Uprooting at Edge of Wetland WL-10 Looking North



Edge of Wetland Area WL-22 – Looking East

#### SW-61 CYPRESS CREEK PRESERVE, WEST – JENNINGS TRACT MITIGATION PLAN

Project Name	Cypress Creek	Preserve West,	Project	SW-61/D011	
Project Name	Jenning	gs Tract	Number	300-01/0011	
Project Type	Wetland enhance	ement, preservatio	on; Upland enhand	cement, restoration, preservation	
			Managamant	Hillsborough County/Southwest	
Landowner	Hillsborough Cou	Inty Entity		Florida Water Management	
				District	
County	Hillsborough		Watershed	Hillsborough River	
Water bodies	Cupros	c Crock	Water body	Hillshorough Divor	
water bodies	Cypres	s Creek	Designations	Hillsborough River	
Project implement	tation status:	Monitoring and Perpetual Management			
(As of December 2	(As of December 2017):		Perpetual Manager	ment	
Project utilization:		Permitted FDOT projects: 10			
(As of December 2017)		Planned, not yet permitted, FDOT projects: None			
S/T/R:		4,5/27S/19E			

#### **BACKGROUND INFORMATION:**

#### **IMPACT INFORMATION** (As of December 2017):

Watershed	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
Hillsborough River	2012171	I-4 West of Memorial Blvd. to west of US 98 - Sec. 2	3.09	43011896.028	1995-02569
Hillsborough River	2555361	SR 39, Blackwater Creek Bridge Replacement	2.14	43020526.000	2000-00574
Hillsborough River	2558591	SR 678 (Bearss Ave.) Florida Ave. to Nebraska	0.06	44019802.002	2001-01181
Hillsborough River	2578071	Bruce B. Downs Bike Path Amberly Dr Hunter's Green	0.50	44018710.000	1998-03683
Hillsborough River	2578072	Bruce B. Downs Bike Path Tampa Limits to Amberly Dr.	0.20	44021434.000	2001-01187
Hillsborough River	2578391	Alexander Street US 92 to I-4	3.16	43011896.025	2000-03012
Hillsborough River	2584131	SR 93 (I-275) US 41 to Pasco Co. Line	7.60	44024745.005	2003-02685
Hillsborough River	2584491	I-4 (SR 400) at Alexander Street Ramp	1.70	43011896.025	2000-03012

Hillsborough River	2587341	SR 56, Cypress Creek to CR 581 (B.B. Downs)	5.30	43012944.004	1995-00079
Hillsborough River	4084602	I-75 Off-Ramp at CR 581	0.48	44021639.000	1998-03683
		Total Impact Acreage:	24.23		

#### **MITIGATION INFORMATION** (As of December 2017):

Habitat	Mitigation Type	Watershed	Acreage
Improved Pasture to Pine Flatwoods	Restoration	Hillsborough River	17
Palmetto Prairie	Enhancement	Hillsborough River	17
Palmetto prairie	Enhancement	Hillsborough River	11
Mixed forested wetlands	Preservation	Hillsborough River	153
Hardwood hammock uplands	Preservation	Hillsborough River	95
		Total:	298

#### **PROJECT DESCRIPTION**

**A. Overall project goals:** The preservation and habitat improvements of the 298-acre project area includes a high-quality mosaic of native upland and wetland habitat within the Cypress Creek floodplain. The property was a high priority public land acquisition within Hillsborough County's Environmental Lands Acquisition and Protection Program (ELAPP). The Jennings Tract is adjacent to several hundred acres of other County-owned property to the north and to the east.

**B.** Brief description of pre-construction habitat conditions: The native habitat components of the site represent high quality value and functions relative to wildlife habitat, species richness and diversity and connectivity to additional on- and off-site habitat. There are mixed forested wetlands (153 acres) surrounding mesic hardwood hammocks (95 acres), pine flatwoods (17 acres), and palmetto prairies (14 acres). The only non-native habitat is a bahia pasture (19 acres), along the western edge of the parcel (Figure B).

In addition to preservation of 153 acres of high quality mixed forested wetland and 95 acres of hardwood hammock uplands, the mitigation activities include 17 acres of enhancement of pine flatwoods, 14 acres of palmetto prairie, and restoration of 19 acres of improved Bahia pasture to pine flatwoods. Due to the scale limitations and dense canopy cover, the presence of several mesic hardwood hammocks are not easily observed on the aerials. The diverse combination and adjacent proximity of upland and wetland habitat communities provides substantial foraging and denning opportunities for many wildlife species.

The hardwood hammocks include a dominance of live oak, Southern magnolia, sweet gum, water oak, a sub-canopy of saw palmetto, cabbage palm, beautyberry, salt-bush, buckthorn and ground cover dominated by small panicums (*Dicanthelium spp.*). Due to the range of forested wetland grade elevations, there is diverse canopy and sub-canopy coverage dominated by laurel oak, sweet gum, red maple, bald cypress, American elm, sweet bay, cabbage palm, tupelo and ironwood. Ground cover is dense in the transitional wetland areas and minimal in the obligate zones where rainy season water levels are typically above surface grades. Dominant ground cover species include cabbage palm saplings,

various sedges and rushes, wild coffee, Jack-in-the-Pulpit, and shield fern. The palmetto prairie and pine flatwoods have a dominance of slash pine (in the flatwoods) over saw palmetto, rabbit tobacco, paw-paw, and Bahia grass. The density of palmetto is generally moderate to low but has increased in cover since the removal of cattle. Wildlife diversity is high within the forested areas with evidence of deer, raccoon, opossum, armadillo, rabbit and many avian species. Several gopher tortoises inhabit the pasture.

Hillsborough County has previously conducted habitat improvements within the Jennings Tract. Various habitat enhancement and restoration activities continue to be conducted within the Bahia pasture, palmetto prairie, and overgrown pine flatwoods. Restoration activities within the pasture commenced in 2007 with herbicide application to the Bahia and a prescribed burn. Eradication of Bahia continues to be conducted along with direct seeding of upland native species and longleaf pine. The palmetto prairie has Bahia mixed in with the palmetto and desired native species. Selective herbicide treatments and prescribed burns have minimized the Bahia coverage in the palmetto prairie. The overgrown pine flatwoods receive selective herbicide treatment of invasive exotic species (primarily Bahia, Chinaberry and skunkvine) and prescribed burns on a 3-5-year rotation to decrease some of the woody understory.

**C. Brief description of construction activities and current habitat conditions:** The FDOT mitigation activities included the acquisition of property to preserve and manage high quality forested wetland and upland hardwood hammock habitat. At the request of Hillsborough County, a conservation easement was recorded for the tract and conveyed to the SWFWMD. In 2005, some enhancement of the palmetto prairie habitat commenced with pine plantings. Herbicide eradication and prescribed burning of the Bahia pasture was conducted in 2007, followed by native species seeding and plantings of wiregrass and longleaf pine, to implement flatwoods restoration. The pine flatwoods were overgrown at the time of acquisition and receive prescribed burn management.

Maintenance activities are primarily associated with implementing the prescribed burn management plan when necessary to maintain habitat conditions. Depending on the growth rate of vegetation cover within the enhanced and restored upland habitat, these burns are conducted on a 3-5-year cycle, and 10-15-year cycle for the upland hardwood hammocks. Herbicide eradication of exotic and nuisance species, primarily Bahia, Chinaberry and skunkvine, are conducted as necessary.

As of 2016, success criteria for the site are being met or nearly met with ongoing treatment of nuisance and exotic species. The pine plantation area was restored as a native prairie.

D. Brief explanation of how this work serves to offset the impacts of the specified DOT project(s):

The majority (80%) of the 24.9 acres of wetland impacts designated for mitigation at the Jennings Tract are associated with forested wetlands. The mitigation project not only includes preservation of 248 acres of high quality mixed forested wetlands and hardwood hammocks, but an additional 50 acres of upland habitat enhancement and restoration that buffer the wetlands. No additional wetland impacts associated with other roadway projects will be proposed for mitigation at the Jennings Tract. This mitigation project adequately and appropriately mitigates for the designated wetland impacts with a cumulative mitigation ratio of 12 acres of compensation for every acre of wetland impact.

E. Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: During the selection of the mitigation for the proposed wetland impacts, there were no existing or proposed private mitigation banks in the Hillsborough River basin.

**F.** Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: During mitigation selection, the only SWIM sponsored project in the Hillsborough River watershed was the Lake Thonotosassa Restoration Project (SW 34). The habitat improvements associated with that project are providing mitigation for wetland impacts associated with another FDOT roadway project.

#### **PROJECT IMPLEMENTATION**

•	Land acquisition:	Summer, 2000
•	Pine plantings:	2005

- Pasture restoration: 2007
- Monitoring: 2007, 2008, 2014, 2015, 2016, 2017
- Maintenance: 2015-2017
- Perpetual Management: Ongoing

*Entity responsible for construction:* Minor construction and planting activities conducted by Hillsborough County Conservation Services staff and contractors working for the County.

*Entity responsible for monitoring and maintenance:* Overall site maintenance is performed by Hillsborough County. Site maintenance for compliance is performed by SWFWMD contractors.

*Entity responsible for perpetual management:* Hillsborough County staff and contractors selected by SWFWMD for FDOT site.

Cost for 2017 monitoring: \$9,444.72

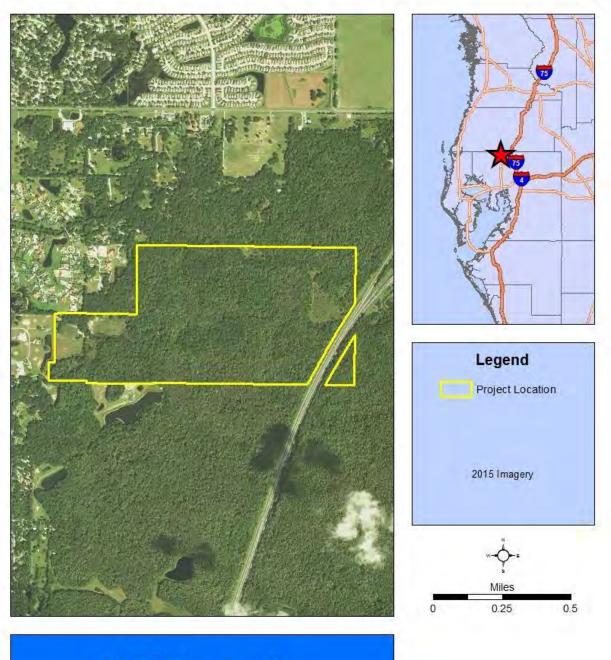
Cost for 2017 maintenance: \$0

Total Cost for FDOT Mitigation Including O&M: \$1,442,645.79

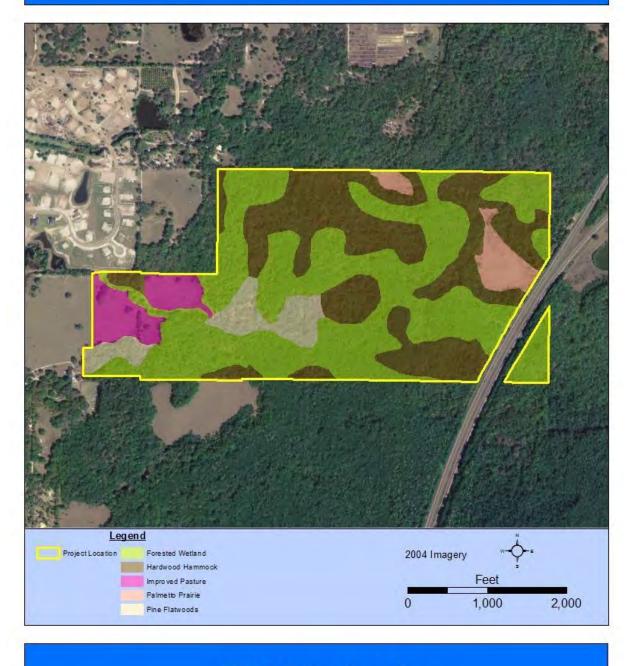
#### ATTACHMENTS

- 1. Figure A-Location
- 2. Figure B-Pre-Construction (2004)
- 3. Figure C-Post-Construction (2014)
- 4. Photographs (2007, 2014)

## SW 61 - Cypress Creek Preserve West - Jennings Tract Figure A - Location (4,5/27S/19E)



## SW 61 - Cypress Creek Preserve West - Jennings Tract Figure B - Pre-Construction (4,5/27S/19E)



# Hardwood Hammock Palmetto Prairie Prairie Pine Flatwoods Mixed Forested Wetland Legend Project Location 2014 Imagery Forested Upland Preservation Forested Upland Restoration Forested Wetland Preservation Feet Non-forested Upland Enhancement 1,500 3,000 0 Non-forested Upland Restoration

## SW 61 - Cypress Creek Preserve West - Jennings Tract Figure C - Post-Construction (4,5/27S/19E)



Cypress Creek Photo Station 5 (2017)



Cypress Creek Photo Station 2 (2017)



Cypress Creek Photo Station 17

#### SW-82 EKKER TRACT MITIGATION PLAN

#### **BACKGROUND INFORMATION:**

Project Name	Ekker Tract		Project Number	SW-82/D038
Project Type	Wetland creation, enhancement; upland buffer enhancement			
Landowner	Southwest Florida Water Management District		Management Entity	Hillsborough County/Southwest Florida Water Management District
County	Hillsbo	Hillsborough		Tampa Bay Drainage
Water bodies	Bullfrog Creek, Smith Creek		Water body Designations	SWIM Water Body
<b>Project implementation status:</b> (As of December 2017):		Monitoring and Perpetual Management		
Project utilization	า:	Permitted FDOT projects: 6		
(As of December	2017)	Planned, not yet permitted, FDOT projects: 0		
S/T/R:		25/30S/19E		

#### **IMPACT INFORMATION** (As of December 2017):

Watershed	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
Tampa Bay Drainage	4113371	US 92 Eureka Springs to Thonotosassa Rd. <sup>1</sup>	0.34	43031172.000	2006-00602
Alafia River	4131361	McMullen Rd from Balm Riverview to Boyette Road <sup>2</sup>	0.17	44034708.000	2009-00890
Alafia River	4154892	US 301, Balm Rd to Gibsonton Drive <sup>2</sup>	0.28	43031128.000	2006-04230
Tampa Bay Drainage	4154892	US 301, Balm Road to Gibsonton Drive	11.85	43031128.000	2006-04230
Tampa Bay Drainage	4154893	US 301, Sun City Center to Balm Road <sup>3</sup>	1.99	43034464.000	2008-03613
Tampa Bay Drainage	N/A	Lee Roy Selmon Crosstown Extension - Temporary Haul Road	0.21	44021031.006	No permit required
		Total:	14.84		

<sup>1</sup>This US 92 segment proposes additional wetland impacts (1.45 acres) in the Hillsborough basin with the associated mitigation designated for Colt Creek State Park (SW 84).

<sup>2</sup> These projects were moved from the Balm Boyette site in the Alafia Basin to the Ekker Tract in 2015 and permit modifications are underway.

<sup>3</sup> Additional wetland impacts being mitigated by FDOT with on-site wetland creation on ELAPP property and forested wetland impacts at Boyd Hill Nature Park (SW 71); additional wetland impacts within the Little Manatee River basin being mitigated at the Little Manatee River – Lower Tract (SW 83).

Habitat	Mitigation Type	Watershed	Acreage
Herbaceous marsh and open water/obligate areas	Creation	Tampa Bay Drainage	16.86
Forested wetlands	Creation	Tampa Bay Drainage	0.38
Upland buffer	Creation	Tampa Bay Drainage	71.72
		Total:	88.96

MITIGATION INFORMATION	(As of December 2017)	•

#### **PROJECT DESCRIPTION**

A. The Ekker Tract was acquired by the SWFWMD to conduct habitat improvements that will benefit Bullfrog Creek and Tampa Bay. The northern portion of the property is dominated by mesic oak hammock and a pine plantation. The project involved enhancement of the upland habitat by removing nuisance and exotic vegetation, conducting appropriate pine thinning to restore pine flatwood habitat, conducting supplemental planting, and implementation of a land management plan. The southern portion of the property had a substantially altered landscape comprised of 158 excavated tropical fish ponds covering 23 acres. The aquaculture operation was discontinued prior to public acquisition, and the vegetative conditions included substantial domination by exotic and nuisance species, including cattails in the ponds and Brazilian pepper surrounding the ponds. The second project goal was to eradicate nuisance and exotic species and to restore appropriate grades in the ponds to create 17.24 acres of forested wetland and marsh habitat.

**B.** Brief description of pre-construction habitat conditions: Historical aerials indicate the majority of the Ekker property was cleared of native flatwood vegetation between 1938 and 1957 and converted to improved pasture. By 1957, most of the tropical fish ponds were excavated, with the remaining 26 ponds installed by 1980. Hundreds of other fish ponds were excavated on surrounding property in Gibsonton, many of which have been and will continue to be converted to residential communities. With the loss of substantial freshwater wetland habitat in the Tampa Bay basin, the County and SWIM decided the best ecological alternative for the southwestern portion of the property was to convert the fish ponds to wetland habitat.

The combination of improvements to wetland and upland habitat have resulted in diverse ecological communities with improved wildlife habitat. The mesic oak hammock habitats (total 28 acres) are predominantly within the northwestern portion of the property and a linear corridor buffer adjacent to Bullfrog Creek (Figure B, photos). The pine plantation (approx. 37 acres) was within the north-central and southeastern portion of the tract. The oak hammock habitat and pine plantation had minor coverage of exotic and nuisance species, predominantly scattered Brazilian pepper. The tropical fish ponds were located within the southwestern portion, with the various ponds ranging in size from 600 to 5000 square feet (less than 0.1-acre each). The pond bottom grades ranged 3-5 feet below top-of-bank with dominant coverage of exotic vegetation such as cattails and torpedo grass, surrounded with

Bermuda grass and Brazilian pepper. There was a small retention pond northeast of the fish ponds with an outfall into an intermittent creek (Smith Creek) that seeps and meanders north to Bullfrog Creek.

The oak hammocks have dominant canopy cover provided by live oak (*Quercus virginiana*), laurel oak and water oak (*Quercus nigra*) with scattered cabbage palm (*Sabal palmetto*) and pine (*Pinus elliottii*, *Pinus palustris*). The oak hammock within the northwest portion of the tract is dominated with live oak and tends to have moderate to dense understory coverage of saw palmetto (*Serenoa repens*), cabbage palm and grapevine with pockets of various fern species under dense canopy (*Nephrolepis exalta*, *Pteridium aquilinum*, *Osmunda cinnamomoea*, *Thelypteris* spp.). Other common species include dog fennel, beggar's-tick (*Bidens alba*), grapevine (*Vitis* spp.), various sedges (*Andropogon* spp.), carpetgrass (*Axonopus* spp.), flat-top goldenrod (*Euthamia minor*), blackberry (*Rubus* spp.) and low panicums (*Dicanthelium* spp.). The live oaks extend along the upper steep banks of Bullfrog Creek where there is also coverage of dense palmetto transitioning down to scattered mangrove (*Laguncularia racemosa*) and leather fern (*Acrostichum* spp.) along the waterline of this tidally connected creek. Brazilian pepper is scattered within the oaks, particularly along the upper banks of Bullfrog Creek. In some small areas of the laurel oaks, the canopy density has resulted in substantial shade that has limited ground coverage.

Prior to construction, the tropical fish pond area on the property had vegetatively transitioned to an almost exclusive coverage of exotic and nuisance species (refer to photos). The most common pond vegetation included cattails (*Typha* spp.), torpedo grass (*Panicum repens*), spikerush (*Eleocharis* spp.), duckweed (*Lemna* spp.) with occasional primrose willow (*Ludwigia peruviana*) and Carolina willow (*Salix caroliniana*). Brazilian pepper (*Schinus terebinthifolus*) was common along the side slopes and top-of-bank. Ground cover around the ponds included Bahia grass (*Paspalum notatum*), Bermuda grass (*Cynodon dactylon*), dog fennel (*Eupatorium capillifolium*) and broomsedge (*Andropogon virginicus*). The ponds were buffered along Symmes Road and Ekker Road by a dense monoculture perimeter of Brazilian pepper and roadside drainage ditches were covered with cattails and other exotics. In general, there was minimal habitat value associated with the aquaculture area that would have substantially deteriorated with generation of more exotic vegetation if not converted to appropriate habitat.

**C. Brief description of construction activities and current habitat conditions:** The wetland creation design for the pond area included marsh and open water habitat (16.86 acres), forested wetlands (0.38 acres), and buffered by a perimeter of an elevated upland habitat established on the rounded fill material (6.65 acres). The design incorporated cross-sectional surveys and groundwater elevations monitored from piezometers installed on the property. Wetland plantings were conducted during the summer of 2010 to quickly establish coverage and minimize turbidity. Plantings included a diverse assemblage of bare root and potted herb species installed on 3 ft. centers within appropriate elevation zones, including arrowhead (*Sagittaria lancifolia*), bulrush (*Scirpus validus*), fireflag (*Thalia geniculata*), pickerelweed (*Pontederia cordata*), sand cordgrass (*Spartina bakeri*), soft rush (*Juncus effusus*), spatterdock (*Nuphar luteum*) and spikerush (*Eleocharis interstincta*). Tree species included bald cypress (*Taxodium distichum*), black gum (*Nyssa sylvatica biflora*), laurel oak (*Quercus laurifolia*), popash (*Fraxinus caroliniana*), red maple (*Acer rubrum*) and sweet bay (*Magnolia virginiana*). Some shrub plantings included wax myrtle (*Myrica cerifera*) and buttonbush (*Cephalantus occidentalis*).

The mounded upland buffer restoration around the wetland creation area is an important habitat component of the plan. Dense wood mulch was established to minimize recruitment and generation of undesirable vegetative species. The ground cover vegetation plantings included a dominance of love grass (*Ergrostis* spp.), muhly grass (*Muhlenbergia capillaries*) and sand cordgrass (*Spartina bakeri*), as

well as shrubs and trees. The most common tree plantings included laurel oak (*Quercus laurifolia*), live oak (*Quercus virginiana*), cabbage palm (*Sabal palmetto*), red maple (*Acer rubrum*) and slash pine (*Pinus elliottii*).

Enhancement of the oak habitat was initiated in 2010 with the eradication of scattered Brazilian pepper and incorporating a prescribed fire program to provide more open canopy and sub-canopy for the natural regeneration of understory vegetation. The pine plantation received a major thinning of pines in 2010 to widen the tree spacings to 30-40 feet, followed by prescribed fire that substantially reduced the pine thatch. The combination of the pine removal and fire allowed the natural regeneration and recruitment of desirable herbs and sedges in the flatwoods. The enhanced and restored upland habitats have attracted and improved habitat conditions for wildlife use.

The dredged retention pond had associated spoil material around the pond perimeter and essentially no available littoral shelf. There were some oaks on the spoil mounds but also Brazilian pepper. A portion of the pond was backfilled to create a planted littoral zone. The wetland creation area that replaced the fish ponds hydrologically connects to the regraded pond to provide some additional water quality treatment and attenuation before discharging into Smith Creek and Bullfrog Creek.

Herbicide maintenance activities have been conducted on a quarterly basis for 5 years to control exotic and nuisance species and routine maintenance will continue. Based on the conditions of the various habitats and status of selected species proposed for planting, supplemental planting will be conducted where necessary to fulfill desired results of each habitat area and associated success criteria.

Monitoring will be conducted on a semi-annual basis for a minimum of five years until success criteria is met. Monitoring will include a comprehensive qualitative assessment of each habitat component within the wetland creation area including but not limited to plant health and survivorship, recruited plant species, cumulative plant coverage, exotic and nuisance species coverage, wildlife uses and opportunities and recommended actions necessary to ensure and further enhance habitat success. Qualitative monitoring will also be conducted for the restored and enhanced upland habitats. Annual monitoring reports will be prepared, and the report will include qualitative and photo documentation of post- construction habitat conditions and wildlife utilization for the entire site as well as established monitoring stations.

Plant coverage requirements for the created wetland will include a minimum 85% of desirable species, and 10% coverage in the obligate/open water area. Vegetative coverage requirements of planted and recruited desirable species include 60% for the enhanced uplands. Tree canopy coverage requirements for the constructed forested wetlands and restored uplands will be a minimum of 20% and exotic and nuisance vegetation in the forested wetland creation area will have a maximum coverage limit of 5%.

#### D. Brief explanation of how this work serves to offset the impacts of the specified DOT project(s):

Almost all the roadway wetland impacts designated for mitigation at Ekker are near this mitigation project and many of the wetland impacts are associated with crossings over Bullfrog Creek and Little Bullfrog Creek. Since these two creek crossings are upstream of the Ekker Tract that is also located adjacent to Bullfrog Creek, the loss of these wetland habitats along the creek will be appropriately mitigated with habitat improvements conducted at the Ekker Tract.

**E.** Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: At the time of mitigation selection, the only existing or proposed mitigation bank in the basin was the Tampa Bay Mitigation Bank (TBMB), which was under construction and did not have available credits released for purchase.

**F.** Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: The habitat improvements associated with this Ekker Tract project is a SWIM-sponsored project.

#### **PROJECT IMPLEMENTATION**

<ul> <li>Design and Permitting:</li> </ul>	2005-2009
<ul> <li>Construction and planting:</li> </ul>	2010
<ul> <li>Monitoring:</li> </ul>	2011, 2012, 2013, 2014, 2015, 2016, 2017
Maintenance:	2010-2015
<ul> <li>Perpetual Management:</li> </ul>	2016

#### Entity responsible for construction: SWFWMD

#### Entity responsible for monitoring and maintenance: SWFWMD

*Entity responsible for perpetual management:* Hillsborough County and/or private contractor selected by SWFWMD for FDOT site.

Cost for 2017 monitoring: \$15,558.00

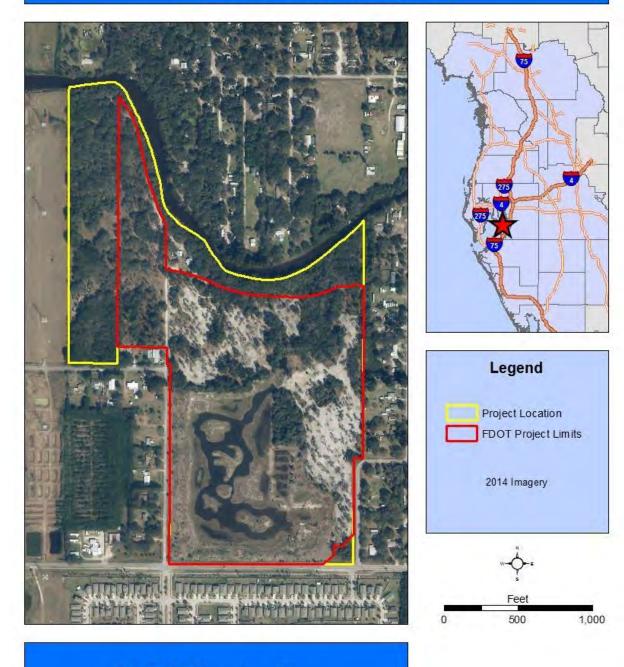
Cost for 2017 maintenance: \$7,600.00

#### Total Cost of FDOT Mitigation Including O&M: \$562,910.46

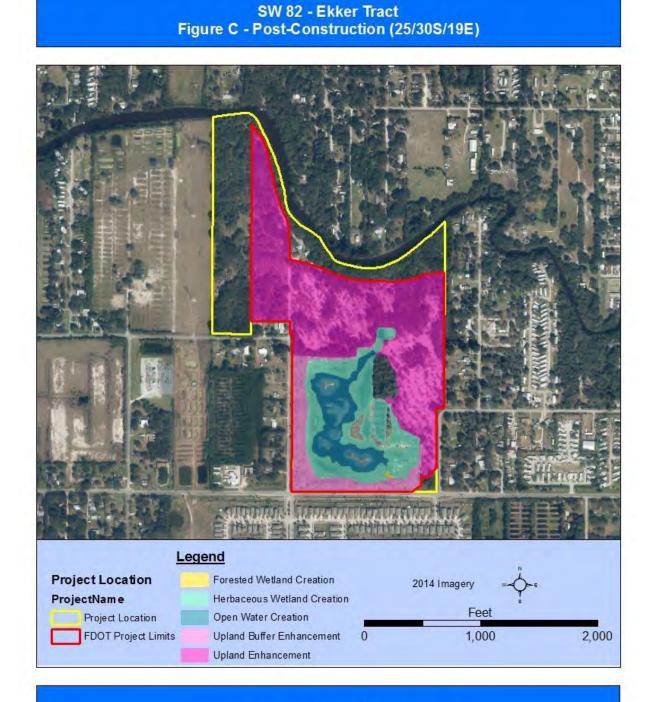
#### ATTACHMENTS

- 1. Figure A-Location
- 2. Figure B-Pre-Construction (2009)
- 3. Figure C-Post-Construction (2014)
- 4. Photographs (2012)

## SW 82 - Ekker Tract Figure A - Location (25/30S/19E)









Ekker Tract Berm Overlooking Marsh (2012)



Ekker Tract Water Conservation Weir (2012)

# SW-70 FT. DESOTO PARK ECOSYSTEM RESTORATION MITIGATION PLAN

Project Name		ark Ecosystem pration	Project Number	SW-70/D027
Project Type	Seagrass enhance	ement and creat	ion	
Landowner	State waters		Management Entity	Pinellas County
County	Pinellas		Watershed	Upper Coastal Drainage
Water bodies	Mullet Key Bayou		Water body Designations	SWIM Water Body
	<b>Project implementation status:</b> (As of December 2017):		agement	
Project utilization:		Permitted FDOT projects: 3		
(As of December 2017)		Planned, not yet permitted, FDOT projects: 1		
S/T/R:		7,8/33S/16E		

#### **BACKGROUND INFORMATION:**

# **IMPACT INFORMATION** (As of December 2017):

	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
Upper Coastal Drainage	2569031	SR 682 (Bayway Bridge) SR 679 to W. Toll Plaza	0.65	44023532.000	No Permit Required
Upper Coastal Drainage	2570831	SR 699 (Gulf Blvd.) - 192nd Ave. to Walsingham/Ulmerton Rd.	0.11	44025373.000	2003-07110
Upper Coastal Drainage	4107552	SR 679 (Pinellas Bay Structure E) at Intercoastal Waterway	0.29	47023803.000	2002-04286
Upper Coastal Drainage	4230801	I-25/SR 93 Southbound @ Bunces Pass	0.10	Pending	Pending
		Total Impact Acreage:	1.15		

# **MITIGATION INFORMATION** (As of December 2017):

Habitat	Mitigation Type	Watershed	Acreage
Seagrass	Enhancement	Upper Coastal Drainage	13.6
Seagrass	Creation	Upper Coastal Drainage	1.06
		Total:	14.66

# **PROJECT DESCRIPTION**

**A. Overall project goals:** The Ft. DeSoto Park Aquatic Habitat Management Area includes islands that were physically connected to Mullet Key in the 1960's by the construction of filled causeway roads.

Since no bridges or culverts were installed, these causeways blocked historic tidal circulation patterns throughout the interior bay area (Mullet Key Bayou) along the north side of Mullet Key, resulting in severe stress and mortality of seagrass habitat. With construction of a 40-foot bridge span through the Pinellas Bayway causeway, flow patterns will be restored to the inner bays and enhance the health and survivorship of adjacent seagrass beds. Based on previous studies, the minimum area of seagrass enhancement expected to result from bridge construction is approximately 255 acres (Figure B), of which 7% (17.85 acres) is set aside for FDOT mitigation, with secondary enhancement of the adjacent mangrove habitat along the causeway and additional seagrass beds further from the structure. The ecological value of this project has been recognized with Pinellas County receiving regional, state, and national awards for engineering and environmental excellence.

**B.** Brief description of pre-construction habitat conditions: Prior to construction, tidal flow patterns filled the inner bays, with slow and often stagnant hydrologic circulation. This restricted circulation problem resulted in elevated water temperatures in the summer, decreased dissolved oxygen content, water quality degradation and associated seagrass mortality.

**C. Brief description of construction activities and current habitat conditions:** Pinellas County constructed the bridge span in the location of a historic open water break between two islands. This span restores significant hydrologic circulation, enhancing the Mullet Key Bayou areas with the worst water quality and stagnation problems that in turn has improved the health of the seagrass beds and adjacent mangrove habitats along the causeway. Maintenance of the seagrass beds is not necessary and specific success criteria were not proposed since restoration of the tidal recirculation occurred as soon as the bridge was constructed, however periodic monitoring is being conducted by Pinellas to evaluate the seagrass health and water quality conditions.

# D. Brief explanation of how this work serves to offset the impacts of the specified DOT project(s):

The wetland impacts are associated with minor encroachments into open water, seagrass and mangrove habitats due to urban roadway and bridge expansions in western Pinellas County. Since Ft. DeSoto was first added to the mitigation program, very minor wetland impacts associated with over a dozen FDOT projects designated for mitigation at Ft. DeSoto were ultimately permitted without requiring mitigation. Therefore, along with the three originally permitted roadway and bridge projects, additional minor FDOT wetland impacts within the Pinellas County portion of the Upper Coastal Basin will be evaluated to determine if they can be adequately and appropriately mitigated at Ft. DeSoto. Secondary benefits include restoring tidal conditions to other habitats including adjacent mangroves that border the bays. To date, since the designated FDOT funds (\$110,000) provide 7% of the \$1.6 million bridge budget, seven percent of the 209 acres of seagrass enhancement and creation) within the 255-acre project area) has been designated for FDOT mitigation. The actual acreage of enhancement and creation was determined through a seagrass mapping effort in 2015. Based on the quality of the wetland impacts and associated mitigation evaluation, this mitigation acreage is more than adequate and appropriate to compensate for the 1.3 acres of wetland impacts associated with the above referenced permits.

E. Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: At the time of mitigation selection, there were no existing or proposed mitigation banks within the Upper Coastal Basin.

**F.** Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: This project is also being co-sponsored by the SWFWMD SWIM program.

### **PROJECT IMPLEMENTATION**

•	Design and permitting:	2000-2003
•	Construction:	2004
•	Monitoring:	N/A
•	Maintenance:	N/A
•	USACE release letter submitted:	November 7, 2017
•	Perpetual Management:	Ongoing

*Entity responsible for construction:* A private contractor selected by Pinellas County.

*Entity responsible for monitoring and maintenance:* SWFWMD is responsible for FDOT site; however, monitoring is not required, and site will go into perpetual maintenance.

#### Entity responsible for perpetual management: Pinellas County

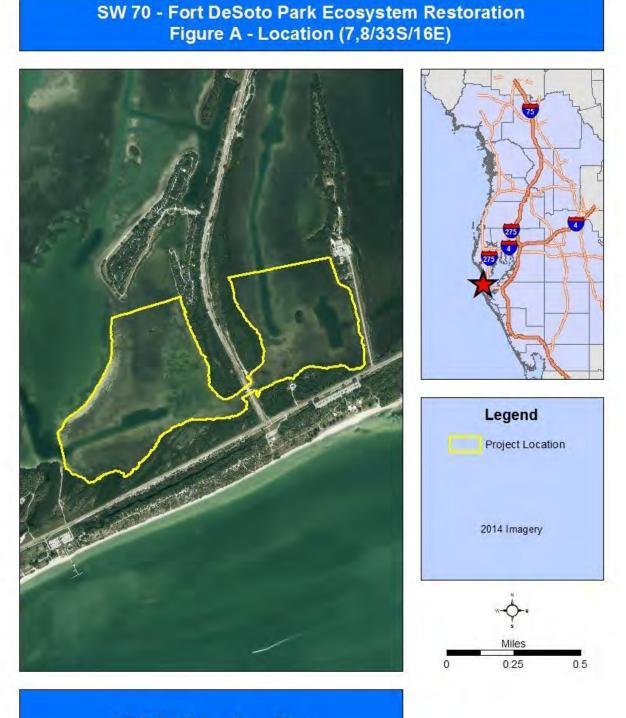
Cost for 2017 monitoring: \$0

Cost for 2017 maintenance: \$0

**Total Cost for FDOT Mitigation Including Estimated O&M:** \$120,450.00

# ATTACHMENTS

- 1. Figure A-Location
- 2. Figure B-Pre-Construction (2004)
- 3. Figure C-Post-Construction (2014)
- 4. Photographs (2004, 2013)

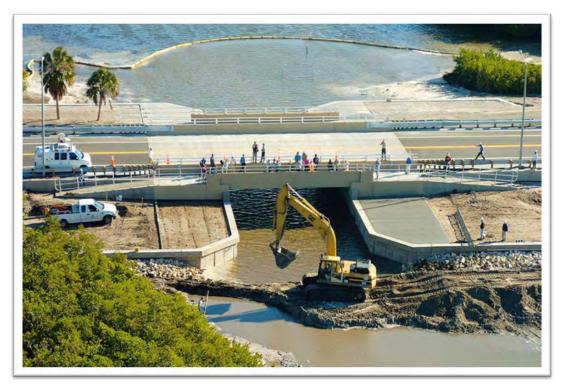


# SW 70 - Fort DeSoto Park Ecosystem Restoration Figure B - Pre-Construction (7,8/33S/16E)



# SW 70 - Fort DeSoto Park Ecosystem Restoration Figure C - Post-Construction (7,8/33S/16E)





Ecosystem Restoration – Completion of bridge opening and tidal recirculation project. (2004)



Ecosystem Restoration – Completion of bridge opening and tidal recirculation project. (2004)



Typical result of a secondary benefit - restored mangrove habitat. (2013)



Typical result of a secondary benefit - restored mangrove habitat. (2013)



Typical result of a secondary benefit - restored mangrove habitat with constructed bridge span in the background. (2013)

# SW-45 GATEWAY RESTORATION MITIGATION PLAN BACKGROUND

# **INFORMATION:**

		<b>D</b>			
Project Name	Gateway	Restoration	estoration Project Number SW-45/		
Project Type	Wetland restora	tion and enhancen	nent; upland enhand	cement	
Landowner	Pinellas County		Management Entity	Pinellas County/Southwest Florida Water Management District	
County	Pinellas		Watershed	Tampa Bay Drainage	
Water bodies	Tam	pa Bay	Water body Designations	SWIM water body	
• •	<b>Project implementation status:</b> (As of December 2017):		ement		
Project utilization:		Permitted FDOT projects: 7			
(As of December 2017)		Planned, not yet permitted, FDOT projects: None			
S/T/R:		12/30S/16E			

# **IMPACT INFORMATION** (As of December 2017):

			Total Impacts		ACOE
Watershed	FM #	Project Name	(ac.)	ERP permit #	Permit #
Tampa Bay Drainage	2556301	SR 60 Courtney Campbell to Fish Creek	12.20	43000920.005	2001-05084
Tampa Bay Drainage	2557341	SR 676 Maritime Blvd. to SR 60	1.50	44013736.003	1995-02501
Tampa Bay Drainage	2569051	SR 679 (Bayway) Bunces Pass Bridge # 150	0.60	52-0148752-001	1991-00289
Upper Coastal Drainage	2570931	SR 60, Clearwater Harbor Bridge Replacement	1.50	44021540.001	2002-04966
Tampa Bay Drainage	2583982	I-275 Howard Franklin to Himes Ave.	1.50	43002958.006	2005-03876
Tampa Bay Drainage	2588701	I-275 Roosevelt to Big Island Gap	9.10	43001034.006	1994-02523
Tampa Bay Drainage	4062531	SR 686 (Roosevelt) at 49th Street	0.20	44007482.012	2002-06320
		Total Impact Acreage:	26.60		

# MITIGATION INFORMATION (As of December 2017):

Habitat	Mitigation Type	Watershed	Acreage
Mangroves	Restoration	Tampa Bay Drainage	42.50
Salt Marsh/Saltern	Restoration	Tampa Bay Drainage	42.93
Flatwoods and Hardwood Hammock	Enhancement	Tampa Bay Drainage	10.25
Streams/Waterways Restoration	Restoration	Tampa Bay Drainage	11.33
		Total:	109.54

## PROJECT DESCRIPTION

**A. Overall project goals:** To restore and enhance estuarine wetland and coastal upland habitats within the Gateway Tract owned and managed by Pinellas County Environmental Management.

**B.** Brief description of pre-construction habitat conditions: The project area includes the western half of the Gateway "North Tract" and the entire "South Tract" (Figures B and C). Most of the earthwork construction areas within both tracts included uplands that were heavily dominated by Melaleuca and Brazilian pepper. Most of the uplands within the north tract had fill material placed on historic estuarine wetland habitat. The designated mitigation area within the north central portion of the north tract includes mangrove habitat with an extensive "checkerboard" mosquito-ditch system. The spoil mounds adjacent to the ditches had extensive and dense coverage of Brazilian pepper.

**C. Brief description of construction activities and current habitat conditions:** Restoration commenced with herbicide eradication and mechanical removal of the exotic vegetation in early 2004 (Figure B). Proper erosion control methods were installed, followed by necessary earthwork activities in the upland areas to create lagoons and salt-marsh habitat. A few of the ditches and adjacent spoil mounds were regraded to create channels necessary to improve tidal connectivity to Tampa Bay, resulting in the restoration of streams and waterways. A unique spoil removal method, referred to as "hydroblasting," was utilized to gain access into 35-acres of mangrove habitat without impacts that would otherwise occur with traditional construction equipment. Hydroblasting uses traditional pumps and high-pressure fire hoses to spray and displace most of the soil material, primarily into the adjacent mosquito ditches. By lowering the spoil mounds to below high tide elevations, the Brazilian pepper could not re-establish. Mangrove seedlings have naturally recruited and generated within the footprint of the removed spoil material (photos & the "white spots" on the Figure C aerial).

Earthwork conducted in areas to create and restore appropriate wetland grades were followed by planting of high and low salt-marsh habitat, including a few areas of unique and rare saltern habitat. Remnant coastal flatwood and hammock habitats in the south tract received supplemental planting after eradication of the exotic species. The combination of coastal upland and wetland habitat improvements have dramatically improved conditions for more access and use by wildlife species. The dominant wetland plantings included smooth cordgrass, marshhay cordgrass, sand cordgrass, seaside paspalum, and needle rush. These species have recruited extensively in the construction area, particularly the smooth cordgrass in the low marsh and seaside paspalum within the high marsh areas. Additional spoil mound hydroblasting was conducted at Gateway just east of the designated FDOT mitigation boundary on the north tract. This area is evidenced by the "white spots" depicted on the Figure C aerial.

Qualitative monitoring was conducted semi-annually for five years post-construction, with annual reports documenting habitat conditions and various activities implemented during the previous year. The achieved and maintained success criteria included a minimum 90% survivorship for planted material for one year after planting, total 85% cover of planted and recruited desirable species, and less than 5% exotic and nuisance species. Natural recruitment and generation of mangroves have occurred within the displaced spoil mounds and portions of the planted salt marsh habitat. In addition, a few graded marsh

elevations are slightly above high tide elevations, providing for less frequent inundation associated with extreme high tides. This condition allows for the establishment of rare and unique saltern formations within the salt-marsh habitat. Saltern habitats typically provide opportunities for birds and mammals to access and forage for fiddler crabs that often inhabit these areas.

This mitigation is associated with an initial and long-term restoration objective for the public lands within the Gateway and adjacent Weedon Island areas owned and managed by Pinellas County. Perpetual maintenance is conducted as necessary by Pinellas County as part of normal land management activities to maintain and improve upon the successful habitat conditions and functions. The maintenance of the project has been minimal since the constructed wetland grades allow for sufficient tidal fluctuation, so the planted and naturally recruited vegetation have had high survival rates, with extensive recruitment and generation. Maintenance has been primarily related to spot herbicide treatments since salt water substantial limits the re-establishment of exotic vegetation.

Overall, the Gateway restoration project has been very successful with a diverse assemblage of habitat conditions that attract diverse wildlife species. Over 80 bird species have been documented within the restored and created habitat areas.

As of 2017, the project site continues to meet the established success criteria.

**D.** Brief explanation of how this work serves to offset the impacts of the specified DOT project(s): The restored and created salt-marsh and lagoon habitats and enhanced and restored mangrove habitat compensate with higher quality and quantity of appropriate habitat than was present in the impacted wetlands. Approximately 30% of the total wetland impact mitigated at the site was associated with the I-275 (Roosevelt to Big Island Gap segment) expansion adjacent to the mitigation area, essentially providing an on-site mitigation option. This I-275 construction was conducted concurrently with the mitigation construction in 2004 (Figure B). Additional roadway projects beyond those listed above are not proposed for mitigation within this Gateway project.

**E.** Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: The Tampa Bay Mitigation Bank (TBMB) is located within the Tampa Bay Drainage basin, but had not received permits during the period of mitigation selection.

**F.** Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: Gateway Restoration is a SWIM-sponsored project conducted on property owned by Pinellas County.

# **PROJECT IMPLEMENTATION**

•	Planning and Design:	2002
•	Construction:	Spring and Summer 2004
•	Monitoring:	2007, 2008, 2014, 2015, 2016, 2017
٠	Maintenance:	2005-2009
٠	USACE release letter submitted:	June 13, 2017
٠	Perpetual Management:	Ongoing
	respectationagement.	01150115

# Entity responsible for construction: SWFWMD

*Entity responsible for monitoring and maintenance:* SWFWMD is responsible for FDOT site; however, monitoring will no longer be performed, and site will go into perpetual maintenance. The project achieved success criteria, and in 2010 was adopted into Pinellas County's normal perpetual land management and herbicide maintenance activities.

*Entity responsible for perpetual management:* Private contractors selected by SWFWMD for FDOTsite.

Cost for 2017 monitoring: \$15,264.72

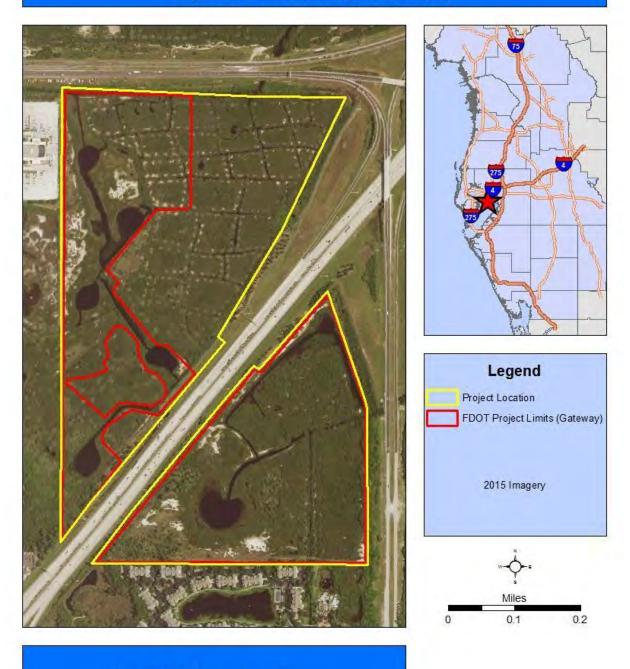
Cost for 2017 maintenance: \$58,240.00

Total Cost for FDOT Mitigation Including Estimated O&M: \$1,483,314.00

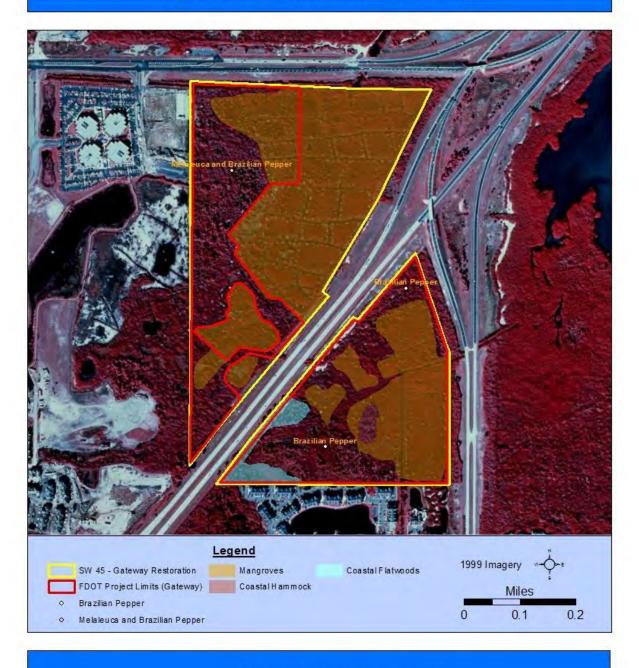
#### ATTACHMENTS

- 1. Figure A-Location
- 2. Figure B-Pre-construction (1999)
- 3. Figure C-Post-construction (2014)
- 4. Photographs (2005, 2016)

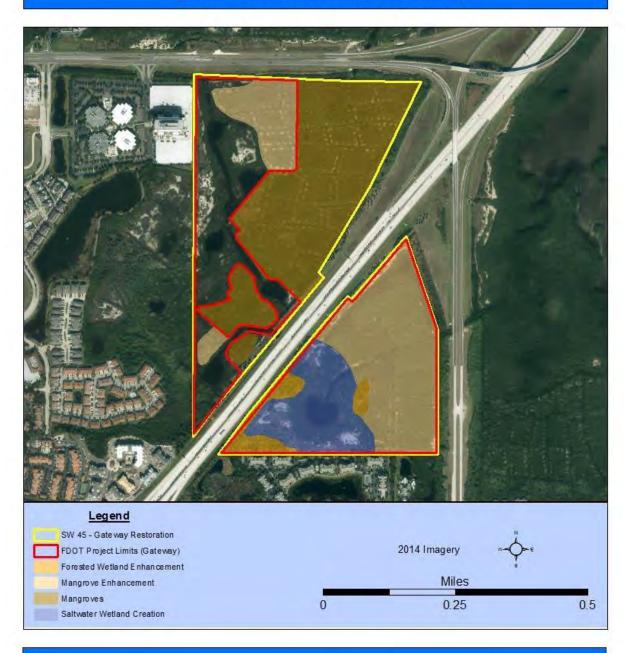
# SW 45 - Gateway Restoration Figure A - Location (12/30S/16E)



# SW 45 - Gateway Restoration Figure B - Pre-Construction (12/30S/16E)



# SW 45 - Gateway Restoration Figure C - Post-Construction (12/30S/16E)





Gateway was the first restoration project in the region to utilize high pressure water hoses to "hydroblast" the mosquito ditch spoil mound material held together by Brazilian pepper roots. Displacing the material caused Brazilian pepper mortality since the roots are exposed to salt water (2005)





View within the upland forested enhancement area in southern tract. (2016)

View within the mangrove swamp enhancement area in the southern tract. (2016)



View within the saltwater marsh restoration area in northern tract. (2016)



View along transect 10 within views of the saltwater marsh restoration and mangrove swamp enhancement areas in the northern tract. (2016)

# SW-92 HÁLPATA TASTANAKI PRESERVE MITIGATION PLAN

#### **BACKGROUND INFORMATION:**

Project Name	Hálpata Tasta	Hálpata Tastanaki Preserve		SW-92/D058	
Project Type	Wetland Enhance	ement			
Landauraar	Southwest F	lorida Water	Management	Southwest Florida Water	
Landowner	Managem	ent District	Entity	Management District	
County	Marion		Watershed	Withlacoochee River	
Water bodies	Withlacoochee River		Water body Designations	Outstanding Florida Water	
<b>Project implementation status:</b> (As of December 2017):		Perpetual Management			
Project utilization:		Permitted FDOT projects: 0			
(As of December 2017) Planne		Planned, not ye	Planned, not yet permitted, FDOT projects: 0		
S/T/R:		24/17S/19E;19/17S/20E			

#### **IMPACT INFORMATION** (As of December 2017):

Watershed	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
		Total:	0*		

\*No future road projects are currently assigned to this site.

## **MITIGATION INFORMATION** (As of December 2017):

Habitat	Mitigation Type	Watershed	Acreage
Forested and Non-forested wetlands	Enhancement	Withlacoochee River	103
		Total:	103

#### **PROJECT DESCRIPTION**

A. Overall project goals: The Hálpata Tastanaki Preserve (Hálpata) is an 8,090-acre tract located adjacent to the Withlacoochee River, along the boundary between Marion and Citrus Counties. The tract is owned and managed by the SWFWMD and is adjacent to and within the vicinity of thousands of acres of other public lands comprised of native habitat. Hálpata has a variety of upland and wetland ecosystems, including mixed forested wetland floodplain habitat extending from the banks of the Withlacoochee River. To provide vehicular access, an elevated berm was historically constructed through the floodplain wetland. The berm dimensions and culverts altered the historic surface water drainage patterns and contributing flow to the adjacent wetland habitat upstream and downstream of the berm. An access road is still necessary for the public and District land management staff, and the berm is primarily used by wildlife as a corridor connection. However, portions of the berm and most of the culverts could be removed and replaced with low water crossings, which would maintain access while restoring hydrology.

**B.** Brief description of pre-construction habitat conditions: The delineated project area within Halpata is dominated by mixed forested wetland habitat. Portions of the Withlacoochee River have

substantial surface water fluctuation ranging several feet between base flow and flood elevations, which directly affects adjacent upland and wetland habitat characteristics and functions. There are variable grade elevations, resulting in a variety of hydroperiods and associated vegetative species in the wetland habitat. The lower elevations have more obligate species, with an overstory dominated by bald cypress and scattered tupelo, red maple and pop ash. The subcanopy includes the same tree species along with scattered buttonbush; however, the dense canopy shade and high flood elevations (ranging 4-6 ft. above grade) associated with this portion of the wetland have substantially limited the coverage of understory and ground vegetation.

The wetland grade elevations are predominantly higher and more variable adjacent to and east of the access road, resulting in more facultative hardwoods and less cypress. Red maple, sweet gum, water hickory, water oak, laurel oak and cabbage palm are common. With shorter frequency, depth and duration of surface water inundation of this habitat, there is more ground cover vegetation including dwarf palmetto (*Sabal minor*), and various low panicums and sedges where the canopy shade is not as prevalent. The highest elevations are within a hardwood hammock located in the southeast portion of the wetland. This transitional habitat has dominant overstory coverage provided by laurel oak, water oak, scattered large live oak, loblolly pine, cabbage palm and dwarf palmetto, providing minor to moderate ground coverage.

There is minimal coverage of non-forested wetland habitat within the project area, primarily limited to five borrow pits (each covering less than 0.5 acre) dredged to provide the necessary fill material for the original berm construction. These ponds have predominant coverage of spatterdock, duckweed and floating pennywort, and they provide a valuable dry season water source for wildlife in the vicinity.

The depth of berm fill material for the roadway portion crossing the hardwood hammock averages 1-2 feet above natural grade, compared to the lower elevation obligate zone where the berm material ranges 2-4 feet above grade. Six of the 10 culverts were installed within a 500-ft. long segment of the road that crosses the obligate zone. The berm diverts and concentrates the contributing upstream flow from the east to the lower elevation obligate zone. Thereafter, four culverts located within a 50-ft. length of the berm concentrate the outfall into a meandering creek that discharges into the Withlacoochee River. Historically the contributing basin flow from east of the berm contributed more water to the wetland floodplain west of the berm than the concentrated creek channel. This same but reverse condition existed when the river would overflow the banks and contribute flow to the wetlands east of the berm. In the pre-construction condition, the berm prevented flood waters from reaching the wetland area east of berm.

**C. Brief description of construction activities and current habitat conditions:** Prior to nominating Halpata to the FDOT mitigation program in 2007, an extensive hydrologic analysis was necessary to determine if a restoration project could be constructed to benefit the wetland floodplain and prevent adverse offsite drainage alterations. This analysis was conducted in 2006-2007 to evaluate the degree of wetland hydrologic impacts caused by the berm and culverts and alternatives to restore flow conditions to benefit the wetland habitat while still maintaining a modified access road. The results of the modeling effort found that wetlands could hydrologically benefit from removing at least portions of the berm and most culverts. The final design includes removing 2,600 cubic yards of berm material at three separate locations to match adjacent natural grade for a total distance of 1,000 feet. After berm removal, an additional 4-6 inches of material were excavated below grade, followed by installation of Geoweb fabric and limerock base material to provide a stable access road while allowing water to sheet

flow over the road. This restored hydrologic connectivity to slightly higher wetland elevations during normal seasonal high-water levels as well as during flood events. This includes an isolated cypress dome within the northwest portion of the project area that did not receive historic flood waters due to the berm.

A segment of berm material was retained through the obligate zone; however, the associated 6 culverts were replaced with three wedge-shaped breaches lined with geotextile fabric and filled with rip-rap rubble to match the original berm height. Replacing the culverts with rubble rip-rap will slow the rate of surface water discharging from the east side of the berm to the creek channel. This will result in extending the hydroperiod for the wetland east of the berm, enhancing the habitat and provide more water for wildlife use. The remaining 4 culverts have sumps and riprap placed at each end to reduce water velocity and minimize scouring. The culvert replacement was followed by supplemental herb plantings such as maidencane. Approximately 103 acres of wetland habitat are anticipated to receive enhancement by the proposed construction activities. An additional 110-150 acres of the same wetland will also receive secondary enhancement by the project; however, the degree of enhancement for the hardwood hammock and the obligate zone closer to the river are considered minor and not included in the total mitigation acreage.

No permits associated with the mitigation area construction required specific success criteria. However, General Condition No. 2 of the ACOE permit indicates that the FDOT must maintain the activity authorized in the permit in good condition and in conformance with the terms and conditions of the permit.

Although monitoring frequency is not specifically required by the mitigation area construction permits, semi-annual reviews will be conducted to ensure the low water crossings are properly functioning.

# D. Brief explanation of how this work serves to offset the impacts of the specified DOT project(s):

This mitigation project was constructed in advance of anticipated permit and construction dates for the above listed FDOT road improvement projects so that mitigation would be available when it was needed.

E. Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: During the 2007 nomination and selection of mitigation options for wetland impacts, there were no existing or proposed private mitigation banks in the Withlacoochee River watershed.

**F.** Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: The Withlacoochee River is classified as an Outstanding Florida Waters and is not a SWIM-designated water body. The only SWIM-sponsored project in the Withlacoochee River watershed involves sediment removal from Lake Panasoffkee, which previously received mitigation funding to compensate for FDOT wetland impacts associated with expanding the I-75 bridge over Lake Panasoffkee.

# **PROJECT IMPLEMENTATION**

<ul> <li>Design and Permitting:</li> </ul>	2006–2008
Construction:	2009
Monitoring:	2014, 2016
Maintenance:	2010–2013
<ul> <li>USACE release letter submitted:</li> </ul>	June 27, 2017
<ul> <li>Perpetual Management:</li> </ul>	Ongoing

# Entity responsible for construction: SWFWMD

*Entity responsible for monitoring and maintenance:* SWFWMD is responsible for FDOT site; however, monitoring will no longer be performed, and site will go into perpetual maintenance.

# Entity responsible for perpetual management: SWFWMD

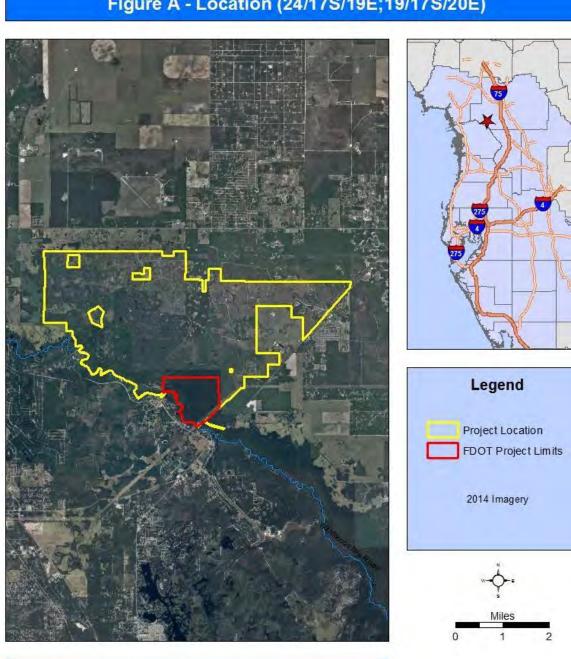
Cost for 2017 monitoring: \$0

Cost for 2017 maintenance: \$0

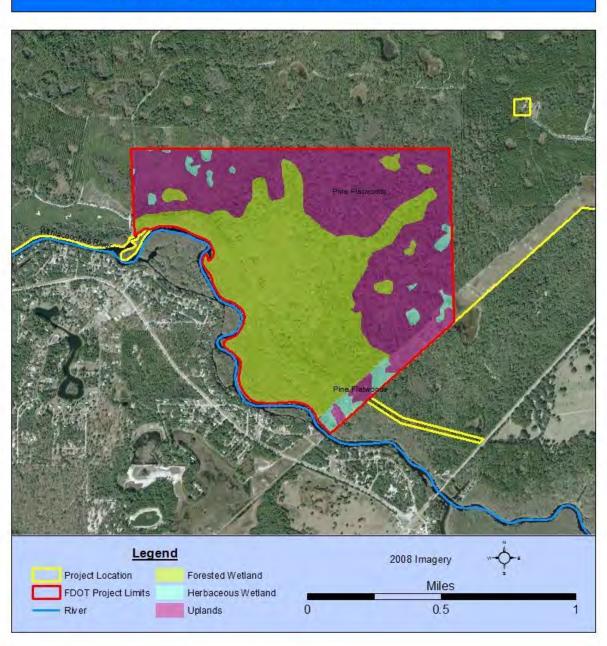
Total Cost for FDOT Mitigation Including O&M:\$401,451.86

#### ATTACHMENTS

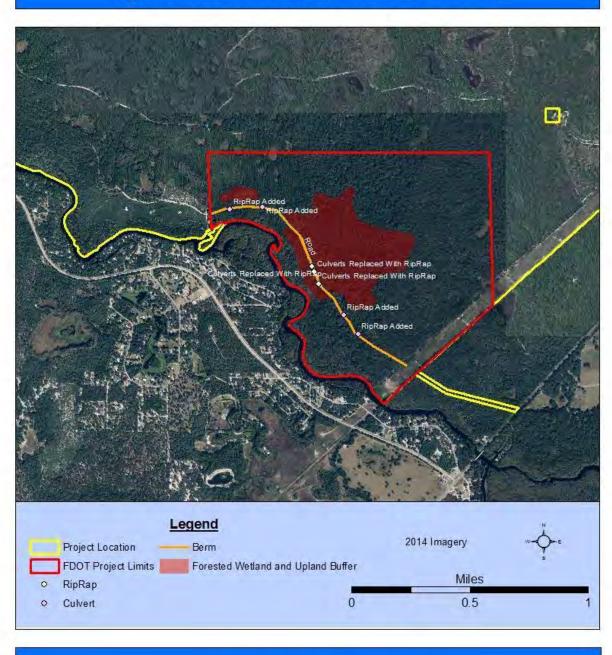
- 1. Figure A-Location
- 2. Figure B-Pre-Construction (2008)
- 3. Figure C-Post-Construction (2014)
- 4. Photographs (2007, 2014)



# SW 92 - Halpata Tastanaki Preserve Figure A - Location (24/17S/19E;19/17S/20E)



# SW 92 - Halpata Tastanaki Preserve Figure B - Pre-Construction (24/17S/19E;19/17S/20E)



# SW 92 - Halpata Tastanaki Preserve Figure C - Post-Construction (24/17S/19E;19/17S/20E)



The Withlacoochee River meanders along the southern boundary of the Hálpata Tastanaki Preserve. (2007)



The obligate areas of the wetland floodplain have dominant coverage provided by bald cypress and hardwood species such as tupelo, pop ash, water hickory and red maple. The dark stains of the lower 6 ft. on the trees represent a floodwater elevation from the river. (2007)

### SW-59 HAMPTON TRACT MITIGATION PLAN

#### **BACKGROUND INFORMATION:**

Project Name	Hampton Tract		Project Number	SW-59/D019	
Project Type	Wetland Enhance	ement			
Landowner	Southwest Florida Water		Management	Southwest Florida Water	
	Management District		Entity	Management District	
County	Polk		Watershed	Withlacoochee River	
Water bodies	Gator Creek, Colt Creek, Sapling		Water body	None	
	Drain, Bee Tree Drain		Designations	None	
<b>Project implementation status:</b> (As of December 2017):		Monitoring and Perpetual Management			
Project utilization:		Permitted FDOT projects: 2			
(As of December 2017)		Planned, not yet permitted, FDOT projects: None			
S/T/R:		2,3,10,11/26S/23E; 22,23,25,26,27,34,35,36/25S/23E			

#### **IMPACT INFORMATION** (As of December 2017):

Watershed	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
Withlacoochee River	2012041	I-4 East of CR 557 to Osceola County (Sec. 6- 7,9) <sup>1</sup>	3.60	43011896.032	1994-03591
Withlacoochee River	2012092	I-4 East of US 98 to East of CR 557 (Sec. 3-5) <sup>2</sup>	18.57	43011896.026	2002-04891
		Total Impact Acreage:	22.17		

<sup>1</sup> Segment 7 of this project is in the Kissimmee Ridge Basin and the wetland impacts are mitigated at SW-49 Reedy Creek Mitigation Bank. Wetland impacts in the Ocklawaha River Basin are offset at SW-76 Lake Lowery.

<sup>2</sup> A portion of this project is in the Peace River Basin and wetland impacts are being mitigated at SW-47 Tenoroc-Bridgewater Tract.

Habitat	Mitigation Type	Watershed	Acreage		
Forested wetlands	Enhancement	Withlacoochee River	907		
Non-forested wetlands	Enhancement	Withlacoochee River	15		
		Total:	922		

#### **MITIGATION INFORMATION** (As of December 2017):

#### **PROJECT DESCRIPTION**

**A. Overall project goals:** The Hampton Tract was acquired by the SWFWMD in 1999. Located adjacent to over 260,000 acres of public lands, the Hampton Tract was an important acquisition for the protection, restoration and enhancement of native habitat within the Green Swamp. The tract has a 22-mile ditch network that has extensively dewatered and drained many of the wetland habitats on the property. The goal of this project is to restore historic drainage patterns and to enhance the function of

1,606 acres of impacted wetlands, with secondary benefits to other wetland and upland habitats within the property.

**B.** Brief description of pre-construction habitat conditions: The site is located within the Green Swamp (Designated Area of Critical State Concern), over 60% of the adjacent property (north and west) is also under public ownership by the SWFWMD, referred to as the "Green Swamp Wilderness Preserve" (Figure A). The tract's habitat and land use are dominated by approximately 2,400 wetland acres (predominantly mixed forested and cypress systems), 4,200 acres of pine flatwood and upland hardwood hammocks, and 1,000 acres of previously improved pasture that have been gradually converted to pine silviculture operations since the SWFWMD's acquisition of the property in 1999.

The site's historic drainage pattern meandered from east to west, receiving contributing flows from property east of the Hampton Tract. During the late 1940's and early 1950's, the construction of large drainage ditches (Colt Creek Drain, Sapling Drain, Bee Tree Drain) and smaller connecting ditches resulted in a more direct drainage and discharge of surface and ground water to connect with the ditched Gator Creek, located along the project's western boundary. The Gator Creek ditch is a major drainage feature within the western Green Swamp, crossing north through the Hampton Tract and other public lands (Green Swamp-East, Colt Creek State Park, Green Swamp-West), then out falling into the Withlacoochee River. The northern perimeter of the Hampton Tract is adjacent to the forested wetland floodplain associated with the Withlacoochee River. These ditched drainage systems have directly impacted the hydroperiod and vegetative composition of a large percentage of the tract's wetlands, particularly resulting in the transition of obligate to more facultative species within the wetlands, and allowing undesirable upland and nuisance species to encroach within the wetlands. Blackberry and grapevine have become problematic nuisance species. Figure B depicts the major ditches, proposed ditch block locations and primary wetland enhancement areas. Additional wetlands within the property will receive secondary enhancement; however, those systems have not been proposed for mitigation credits.

Large ditch block construction was conducted to restore hydrology and subsequently enhanced the ditched wetlands, resulting in mortality of upland and nuisance species and the regeneration of more obligate species that had decreased from the wetlands. This construction also restored historic surficial and groundwater hydrology for the entire tract. The ditch blocks were constructed with the adjacent spoil material from the original dredging operations, and most of the blocks were constructed where the upland-cut ditch sections outfall from wetlands. The extended ditch blocks provide easier access for wildlife to cross back and forth between wetlands and uplands. The following information describes the wetland enhancement aspects associated with each major drainage system.

**Colt Creek Drain:** This drain includes a combination of both historically isolated and connected forested wetland tributaries within the northern portion of the property. The highest concentration of former isolated and partially connected wetlands for the entire Hampton Tract is associated in cypress systems within the northeastern area of the property. Historically, many of these wetlands only had hydrologic connectivity via surface water that sheet flowed through minor sloughs and hydric flatwoods during the wet season. The high concentration of perimeter ditches around the wetlands have connected and substantially altered the drainage patterns and wetland hydroperiods, diverting flow away from wetlands and directing water through upland-cut ditches instead of the natural meandering drainage patterns. To restore the drainage patterns within each of these wetlands, over half of the 52 total ditch blocks are associated with the Colt Creek Drain.

As previously noted, the SWFWMD has converted the land use of the northeast upland pastures to silviculture. However, pines were planted at a minimum buffer of 50 feet from the wetlands so that with the restored wetland hydrology can naturally generate hydrophytic sedges and rushes to replace Bahia grass. With the introduction of pines to replace open pasture, restoration of the meandering alignment of the wetland strands, and additional vegetative cover, wildlife movement and corridors have increased between upland and wetland habitats.

A large ditch and adjacent spoil berm was historically constructed along the northeastern two-mile boundary of the Hampton Tract. This berm acts as a levee, blocking the historic westward drainage pattern of water flow through the property and resulting in surface water impoundment and flooding within private property east of the berm. By constructing two breaches within the spoil berm, historic flow patterns were restored to the benefit of the on-site wetlands while decreasing the periodic flood conditions that occur on the private property.

**Sapling Drain:** This drain is a large, straight, east-west ditch that conveys substantial quantities of water from the contributing watershed. Historically, flow meandered through a cypress strand located less than a few hundred feet north of the ditch drain. Historic aerials indicate most of the central fallow field north and south of the remnant cypress strand was historically marsh and wet prairie habitat where sheet flow attenuated in the wet season. The vegetative cover prior to construction in the field was bahia, fennel and pine trees with shallow collector cross-ditches dominated by soft rush. The restoration of the Sapling Drain marsh system is particularly beneficial since most of non-forested wetland habitats in the western portion of the Green Swamp were historically converted to improved pastures because of drainage ditches.

**Bee Tree Drain:** This drain was dredged across a meandering mixed forested wetland and through the adjacent upland habitat, short-circuiting the meandering wetland flow pattern westward to instead discharge directly into Gator Creek. Like the Colt Creek Drain, restoring the wetland flow patterns was conducted by constructing blocks at the wetland/upland boundary interface.

**Gator Creek Drain**: Gator Creek is one of the major ditch drainage features in the Green Swamp, extending many miles from Interstate-4 to the Withlacoochee River. The ditch itself was dredged through uplands and wetlands to connect with a natural creek floodplain located a few miles south of the Hampton Tract. Historically, the creek floodplain within the Hampton Tract itself had minimal definition of an actual creek channel, resulting in sheet flow like other wetland strands on the property. As depicted on Figure A, a portion of the Gator Creek ditch crosses the southwestern portion of the property, and the reduced hydroperiods transitioned the floodplain wetland to a mesic hammock, resulting in the recruitment and generation of facultative species such as laurel oak even within the lowest grade elevations of the wetland floodplain.

Due to the proximity of adjacent upstream residential development south of the Hampton Tract, constructing blocks within the Gator Creek ditch section to restore drainage patterns would have adversely impacted off-site drainage patterns and increased offsite flood potential. However, by constructing two ditch blocks in Bee Tree and Sapling Drains prior to their connection to Gator Creek, the majority of ditch flow was retained to restore adequate and appropriate wetland hydrology within a portion of the Gator Creek floodplain on the Hampton Tract. By retaining more surface water within the Hampton Tract, contributing flow to the Gator Creek ditch itself will be reduced, allowing more flow north. In turn, this will reduce flood potential on property to the south.

**C. Brief description of construction activities and current habitat conditions:** A surface water model evaluation was conducted to determine design features necessary to restore and enhance the hydrology and associated hydroperiods for most of the wetlands within the Hampton Tract. The study indicated that these hydrologic improvements could be conducted by constructing 52 blocks within designated ditch locations to redirect and restore historic hydrology in the wetlands. Figure B depicts the block locations and the primary wetland enhancement areas because of the hydrologic restoration. Ten monitor wells were installed within drained wetlands in 2009 to document pre-construction ground and surface water elevations and durations. These wells have continuous automatic recorders that document the ground and surface water levels every 15 minutes, and the data collection will continue to be monitored for a period of at least five years post-construction.

Maintenance activities are predominantly associated with evaluating and ensuring the structural integrity and suitability of the proposed ditch blocks and inspections and maintenance are perpetually conducted as part of a normal land management practices for the Hampton Tract. One of the primary components of the tract's management plan includes prescribed burns. Previously, such burns periodically encroached too far into drained forested wetlands, resulting in vegetative impacts and loss of organic topsoil. With the restored hydrology of drained wetlands, the prescribed burns now encroach along the transitional perimeters of the forested wetlands. These transitional areas often become dense with vegetative species such as wax myrtle and vines, restricting wildlife movement. The prescribed burns now reduce plant density in transitional areas, resulting in improved wildlife access to and use of all habitat areas.

Pre-construction hydrologic monitoring commenced in January 2009 and includes downloads of water table data provided from continuous recorders installed within ten monitoring wells. These wells are located within wetlands associated with the Colt Creek Drain (5 wells), Sapling Drain (3 wells), and Bee Tree Drain (2 wells), with two wells located where the Sapling and Bee Tree Drains intersect with the Gator Creek floodplain. These wells will continue to be monitored for a minimum five years post-construction and after success criteria has been met. This will provide at least two years of pre-construction hydrologic monitoring to compare with minimum five-year post-construction monitoring to evaluate the restored surface water hydrology and document any potential problems. Monitoring also includes semi-annual (dry and wet season observations) qualitative habitat evaluations and documentation of general wetlands associated with the Colt Creek, Sapling Drain, Bee Tree Drain, and Gator Creek floodplains. The qualitative evaluations include descriptive and photographic documentation of vegetative and habitat conditions, with notation of transitional shifts of flora and fauna because of the restored and enhanced drainage improvements. This information is compiled into annual monitoring reports and will continue for a minimum five years post-construction.

Success criteria includes demonstration that all the structures function as proposed, and that proper stabilization has occurred and will be maintained around the structures. This documentation will need to demonstrate that the ditch blocks are stabilized and divert flow into the wetlands as designed. As of 2016, the enhancement areas have largely been shown to have improved hydrology, although several ditch blocks need repair as of late 2016. These repairs could not be made in previous months due to high water levels associated with an unusually rainy summer but are scheduled to be made during the winter of 2016-17.

D. Brief explanation of how this work serves to offset the impacts of the specified DOT project(s):

with the ultimate build-out of I-4 through the Withlacoochee basin portion in Polk County, including the high-speed rail facility when it was proposed in 2001 and subsequently removed from FDOT's work program in 2011. Most of the I-4 wetland impacts include forested wetland habitat, and the remnant non-forested wetlands within the corridor were historically forested wetlands that are maintained by FDOT as non-forested systems due to required vehicular safety zones. The Hampton Tract will receive primary hydrologic restoration for 907 acres of forested wetlands and 15 acres of non-forested wetlands (total 1,260.78-acres). Wetlands without direct hydrologic enhancement are not accounted for in mitigation credits. The substantial wetland enhancement within a regionally significant tract will adequately and appropriately mitigate for wetland impacts associated with I-4.

E. Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: During the period of mitigation selection, there were no established or proposed mitigation banks within the Withlacoochee River Basin.

**F.** Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: During the period of mitigation selection, the only SWIM-sponsored project within the Withlacoochee River Basin included restoration activities within Lake Panasoffkee (SW 57), which was selected for mitigation of wetland impacts associated with the I-75 bridge expansion within the Lake Panasoffkee floodplain.

#### **PROJECT IMPLEMENTATION**

<ul> <li>Planning, Modeling and Design:</li> </ul>	2006-2010
<ul> <li>Monitor well installation:</li> </ul>	January 2009
Construction:	2011-2012
Monitoring:	2009, 2010, 2011, 2014, 2015, 2016, 2017
Maintenance:	2013-2017
<ul> <li>Perpetual Management:</li> </ul>	Ongoing

# Entity responsible for construction: SWFWMD

Entity responsible for monitoring and maintenance: SWFWMD

Entity responsible for perpetual management: SWFWMD

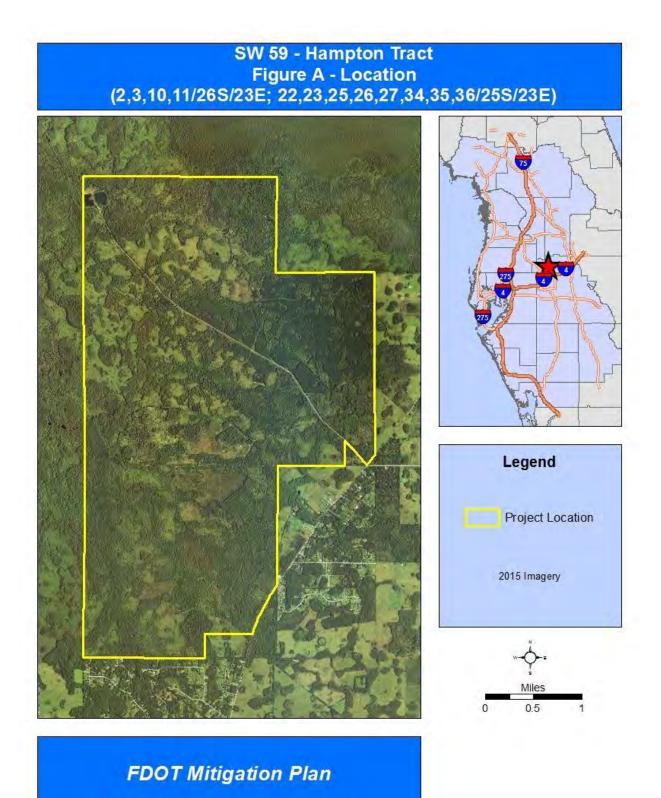
Cost for 2017 monitoring: \$61,134.22

Cost for 2017 maintenance: \$151,236.25

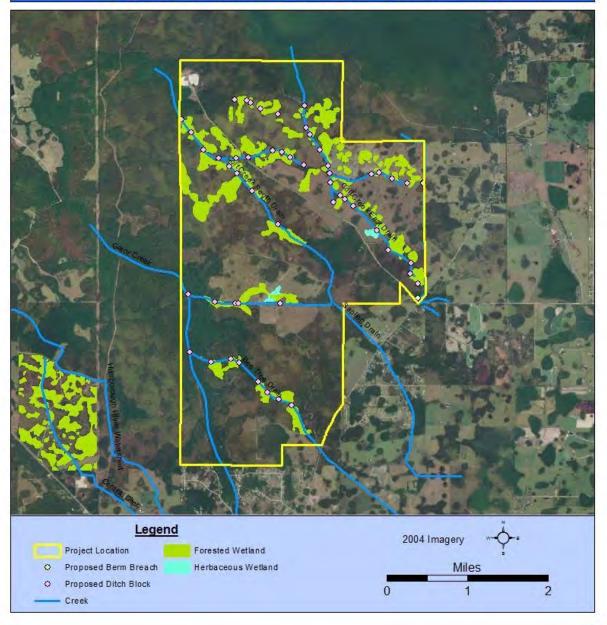
Total Cost for FDOT Mitigation Including O&M: \$1,146,425.25

#### ATTACHMENTS

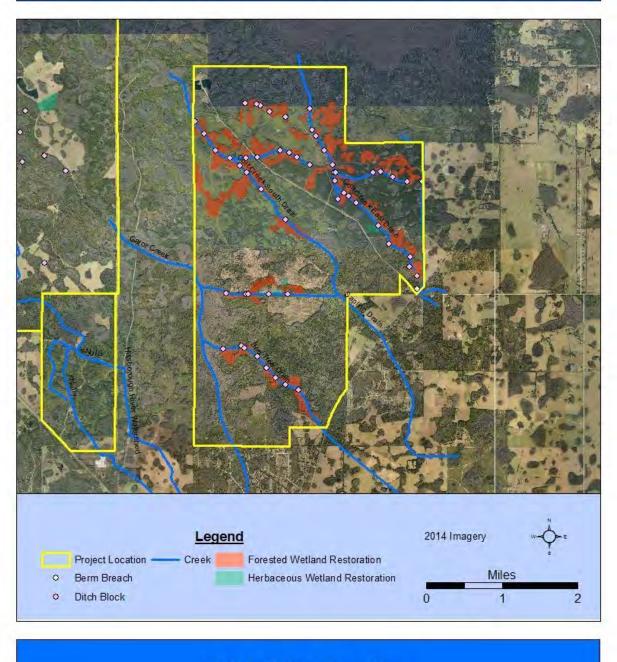
- 1. Figure A-Location
- 2. Figure B-Pre-Construction (2004)
- 3. Figure C-Post-Construction (2014)
- 4. Photographs (2012, 2014)



# SW 59 - Hampton Tract Figure B - Pre-Construction (2,3,10,11/26S/23E; 22,23,25,26,27,34,35,36/25S/23E)



## SW 59 - Hampton Tract Figure C - Post-Construction (2,3,10,11/26S/23E; 22,23,25,26,27,34,35,36/25S/23E)





Berm Breech 55 Restoring Flows to Colt Creek



Wetland Enhancement Bee Tree Drain BTD-6: View North (2017)



Forested Wetland Enhancement Colt Creek CC-14



Forested Wetland Enhancement Colt Creek CC-16 (2017)



Forested Wetland Enhancement Sapling Drain SD-3 (2017)

#### SW-80 HIDDEN HARBOR MITIGATION PLAN

#### **BACKGROUND INFORMATION:**

Project Name	Hidden Harbor		Project Number	SW-80/D036
Project Type	Wetland Enhanc	ement	-	
Landowner	Manatee County		Management Entity	Manatee County
County	Manatee		Watershed	Manatee River
Water bodies	Manatee River, Gamble Creek		Water body Designations	SWIM Water Body
• •	<b>Project implementation status:</b> (As of December 2017):		Monitoring and Perpetual Management	
Project utilization:		Permitted FDOT projects: 3		
(As of December 2017)		Planned, not yet permitted, FDOT projects: 0		
S/T/R:		8,17/34S/19E		

#### **IMPACT INFORMATION** (As of December 2017):

Watershed	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
Manatee River	1960224	SR 64 (Seg. 3) Lakewood Ranch to Lorraine Rd	4.06	43025776.000	2004-00734
Manatee River	4161201	SR 64 Carlton Arms Blvd to I-75	0.78	44035561.000	2010-01414
Manatee River	4226031	US 301 (Seg. B) Erie Road to CR 675	2.73	43012295.005	2008-01430
		Total:	7.57		

#### **MITIGATION INFORMATION** (As of December 2017):

Habitat	Mitigation Type	Watershed	Acreage
Freshwater marsh	Creation	Manatee River	1
Forested wetland hammock	Enhancement	Manatee River	45.81
Upland Buffer	Enhancement	Manatee River	45.25
Saltwater Marsh	Enhancement	Manatee River	3.26
		Total:	TBD*

#### **PROJECT DESCRIPTION**

**A. Overall project goals:** The Hidden Harbor tract was acquired by Manatee County in late 2004 and portions of the property were adopted to the FDOT mitigation program in 2005. There are unique and parallel alluvial deposits that formed along the convergence of Gamble Creek and the Manatee River in the southeastern portion of the property. The habitat on these deposits formed into forested wetland harmocks alternating with brackish marsh and inter-tidal creeks. These harmocks need habitat enhancement by eradication of Brazilian pepper. The wetland enhancement area will be buffered by upland habitat restoration through eradication of cogon grass and potentially some marsh creation to

provide more habitat diversity and buffer from proposed facilities currently planned for the central portion of the tract. The goal of conducting these habitat improvements will provide wetland and riverine buffers that will benefit water quality functions, floodwater attenuation and wildlife habitat corridors adjacent to the Manatee River and Gamble Creek. In addition, a 1-acre freshwater marsh will be created in the northwest portion of the site.

**B.** Brief description of pre-construction habitat conditions: The Hidden Harbor parcel covers 229 acres with most of the tract previously used for row crop production. Prior to County acquisition in 2004, the property was proposed and designed for a residential community referred to as Hidden Harbor. Due to the substantial residential development under construction and planned for the vicinity between Ellenton and Parrish, the County acquired this property to adequately plan for necessary school, recreational, and regional park facilities. In collaboration with the SWFWMD, Manatee County agreed to allow habitat improvement on the property to provide appropriate mitigation credits for wetland impacts associated with proposed roadway facilities that will directly benefit the vicinity (e.g. SR 64, US Hwy. 301).

Forested Wetland Enhancement Area One (FWE 1) is characterized as a forested wetland, more specifically a mesic oak hammock, with an east-west channelized creek connecting to Gamble Creek at the northeast corner of the property. The dominant tree cover includes live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*), and cabbage palm (*Sabal palmetto*), with additional coverage provided by water oak (*Quercus nigra*), Brazilian pepper (*Schinus terebinthifolius*) and scattered red maple (*Acer rubrum*). Understory coverage varies with pockets of saw palmetto (*Serenoa repens*), scattered wax myrtle (*Myrica cerifera*) and saplings of the above referenced tree species. The hydrology of most of this system is primarily groundwater saturation near the surface with inundation during flood events.

Forested Wetland Enhancement Areas 2 and 3 are characterized as coastal hydric hammock wetlands, have lower grade elevations, more Brazilian pepper cover and are more influenced by the hydrology of Gamble Creek and the Manatee River compared to FWE 1. Dominant tree cover is provided by laurel oak, live oak, and cabbage palm. The Brazilian pepper is more prevalent along the upper transition between the hammock and adjacent habitat within FWE 3. Other common canopy and shrub species include red cedar (*Juniperus silicicola*), slash pine (*Pinus elliottii*), myrsine (*Myrsine floridana*), saw palmetto, greenbriar (*Smilax rotundifolia*), grapevine (*Vitis* spp.) and swamp fern (*Blechnum serrulatum*). Along the lower transition between the hammocks and adjacent marsh, there is a narrow zone of scattered white mangrove (*Laguncularia racemosa*) and a few red mangroves (*Rhizophora mangle*). The marsh is dominated by black needlerush (*Juncus roemerianus*) and leather fern (*Acrostichum aureum*), with some minor bands of cattails (*Typha* sp.) along the water's edge. The cattails are generally located within limited narrow zones with minimal potential to invade the adjacent marsh habitat.

**C. Brief description of construction activities and current habitat conditions:** The habitat improvements for mitigation credit include extensive herbicide eradication of Brazilian pepper within the hammocks (FWE 1-3). There is adequate coverage of adjacent desirable species that will naturally recruit to displace and minimize the regeneration of the Brazilian pepper. Semi-annual herbicide treatments will be conducted after the initial eradication to treat any regrowth of Brazilian pepper.

The hammock areas are above mean high tide elevations and are not Sovereign Submerged Lands as determined by a title search. The 50-60 acres of marsh habitat and 20-30 acres of tidal creek and bay area buffered by the hammocks are sovereign lands. These sovereign wetland areas will receive

secondary ecological benefits by the proposed enhancement activities but are not quantified for mitigation credit under the proposed plan. Due to the environmental damage that cutting and removing snags would cause, Brazilian pepper will be allowed to decay in place and no construction activities are proposed within the system. This will allow the natural recruitment and generation of appropriate hydrophytic vegetation, while opening areas for easier wildlife access to forage and nest. An intensive initial effort to eradicate the Brazilian pepper will be conducted, followed by annual maintenance for a minimum of five years. As with all the habitat creation and enhancement areas for the property, the quantity and schedule of maintenance events will be evaluated to ensure continued success with emphasis on eradication with as minimal coverage of exotics as possible.

Monitoring commenced after the initial herbicide treatment and will continue for a minimum of five years after all construction completion. This monitoring will include qualitative and quantitative assessments of the wildlife use, vegetative cover and diversity, hydrologic conditions, and any problem areas. The results of the monitoring events will be compiled into annual monitoring reports, which will be conducted for a minimum of five years and until success criteria is met.

Success criteria require the eradication of Brazilian pepper to the greatest extent practicable, with no more than 5% coverage within the hammocks and no more than 5% coverage of undesirable plants within the marsh creation area. An initial treatment of Brazilian pepper was conducted in Forested Wetland Enhancement Area 3 in 2012 and all forested enhancement areas had received treatment by late 2015. Treatment of all buffer enhancement areas for cogon grass began in November 2015. Treatment of the enhancement areas continued through 2016 and the marsh creation area will be constructed in 2017.

**D.** Brief explanation of how this work serves to offset the impacts of the specified DOT project(s): Anticipated wetland impacts associated with three nearby roadway projects are proposed for mitigation at Hidden Harbour.

E. Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: At the time of mitigation selection for two of the FDOT road improvement projects, no mitigation banks were proposed in the Manatee River basin. Subsequently, the Braden River Mitigation Bank received ERP approval but has not received ACOE approval as of the date this FDOT Mitigation plan.

**F.** Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: This project is not specifically sponsored through the SWIM program. However, the Manatee River is a designated SWIM water body and the proposed habitat improvements will provide ecological enhancement for the river and Tampa Bay.

#### **PROJECT IMPLEMENTATION**

<ul> <li>Initial herbicide treatment:</li> </ul>	2012-2013
<ul> <li>Contract Planning and Development:</li> </ul>	2014-2015
Construction:	2012-2017
Monitoring:	2013-2017
<ul> <li>Perpetual Management:</li> </ul>	Ongoing

Entity responsible for construction: Manatee County and/or contractors working for the County

*Entity responsible for monitoring and maintenance:* Maintenance activities will be conducted by Manatee County; monitoring activities will be conducted by private contractor selected by SWFWMD for FDOT site.

*Entity responsible for perpetual management:* Manatee County and/or private contractors selected by SWFWMD for FDOT site.

Cost for 2017 monitoring: \$15,725.00

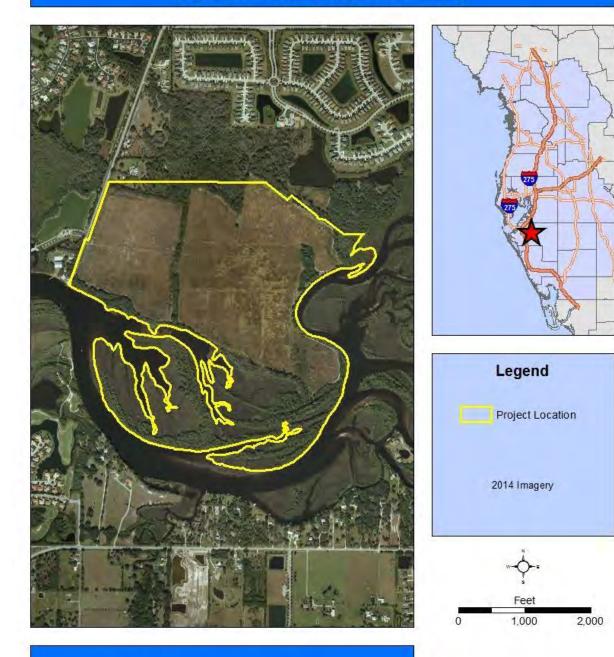
**Cost for 2017 maintenance:** \$67,662.00

Total Cost for FDOT Mitigation Including O&M: \$451,019.42

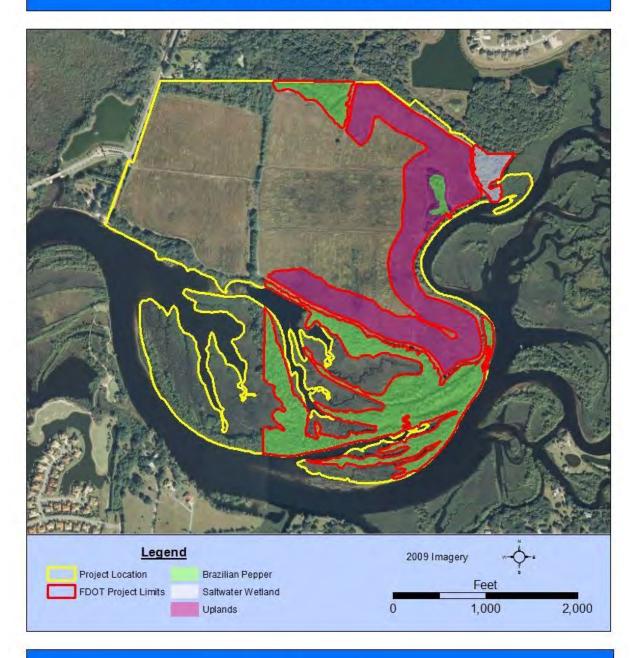
#### ATTACHMENTS

- 1. Figure A-Location
- 2. Figure B-Pre-Construction (2009)
- 3. Figure C-Post-Construction (2014)
- 4. Photographs (2005, 2014)

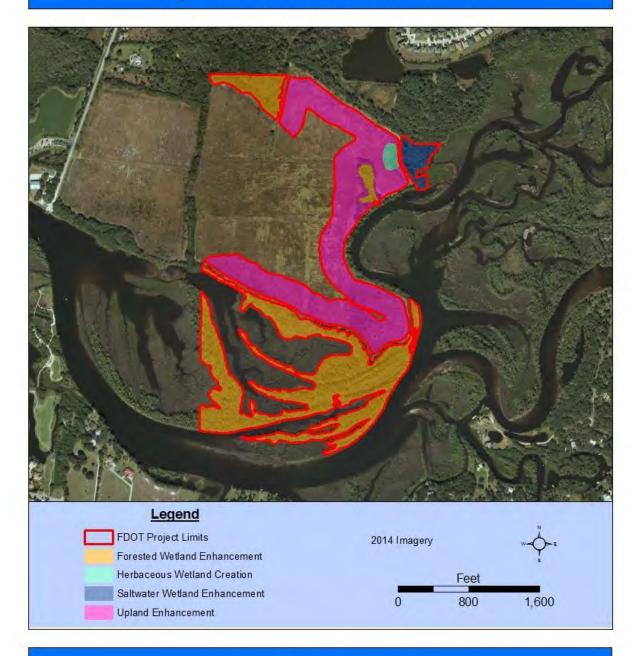
# SW 80 - Hidden Harbour Figure A - Location (8,17/34S/19E)



## SW 80 - Hidden Harbour Figure B - Pre-Construction (8,17/34S/19E)



## SW 80A - FDOT Project Limits (Hidden Harbour) Figure C - Post-Construction (8,17/34S/19E)





Forested Wetland Enhancement Area 1-Photo Station S1 (2017)



Forested Wetland Enhancement Area 3-Photo Station N1 (2017)



Mesic Hammock ME1 -1 E2 (2017)



Created 1-Acre Emergent Wetland NW1 – 2-N2 (2017)

#### SW-63 HILLSBOROUGH RIVER CORRIDOR MITIGATION PLAN

Project Name	Hillsborough	River Corridor	Project Number	SW-63/D003
Project Type	Wetland Preserv	ation		
Landowner	Southwest F	lorida Water	Management	Southwest Florida Water
Landowner	Manageme		Entity	Management District
County	Pasco		Watershed	Hillsborough River
Water bodies	Hillsborough River		Water body Designations	None
• •	<b>Project implementation status:</b> (As of December 2017):		gement	
Project utilization:		Permitted FDOT projects: 1		
(As of December 2017)		Planned, not yet permitted, FDOT projects: None		
S/T/R:		30/26S/22E		

#### **BACKGROUND INFORMATION:**

#### **IMPACT INFORMATION** (As of December 2017):

Watershed	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
Hillsborough		US 41 Bell Lake to			
River	2563151	Tower Road	0.55	*See below	1992-41273
		Total Impact Acreage:	0.55**		

\*ERP No. 44018030.002 is mitigated for at Lake Thonotosassa (SW 34).

\*\*The remaining 1.08 acres of impact are mitigated for at Conner Preserve.

#### **MITIGATION INFORMATION** (As of December 2017):

Habitat	Mitigation Type	Watershed	Acreage
Mixed forested wetland	Preservation	Hillsborough River	10
		Total:	10

#### **PROJECT DESCRIPTION**

**A. Overall project goals:** Acquisition and preservation of a 10-acre mixed forested wetland parcel within the Hillsborough River floodplain that is part of a high-quality river habitat corridor connecting to adjacent property already owned by the SWFWMD (Upper Hillsborough Tract, Figure A). The above referenced ACOE permit requires the purchase of an additional 20 acres to the east of the 10-acre parcel to create a wildlife corridor. Renewed attempts in 2015 to purchase the additional 20 acres were not successful and therefore a portion of the mitigation was moved to Conner Preserve.

**B.** Brief description of pre-construction habitat conditions: The entire 10 acres is mixed forested wetland floodplain with the Hillsborough River meandering through the southern portion of the site (refer to photos). The overstory is dominated by red maple, American elm and laurel oak. Sub-dominants include sweet gum, hackberry, ironwood, bald cypress and pop ash. Several small natural channels with cypress exist where the river overflows during flood events. A shrub canopy, in

combination with the overstory, provides a dense cumulative canopy but still relatively open understory to provide easy wildlife movement. Shrub species include the same canopy species with a dominance of elm and additional cover of cabbage palm, Virginia willow and wax myrtle. Understory vegetation includes smilax, poison ivy, Virginia creeper, wild coffee, and various, small *Panicum spp*. Observed wildlife species include deer, raccoon, squirrels and substantial bird activity. Periodic review of the site will be conducted by the SWFWMD to ensure these high-quality habitat conditions are maintained and that no adjacent land use activity encroaches or impacts the habitat.

**C. Brief description of construction activities and current habitat conditions:** The site is periodically reviewed for security and to ensure high quality habitat conditions are maintained. Acquisition of the adjacent 20 acre outparcel of floodplain forest east of this tract would finalize a corridor connection to the main Upper Hillsborough Tract (Figure A). Normal land management activities are conducted to preserve and maintain the habitat conditions on the site.

**D.** Brief explanation of how this work serves to offset the impacts of the specified DOT project(s): The Hillsborough River floodplain is an important corridor for wildlife habitat, water quality treatment and flood attenuation. Only one wetland impact area associated with one roadway project is designated for mitigation with this tract, resulting in the preservation mitigation credit of 10 acres to compensate for 0.55 acres of wetland impact.

E. Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: At the time of selection, a mitigation bank was not present or proposed within the Hillsborough River basin.

**F.** Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: At the time of selection, the only SWIM-sponsored project within this basin was the Lake Thonotosassa Shoreline Restoration Project, which was selected to mitigate for wetland impacts associated with another FDOT project.

#### **PROJECT IMPLEMENTATION**

- Project Initiation: Summer, 2000
- Land Acquisition: April 2001
- Monitoring: N/A
- Maintenance: N/A
- Perpetual Management: Ongoing

Entity responsible for construction: No construction activities were necessary.

Entity responsible for monitoring and maintenance: SWFWMD -Acquisition Only

Entity responsible for perpetual management: SWFWMD

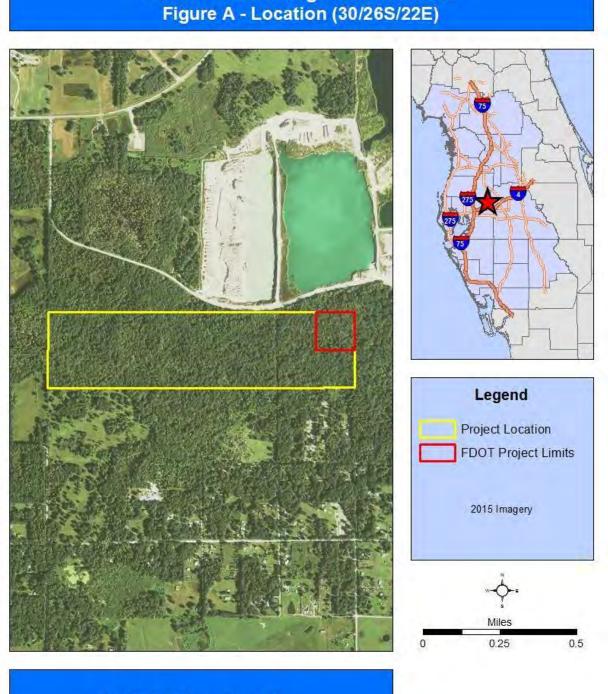
Cost for 2017 monitoring: \$0

Cost for 2017 maintenance: \$0

## Total Cost for FDOT Mitigation Including O&M: \$20,405.51

#### ATTACHMENTS

- 1. Figure A-Location
- 2. Photographs



SW 63 - Hillsborough River Corridor



View depicting dense canopy and subcanopy coverage with open ground area for wildlife movement. The white lichens on the cypress (left) delineate a flood elevation a few feet above surface grade.



Background depicts an area of very dense subcanopy with small pockets of less canopy (foreground) allowing substantial cover of various herbaceous species.



View of the Hillsborough River that meanders through the property, averaging 40-60 ft. wide, with very clear water.



One of the many overflow channels within the floodplain. Cypress tend to be concentrated along the channels with various wetland hardwood species dominating the remaining floodplain area.

#### SW-34 LAKE THONOTOSASSA SHORELINE RESTORATION MITIGATION PLAN

Project Name		Lake Thonotosassa Shoreline Project SW-34/I		SW-34/D004	
•	Resto	oration	Number		
Project Type	Wetland enhance	ement and restora	tion		
Landowner	Southwest F	lorida Water	Management	Southwest Florida Water	
Landowner	Managem		Entity	Management District	
County	Hillsborough		Watershed	Hillsborough River	
Water bodies	Lake Thonotosassa, Baker Creek		Water body	SW/INA water body	
water boules	Lake monotosa	Designations		SWIM water body	
Project impleme	entation status:	Pernetual Manag	romont		
(As of Decembe	r 2017):	Perpetual Management			
Project utilization:		Permitted FDOT projects: 2			
(As of December 2017)		Planned, not yet permitted, FDOT projects: None			
S/T/R:		11,12,13,14/28S/20E			

#### **BACKGROUND INFORMATION:**

#### **IMPACT INFORMATION** (As of December 2017):

			Total		
Watershed	FM #	Project Name	Impacts (ac.)	ERP permit #	ACOE Permit #
Hillsborough		SR 54 – US 41 to			
River	2563431	Cypress Creek	16.82 <sup>1</sup>	43019567.000	1995-01451
Hillsborough		US 41 Bell Lake to			
River	2563151	Tower Rd	1.63	44018030.002	*
		Total Impact			
		Acreage:	18.45		

<sup>1</sup>14.11 acres in ERP

\*ACOE permit mitigation at Hillsborough River Corridor (SW 63)

#### **MITIGATION INFORMATION** (As of December 2017):

Habitat	Mitigation Type	Watershed	Acreage
	Restoration and		
Marsh and Cypress	Enhancement	Hillsborough River	98
		Total:	98

#### **PROJECT DESCRIPTION**

**A. Overall project goals:** The primary goal was to improve fish and wildlife habitat and water quality through enhancement and restoration of 98 wetland acres along the southeastern shoreline of Lake Thonotosassa.

**B.** Brief description of pre-construction habitat conditions: The southeast shoreline of Lake Thonotosassa included a large wetland that was historically filled with lake bottom sediment and that was hydrologically separated from the lake by a constructed berm and seawall. Historic contributing basin flow from the south through the wetland was diverted straight into the lake by the construction of the Baker Creek Canal. The 78-acre filled area was converted to a Bahia pasture with collector ditches that drained surface water west to a lower elevation retention area adjacent to the berm. The retention area generated a marginal, low quality, soft rush marsh. When the marsh was periodically inundated, water was pumped over the berm to maintain relatively dry conditions to improve pasture conditions. A separated 20-acre portion of the project included a wetland-dredged pond referred to as "Otter Lake" and a collection ditch that had minimal hydrologic connectivity into the lake.

**C. Brief description of construction activities and current habitat conditions:** The restored and enhanced marsh and planted cypress compensate for the acreage and function of the marsh, open water, and cypress wetlands impacted by the expansion of the SR 54 segment. No additional roadway wetland impacts are proposed for mitigation at the site. Success criteria included a minimum 85% coverage of desirable species in the eastern half of the restored wetland and less than 10% nuisance/exotic species. Supplemental planting occurred in the fall of 2003 and again in late 2004 to achieve additional coverage. The western portion of the marsh could provide more open water to attract associated wildlife species.

#### D. Brief explanation of how this work serves to offset the impacts of the specified DOT

**project(s):** The created marsh and planted cypress replace the acreage and function of the marsh, open water and cypress wetlands impacted along SR 54. This mitigation project is a part of a larger restoration project which gives this project a greater chance of success and of attracting the desired fish and wildlife benefits.

E. Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: Mitigation bank options were not available for consideration at the time of permitting.

F. Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: This project is identified in the 2003 SWIM Plan for Lake Thonotosassa.

#### **PROJECT IMPLEMENTATION**

•	Planning, Design and Construction:	1998-1999
•	Supplemental planting completed:	Fall 2003 and Fall 2004
٠	Monitoring:	2014, 2015, 2016, 2017
٠	Maintenance:	2004-2017
٠	USACE release letter submitted:	July 11, 2017

Perpetual Management:

#### Entity responsible for construction: SWFWMD

*Entity responsible for monitoring and maintenance:* SWFWMD is responsible for FDOT site; however, qualitative monitoring will no longer be performed, and site will go into perpetual maintenance.

Ongoing

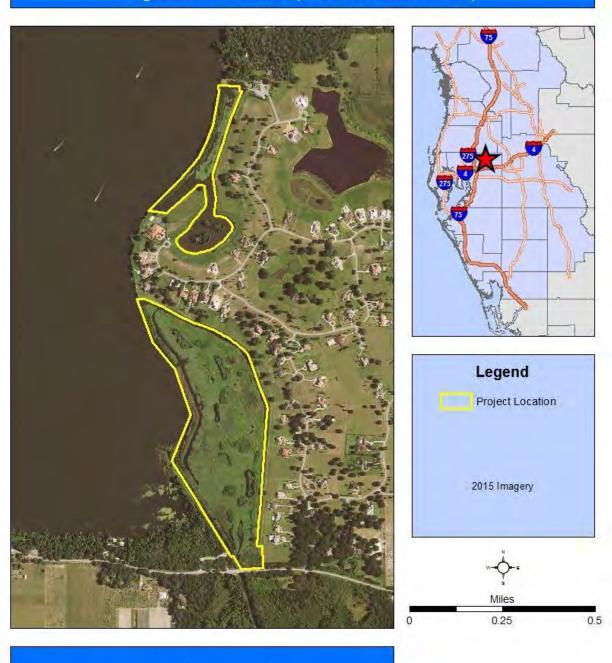
*Entity Responsible for perpetual maintenance:* SWFWMD **Cost for 2017 monitoring:** \$10,044.00

Cost for 2017 maintenance: \$0

### Total Cost for FDOT Mitigation Including O&M: \$585,612.19

#### ATTACHMENTS

- 1. Figure A-Location
- 2. Figure B-Pre-construction (2014)
- 3. Figure C-Post-construction (2014)
- 4. Photographs (2016)

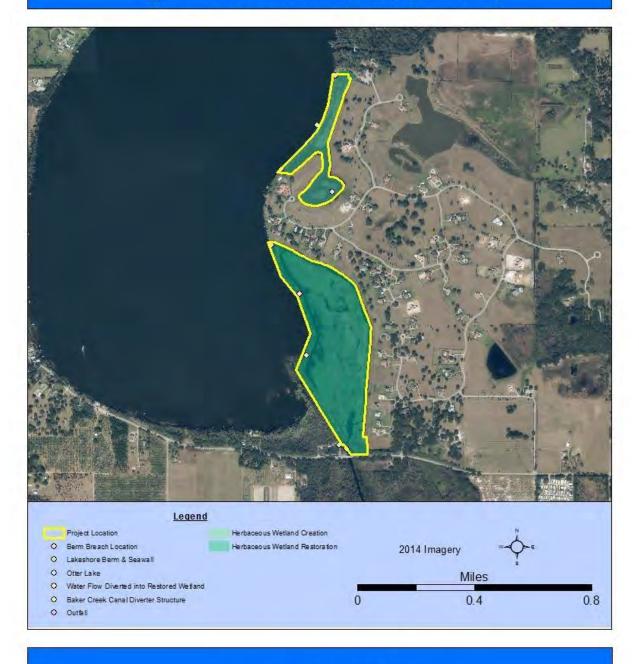


## SW 34 - Lake Thonotosassa Shoreline Restoration Figure A - Location (11,12,13,14/28S/20E)

## SW 34 - Lake Thonotosassa Shoreline Restoration Figure B - Pre-Construction (11,12,13,14/28S/20E)



### SW 34 - Lake Thonotosassa Shoreline Restoration Figure C - Post-Construction (11,12,13,14/28S/20E)





Lake Thonotosassa North Marsh and Slough. (2016)



Lake Thonotosassa North Marsh and Slough. (2016)



Lake Thonotosassa South Marsh and Slough. (2016)



Lake Thonotosassa South Marsh and Slough. (2016)

#### SW-83 LITTLE MANATEE RIVER – LOWER TRACT MITIGATION PLAN

Project Name	Little Manatee River – Lower Tract		Project Number	SW-83/D039	
Project Type	Wetland and upl	and enhancement	Ī		
Landowner	Southwest Florida Water Management District and Hillsborough County		Management Entity	Hillsborough County/ Southwest Florida Water Management District	
County	Hillsborough		Watershed	Little Manatee River	
Water bodies	Little Mar	atee River	Water body Designations	Outstanding Florida Water	
• •	<b>Project implementation status:</b> (As of December 2017):		Monitoring and Maintenance		
Project utilization:		Permitted FDOT projects: 1			
(As of Decembe	(As of December 2017)		Planned, not yet permitted, FDOT projects: 0		
S/T/R:		20,29/32S/19E			

#### **BACKGROUND INFORMATION:**

#### **IMPACT INFORMATION** (As of December 2017):

Watershed	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
Little Manatee River	4154893	US 301 Sun City Center to Balm Road <sup>1</sup>	0.65	43034464.000	2008-03613
		Total:	0.65		

<sup>1</sup>This US 301 segment proposes additional wetland impacts in the Tampa Bay Drainage Basin that are mitigated in the Ekker Tract (SW 82) and through on-site wetland creation by FDOT.

#### **MITIGATION INFORMATION** (As of December 2017):

Habitat	Mitigation Type	Watershed	Acreage
Upland Buffers	Enhancement	Little Manatee River	29.15
Wetlands	Enhancement	Little Manatee River	3.97
		Total:	33.12

#### **PROJECT DESCRIPTION**

**A. Overall project goals:** The Little Manatee River – Lower Tract (LMR) was acquired by Hillsborough County and the SWFWMD and is managed by Hillsborough County. The 1,902-acre tract is bisected by Interstate-75 and the Little Manatee River meanders through the parcel. The majority of the LMR tract has high quality native habitat conditions; however, there was a 142-acre portion of previously cleared upland and wetland habitat covered in exotic species, predominantly Brazilian pepper and cogon grass. The original goal was to eradicate exotics and plant appropriate species to enhance approximately 139.4 acres of uplands and 2.6 acres of wetlands. The mitigation plan for this site has been revised to enhance 3.97 acres of wetlands and 29.15 acres of upland buffers surrounding the 3 wetlands.

Β. **Brief description of pre-construction habitat conditions:** Except for the designated project area, the majority of the LMR tract has high quality and diverse upland and wetland ecosystems. The upland habitats include a dominance of pine flatwoods with areas of sand pine scrub predominantly located along the riverbank and mixed hardwoods and coastal hammocks located on slight ridges between meandering tributaries of the river. Wetland systems are dominated by estuarine marsh habitats bordering the river and associated tributaries, as well as scattered freshwater marshes in the flatwoods. The upland portion of the designated 39.15-acre project area was historically dominated by pine flatwood habitat prior to conversion to improved pasture in the 1980's. After cattle operations were discontinued and the LMR tract was publicly acquired, native and exotic vegetation covered the pasture. Dominant ground cover currently consists of Bahia grass and broomsedge, with scattered pockets of cogongrass throughout. A shrub component includes scattered Brazilian pepper, wax myrtle, cabbage palms and longleaf pine. There are three wetlands within the designated project area. Wetland #1 (0.69 acre) was an isolated marsh with a dominance of cattails, smartweed and maidencane. Wetland #2 (0.49 acre) had similar herb species with a transitional perimeter of wax myrtle and Brazilian pepper. The northern portion of Wetland #3 (2.79 acres) was a marsh system with dominant species like the other two wetlands. During extreme wet conditions, this marsh has a hydrologic connection south to the river through a shrub area of Brazilian pepper and wax myrtle. The project area is bordered on the west by Interstate-75, north by an FDOT rest area and the northeast by row crop areas. South and southeast of the project area is a borrow pit, high quality pine flatwoods, and sand pine scrub along the riverbank.

**C. Brief description of construction activities and current habitat conditions:** In 2004, there was a partial herbicide eradication of some Brazilian pepper within the western and northern portion of the project area and the dead pepper was pushed into separate piles. Activities conducted in 2007 included treatment, cutting and burning the previously untreated and re-generated pepper. The cogon grass in the uplands and cattails within the marshes were also treated with herbicide. Routine herbicide maintenance has resumed to control regeneration of the Brazilian pepper, cattails, and especially cogon grass.

**D.** Brief explanation of how this work serves to offset the impacts of the specified DOT project(s): Maintenance activities will continue until success criteria are met. These activities include herbicide treatments as necessary of Brazilian pepper, cogon grass, cattails and any other exotic and nuisance species. It is envisioned that the same long-term land management activities of the remaining LMR tract will be adopted in the project area, particularly implementation of a prescribed burn program on 3-5year rotation cycles and any supplemental pine planting necessary to provide appropriate coverage.

Monitoring will be conducted annually by the SWFWMD and will include qualitative assessment and photo documentation of vegetative conditions, wildlife activities, wetland hydrology and hydroperiods and any miscellaneous activities such as land management and herbicide maintenance. Success criteria vary and are dependent on the habitat areas. Herb cover for the wetlands include 80% cover of desirable species and less than 5% cover of exotic and nuisance species. For the enhanced uplands, success criteria include achieving less than 5% coverage of exotic and nuisance species, greater than 90% survivorship of planted material, and site conditions must be maintained to allow implementation of a prescribed fire program.

**E.** Brief explanation of how this work serves to offset the impacts of the specified DOT project(s): There are very few state roadways located within the small Little Manatee River basin, and the US 301 segment is the first project since the inception of the FDOT mitigation program in 1996 that has any proposed wetland impacts in the basin. The anticipated minor marsh impacts (0.9-acre) are low quality and appropriately mitigated at the LMR tract years in advance of the anticipated roadway construction.

F. Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: During the mitigation selection during 2006, there were no existing or proposed mitigation banks in the Little Manatee River Basin.

**G.** Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: This mitigation project was within SWIM's Five-Year Habitat Restoration Plan.

#### **PROJECT IMPLEMENTATION**

<ul> <li>Initial herbicide application and Brazilian pepper burnin</li> </ul>	g: 2007
<ul> <li>Additional herbicide treatments:</li> </ul>	Winter 201

- Supplemental pine plantings:
- Monitoring:
- Maintenance:
- Perpetual Management:

*Entity responsible for construction:* Hillsborough County

*Entity responsible for monitoring and maintenance:* Maintenance by private contractors selected by Hillsborough County, and monitoring conducted by private contractor selected by SWFWMD for FDOT site.

**Entity responsible for perpetual management:** Hillsborough County and/or SWFWMD (Is this correct: "Hillsborough County is responsible for county lands and private contractor selected by SWFWMD for FDOT site.")

Cost for 2017 monitoring: \$4,925.77

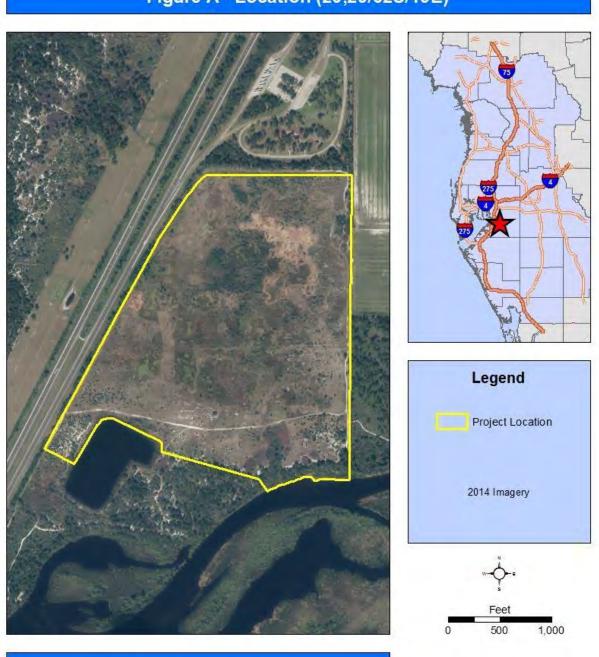
Cost for 2017 maintenance: \$0

Total Cost of FDOT Mitigation Including O&M: \$130,501.87

#### ATTACHMENTS

- 1. Figure A-Location
- 2. Figure B-Pre-Construction (2005)
- 3. Figure C-Post-Construction (2014)
- 4. Photographs (2016)

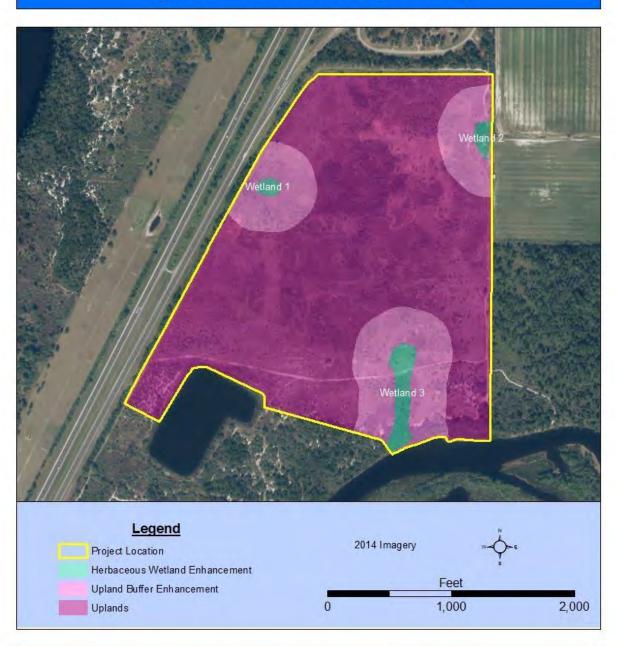
Winter 2010 Summer 2010 2014, 2015, 2016, 2017 Ongoing To Be Determined



# SW 83 - Little Manatee River - Lower Tract Figure A - Location (20,29/32S/19E)



## SW 83 - Little Manatee River - Lower Tract Figure B - Pre-Construction (20,29/32S/19E)



# SW 83 - Little Manatee River - Lower Tract Figure C - Post-Construction (20,29/32S/19E)



Wetland 1 south, looking north. (2016)



Wetland 3 south looking north. (2016)



Wetland 4 looking north. (2016

### SW-86 MOBBLY BAYOU WILDERNESS PRESERVE MITIGATION PLAN

Project Name	Mobbly Bayou Wilderness Preserve		Project Number	SW-86/D052
Project Type	Wetland Restora	ition and enhance	ment	
Landowner	Pinellas County and City of Oldsmar		Management Entity	Pinellas County/Southwest Florida Water Management District
County	Pinellas		Watershed	Tampa Bay Drainage
Water bodies	Mobbly Bayou, Tampa Bay		Water body Designations	SWIM Water Body, Pinellas County Aquatic Preserve
<b>Project implementation status:</b> (As of December 2017):		Phase 1-Monitoring and Perpetual Management		
Project utilization:		Permitted FDOT projects: 5		
(As of December 2017)		Planned, not yet permitted, FDOT projects: 0		
S/T/R:		25,36/28S/16E		

### **BACKGROUND INFORMATION:**

### **IMPACT INFORMATION** (As of December 2017):

Watershed	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
Tampa Bay Drainage	2569312	Gandy Blvd. (SR 694) 9th Street to 4th Street North	0.33	43011339.007	2010-00652
Tampa Bay Drainage	2584151	I-4 (SR 400) @ Selmon Expressway	5.46	44012347.014	2010-03007
Tampa Bay Drainage	4125313	I-275 @ I-275 NB Off-Ramp to SR 60 Airport Flyover	0.94	43008209.002	2008-02056
Tampa Bay Drainage	4168381	US 92 (SR 600 / Gandy) Pelican Sound to Gandy Bridge	0.90	43011339.006	2009-03493
Tampa Bay Drainage	4245611	SR 60 - Pinellas/Hillsborough C.L. to Rocky Point Drive	0.13	44000920.009	2010-00993
		Total:	7.76		

#### **MITIGATION INFORMATION** (As of December 2017):

Habitat	Mitigation Type	Watershed	Acreage
Mangroves	Restoration and enhancement	Tampa Bay Drainage	94.57
		Total:	94.57

### **PROJECT DESCRIPTION**

**A. Overall project goals:** The Mobbly Bayou Wilderness Preserve is located along the northern portion of Tampa Bay, a designated SWIM priority water body. This Preserve is a 383-acre parcel within one of the few undeveloped tracts adjacent to Tampa Bay. The Preserve has diverse upland and wetland habitats critical for a wide variety of wildlife species. However, these habitats have been impacted by the construction of mosquito ditches, ponds and adjacent development. Uncontrolled establishment of

exotic plants threaten natural habitats as well. The project goal is to restore and enhance mangrove swamp communities by filling mosquito control ditches and eradicating exotic plants in and around these areas.

**B.** Brief description of pre-construction habitat conditions: The Preserve's habitats include a dominance of mangrove forest and salt marsh, with additional coverage provided by saltern, pine flatwoods, cabbage palm flatwoods, coastal hammock and freshwater marsh. Much of the mangrove forest, salt marsh and saltern habitat have been hydrologically altered by the construction of mosquito ditches. Mosquito control ditches limit appropriate and adequate tidal range and fluctuation within the estuarine wetlands. In addition, because of diverted storm and surface water from adjacent developed areas, there is less frequency and consistency of contributing freshwater components critical for maintaining appropriate estuarine habitats. The combination of less estuarine habitat receiving and retaining tidal flow from the south and inconsistent contribution of freshwater from the north has resulted in fewer wetlands having appropriate hydrology, hydroperiods and salinity levels. This is particularly evident within the slightly higher elevations of salt-marsh habitat and adjacent upland habitats, which have substantial coverage by Brazilian pepper.

**C. Brief description of construction activities and current habitat conditions:** The overall restoration objectives and plan for the Preserve evolved over many years with input from various entities including but not limited to Pinellas County, SWFWMD – SWIM, FDEP, FDEP Aquatic Preserve Program, U.S. Geological Survey and various members of the public. Consensus was reached on the major elements of ecosystem restoration and management that need attention. This mitigation plan will focus on the elements that will restore or enhance mangrove swamp communities on lands for which Pinellas County has management responsibility.

In areas where the natural grade has not been altered and Brazilian pepper has become established, Brazilian pepper will be removed using herbicides applied by a licensed herbicide applicator. Maintenance will be conducted as needed until vegetation becomes reestablished, which was expected to be quarterly for the first three years after construction activities and at least semi-annually thereafter for a minimum of two additional years and until success criteria are met. Afterward, maintenance activities will be conducted as part of the perpetual management of the tract to maintain success.

**D.** Brief explanation of how this work serves to offset the impacts of the specified DOT project(s): Most of the roadway projects proposed for mitigation at the Preserve have anticipated minor impacts to low quality wetlands and surface waters in the Tampa Bay drainage basin. The Mobbly Bayou restoration project will target mangrove restoration and enhancement so that appropriate compensation for the unavoidable mangrove impacts is provided.

**E.** Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: At the time the FDOT projects were submitted for inclusion in the FDOT Mitigation Program, the Tampa Bay Mitigation Bank had insufficient credit to offset the identified wetland impacts. Consideration of the Tampa Bay Mitigation Bank as a mitigation option for the unpermitted FDOT projects will be given as described in the mitigation section of the Plan or in future updates of the Plan.

F. Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: The proposed habitat improvements activities are associated with a SWIM-designated project.

### **PROJECT IMPLEMENTATION**

- Design and Permitting: 2005-2016
- Phase 1 Nuisance/Exotic Removal: 2005-2006
- Monitoring: 2015, 2016, 2017
- Maintenance: 2012-2017
- Perpetual Management: Ongoing

# Entity responsible for construction: SWFWMD

### Entity responsible for monitoring and maintenance: SWFWMD

*Entity responsible for perpetual management:* Pinellas County is responsible for county lands and private contractor selected by SWFWMD for FDOT site.

Cost for 2017 monitoring: \$24,671.36

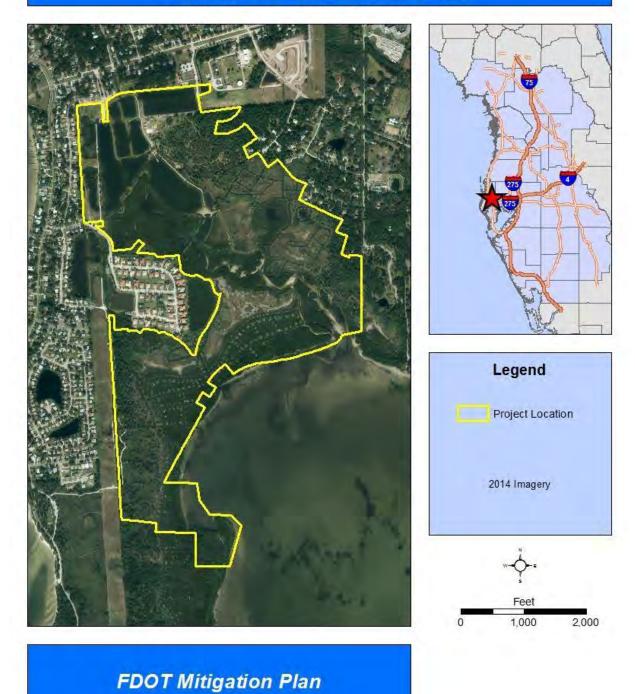
**Cost for 2017 maintenance:** \$15,900.00

### Total Cost for FDOT Mitigation Including O&M: \$420,746.36

## ATTACHMENTS

- 1. Figure A-Location
- 2. Figure B-Pre-Construction (2004)
- 3. Figure C-Post-Construction (2014)
- 3. Pictures (2017)

# SW 86 - Mobbly Bayou Wilderness Preserve Figure A - Location (25,36/28S/16E)



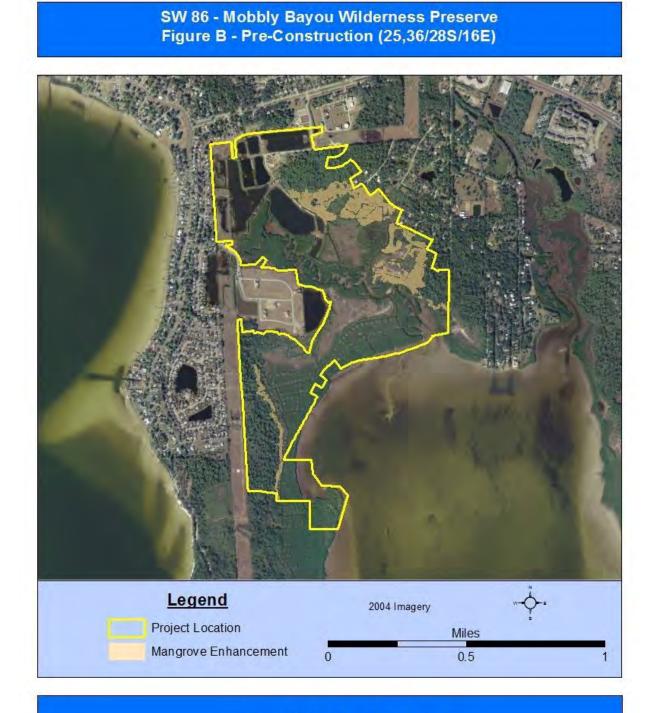






Photo taken from qualitative monitoring site D facing North. Treated Brazilian pepper can be seen in the background. (April 2017)



Photo taken from qualitative monitoring site M facing North. Low growth mangrove trees are present in the background. (April 2017)



Photo taken from qualitative monitoring site O facing West. Healthy Spartina is present in the foreground and treated Brazilian pepper is present in the background. (April 2017)



Photo taken from qualitative monitoring site N facing North. Treated Brazilian pepper is present in the background. (April 2017)

## SW-65 RUTLAND RANCH - SOUTH TRACT MITIGATION PLAN

Project Name	Rutland Ranch	n – South Tract	Project Number	SW-65/D022
Project Type	Wetland restoration and enhancement; upland enhancement			
Londouron	Southwest F	lorida Water	Management	Southwest Florida Water
Landowner Manage		ent District	Entity	Management District
County	Manatee		Watershed	Manatee River
Water bodies	Not named		Water body	None
water boules			Designations	None
<b>Project implementation status:</b> (As of December 2017):		Monitoring and Perpetual Management		
Project utilization:		Permitted FDOT projects: 4		
(As of December 2017)		Planned, not yet permitted, FDOT projects: None		
S/T/R:		23,25,26,27,34/34S/20E		

#### **BACKGROUND INFORMATION:**

## **IMPACT INFORMATION** (As of December 2017):

Watershed	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
Manatee River	1960222	SR 64 (Seg. 1) I-75 to Lena Rd.	2.81	43020580.009	1999-01379
Manatee River	1960223	SR 64 (Seg. 2) Lena Rd. to Lakewood Ranch Rd.	0.84	44016872.018	2004-02700
Manatee River	1961211	SR 70 (Seg. 1) I-75 to Lakewood Ranch Rd.	1.40	44025920.001	2003-11659
Manatee River	4043232	SR 70 (Seg. 2) Lake Ranch Rd. to Lorraine Road	3.62	43025920.000	2004-00032
		Total Impact Acreage:	8.67		

# MITIGATION INFORMATION (As of December 2017):

Habitat	Mitigation Type	Watershed	Acreage
Forested and non-forested wetlands	Restoration and enhancement	Manatee River	73
Freshwater marsh	Restoration	Manatee River	5
Palmetto prairie	Restoration	Manatee River	10
Upland buffers	Enhancement	Manatee River	25
		Total:	113

## **PROJECT DESCRIPTION**

**A. Overall project goals:** The Rutland Ranch property (also referred to as "Chance Reserve") is owned and managed by the SWFWMD. The property includes two parcels separated by private lands along

Gilley Creek, with the FDOT mitigation project conducted within the southern tract (Figure A). Prior to public acquisition, over half of the 1000-acre south tract was historically used for row crops and cattle production (Figure B). The site has 15 wetland areas and the majority are marshes interconnected with large ditches that substantially altered the wetland hydrology and vegetative composition. The project goal included completely filling some ditches and constructing blocks in other ditches to restore ground and surface water hydrology, and to subsequently enhance and restore appropriate wetland habitat. Upland buffers around the wetlands and filled ditches could regenerate native vegetation and were supplemented with plantings to enhance habitat conditions and wildlife corridors between the marshes.

**B.** Brief description of pre-construction habitat conditions: The SWFWMD acquired the Rutland Ranch property in 1998 for several purposes. The tract is located within the Southern Water Use Caution Area (SWUCA), a designated area where groundwater resources are at critical levels that require limitations of water well withdrawals. The property, located less than a mile from the Manatee River and Lake Manatee Reservoir, contributes surface and ground water to these water bodies. Land use changes from row crops to less intensive agricultural operations (e.g. cattle grazing) not only place less strain on consumptive use (water quantity) but results in a reduction of nutrients (water quality) that contribute to the watershed and the Manatee River. Acquiring the property also provided the opportunity to restore and enhance wetland and upland habitats in the basin.

The SWFWMD discontinued the row crop operations and implemented a reduced production cattle lease on the tract, with the long-term plan to gradually conduct additional upland restoration and enhancement activities. The pastures on the property are so extensive that restoring them to flatwoods will require time, so a smaller population of cattle was allowed so the pastures do not become overgrown with nuisance vegetation. The cattle production was not only reduced but the cows were dispersed over the entire tract. Palmetto prairie dominates the western one-third and southeast corner of the tract. The vegetation of these prairies includes dominance by saw palmetto, broomsedge, and wiregrass.

Ditches excessively drained surface and ground water from the uplands and most of marshes located within the pastures (particularly Wetlands 5-11 and 13). These marshes are shallow ephemeral wet prairie wetland systems, with a dominant cover of maidencane and moderate coverage of St. John's wort. Ditches vary in size with the smaller ditches averaging 10-15 ft. wide and 2-3 ft. deep, moderate size drainage ditches are 20-25 ft. wide and 5-8 ft. deep and the large drainage ditches are 25-30 ft. wide and 6-8 ft. deep. Ditch sizes increased as the ditches progressed downstream (south) conveying large volumes of water off-site. Prior to construction, the marshes had very minimal hydroperiods due to the ditches and the marshes transitioned from maidencane-dominated systems to upland and facultative vegetative species such as broomsedge (*Andropogon virginicus*). The most extensively ditched marsh was Wetland 12, which had few relic indicators of wetland functions and no evidence that it had retained any surface water for many years. Remnant pockets of maidencane within the cross-ditches were present due to intermittent periods of surface water draining into the large interior collector ditch. Other upland species that recruited into Wetland 12 included gallberry, wax myrtle, and scattered pine. There are five wetlands that had upland spoil ridges present because of ditch construction. These spoil areas were covered with Bahia grass and saltbush.

**C. Brief description of construction activities and current habitat conditions:** Initial activities included herbicide treatment of exotic and nuisance species within the ditches (predominantly cattails), followed by construction activity to backfill most of the ditches and to install ditch blocks to restore

ground and surficial hydrology for most on-site wetlands (Figure C). Earthwork construction and planting activities were conducted in the spring and summer of 2002. Herb planting was conducted in the exposed earthwork areas of those wetlands where the spoil was cut to backfill the ditches; including the extensive "fish-bone" ditches throughout the largest wetland (Wetland 12). The upland buffers around Wetlands 1-4 and 12 were planted with scattered longleaf pine to improve buffer habitat. Supplemental herb planting, cypress and maple were planted within Wetland 12 in 2004. A total of 2,500 trees and 56,420 herbs were planted and successfully established in association with the habitat improvements. Quarterly herbicide maintenance events and semi-annual monitoring continued through 2009. Perpetual management includes maintenance events, including herbicide treatments and prescribed fire within the palmetto prairie.

The original construction plan proposed using a dominance of blocks within the ditches to restore wetland in the palmetto prairie; however, upon evaluation during major flood events, it was determined that ditch blocks alone could not offset the substantial volume of groundwater drawdown caused by the deep ditches located adjacent to Wetlands 7-9. Therefore, total backfill of those ditch segments were conducted during July 2002. In addition, total filling was conducted for the ditch segment crossing through Wetland 5 and a portion of Wetland 6. Ditch blocks were constructed to protect existing trees and shrubs generated on the spoil while restoring hydrology in Wetland 6. The ditch block option also provides an open water source in the remaining ditch segments for wildlife use during the dry season. After ditch backfill, herb generation and seed recruitment from adjacent native habitat occurred and provides over 90% ground cover of desirable vegetation, resulting in 10 acres of upland habitat restoration in the footprint of the ditches and adjacent spoil material.

After the current cattle lease commenced in late 2002, former row crop fields were planted with Bahia grass. To reduce cattle, use of the marshes for a water source, three large cattle ponds were excavated in the pastures. Due to on-going issues with cattle grazing in the marshes, cattle exclusion fencing was installed in 2018. The pre-existing upland habitat buffers of palmetto around Wetlands 1-4 and 12 were not allowed to be removed as part of the cattle lease. Supplemental plantings of longleaf pines were planted within these palmetto buffers. An average 50 ft. wide upland corridor of native habitat was enhanced between Wetlands 3, 4, and 12. Existing palmetto, pines, and myrtles located on spoil material within this corridor were preserved from the construction activity necessary to fill the adjacent ditches. Supplemental trees and native grass seed have replaced the deep ditches with desirable upland vegetation, resulting in two acres of pine flatwood restoration to replace the upland-cut ditches. Pine planting provided 23 acres of upland buffer enhancement around Wetlands 1-4, and 12.

Once the spoil areas in wetland marshes were graded to fill the adjacent ditches, herb plantings were conducted within the earthwork areas. These plantings included predominantly soft rush for exposed soil in the more ephemeral Wetlands 2, 4, 5, and 6, and arrowhead, pickerelweed and bulrush in Wetland 12. A supplemental planting of herbs and trees occurred in the remaining portions of Wetland 12 and included bulrush, alligator flag, pickerelweed, arrowhead, spikerush, sawgrass, spatterdock, cypress, and red maple. An older spoil ridge through the middle of Wetland 12 was covered with oak trees that were left to result in mortality from the restored hydrology to create snags for wildlife use.

Success criteria required 90% survivorship of planted stock, less than 10% coverage of exotic and nuisance species, and a minimum 85% coverage of desirable species within the enhanced and restored marshes and designated upland buffers. As of 2015, these success criteria are being met in some but not all the mitigation wetlands. Nuisance and exotic species are being treated in Wetland 12. Plans are

underway to fence off Wetlands 1, 2, 3, 4, and 12 to replant pine and wetland trees as originally required by the mitigation plan. The previously planted trees were apparently eaten by cattle. Corrective actions are planned for 2017.

## D. Brief explanation of how this work serves to offset the impacts of the specified DOT project(s):

The mitigation activities resulted in 73 acres of wetland enhancement associated from the hydrologic restoration. The largest wetland (22 acres) had the most altered habitat pre-construction, with minimal functions to even qualify as a wetland. There were also 5 acres of wetland restoration within the footprint of where ditches and adjacent spoil material were graded to match historic wetland grade elevations and planted with herbs. The activities also included 10 acres of upland habitat restoration from grading ditches in the palmetto prairie, and 25 acres of upland habitat enhancement that buffer Wetlands 1-4 and 12. This results in a total mitigation acreage of 113 acres that adequately and appropriately mitigate for the 8.11 acres of roadway wetland impacts. No additional roadway projects have been or will be proposed for mitigation at Rutland Ranch.

E. Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: At the time of mitigation selection in 2001, there were no existing or proposed mitigation banks within the Manatee River Basin.

F. Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: At the time of selection, there were no SWIM projects in the Manatee River Basin.

2004

#### **PROJECT IMPLEMENTATION**

•	Planning and design:	Spring 2001
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- Construction and first planting: 2002
- Supplemental Wetland 12 planting:
- Monitoring: 2007, 2008, 2009, 2014, 2015, 2016, 2017
- Maintenance:
- Perpetual Management:

2007, 2008, 2009, 2014, 2015, 20 2004-20017 Ongoing

## Entity responsible for construction: SWFWMD

Entity responsible for monitoring and maintenance: SWFWMD

Entity responsible for perpetual management: SWFWMD

Cost for 2017 monitoring: \$44,948.00

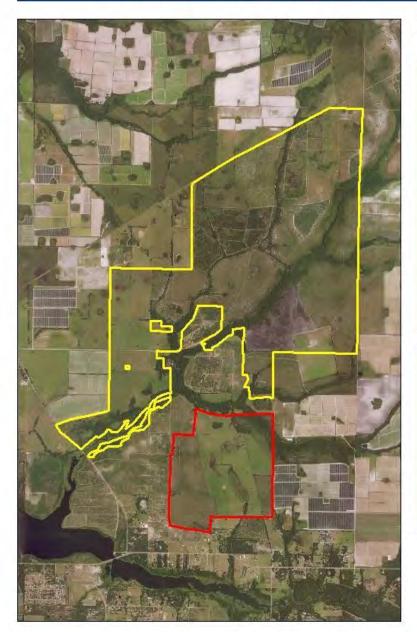
Cost for 2017 maintenance: \$30,000.00

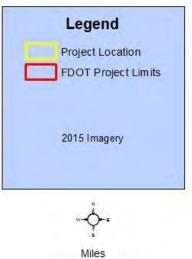
Total Cost for FDOT Mitigation Including O&M: \$452,398.51

# ATTACHMENTS

- 1. Figure A-Location
- 2. Figure B-Pre-Construction (1999)
- 3. Figure C-Post-Construction (2014)
- 4. Photographs (2001, 2002, 2009, 2014)

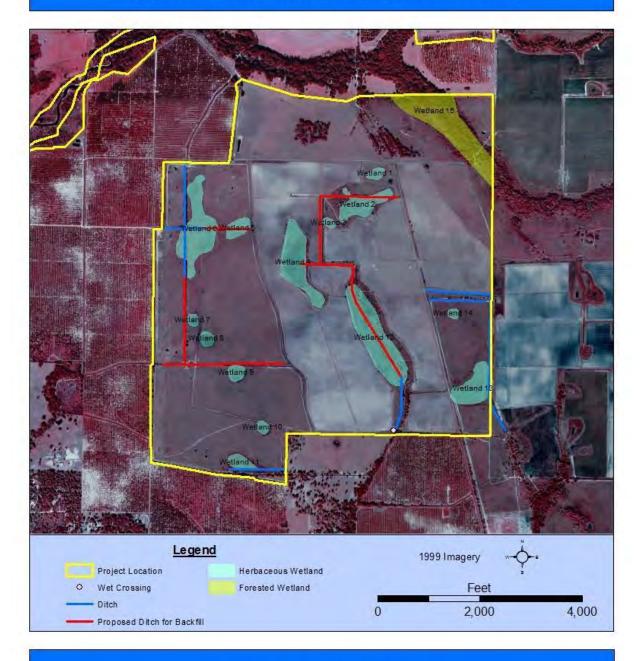
# SW 65 - Rutland Ranch - South Tract Figure A - Location (23,25,26,27,34/34S/20E)



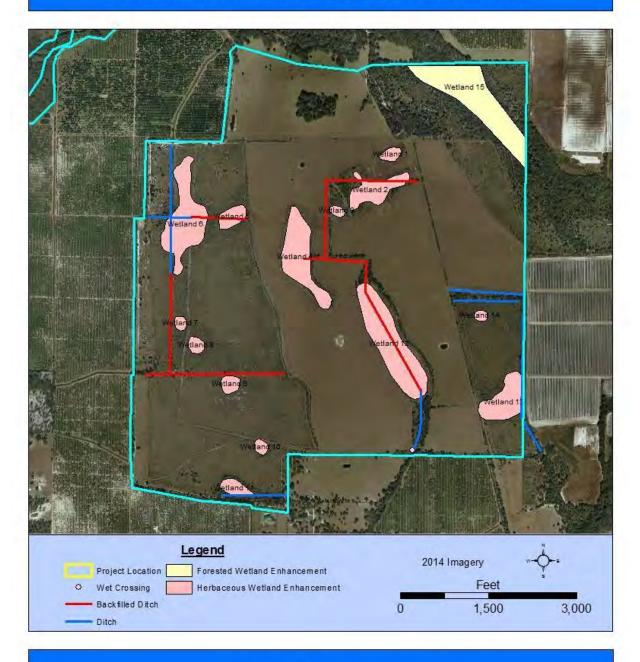


0.5

# SW 65A - FDOT Project Limits (Rutland) Figure B - Pre-Construction (23,25,26,27,34/34S/20E)



# SW 65A - FDOT Project Limits (Rutland) Figure C - Post-Construction (23,25,26,27,34/34S/20E)





Wetland 3 Pine Flatwoods Buffer Adjacent to Improved Pasture (2017)



Wetland 12 Pine Flatwoods Buffer (2017)



Wetland 12 Oak Hammock/Pine Flatwoods Buffer (2017)



Wetland 12 Transect 2 Begin (2017)



Wetland 12 Transect 2 End

# SW-74 SERENOVA PRESERVE - SITES 2, 3, 4, 8 MITIGATION PLAN

Project Name	Serenova Preserve - Sites 2, 3, 4, 8		Project Number	SW-74/D031
Project Type	Wetland enhance	ement and restora	tion	
Landowner	Southwest F	lorida Water	Management	Southwest Florida Water
Landowner	Managem	ent District	Entity	Management District
County	Pasco		Watershed	Upper Coastal Drainage
Water bodies	Pithlachascotee	e River, Five Mile	Water body	None
water boules	Cre	eek	Designations	None
<b>Project implementation status:</b> (As of December 2017):		Monitoring and F	Monitoring and Perpetual Management	
Project utilization:		Permitted FDOT projects: 1		
(As of December 2017)		Planned, not yet permitted, FDOT projects: None		
S/T/R:		11,13,14,23,24,25,26,34,35,36/25S/17E		

#### **BACKGROUND INFORMATION:**

### **IMPACT INFORMATION** (As of December 2017):

	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
Upper Coastal Drainage	2563161	SR 52 Hicks to Moon Lake	1.57	40007804.001	1990-03363
		Total Impact Acreage:	1.57		

## MITIGATION INFORMATION (As of December 2017):

Habitat	Mitigation Type	Watershed	Acreage
Freshwater forested wetlands	Enhancement and Restoration	Upper Coastal Drainage	26.00
		Total:	26.00

#### **PROJECT DESCRIPTION**

**A. Overall project goals:** The Serenova Preserve and adjacent Starkey Wilderness Preserve (totalover 20,000 acres) is owned and managed by the SWFWMD. After extensive evaluation and ranking of wetland restoration and enhancement opportunities within the Serenova Tract, it was determined that four separate project sites (2, 3, 4 and 8) could provide the most important wetland hydrologic improvements within the property. Three projects involve culvert installations and removal of berm material associated with the Pithlachascotee River and Five Mile Creek. The Pithlachascotee River has two access road berm crossings (Site 2 - actively used, Site 4 - abandoned) and Five Mile Creek has one crossing (Site 3). Each crossing requires improvements to restore surface water flow conditions through floodplains and to minimize continuous problems with erosion and sedimentation. Wetland hydrology was proposed to be restored in a large outfall ditch of a cypress system at Site 8 through the installation of ditch blocks.

Β. Brief description of pre-construction habitat conditions: The Pithlachascotee River and Five Mile Creek are forested wetland floodplains of relatively high-quality with a diverse canopy cover dominated by laurel oak, sweet gum, cypress, red maple, cabbage palm, and tupelo. A sub-canopy has saplings of the same species as well as Virginia willow, buttonbush, and wax myrtle. Ground cover is sparse due to canopy cover and is dominated by various fern and sedge species. Hydrologic characteristics of the floodplains have been altered by berms constructed prior to public acquisition and by undersized and insufficient culverts. The abandoned Pithlachascotee River crossing had a 600-ft. long berm that blocked and diverted surface water flow to a dredged river channel segment. The river channel had a partially collapsed bridge trestle that would catch debris and block flow. Another 680-ft. long berm crossing of the river is used for management access but had insufficient and undersized culverts. The upstream contributing flow was diverted through just three culverts in the main river channel. As a result, the wetland floodplain upstream of the berm experienced impounded surface water and less water contributed to the downstream wetland floodplain. The Five Mile Creek roadway crossing had an appropriate size culvert but insufficient rubble rip-rap to control erosion (Site 3). The cypress system associated with Site 8 had a dense canopy and fern understory, but hydrologic indicators demonstrated minimal hydroperiods due to a wide, shallow outfall ditch.

Brief description of construction activities and current habitat conditions: A surface water С. modeling effort was conducted in 2006 to determine the appropriate sizes and locations of culverts required for Sites 2 and 3 to restore the primary flow patterns of the Pithlachascotee River. The modeling effort resulted in replacing the three culverts in the main channel at Site 2 and the installation of two additional culverts at strategic locations where secondary channels historically provided flow to other areas within the floodplain. Evaluation of those culverts after installation has indicated restoration of flow regimes. The access road berm was also stabilized with rubble rock and capped with limerock base material, thus halting the erosion and sedimentation that was occurring with the previous road. The Five Mile Creek access road (Site 3) required resetting of the culvert and adding rubble and base material to stabilize the crossing. At Site 4, fill material from the berm was used to backfill an adjacent drainage ditch and the land was regraded and stabilized at the abandoned berm crossing to restore the historic floodplain flow patterns. The dilapidated bridge was also removed. Hydrophytic herbs, dominated by soft rush and sedges, have since recruited within the area, followed by tree seedlings, dominated by red maple, that will mature and eventually restore the canopy gap. The berm removal and adjacent backfilled ditch resulted in a one-acre area of restored wetland floodplain. The wide and shallow outfall ditch from the cypress system (Site 8) had three small ponds dredged within the footprint the ditch, with the resulting material used to create two substantial ditch blocks, stabilized with biodegradable mesh screens and Bahia seeding. The ponds provide a valuable water source for wildlife during the dry season, while the ditch blocks are rehydrating the adjacent forested wetland.

A minimal acreage of direct wetland enhancement was proposed for mitigation credits for each site. This minimal enhancement is based on wetland floodplain limits of 350 ft. upstream and downstream of each crossing (Sites 2, 3 and 4), and the most northern 300 ft. perimeter of the drained cypress wetland associated with Site 8. The enhancement acreage for each site is as follows:

- Project Site 2 The direct wetland enhancement was estimated at 11 acres (floodplain upstream and downstream 700 ft. x floodplain width 700 ft. = 11 acres).
- Project Site 3 Direct wetland enhancement was estimated at 2 acres (floodplain upstream and downstream - 700 ft. x floodplain width 150 ft. = 2 acres).

- Project Site 4 Direct wetland enhancement was estimated at 11 acres (length 700 feet x width 700 feet = 11 acres).
- Project Site 8 Direct wetland enhancement was estimated at 2 acres (length 300 feet x width 350 length = 2 acres).

Success criteria included ensuring the hydrologic flow patterns were adequately and appropriately restored, erosion control methods were maintained, and there was less than 5% coverage of any exotic and/or nuisance species vegetation within the restored wetland (Site 4). As of 2015, these successful habitat conditions have been achieved and maintained at all four project sites. Periodic inspection of the structures, rip-rap, etc. are conducted to ensure they function as intended, and that exotic and nuisance species do not become a problem at any of the sites. Due to the minimal presence of exotic or nuisance species on the Serenova property and within the vicinity of the four project sites, long term maintenance is expected to be minimal.

# D. Brief explanation of how this work serves to offset the impacts of the specified DOT project(s):

The SR 52 segment is a few miles northwest of the Serenova Tract. The 1.57 acres of forested wetland impacts are adequately and appropriately mitigated by the 26 acres of habitat enhancement and restoration at Serenova. This mitigation project is only designated to provide mitigation for the wetland impacts associated the SR 52 project.

E. Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: During mitigation selection, there were no existing or proposed mitigation banks within the Upper Coastal Basin.

F. Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: During mitigation selection, there were no existing or proposed SWIM projects in the Upper Coastal basin that could appropriately provide the mitigation for the proposed impacts.

## **PROJECT IMPLEMENTATION**

<ul> <li>Surface water modeling:</li> </ul>	2006
Construction:	November 2007 – April 2008
Monitoring:	2014, 2015, 2016, 2017
Maintenance:	2008 – 2010

Perpetual Management: Ongoing

## Entity responsible for construction: SWFWMD

Entity responsible for monitoring and maintenance: SWFWMD

Entity Responsible for perpetual management: SWFWMD

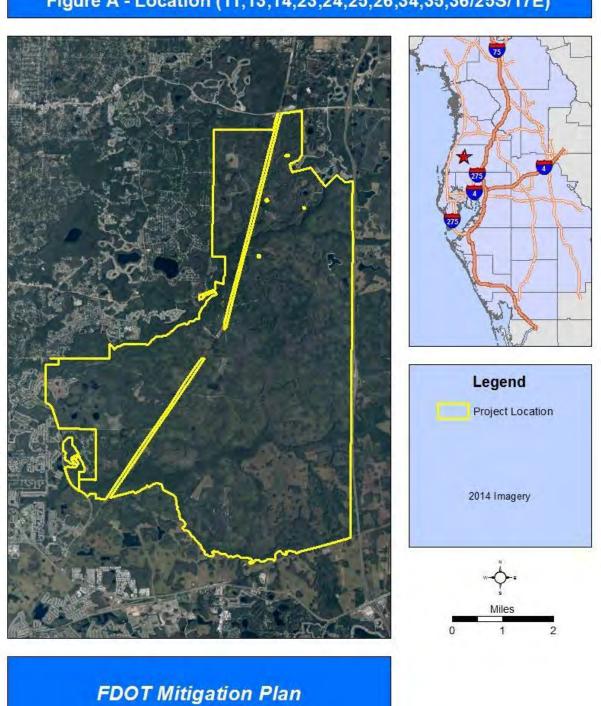
**Cost for 2017 monitoring:** \$8,561.12

Cost for 2017 maintenance: \$0

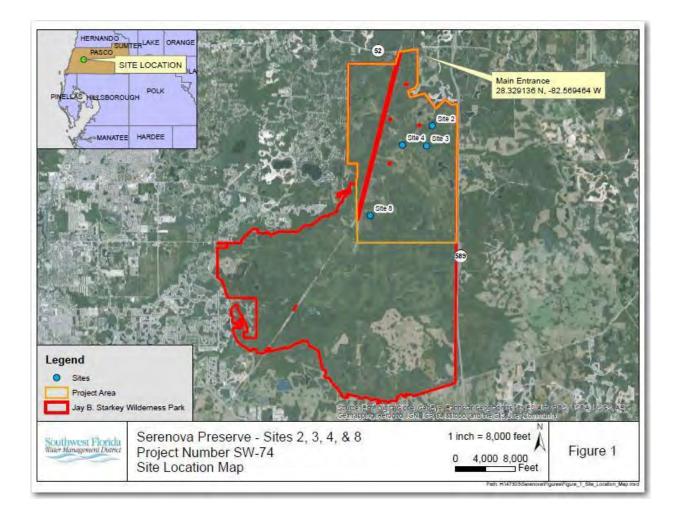
# **Total Cost for FDOT Mitigation Including O&M:** \$156,354.22

### ATTACHMENTS

- 1. Figure A-Location
- 2. Figure B-Pre-Construction (2004)
- 3. Figure C-Post-Construction (2014)
- 4. Site Photographs (2017)



# SW 74 - Serenova Preserve Sites 2,3,4,8 Figure A - Location (11,13,14,23,24,25,26,34,35,36/25S/17E)





View of Site 2 from the berm looking towards the floodplain area



View of Site 3 from the berm looking towards the floodplain area



View of Site 4 from the removed berm looking towards the floodplain area



View of pond created from ditch blocking at Site 8

### SW-62 TAPPAN TRACT MITIGATION PLAN

#### BACKGROUND INFORMATION:

Project Name	Tappan Tract		Project Number	SW-62/D014	
Project Type	Wetland Creatio	n and Enhancemer	nt and Upland Rest	oration	
Landowner	City of Tampa		Management Entity	City of Tampa/Southwest Florida Water Management District	
County	Hillsborough		Watershed	Tampa Bay Drainage	
Water bodies	Tampa Bay		Water body Designations	SWIM Water Body	
• •	<b>Project implementation status:</b> (As of December 2017):		Perpetual Management		
Project utilization:		Permitted FDOT projects: 1			
(As of December 2017)		Planned, not yet permitted, FDOT projects: None			
S/T/R:		17/30S/18E			

### **IMPACT INFORMATION** (As of December 2017):

Watershed	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
Tampa Bay Drainage	2557031	SR 60 Cypress St. to Fish Creek <sup>1</sup>	3.30	43002958.002	2002-05816
		Total Impact Acreage:	3.30		

<sup>1</sup> Mitigation for the saltwater marsh impacts is provided at the SW-67 Apollo Beach and SW-77 Cockroach Bay – Saltwater. The freshwater marsh impacts are mitigated at the SW-56 Cockroach Bay – Freshwater.

### **MITIGATION INFORMATION** (As of December 2017):

Habitat	Mitigation Type	Watershed	Acreage
Tidal pool	Creation	Tampa Bay	0.41
Salt marsh	Creation	Tampa Bay	1.19
Freshwater ephemeral marsh	Creation	Tampa Bay	0.55
Saltern	Enhancement	Tampa Bay	0.53
Tidal pool/creek	Enhancement	Tampa Bay	1.18
Mangroves	Enhancement	Tampa Bay	0.77
Salt marsh	Enhancement	Tampa Bay	2.55
Coastal hardwood hammock	Restoration	Tampa Bay	1.20
		Total:	8.38

## **PROJECT DESCRIPTION**

**A. Overall project goals:** The Tappan Tract is a SWIM-sponsored project constructed on property owned by the City of Tampa along the eastern shoreline of Old Tampa Bay (Figure A). The goal of the project is to provide unique wetland and upland habitat on public lands adjacent to existing mangrove

habitat along Tampa Bay (Figures A-D). The project includes the creation of tidal pool (0.41 ac.), salt marsh (1.19 ac.), and freshwater ephemeral marsh (0.55 ac.) habitats (total 2.15 acres of wetland creation). Enhancement occurred in saltern habitat (0.53 ac.), tidal pool/creek (1.18 ac.), mangrove habitat (0.77 ac.) and salt marsh (2.55 ac.) (total of 5.03 acres of wetland enhancement). Upland areas and spoil mounds were regraded for restoration to coastal hardwood hammock habitat (1.20 ac.).

**B.** Brief description of pre-construction habitat conditions: The Tappan Tract parcel on which the approximately 18-acre project area is located covers approximately 31 acres, and approximately 8.38 acres of this project area have been designated for use as FDOT mitigation. This site was historically a coastal pine flatwood adjacent to a mangrove fringe along Tampa Bay. The habitat construction and restoration activities occurred only in the eastern portion of the property, which is the only area providing FDOT mitigation credit. Prior to construction in 2003, the upland area within the east central portion of the site was primarily a mowed open field with a dominant cover of grasses, sedges, scattered cabbage palm, exotic species (especially Brazilian pepper and Melaleuca), and a few live oaks along the eastern boundary (Figure B/1999 aerial, site photos). A ridge of stockpiled spoil material was located along the north and northwestern perimeter of the construction area, approximately 10 ft. above natural grade, and was covered with a dense stand of exotic and nuisance species such as Brazilian pepper, Melaleuca, pokeweed, Caesar weed, and elderberry. A shallow-scraped upland area in the southern portion of the property generated some high salt-marsh characteristics. Overall, the project area represented low quality habitat conditions for wildlife use.

As part of the initiatives of the SWFWMD Surface Water Improvement and Management Program (SWIM) and the Tampa Bay National Estuary Program (TBNEP), this site was selected to not only restore upland habitat, but to create and enhance estuarine wetlands that are tidally connected to Tampa Bay. This project was one of the proposed habitat creation and restoration projects under consideration along Tampa Bay, referred to as the South Tampa Greenway, and the site is owned by the City of Tampa.

**C. Brief description of construction activities and current habitat conditions:** Construction was conducted in 2003 and 2004, commencing with exotic species eradication, followed by earthwork grading to remove the spoil and some upland soil material to create a tidal pool and creeks, salt marsh, and an ephemeral freshwater marsh (Figure C). Salt marsh enhancement was conducted through lowering the grade in some areas and using the two-constructed tidal pool and creek systems to increase hydrologic connections and flow to the marsh habitat (Figure D). Some of the removed spoil and open field area was restored to upland flatwood habitat, with supplemental planting conducted to enhance the remnant oak hammock along the east side of the project. Native tree, shrub and herb species were planted in the upland and wetland habitats, followed by routine herbicide treatments to aid in maintaining the habitat conditions.

Two tidal pool and creek systems were created through earthwork to decrease the grade in an area bordered by salt-marsh and saltern habitat (Figure C/2004 aerial, site photos). This grading also increased tidal connection and flow regimes to the existing salt-marsh habitat. Species such as smooth cordgrass (*Spartina alterniflora*), marshhay cordgrass (*Spartina patens*), cordgrass (*Spartina bakeri*), seashore dropseed (*Sporobolus virginicus*), and seaside paspalum (*Paspalum vaginatum*) were planted in the salt-marsh creation. With the seed transport provided by the tidal pools and creeks, mangrove species (*Rhizophora mangle, Avicenna germinans, Laguncularia racemosa*) and salt-grass (*Distichlis spicata*) have naturally recruited and generated within the salt-marsh habitat. Much of the salt-marsh habitat was purposely graded to elevations at and slightly above high tide elevations. This condition

results in irregular flushing with salt water that established rare and unique saltern habitat (Figure D, site photos). Salterns typically have minimal vegetative coverage due to the concentrated salt on the surface, but are productive ecosystems for birds and mammals that commonly forage for crabs, invertebrates, and other species that inhabit the area.

The ephemeral freshwater marsh is separated from tidal influence, and was planted with maidencane (*Panicum hemitomon*), American bulrush (*Scirpus tabernaemontani*), white bacopa (*Bacopa monnieri*), and creeping primrose (*Ludwigia repens*). These species are present with bulrush being the dominant cover. Some of the upland field and fill material were graded to contribute surface water runoff into the ephemeral marsh, then mulched and planted with coastal hammock and flatwood species such as slash pine (*Pinus elliottii*), Florida privet (*Forestiera segregate*), live oak (*Quercus virginiana*), firebush (*Hamelia patens*), beach sunflower (*Helianthus debilis*), red cedar (*Juniperus virginiana*), muhly grass (*Muhlenbergia capillaries*), Christmas berry (*Lycium carolinianum*), beach sunflower (*Helianthus debilis*), and tropical sage (*Salvia coccinea*).

The wetland and upland habitats at the Tappan Tract have appropriate hydrology, substantial coverage of desirable species, minimal exotic vegetation, and substantial wildlife use. Commonly observed species include fiddler crab (*Uca pugilator*), blue crab (*Callinectes sapidus*), killifish (*Fundulus* sp.), and raccoon (*Procyon lotor*), red-shouldered hawk (*Buteo lineatus*), belted kingfisher (*Ceryle alcyon*), killdeer (*Charadrius vociferous*), little blue heron (*Egretta caerulea*), oystercatcher (*Haematopus palliates*), snowy egret (*Egretta thula*), white ibis (*Eudocimus albus*), wood stork (*Mycteria americana*), and other wading bird species.

Maintenance is primarily conducted to remove garbage and debris from the site and to eradicate exotics generated within the site, which are predominantly saplings of Brazilian pepper and melaleuca in the upland areas. Quarterly herbicide maintenance was conducted by private consultants contracted through the SWFWMD through 2009. Perpetual maintenance is conducted when necessary by the City of Tampa to maintain successful habitat conditions. The success criteria included 90% survivorship for planted material, a total of 85% coverage of desirable species, and less than 10% coverage by exotic and nuisance species. As of fall monitoring report conducted in 2016, coverage of nuisance and exotic vegetation was below the maximum 10% coverage in all monitored wetland habitats.

**D.** Brief explanation of how this work serves to offset the impacts of the specified DOT project(s): Most of the wetland impacts designated for mitigation at the Tappan Tract were associated with low quality ditches, with the remaining wetland impacts mitigated at Cockroach Bay (SW 56 - Freshwater and SW 75 - Saltwater sites) and Apollo Beach (SW 67). The mangrove enhancement on the Tappan Tract compensates for the 0.3 acre of mangrove impact. For the 3.5 acres of saltwater ditch impacts, the mitigation includes salt-marsh creation, salt-marsh enhancement, tidal pool creation, saltern enhancement, and tidal pool enhancement. For the 0.6 acre of freshwater ditch impacts, the mitigation includes freshwater marsh creation and hardwood hammock enhancement. Considering 93% of the wetland impacts were associated with ditches, the mitigation is considered appropriate to compensate for these low-quality wetland and other surface water impacts.

E. Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: The only mitigation bank in the Tampa Bay Drainage Basin is the Tampa Bay Mitigation Bank (TBMB), which was not permitted at the time that mitigation selection occurred for this FDOT project.

**F.** Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: This is a SWIM – sponsored habitat improvement project conducted on property owned and managed by the City of Tampa.

## **PROJECT IMPLEMENTATION**

•	Design:	2000
•	Construction:	2003-2004
٠	Monitoring:	2007, 2008, 2009, 2014, 2015, 2016, 2017
٠	Maintenance:	2009
٠	USACE release letter submitted:	July 12, 2017
•	Perpetual Management:	Ongoing

### Entity responsible for construction: SWFWMD

*Entity responsible for monitoring and maintenance:* SWFWMD is responsible for FDOT site; however, qualitative monitoring will no longer be performed, and site will go into perpetual maintenance.

*Entity responsible for perpetual management:* City of Tampa is responsible for city lands and/or private contractors selected by SWFWMD for FDOT site.

Cost for 2017 monitoring: \$6,610.97

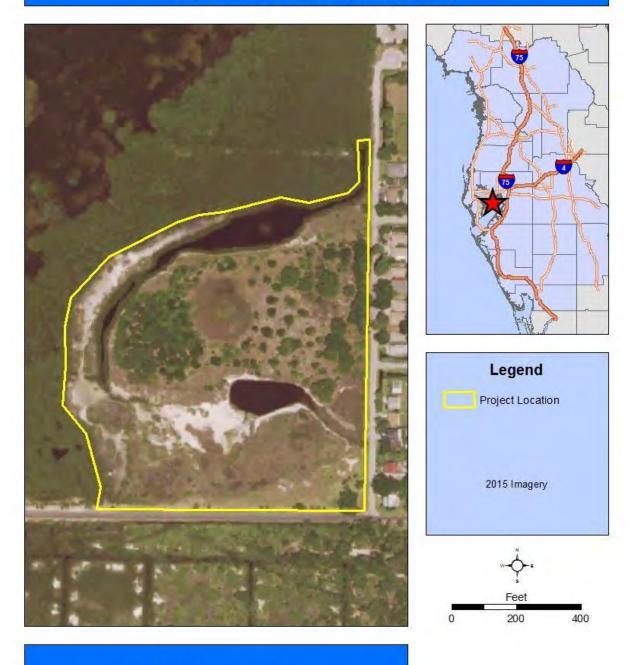
**Cost for 2017 maintenance:** \$5,900.00

Total Cost for FDOT Mitigation Including O&M: \$403,441.88

### ATTACHMENTS

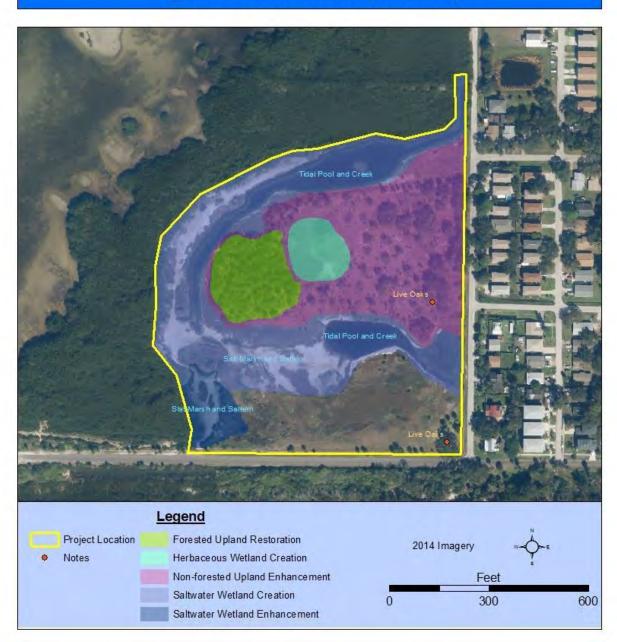
- 1. Figure A-Location
- 2. Figure B-Pre-Construction (1999)
- 3. Figure C-Post-Construction (2014)
- 4. Photographs (2012, 2016)

## SW 62 - Tappan Tract Figure A - Location (17/30S/18E)



## SW 62 - Tappan Tract Figure B - Pre-Construction (17/30S/18E)





### SW 62 - Tappan Tract Figure C - Post-Construction (17/30S/18E)



Tidal lagoon and creek on north boundary. (2012)



Ephemeral marsh in the western portion of the tract. (2012)



Salt marsh enhancement. (2016)

#### SW-50 TERRA CEIA RESTORATION MITIGATION PLAN

Project Name	Terra Ceia	Restoration	Project Number	SW-50/D013			
Project Type	Wetland and upl	and enhancement	:				
Landowner	Improvement Tr Fish and Wildli	es of the Internal ust Fund; Florida fe Conservation nission	Management Entity	Department of Environmental Protection/Southwest Florida Water Management District			
County	Mar	atee	Watershed	Tampa Bay Drainage			
Water bodies	-	Manatee River, Tampa Bay, Terra Ceia Bay		SWIM water body			
Project impleme (As of December		Monitoring and I	Perpetual Manage	ment			
Project utilizatio	n:	Permitted FDOT	projects: 1				
(As of December	2017)	Planned, not yet permitted, FDOT projects: None					
S/T/R:		24/33S/17E					

#### **BACKGROUND INFORMATION:**

#### **IMPACT INFORMATION** (As of December 2017):

Watershed	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
Tampa Bay Drainage	1960581	US 301 (Ellenton) 60 <sup>th</sup> Ave to Erie Road <sup>1</sup>	1.42	40012295.000	1994-02564
		Total Impact Acreage:	1.42		

<sup>1</sup>Wetland impacts are in the Manatee River basin and mitigation is in the Tampa Bay Drainage basin. Out of basin mitigation is allowed by permits authorizing the road improvement project.

#### **MITIGATION INFORMATION** (As of December 2017):

Habitat	Mitigation Type	Watershed	Acreage
	Wetland and Upland		
	Restoration and		
Mangroves and adjacent upland buffer	Enhancement	Tampa Bay Drainage	20
		Total:	20

#### **PROJECT DESCRIPTION**

**A. Overall project goals:** Restoration and enhancement of various types of saltwater wetland and upland habitats within the 1700-acre FDEP-owned & managed Terra Ceia Isles property bordering the southeastern shore of Tampa Bay (Figure A).

**B.** Brief description of pre-construction habitat conditions: Large tracts of once-pristine mangrove forest and intertidal wetlands within the project area were adversely impacted by dredge and fill operations. In addition, much of the existing upland and various wetland habitats had extensive coverage of exotic vegetation including Brazilian pepper, Melaleuca, and Australian pines. These areas

provided poor habitat value for wildlife utilizing the Preserve and the adjacent estuary. The 20-acre area designated to provide FDOT mitigation is within the eastern portion of the Preserve (Figure A). The preconstruction conditions included 12-acres of mangrove habitat buffered by 8-acres of upland habitat that had extensive coverage of Brazilian pepper (Figure B - 1999 aerial).

**C. Brief description of construction activities and current habitat conditions:** For the designated FDOT mitigation area, the Brazilian pepper was eradicated and prevented from regenerating through herbicide applications within the upland buffers. The upland buffers were also planted with native species (cabbage palm, longleaf pine and live oak). As depicted on Figure C, a braided tidal marsh was subsequently constructed in 2007 to further buffer the mangrove habitat. This activity was not quantified for FDOT mitigation credit; however, the created marsh does increase the habitat value and diversity for the Preserve and for the designated mitigation area. The success criteria include less than 10% cover of exotic species for the 20-acre area providing mitigation for FDOT wetland impacts. The mitigation is associated with larger restoration objectives for the Preserve.

D. Brief explanation of how this work serves to offset the impacts of the specified DOT project(s):

The restored and enhanced upland and mangrove habitats adequately and appropriately compensate for the minor impact acreage and function of the disturbed US 301 wetlands while increasing habitat diversity at Terra Ceia. No additional wetland impacts associated with other roadway projects are proposed for mitigation within this 20-acre area.

E. Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: No mitigation banks were available during mitigation selection in 1998.

**F.** Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: The mitigation activities are in conjunction with a SWIM project located on FDEP property in need of major habitat restoration and enhancement.

#### **PROJECT IMPLEMENTATION**

•	Planning and Design:	2000-2001
•	Exotic species eradication and supplemental planting:	2002
•	Monitoring:	2007, 2008, 2014, 2015, 2016, 2017
•	Maintenance:	2008-2017
•	Perpetual Management:	Ongoing

#### Entity responsible for construction: SWFWMD

#### Entity responsible for monitoring and maintenance: SWFWMD

*Entity responsible for perpetual management:* FDEP staff is responsible for state lands and or private consultant selected by SWFWMD for FDOT site.

Cost for 2017 monitoring: \$5,374.82

Cost for 2017 maintenance: \$4,200.00

### **Total Cost for FDOT Mitigation Including O&M:**\$104,504.95

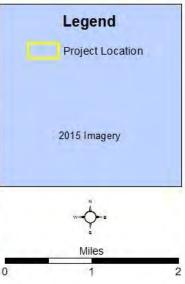
#### ATTACHMENTS

- 1. Figure A-Location
- 2. Figure B-Pre-construction (2014)
- 3. Figure C-Post-construction (2014)
- 4. Photographs (2016)

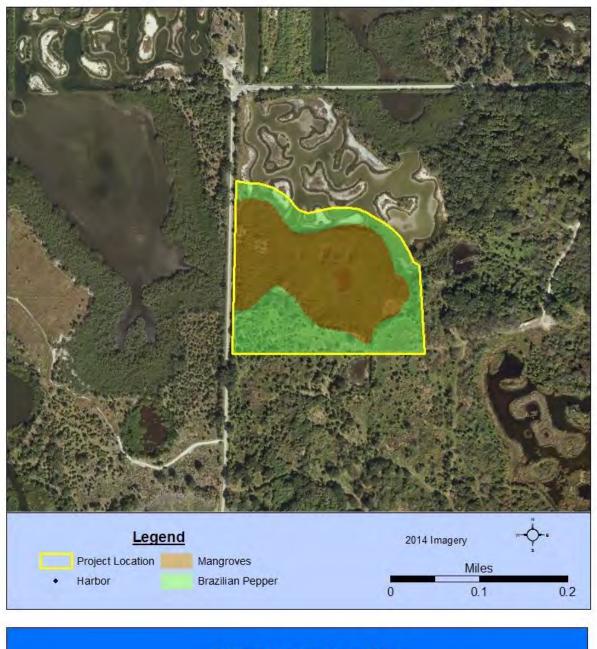
## SW 50 - Terra Ceia Restoration Figure A - Location (24/33S/17E)





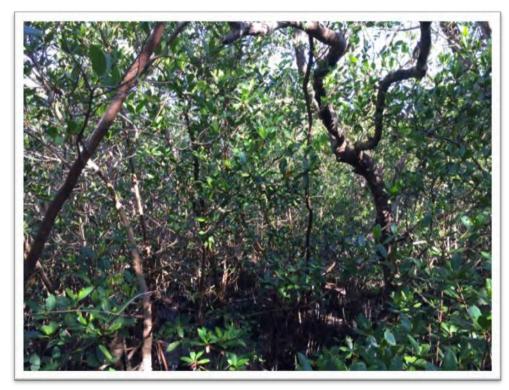


### SW 50A - Terra Ceia Restoration Figure B - Pre-Construction (24/33S/17E)



### SW 50A - Terra Ceia Restoration Figure C - Post-Construction (24/33S/17E)





Northern section of mangrove enhancement area. (2016)



East area of mangrove enhancement area. (2016)



Northern area of upland enhancement area. (2016)



Eastern area of upland enhancement area. (2016)

#### SW-55 UPPER HILLSBOROUGH 4 & 5 MITIGATION PLAN

Project Name	Upper Hillsb	orough 4 & 5	Project Number	SW-55/D009		
Project Type	Wetland Enhance	ement				
Landowner		lorida Water ent District	Management Entity	Southwest Florida Water Management District		
County	Ŭ	sco	Watershed	Hillsborough River		
Water bodies	Hillsboro	ugh River	Water body Designations	None		
<b>Project impleme</b> (As of December		Monitoring and I	Perpetual Manager	ment		
Project utilization	า:	Permitted FDOT	projects: 1			
(As of December	2017)	Planned, not yet	permitted, FDOT	projects: None		
S/T/R:		27,28,29/25S/22E				

#### **BACKGROUND INFORMATION:**

#### **IMPACT INFORMATION** (As of December 2017):

Watershed	FM #	Project Name	Total Impacts (ac.)	ERP permit #	ACOE Permit #
Hillsborough River	2012081	I-4 - County Line to Memorial BlvdSec. 1	19.10	43011869.009	1995-01846
		Total Impact Acreage:	19.10		

#### MITIGATION INFORMATION (As of December 2017):

Habitat	Mitigation Type	Watershed	Acreage
Mixed forested and herbaceous wetlands	Enhancement	Hillsborough River	142.65
Herbaceous and forested wetlands	Restoration	Hillsborough River	12.00
		Total:	154.65

#### **PROJECT DESCRIPTION**

**A. Overall project goals:** Prior to restoration, the SWFWMD's Upper Hillsborough property had a large drainage ditch (1.4 miles total) and adjacent elevated berm constructed through and along the perimeter of wetland habitats. The ditch severely diverted groundwater and surface water flow away from adjacent wetlands, discharging the diverted water into the headwater wetland floodplain of the Hillsborough River. The goal was to grade the berm to backfill the ditch, restoring appropriate wetland grade elevations and associated hydrology to enhance existing wetland habitats, while restoring wetlands within the footprint of the berm and ditch.

**B.** Brief description of pre-construction habitat conditions: The designated project area (320 acres, which includes 154.65 acres of mitigation) included the most northern portion of the SWFWMD's Upper Hillsborough tract, which is also contiguous to thousands of acres of the SWFWMD's Green Swamp Wilderness Preserve (Figure A). The drainage ditch was large (30-40 ft. wide, 5-8 ft. in depth), draining

shallow groundwater associated with the adjacent wetlands. The adjacent berm (15-20 ft. wide, 3-5 ft. above natural grade) was located along the north side of the ditch. The berm diverted surface water away from the historic drainage pattern that contributed to wetlands south of the ditch (Figure B). Approximately 142.65 acres of the enhanced wetlands are cypress and mixed forested systems and some of the restored wetland grades were planted with cypress to aid in restoring 12 acres of marsh and forested wetlands within the footprint of the former ditch/berm. The enhanced wetlands exhibited various signs of stress from decreased water levels such as tree fall, soil loss, upland species encroachment and changes in plant species composition. For example, laurel oak and red maple recruited within the cypress/tupelo-dominated forested wetlands, and nuisance upland species such as pokeweed and dog fennel invaded the forested wetlands and the marshes.

C. Brief description of construction activities and current habitat conditions: The ditches were backfilled from adjacent berm material during the spring and summer of 2001. Hardwood and cypress saplings have also naturally recruited within the restored wetland footprint. Eleven surficial aquifer monitor wells were installed within the proposed wetland enhancement areas during the construction period in Spring 2001, during which time there was no groundwater within six feet of the surface grade elevation at each of the associated wetlands. Since completion of construction, the groundwater and surficial hydrology flow patterns have been restored to historic conditions with appropriate surface water hydroperiods during the rainy seasons. The restored hydrology has resulted in the mortality of nuisance and upland species, allowing for the recruitment and natural regeneration of hardwood species, maidencane, ferns, and other appropriate hydrophytic species within the enhanced and restored wetland areas. Cypress saplings planted in 2001 achieved heights of 25-30 feet by 2009. The restored and enhanced wetland habitats have resulted in an increase in wildlife diversity and access, providing additional foraging and denning opportunities. Exotic vegetation is maintained below 1% coverage within the enhanced and restored wetlands. All success criteria were achieved by 2009 and continues to be met through 2015. Herbicide maintenance to eradicate nuisance and exotic vegetation is conducted as necessary to maintain success criteria. Normal land management activities include periodic prescribed burns within adjacent flatwood habitats.

**D.** Brief explanation of how this work serves to offset the impacts of the specified DOT project(s): The 19.10 acres of wetland impacts associated with the roadway improvements, located in a dense industrial area of western Polk County, were very low-quality systems. Restoration construction within the Upper Hillsborough tract has resulted in large-scale, regional improvements to wetland functions and ecological benefits that adequately compensate for the low-quality wetland impacts. No wetland impacts other than those associated with the construction of the above referenced segment of I-4 in Polk County are designated for mitigation at the Upper Hillsborough 4 & 5 project.

E. Brief explanation of why a mitigation bank was/was not chosen, in whole or in part, including a discussion of cost: No mitigation banks were existing or proposed in the Hillsborough River drainage basin during the selection of mitigation for the I-4 wetland impacts.

**F.** Brief explanation of why a SWIM project was/was not chosen as mitigation, in whole or in part, including a discussion of cost, if the anticipated impacts are located within a SWIM water body: The only SWIM project within the basin at the time of mitigation selection was Lake Thonotosassa (SW 34), which provides mitigation to offset wetland impacts associated with another FDOT project.

#### **PROJECT IMPLEMENTATION**

- Planning and Design: 1999
- Construction completion: September 2001
- Monitoring: 2014, 2015, 2016, 2017
- Maintenance: 2014-2017
- Perpetual Management: Ongoing

Entity responsible for construction: SWFWMD

Entity responsible for monitoring and maintenance: SWFWMD

Entity responsible for perpetual management: SWFWMD

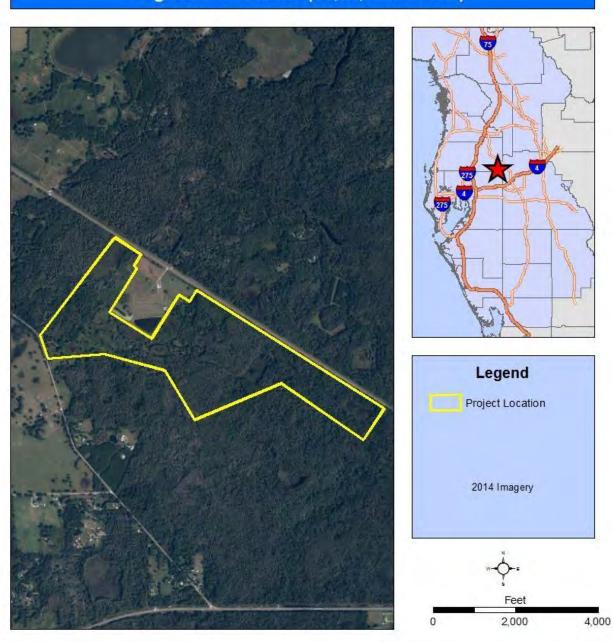
**Cost for 2017 monitoring:** \$8,561.12

Cost for 2017 maintenance: \$0

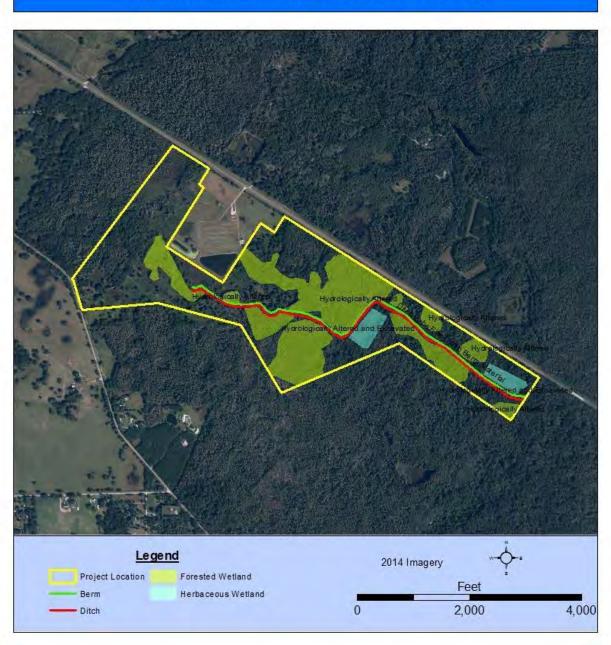
Total Cost for FDOT Mitigation Including O&M: \$232,328.42

#### ATTACHMENTS

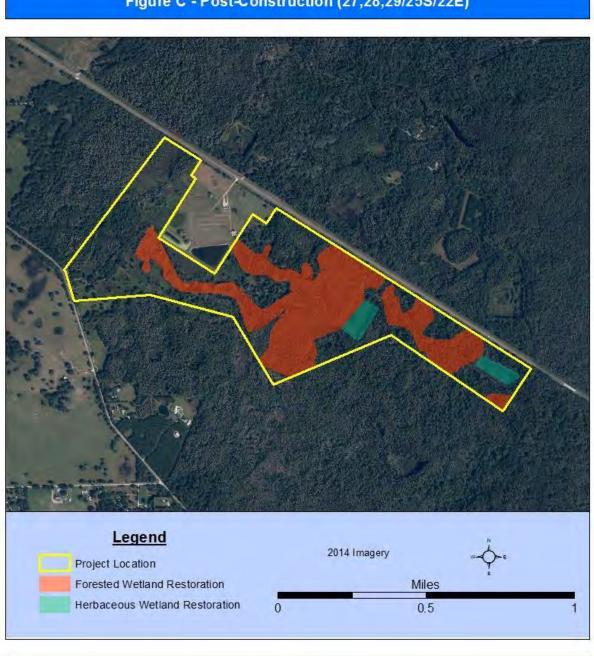
- 1. Figure A-Location
- 2. Figure B-Pre-construction (2014)
- 3. Figure C-Post-construction (2014)
- 4. Photographs (2017)



## SW 55 - Upper Hillsborough 4 & 5 Figure A - Location (27,28,29/25S/22E)



### SW 55 - Upper Hillsborough 4 & 5 Figure B - Pre-Construction (27,28,29/25S/22E)



### SW 55 - Upper Hillsborough 4 & 5 Figure C - Post-Construction (27,28,29/25S/22E)



View of Herbaceous Wetland between Mixed Forested Wetland



View of the Herbaceous Wetland



View of the Mixed Forested Wetland



View of the Flatwoods



View of the Mixed Forested and Herbaceous Wetlands



View within the Mixed Forested Wetland

#### **Appendix A: FDOT Mitigation Program Statute**

#### 2017 Florida Statutes

http://www.leg.state.fl.us/statutes/index.cfm?App\_mode=Display\_Statute&Search\_String=&URL=0300-0399/0373/Sections/0373.4137.html (as of 12-14-17)

## Title XXVIII NATURAL RESOURCES; CONSERVATION, RECLAMATION, AND USE Chapter 373 WATER RESOURCES

#### 373.4137 Mitigation requirements for specified transportation projects.

(1) The Legislature finds that environmental mitigation for the impact of transportation projects proposed by the Department of Transportation or a transportation authority established pursuant to chapter 348 or chapter 349 can be more effectively achieved by regional, long-range mitigation planning rather than on a project-by-project basis. It is the intent of the Legislature that mitigation to offset the adverse effects of these transportation projects be funded by the Department of Transportation and be carried out using mitigation banks and any other mitigation options that satisfy state and federal requirements in a manner that promotes efficiency, timeliness in project delivery, and cost-effectiveness.

(2) Environmental impact inventories for transportation projects proposed by the Department of Transportation or a transportation authority established pursuant to chapter 348 or chapter 349 shall be developed as follows:

(a) By July 1 of each year, the Department of Transportation, or a transportation authority established pursuant to chapter 348 or chapter 349 which chooses to participate in the program, shall submit to the water management districts a list of its projects in the adopted work program and an environmental impact inventory of habitat impacts and the anticipated mitigation needed to offset impacts as described in paragraph (b). The environmental impact inventory must be based on the rules adopted pursuant to this part, s. 404 of the Clean Water Act, 33 U.S.C. s. 1344, and the Department of Transportation's plan of construction for transportation projects in the next 3 years of the tentative work program. The Department of Transportation or a transportation authority established pursuant to chapter 349 may also include in its environmental impact inventory the habitat impacts and the anticipated amount of mitigation needed for any future transportation project. The Department of Transportation and each transportation authority established pursuant to chapter 348 or chapter 349 may fund any mitigation activities for future projects using current year funds.

(b) The environmental impact inventory must include a description of habitat impacts, including location, acreage, and type; the anticipated mitigation needed based on the functional loss as determined through the uniform mitigation assessment method adopted by the Department of Environmental Protection by rule pursuant to s. <u>373.414(18)</u>; identification of the proposed mitigation option; state water quality classification of impacted wetlands and other surface waters; any other state

or regional designations for these habitats; and a list of threatened species, endangered species, and species of special concern affected by the proposed project.

(c) Before projects are identified for inclusion in a water management district mitigation plan as described in subsection (4), the Department of Transportation must consider using credits from a permitted mitigation bank. The Department of Transportation must consider the availability of suitable and sufficient mitigation bank credits within the transportation project's area, the ability to satisfy commitments to regulatory and resource agencies, the availability of suitable and sufficient mitigation purchased or developed under this section, the ability to complete suitable existing water management district or Department of Environmental Protection mitigation sites initiated with Department of Transportation mitigation funds, and the ability to satisfy state and federal requirements, including long-term maintenance and liability.

(3)(a) To implement the mitigation option identified in the environmental impact inventory described in subsection (2), the Department of Transportation may purchase credits for current and future use directly from a mitigation bank, purchase mitigation services through the water management districts or the Department of Environmental Protection, conduct its own mitigation, or use other mitigation options that meet state and federal requirements. Funding for the identified mitigation option as described in the environmental impact inventory must be included in the Department of Transportation's work program developed pursuant to s. <u>339.135</u>. The amount programmed each year by the Department of Transportation and participating transportation authorities established pursuant to chapter 348 or chapter 349 must correspond to an estimated cost to mitigate for the functional loss identified in the environmental impact inventory described in subsection (2).

(b) Each transportation authority established pursuant to chapter 348 or chapter 349 which chooses to participate in this program shall create an escrow account within its financial structure and deposit funds in the account to pay for the environmental mitigation phase of projects budgeted for the current fiscal year. The escrow account shall be maintained by the authority for the benefit of the water management districts. Any interest earnings from the escrow account must remain with the authority.

(c) For mitigation implemented by the water management district or the Department of Environmental Protection, as appropriate, the amount paid each year must be based on mitigation services provided by the water management districts or the Department of Environmental Protection pursuant to an approved water management district mitigation plan, as described in subsection (4). The water management districts or the Department of Environmental Protection, as appropriate, may request payment no sooner than 30 days before the date the funds are needed to pay for activities associated with development or implementation of permitted mitigation that meets the requirements of this part, 33 U.S.C. s. 1344, and 33 C.F.R. part 332, in the approved water management district mitigation plan described in subsection (4) for the current fiscal year. The projected amount of mitigation shall be reconciled each quarter with the actual amount of mitigation needed for projects as permitted, including permit modifications, pursuant to this part and s. 404 of the Clean Water Act, 33 U.S.C. s. 1344. The subject year's programming of funds shall be adjusted to reflect the mitigation as permitted. If the water management district excludes a project from an approved water management district mitigation plan, if the water management district cannot timely permit a mitigation site to offset the impacts of a Department of Transportation project identified in the environmental impact inventory, or if the proposed mitigation does not meet state and federal requirements, the Department of Transportation may use the associated funds for the purchase of mitigation bank credits or any other mitigation option that satisfies state and federal requirements. Upon final payment for mitigation of a transportation project as permitted, the obligation of the Department of Transportation or the participating transportation authority is satisfied, and the water management district or the Department of Environmental Protection, as appropriate, has continuing responsibility for the mitigation project.

(d) Beginning with the March 2015 water management district mitigation plans, each water management district or the Department of Environmental Protection, as appropriate, shall invoice the Department of Transportation for mitigation services to offset only the impacts of a Department of Transportation project identified in the environmental impact inventory, including planning, design, construction, maintenance and monitoring, and other costs necessary to meet the requirements of this section, 33 U.S.C. s. 1344, and 33 C.F.R. part 332. If the water management district identifies the use of mitigation bank credits to offset a Department of Transportation impact, the water management district shall exclude that purchase from the mitigation plan, and the Department of Transportation shall purchase the bank credits.

(e) For mitigation activities occurring on existing water management district or Department of Environmental Protection mitigation sites initiated with Department of Transportation mitigation funds before July 1, 2013, the water management district or the Department of Environmental Protection, as appropriate, shall invoice the Department of Transportation or a participating transportation authority at a cost per acre of \$75,000 multiplied by the projected acres of impact as identified in the environmental impact inventory. The cost per acre must be adjusted by the percentage change in the average of the Consumer Price Index issued by the United States Department of Labor for the most recent 12-month period ending September 30, compared to the base year average, which is the average for the 12-month period ending September 30, 1996. When implementing the mitigation activities necessary to offset the permitted impacts as provided in the approved mitigation plan, the water management district shall maintain records of the costs incurred in implementing the mitigation. The records must include, but are not limited to, costs for planning, land acquisition, design, construction, staff support, long-term maintenance and monitoring of the mitigation site, and other costs necessary to meet the requirements of 33 U.S.C. s. 1344 and 33 C.F.R. part 332.

(4) Before March 1 of each year, each water management district shall develop a mitigation planto offset only the impacts of transportation projects in the environmental impact inventory for which a water management district is implementing mitigation that meets the requirements of this section, 33 U.S.C. s. 1344, and 33 C.F.R. part 332. The water management district mitigation plan must be developed in consultation with the Department of Environmental Protection, the United States Army Corps of Engineers, the Department of Transportation, participating transportation authorities established pursuant to chapter 348 or chapter 349, other appropriate federal, state, and local governments, and other interested parties, including entities operating mitigation banks. In developing such plans, the water management districts shall use sound ecosystem management practices to address significant water resource needs and consider activities of the Department of Environmental Protection and the water management districts, such as surface water improvement and management (SWIM) projects and lands identified for potential acquisition for preservation, restoration, or enhancement, and the control of invasive and exotic plants in wetlands and other surface waters, to the extent that the activities comply with the mitigation requirements adopted under this part, 33 U.S.C.s. 1344, and 33 C.F.R. part 332. The water management district mitigation plan must identify each site where the water management district will mitigate for a transportation project. For each mitigation site, the water management district shall provide the scope of the mitigation services; provide the functional gain as determined through the uniform mitigation assessment method adopted by the Department of Environmental Protection by rule pursuant to s. 373.414(18); describe how the mitigation offsets the impacts of each transportation project as permitted; and provide a schedule for the mitigation services. The water management districts shall maintain records of costs incurred and payments received for providing these services. Records must include, but are not limited to, planning, land acquisition, design, construction, staff support, long-term maintenance and monitoring of the mitigation site, and other costs necessary to meet the requirements of 33 U.S.C. s. 1344 and 33 C.F.R. part 332. To the extent moneys paid to a water management district by the Department of Transportation or a participating transportation authority are greater than the amount spent by the water management districts in providing the mitigation services to offset the permitted transportation project impacts, these moneys must be refunded to the Department of Transportation or participating transportation authority. The mitigation plan shall be submitted to the water management district governing board or its designee for review and approval. At least 14 days before approval by the governing board, the water management district shall provide a copy of the draft mitigation plan to the Department of Environmental Protection and any person who has requested a copy. After the governing board approval, the mitigation plan shall be submitted to the Department of Environmental Protection for approval. The plan may not be implemented until it is submitted to, and approved in part or in its entirety by, the Department of **Environmental Protection.** 

(a) Specific projects may be excluded from the mitigation plan, in whole or in part, and are not subject to this section upon the election of the Department of Transportation, a transportation authority if applicable, or the appropriate water management district. The Department of Transportation or a participating transportation authority may not exclude a transportation project from the mitigation plan if mitigation is scheduled for implementation by the water management district in the current fiscal year unless the transportation project is removed from the Department of Transportation's work program or transportation authority funding plan, the mitigation cannot be timely permitted to offset the impacts of a Department of Transportation project identified in the environmental impact inventory, or the proposed mitigation does not meet state and federal requirements. If a project is removed from the work program or the mitigation plan, costs spent by the water management district before removalare eligible for reimbursement by the Department of Transportation authority.

(b) When determining which projects to include in or exclude from the mitigation plan, the Department of Transportation shall investigate using credits from a permitted mitigation bank before those projects are submitted for inclusion in a water management district mitigation plan. The Department of Transportation shall exclude a project from the mitigation plan if the investigation undertaken pursuant to this paragraph results in the conclusion that the use of credits from a permitted mitigation bank promotes efficiency, timeliness in project delivery, cost-effectiveness, and transfer of liability for success and long-term maintenance.

(5) The water management district shall ensure that mitigation requirements pursuant to 33 U.S.C. s. 1344 and 33 C.F.R. part 332 are met for the impacts identified in the environmental impact inventory for which the water management district will implement mitigation described in subsection (2), by implementation of the approved mitigation plan described in subsection (4) to the extent funding is provided by the Department of Transportation, or a transportation authority established pursuant to chapter 348 or chapter 349, if applicable. In developing and implementing the mitigation plan, the water management district shall comply with federal permitting requirements pursuant to 33 U.S.C. s. 1344 and 33 C.F.R. part 332. During the federal permitting process, the water management district may deviate from the approved mitigation plan to comply with federal permitting requirements upon notice and coordination with the Department of Transportation or participating transportation authority.

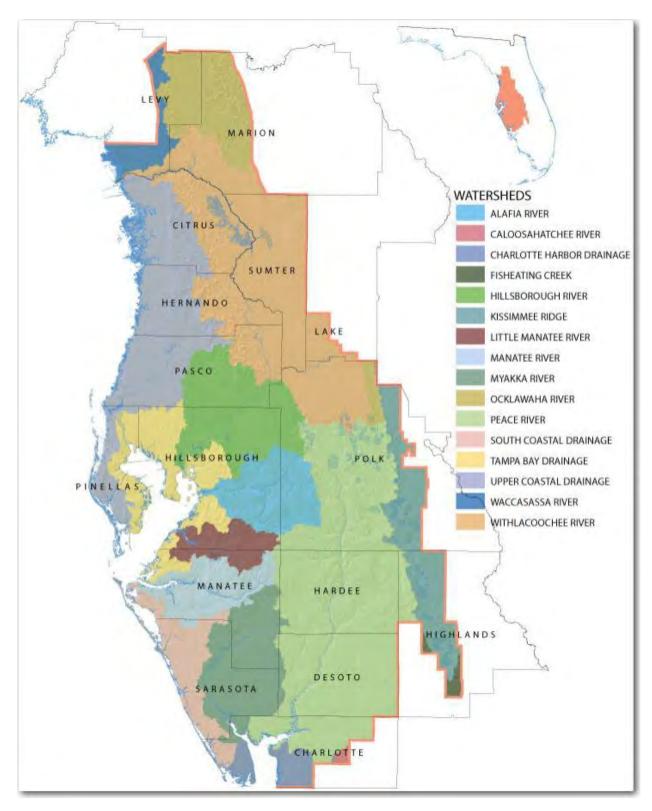
(6) The water management district mitigation plans shall be updated annually to reflect the most current Department of Transportation work program and project list of a transportation authority established pursuant to chapter 348 or chapter 349, if applicable, and may be amended throughout the year to anticipate schedule changes or additional projects that may arise. Before amending the mitigation plan to include new projects, the Department of Transportation must consider mitigation banks and other available mitigation options that meet state and federal requirements. Each update and

amendment of the mitigation plan shall be submitted to the governing board of the water management district or its designee for approval. However, such approval shall not apply to a deviation as described in subsection (5).

(7) Upon approval by the governing board of the water management district and the Department of Environmental Protection, the mitigation plan shall satisfy the mitigation requirements under this part for impacts specifically identified in the environmental impact inventory described in subsection (2) and any other mitigation requirements imposed by local, regional, and state agencies for these same impacts. The approval of the governing board of the water management district and the Department of Environmental Protection authorizes the activities proposed in the mitigation plan, and no other state, regional, or local permit or approval is necessary.

(8) This section does not eliminate the need for the Department of Transportation or a transportation authority established pursuant to chapter 348 or chapter 349 to comply with the requirement to implement practicable design modifications, including realignment of transportation projects, to reduce or eliminate the impacts of its transportation projects on wetlands and other surface waters as required by rules adopted pursuant to this part, or to diminish the authority under this part to regulate other impacts, including water quantity or water quality impacts, or impacts regulated under this part which are not identified in the environmental impact inventory described in subsection (2).

**History.** —s. 1, ch. 96-238; s. 36, ch. 99-385; s. 1, ch. 2000-261; s. 93, ch. 2002-20; s. 39, ch. 2004-269; s. 30, ch. 2005-71; s. 12, ch. 2005-281; s. 1, ch. 2009-11; s. 3, ch. 2012-174; s. 22, ch. 2014-223; s. 5, ch. 2016-11.



Appendix B: ERP Watersheds in the SWFWMD

Appendix C: FDOT Wetland Impact Inventory

# FDOT Wetland Impact Inventory APPENDIX C: 2018 Inventory of FDOT Road Improvement Projects

					i Noau		changes from						
				Deleted Projects			last year						
		[		New Projects	[		1				r		
Unique Record?	Mit. PlanYear	FDOT District	County	Drainage Basin	FM No.	Project Description	FDOT Project Status	Project Status Year	Delete/ Renew Reason	Total Impacted Acreage	Total Impacted FL	Mitigation Project Name	Mitigation Project ID
Yes	1998	1	Charlotte	Peace River	1937911	US 17 (SR 35) CR 74 to CR 764 North	Permitted			0.27	0.00	Boran Ranch Mit. Bank	53
No	1997	1	Charlotte	Myakka River	1937941	SR 776 CR 771 to Willow Bend Rd.	Permitted			2.08	0.00	Little Pine Island Mit. Bank	52
No	1997	1	Charlotte	Myakka River	1937941	SR 776 CR 771 to Willow Bend Rd.	Permitted			8.83	0.00	Cattle Dock	31
Yes	1999	1	Charlotte	Peace River	1937981	US 17 (SR35) CR 764 South to CR 764 North	Permitted			0.27	0.00	Boran Ranch Mit. Bank	53
Yes	1997	1	Desoto	Peace River	1938851	SR 72 Sarasota Co. Line to SR 70	Permitted			1.19	0.00	Boran Ranch Mit. Bank	53
Yes	2001	1	Polk	Peace River	1938991	US 17 Livingston to Hardee County Line	Permitted			11.59	0.00	Circle B Bar Reserve	66
Yes	2000	1	Hardee	Peace River	1940931	US 17 (SR 35) Peace River to Tropicana Rd.	Permitted			4.42	0.00	Circle B Bar Reserve	66
Yes	1997	1	Hardee	Peace River	1941021	US 17 (SR 35) SR 64 to Peace River Bridge	Permitted			2.30	0.00	Boran Ranch Mit. Bank	53
Yes	1997	1	Highlands	Kissimmee Ridge	1945101	US 27 Lake Glenada to Hal McRae	Permitted			0.39	0.00	Reedy Ck. Mit. Bank	49
Yes	2001	1	Manatee	Manatee River	1960222	SR 64 (Seg. 1) I-75 to Lena Rd.	Permitted			2.81	0.00	Rutland Ranch	65
Yes	2002	1	Manatee	Manatee River	1960223	SR 64 (Seg. 2) Lena Rd. to Lakewood Ranch Rd.	Permitted			0.84	0.00	Rutland Ranch	65
Yes	2002	1	Manatee	Manatee River	1960224	SR 64 Lakewood Ranch Rd. to Lorraine Rd.	Permitted			4.06	1.65	Hidden Harbour	80
Yes	1998	1	Manatee	Tampa Bay Drainage	1960581	US 301 (Ellenton) 60th Ave. to Erie Rd.	Permitted			1.42	0.00	Terra Ceia	50
Yes	2002	1	Manatee	Manatee River	1961211	SR 70 (Seg. 1) I-75 to Lakewood Ranch Rd.	Permitted			1.40	0.00	Rutland Ranch	65
						SR 60A (Van Fleet Dr.) CR 555 to Broadway						Circle B Bar	
Yes	2001	1	Polk	Peace River	1971681		Permitted			0.46	0.00	Reserve	66
Yes	1997	1	Polk	Peace River	1974711	SR 540 (Cypress Gardens) 9th Street to Overlook	Permitted			0.41	0.00	Tenoroc/Saddle Creek	47
Yes	1997	1	Polk	Peace River	1974751	SR 540 (Cypress Gardens) Thornhill Rd. to Recker Hwy.	Permitted			5.52	0.00	Tenoroc/Saddle Creek	47

Unique Record?	Mit. PlanYear	FDOT District	County	Drainage Basin	FM No.	Project Description	FDOT Project Status	Project Status Year	Delete/ Renew Reason	Total Impacted Acreage	Total Impacted FL	Mitigation Project Name	Mitigation Project ID
Yes	2000	1	Polk	Peace River	1975331	US 27 Towerview Rd. to SR 540	Permitted			3.90	0.00	Circle B Bar Reserve	66
Yes No	2002 2003	1	Polk Polk	Peace River Ocklawaha River		US 98 - Carpenter's Way to Daugherty Road US 27 SR 544 to Blue Heron Bay	Permitted Permitted			0.35 0.46	0.00	Circle B Bar Reserve Lake Lowery	66 76
No	2001	1	Polk	Peace River	1976791	US 27 SR 544 to Blue Heron Bay	Permitted			1.50	1.05	Circle B Bar Reserve	66
Yes	2010	1	Polk	Peace River		SR 559 Extension SR 655 (Recker Hwy) to Derby Ave.	Permitted			0.48	0.16	Circle B Bar Reserve Circle B Bar	66
Yes	2003	1	Polk	Peace River	1977051	US 27 SR 60 to Towerview Blvd.	Permitted	_		0.19	0.19	Reserve Circle B Bar	66
Yes	2002	1	Polk	Peace River	1977061	US 27 SR 540 to SR 542	Permitted			3.94	1.81	Reserve	66
Yes	2002	1	Polk	Peace River		US 27 SR 542 to CR 546	Permitted			0.55	0.00	Circle B Bar Reserve Myakka River	66
Yes	1998	1	Sarasota	Myakka River South Coastal	1979251	SR 72 Big Slough to DeSoto C/L	Permitted	-		1.49	0.00	State Park	51
Yes	1997	1	Sarasota	Drainage		SR 789 Ringling Causeway Blvd.	Permitted			0.27	0.27	Coquina Seagrass	
Yes	1997	1	Sarasota	South Coastal Drainage	1980051	US 41 Bus. (SR 45) Venice Ave. to US 41 Bypass	Permitted			0.32	0.32	Curry Creek ROMA	88
Yes	1998	1	Sarasota	Myakka River	1980131	SR 72 Deer Prairie to Big Slough	Permitted			0.86	0.00	Myakka River State Park	51
Yes	1998	1	Charlotte	Peace River		Trabue Harborwalk Bike Path Ft. Green/Ona (Seg. 2) Vandola to North of	Permitted			0.16	0.00	Little Pine Island Mit. Bank Boran Ranch Mit.	52
Yes	1998	1	Hardee	Peace River		Vandolah Rd.	Permitted			4.27	0.77	Bank	53
Yes	1998	1	Hardee	Peace River		Ft. Green/Ona (Seg. 3) SR 64 to Vandolah Rd. Ft. Green/Ona Road (Seg. 1) Vandolah to SR	Permitted			5.23	0.00	Boran Ranch Mit. Bank Boran Ranch Mit.	53
Yes	1997	1	Hardee	Peace River	1986401		Permitted			2.08	0.00	Boran Ranch Mit. Bank	53
Yes	2014	1	Manatee	Manatee River	2010322	I-75 at SR 70 Interchange	Deleted	2014	Mitigation by FDOT	9.45	5.67		
Yes	2014	1	Manatee	Manatee River	2010324	I-75 at University Pkwy - Manatee	Deleted	2014	Mitigation by FDOT	1.30	0.58		
Yes	2014	1	Manatee	Manatee River	2010325	I-75 at US 301	Deleted	2014	Mitigation by FDOT	3.00	2.37		
Yes	2014	1	Manatee	Manatee River	2010326	I-75 at SR 64	Deleted	2014	Mitigation by FDOT	0.50	0.30	Hidden Harbour	80
No	2003	1	Polk	Ocklawaha River	2012041	I-4 East of CR 557 to Osceola County (Sec. 6- 7,9)	Permitted			4.28	0.00	Lake Lowery	76

Unique Record?	Mit. PlanYear	FDOT District	County	Drainage Basin	FM No.	Project Description	FDOT Project Status	Project Status Year	Delete/ Renew Reason	Total Impacted Acreage	Total Impacted FL	Mitigation Project Name	Mitigation Project ID
No	1998	1	Polk	Withlacoochee River	2012041		Permitted			3.86	0.00	Hampton Tract	59
Yes	2001	1	Polk	Kissimmee Ridge	2012041	I-4, East of CR 557 to Osceola County (Sec. 6- 7,9)	Permitted			2.35	0.00	Reedy Ck. Mit. Bank	49
Yes	1996	1	Polk	Hillsborough River Withlacoochee	2012081	I-4 - County Line to Memorial BlvdSec. 1	Permitted	_		19.10	0.00	U.H. 4&5	55
No	1998	1	Polk	River	2012092	I-4 East of US 98 to East of CR 557 (Sec. 3-5)	Permitted			18.69	0.00	Hampton Tract	59
No	1996	1	Polk	Peace River	2012092	I-4, East of US 98 to East of CR 557 (Sec. 3-5)	Permitted	_		1.36	0.00	Tenoroc/Saddle Creek	47
Yes	1998	1	Polk	Hillsborough River	2012171	I-4 West of Memorial Blvd. to west of US 98 - Sec. 2	Permitted			3.09	0.00	Jennings Tract	61
Yes	1997	5	Marion	Ocklawaha River	2386411	US 27 Levy Co. Line to SR 326	Permitted	-		2.37	0.00	Ledwith Prairie	58
Yes Yes	1997 2001	5	Marion Marion			US 27 SR 326 to CR 225a SR 40 CR 328 to SW 80th	Permitted Permitted			1.09 0.08	0.00	Ledwith Prairie Ledwith Prairie	58 58
Yes	2007	5	Sumter	Withlacoochee River		I-75 Hernando Co. Line to SR 470	Deleted	2013	Combined	0.00		NA	
No	2007	5	Sumter	Withlacoochee River		I-75 Hernando Co. Line to Florida Turnpike	Permitted			2.18	0.90	Colt Creek State Park	84
No	2007	5	Sumter	Withlacoochee River	2426263	I-75 Hernando Co. Line to Florida Turnpike	Deleted	2017	Bank	4.78	2.85	Green Swamp MB	
No	2007	5	Sumter	Withlacoochee River	2426263	I-75 Hernando Co. Line to Florida Turnpike	Deleted	2017	Bank	0.78	0.33	Withlacoochee MB	
Yes	1999	7	Hillsborough	Hillsborough River	2555361	SR 39, Blackwater Creek Bridge Replacement	Permitted	_		2.14	0.00	Jennings Tract Colt Creek State	61
Yes	2002	7	Hillsborough	Hillsborough River Tampa Bay	2555851	SR 39 (Alexander St) I-4 to Knights Griffin Rd.	Permitted			14.20	9.39	Park Boyd Hill Nature	84
No	2002	7	Hillsborough	Drainage	2555991	SR 676 (Causeway Blvd.) US 301 to US 41	Permitted			0.27	0.00	Preserve Cockroach Bay	71
No	2002	7	Hillsborough	Tampa Bay Drainage	2555991	SR 676 (Causeway Blvd.) US 301 to US 41	Permitted			1.08	0.00	(Fresh)	56
Yes	2000	7	Hillsborough	Tampa Bay Drainage	2556301	SR 60 Courtney Campbell to Fish Creek	Permitted	_		12.20	0.00	Gateway Tract	45
No	2000	7	Hillsborough	Tampa Bay Drainage	2557031	SR 60 Cypress St. to Fish Creek	Permitted	_		5.00	0.00	Cockroach Bay (Salt)	75
No	2000	7	Hillsborough	Tampa Bay Drainage	2557031	SR 60 Cypress St. to Fish Creek	Permitted			0.90	0.00	Cockroach Bay (Fresh)	56
No	2000	7	Hillsborough	Tampa Bay Drainage	2557031	SR 60 Cypress St. to Fish Creek	Permitted			6.80	0.00	Apollo Beach	67
No	2000	7	Hillsborough	Tampa Bay Drainage	2557031	SR 60 Cypress St. to Fish Creek	Permitted			3.30	0.00	Tappan Tract	62

Unique Record?	Mit. PlanYear	FDOT District	County	Drainage Basin	FM No.	Project Description	FDOT Project Status	Project Status Year	Delete/ Renew Reason	T otal Impacted Acreage	Total Impacted FL	Mitigation Project Name	Mitigation Project ID
Yes	2015	7	Hillsborough	Hillsborough River		US 92 (SR 600) FROM KINGSWAY RD TO MCINTOSH RD	Deleted	2017	Dropped	0.00	0.00		
100	2010	,	Timosorough			US 92 (SR 600) FROM MCINTOSH RD TO SR		2017		0.00	0.00		
Yes	2015	7	Hillsborough	Hillsborough River	2557102	566 (THONOTOSASSA)	Deleted	2017	Dropped	0.00	0.00		

Unique Record?	Mit. PlanYear	FDOT District	County	Drainage Basin	FM No.	Project Description	FDOT Project Status	Project Status Year	Delete/ Renew Reason	Total Impacted Acreage	Total Impacted FL	Mitigation Project Name	Mitigation Project ID
Yes	1997	7	Hillsborough	Tampa Bay	2557244	SR 676 Maritime Blvd. to SR 60	Pormittod			1.50	0.00	Gateway Tract	45
Yes	2016	7	Hillsborough Hillsborough	Drainage Hillsborough River		US 301 FROM FOWLER AVE TO FUTURE SR	Permitted Deleted	2017	NO MORE CREDITS IN THIS BASIN - NEED TO GO TO BANK	21.00		Hillsborough River Mitigation Bank	40
Yes	2000	7	Hillsborough	Hillsborough River	2559501	SR 678 (Bearss Ave.) Florida Ave. to Nebraska	Pormittod			0.06	0.00	Jennings Tract	61
165	2000	7	Thisborough	Tampa Bay	2000091	SK 070 (Bealss Ave.) Fiolida Ave. to Nebraska	Fernilled			0.00	0.00	Boyd Hill Nature	01
No	2001	7	Hillsborough		2558881	US 301 Sligh Ave. to Tampa Bypass Canal	Permitted			9.26	0.00	Preserve	71
No	2001	7	Hillsborough	Tampa Bay Drainage		US 301 Sligh Ave. to Tampa Bypass Canal SR 574 (MLK BLVD) FROM EAST OF	Permitted			2.77	0.00	Cockroach Bay (Fresh)	56
Yes	2014	7	Hillsborough	Hillsborough River		KINGSWAY RD TO E OF MCINTOSH RD	Deleted	2017	Bank	0.44	0.13	Bank	NA
Yes	2007	7	Hillsborough	Tampa Bay Drainage		SR 574 (MLK) @ I-75	Permitted			0.21	0.08	Brooker Ck. Buffer Preserve	90
Yes	2006	7	Pasco	Hillsborough River		SR 52 (SCHRADER HWY) FROM CR 581 (BELLAMY BRO) TO OLD PASCO RD	Permitted	2015		2.50	1.68	Conner Preserve	77
Yes	1997	7	Pasco	Hillsborough River	2563151	US 41 Bell Lake to Tower Road	Permitted			0.55	0.50	Hills. River Corridor	63
Yes	1997	7	Pasco		2563151	US 41 Bell Lake to Tower Road	Permitted			1.08	0.97	Conner Preserve	77
Yes	2002	7	Pasco	Upper Coastal Drainage	2563161	SR 52 Hicks to Moon Lake Rd.	Permitted			1.57	0.00	Serenova - Sites 2,3,4,8	74
Yes	2000	7	Pasco	Upper Coastal Drainage		SR 52 Moon Lake to Suncoast Parkway	Permitted			6.54		Conner Preserve	77
Yes	2004	7	Pasco	Upper Coastal Drainage Upper Coastal		SR 52 (SCHRADER HWY) FROM W OF SUNCOAST PKWY TO E OF US 41 (SR 45)	Deleted	2016	Bank	16.52	10.36	Bank	
Yes	2003	7	Pasco	Ū.	2563241	US 41 (SR 45) Tower Rd. to Ridge Road	Permitted			8.85	6.00	Conner Preserve	77
No	2007	7	Pasco		2563242	US 41 (SR 45) From N of Connerton Blvd to S of SR 52		2017	MITIGATION BANK MITIGATION	7.56	4.41	BANK	
No	2007	7	Pasco	Upper Coastal Drainage	2563242	US 41: from Ridge Rd to N of SR 52	Deleted		BANK	7.44	4.34	BANK	
No	2007	7	Pasco	Upper Coastal Drainage		US 41: from Ridge Rd to N of SR 52	Deleted		Mitigation Bank	0.12	0.07	Upper Coastal Mitigation Bank	
Yes	2001	7	Pasco	Upper Coastal Drainage	2563321	SR 54 - Rowan Rd. to Mitchell Bypass	Permitted			3.68	2.75	Conner Preserve	77
No	2007	7	Pasco		2563341	SR 52 (SCHRADER HWY)US 41 to CR 581	Deleted	2017	Mitigation Bank	7.41	5.19	Bank	
No	2007	7	Pasco	Upper Coastal Drainage	2563341	SR 52 (SCHRADER HWY)US 41 to CR 581	Deleted	2017	Mitigation Bank	18.00	12.34	Bank	
Yes	1997	7	Pasco	Upper Coastal Drainage	2563361	SR 54 Mitchell to Gunn	Permitted			6.60	0.00	Anclote Parcel	54

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Unique Record?	ar	ict		Basin		scrip	ect S	Status '	l wər	Total Impacted Acreage	cted	Proje	Mitigation Project
Rec	PlanYear	District			_		Proje	t Sta	Rer	npa	npa	ion	ion
ique	B.	DOTI	ounty	ainage	No.	Jiect	OT I	roject	elete/	tal Im reage	otal Ir	Mitigat Name	igat
Uni	Mit.	FD	CO	Dra	FΜ	Pro	FD	Pro	Del	Tot Acı	Tot	Mit	Mit
	0004	_	5	Upper Coastal	0500074		Description						
Yes	2004	7	Pasco	Drainage Upper Coastal	2563371	SR 54 - Gunn Highway to Suncoast Parkway	Permitted			6.00	3.20	Conner Preserve	77
Yes	1998	7	Pasco		2563391	SR 54 N. Suncoast to US 41	Permitted			7.00	0.00	Anclote Parcel	54
100	1000	,	1 4000	Drainago	2000001					1.00	0.00		01
Yes	1997	7	Pasco	Hillsborough River	2563431	SR 54 US 41 to Cypress Creek	Permitted			16.82	0.00	Lk. Thonotasassa	34
									No Mitigation				
No	2006	7	Pasco	Hillsborough River		US 301 (SR 41) SR 39 to South of CR 54	Deleted	2015	Required	0.10	0.03	NA	
no	2015	7	Pasco	Hillsborough River		US 301 (SR41/GALL) FROM SR 39 TO S OR	Deleted	2015	Dropped	1.00	0.25	Dropped	
no	2015	1	Fasco	Upper Coastal	2004222	01( 34	Deleted	2013	replaced by FM	1.00	0.25	Бторрец	
Yes	2007	7	Pinellas		2567742	US 19 from N of SR 580 to Northside	Deleted	2015	2567743	0.50	0.35	NA	
				Upper Coastal									
Yes	2007	7	Pinellas	ě	2567743	US 19 FROM N OF SR 580 TO CR 95	Deleted	2016	No Mit. Reqd	0.00	0.00	NA	
Vee	0004	7	Disallas	Upper Coastal	0500454	OD 500 (Outlow Dd.) OD 4 to Fisher Deed	De mee itte el			0.00	0.00	0	77
Yes	2001	7	Pinellas	Drainage Tampa Bay	2568151	SR 586 (Curlew Rd.) CR 1 to Fisher Road	Permitted			0.08	0.06	Conner Preserve	77
Yes	2004	7	Pinellas	Drainage	2568811	US 19 (SR 55) Whitney Rd. to Seville Dr.	Permitted			0.53	0.29	Bahia Beach	78
100	2001	•		Tampa Bay	2000011					0.00	0.20	Cockroach Bay	
Yes	2003	7	Pinellas		2568812	US 19 (SR 55) Seville Dr. to SR 60	Permitted			0.19	0.00	(Fresh)	56
N .		_	<b>D</b> : "	Tampa Bay	0500004					0.40			70
Yes	2000	7	Pinellas	Drainage Upper Coastal		US 19 Coachman Rd. to Sunset Rd. SR 682 (Bayway Bridge) SR 679 to W. Toll	Permitted			0.40	0.32	Bahia Beach	78
Yes	2002	7	Pinellas	Drainage	2569031		Permitted			0.65	0.00	Ft. DeSoto Park	70
100	2002	,		Tampa Bay	2000001					0.00	0.00		10
Yes	1998	7	Pinellas	Drainage	2569051	SR 679 (Bayway) Bunces Pass Bridge # 150	Permitted			0.60	0.00	Gateway Tract	45
				Tampa Bay									
Yes	2002	7	Pinellas			Gandy Blvd. (SR 694) US 19 to 4th St.	Deleted	2013	Application date	0.60	0.00	NA	
No	2006	7	Dinallaa	Tampa Bay		Gandy Blvd. (SR 694) 9th Street to 4th Street	Permitted			0.33	0.17	Mobbly Bayou	86
No	2006	1	Pinellas	Drainage Tampa Bay	2569312	Gandy Blvd. (SR 694) 9th Street to 4th Street	Fernilled			0.33	0.17	MODDIY Dayou	00
No	2006	7	Pinellas		2569312		Permitted			2.98	0.80	bahia beach	78
-				Upper Coastal		SR 694 (GANDY BLVD) FROM 40TH ST N TO							
No	2017	7	Pinellas	Drainage		E OF I-275	NEW/DELETE	2017		1.00	0.70	??	
	0047	-		Upper Coastal		SR 694 (GANDY BLVD) FROM 40TH ST N TO		0047	Deals	4.00	0.55	Daula	
No	2017	7	Pinellas	Drainage Tampa Bay	2569314	E OF I-275	NEW/DELETE	2017	вапк	1.00	0.55	Bank Cockroach Bay	
Yes	1997	7	Pinellas	Drainage	2569571	US 19 SR 60 (Drew St.) to Railroad Crossing	Permitted			1.33	0.00	(Fresh)	56
103	1001	1		Tampa Bay	2000071					1.00	0.00	Cockroach Bay	
Yes	2002	7	Pinellas	Drainage	2569941	CR 296 Connector 40th St. to 28th St.	Permitted			1.02	0.00	(Fresh)	56
				Tampa Bay		CR 296 Connector NB I-275 (Ramp P) to WB							
Yes	2004	7	Pinellas	Ų	2569942		Permitted			1.11	2.60	Bahia Beach	78
Vac	2002	7	Dinallas	Tampa Bay		43RD ST N EXTENSION FROM CR 296	Deleted	2015	Mitigation Bank	2.05	0.62	Tampa Bay Mitigation Bank	
Yes	2003	1	Pinellas	Drainage Tampa Bay		(118TH AVE N) TO 40TH STREET N 43RD ST N EXTENSION FROM CR 296	Deleted	2013	Mitigation Bank	2.00	0.02	Tampa Bay	
Yes	2003	7	Pinellas	Drainage		(118TH AVE N) TO 40TH STREET N	Deleted	2014	Mitigation Bank	0.72	0.53	Mitigation Bank	
				Tampa Bay		SR 688/ULMERTON RD FM E OF 49TH						Tampa Bay	
Yes	2003	7	Pinellas	Drainage	2569953	STREET TO W OF 38TH STREET NORTH	Deleted	2013	Mitigation Bank	14.23	6.87	Mitigation Bank	
		_		Tampa Bay	0.500.50			001-	Mitigation				
No	2004	1	Pinellas	Drainage	2569961	SR 686 AT CR 611 (49TH ST)	Deleted	2017	Bank	0.31	0.10	вапк	

Unique Record?	Mit. PlanYear	FDOT District	County	Drainage Basin	FM No.	Project Description	FDOT Project Status	Project Status Year	Delete/ Renew Reason	Total Impacted Acreage	Total Impacted FL	Mitigation Project Name	Mitigation Project ID
No	2004	7	Pinellas	Tampa Bay Drainage	2569961	SR 686 AT CR 611 (49TH ST)	Deleted	2015	Mitigation Bank	0.00	0.00	NONE	
				Tampa Bay		SR 686 (ROOSEVELT) FROM 49TH ST			_			Tampa Bay	
Yes	2004	7	Pinellas	Drainage	2569971	BRIDGE TO N OF ULMERTON RD	Deleted	2014	Mitigation Bank	2.29	0.68	Mitigation Bank	
Yes	2002	7	Pinellas	Tampa Bay Drainage	2569981		Deleted	2016	Mitigation Bank	2.80	1.96	Tampa Bay Mitigation Bank	
Yes	2000	7	Pinellas	Upper Coastal Drainage	2570501	SR 688 (Ulmerton Rd.) Oakhurst Rd. to 119th St.	Permitted			0.23	0.06	Conner Preserve	77
	2000	•		Tampa Bay	2010001					0.20	0.00	Cockroach	
No	2002	7	Pinellas	Drainage	2570701	US 19 (SR 55) 49th St. to 118th Avenue	Permitted			0.02	0.00	Saltwater	56
No	2002	7	Dinellee	Tampa Bay	2570701	US 19 (SR 55) 49th St. to 118th Avenue	Permitted			0.02	0.00	Boyd Hill Nature Preserve	71
No	2002	1	Pinellas	Drainage Upper Coastal		SR 699 (Gulf Blvd.) - 192nd Ave. to	Permilied			0.02	0.00	Preserve	71
Yes	2003	7	Pinellas	Drainage		Walsingham/Ulmerton Rd.	Permitted			0.11	0.00	Ft. DeSoto Park	70
No	2015	7	Pinellas	Tampa Bay Drainage		SR 694 (GANDY BLVD) FROM EAST US19	Deleted	2017		12.67	8.20	Bank	
No	2015	7	Pinellas	Tampa Bay Drainage	2570861		Deleted	2015	no more forested available in program	1.98	1.66	Unassigned	
No	2014	7	Pinellas	Tampa Bay Drainage		SR 694 (GANDY BLVD) FROM EAST US19 (SR55) TO E OF I-275 (SR93)	Deleted	2014	Mitigation Bank	7.61	4.36	Tampa Bay Mitigation Bank	
Yes	2000	7	Pinellas	Upper Coastal Drainage Tampa Bay	2570931	SR 60, Clearwater Harbor Bridge Replacement	Permitted			1.50	0.00	Gateway Tract Cockroach Bay	45
Yes	2001	7	Pinellas	Drainage	2571391	SR 688 (Ulmerton Rd.), US 19 to 49th Street	Permitted			0.10	0.00	(Salt)	75
Yes	2007	7	Pinellas	Tampa Bay Drainage	2571471	SR 688 (Ulmerton Rd.) 38th to I-275	Deleted	2013	Mitigation Bank	0.70	0.00	Tampa Bay Mitigation Bank	
163	2007	1	Filiciido	Withlacoochee	237 147 1	Six 666 (Gimenon Kd.) Sound 1-275	Deleted	2013	Willigation Darik	0.70	0.00	Withlacoochee	
Yes	1998	7	Citrus	River	2571631	SR 44 US 41 to CR 470	Permitted			7.92	0.00	S.F Baird	64
Yes	1998	7	Citrus	Withlacoochee River	2571641	SR 44 CR 470 to Withlacoochee River	Permitted			13.23	0.00	Withlacoochee S.F Baird	64
				Withlacoochee						_			
Yes	2002	7	Citrus	River	2571651	US 41 from SR 44 to SR 200	Deleted	2017	Dropped	0.00	0.00		
Yes	2000	7	Hernando	Upper Coastal Drainage	2571741	US 98 Hernando Co. Line to US 19	Permitted			1.42	0.82	Conner Preserve	77
Yes	2001	7	Citrus	Withlacoochee River	25718/1	US 41 (SR 45) Watson St. to SR 44 East	Permitted			0.06	0.00	Withlacoochee S.F Baird	64
100	2001	I	Onrus	Withlacoochee	2011041					0.00	0.00		
Yes	2003	7	Citrus	River	2571882	SR 200 US 41 to Marion Co. Line	Deleted	2013	Application date	2.80	0.00	NA	
Yes	2004	7	Pasco	Upper Coastal Drainage	2572982	CR 578 (County Line Rd.) US 19 to East Rd.	Permitted			0.55	0.39	Conner Preserve	77
Yes	2003	7	Pasco	Upper Coastal Drainage			Permitted			0.21	0.14	Conner Preserve	77
Yes	2004	7	Pasco	Upper Coastal Drainage	2572985	CR 578 (County Line Rd.) Suncoast Parkway to US 41	Permitted			0.30	0.29	Conner Preserve	77
Yes	2003	7	Hernando	Upper Coastal Drainage	2572992	CR 485 (Cobb Road); from SR 50 to US 98	Deleted	2013	Dropped	6.20	0.00	Dropped	

Unique Record?	Mit. PlanYear	FDOT District	County	Drainage Basin	FM No.	Project Description	FDOT Project Status	Project Status Year	Delete/ Renew Reason	Total Impacted Acreage	Total Impacted FL	Mitigation Project Name	Mitigation Project ID
Vaa	1000	7	l lilleb eroueb	Hillsborough River		Bruce B. Downs Bike Path Amberly Dr	Permitted			0.50	0.00	Jonningo Troot	61
Yes	1998	1	Hillsborough	Hillsborough River		Bruce B. Downs Bike Path Tampa Limits to	Permilieu			0.50	0.00	Jennings Tract	01
Yes	2000	7	Hillsborough	Hillsborough River		•	Permitted			0.20	0.00	Jennings Tract	61
Yes	2000	7	Hillsborough			Alexander Street US 92 to I-4	Permitted			3.16	0.00	Jennings Tract	61
163	2000	'	Thilaborough	Thisborough River	2010001		r chilited			5.10	0.00	Colt Creek State	01
Yes	2006	7	Hillsborough	Hillsborough River	2578622	Park Road I-4 (SR 400) to Sam Allen Rd.	Permitted			0.81	0.53	Park	84
Yes	2006	7	Hillsborough	Hillsborough River Tampa Bay	2578623	SAM ALLEN Rd; from Alexander St to Park Rd	Active	2017		4.24	2.33	Conner Preserve	77
Yes	2000	7	Hillsborough	Drainage	2583982	I-275 Howard Franklin to Himes Ave.	Permitted			1.50	0.00	Gateway Tract	45
Yes	2000	7	Hillsborough			SR 93 (I-275) US 41 to Pasco Co. Line	Permitted			7.60	0.00	Jennings Tract	61
No	2004	7	Hillsborough	Tampa Bay Drainage Tampa Bay		I-4 (SR 400) @ Selmon Expressway	Permitted	2017		5.46	3.85	Mobbly Bayou	86
No	2004	7	Hillsborough	Drainage	2584151	I-4 (SR 400) @ Selmon Expressway	Permitted	2017		1.05	0.63	Bahia Beach	78
Yes	2000	7	Hillsborough				Permitted			1.70	0.00	Jennings Tract	61
Yes	2000	7	Pasco	Hillsborougn River		SR 56, Cypress Creek to CR 581 (B.B. Downs)	Permitted			5.30	0.00	Jennings Tract	61
No	2004	7	Pasco	Hillsborough River		I-75 (SR 93) FROM NORTH OF SR/CR 54 TO NORTH OF SR 52 (Design-Build)	Permitted			1.24	1.10	Conner Preserve	77
No	2004	7	Pasco	Hillsborough River Tampa Bay		I-75 (SR 93) FROM NORTH OF SR/CR 54 TO NORTH OF SR 52 (Design-Build)	Deleted	2013	Mitigation Bank	7.07	3.57	BANK	
Yes	1997	7	Pinellas	Drainage	2588701	I-275 Roosevelt to Big Island Gap	Permitted			9.10	0.00	Gateway Tract	45
Yes	2000	8	Pasco	Upper Coastal Drainage		Suncoast Parkway and Ridge Road Interchange	Deleted		Other Mitigation Provided	2.33		NA	

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Yes	2000	7	Pinellas	Tampa Bay Drainage Upper Coastal		US 19, CR 816 (Alderman) to SR 582 (Tarpon) US 19 - Republic Drive to CR 816 (Alderman	Permitted			0.09	0.00	Boyd Hill Nature Preserve	71
Yes	2000	7	Pinellas		4037711		Permitted			0.09	0.04	Conner Preserve	77
Yes	2003	1	Polk	Ocklawaha River		US 27 Blue Heron Bay to CR 547	Permitted			1.89	0.00	Lake Lowery	76
Yes	2002	1	Manatee	Manatee River		SR 70 (Seg. 2) Lakewood Ranch Rd. to Lorraine Rd.	Permitted			3.62	0.00	Rutland Ranch	65
No	1999	1	Charlotte	Peace River	4046971	I-75 Bridge Widening over Peace River	Permitted			2.75	2.75	Little Pine Island Mit. Bank	52
No	1999	1	Charlotte	Peace River Tampa Bay		I-75 Bridge Widening over Peace River SR 60 (ADAMO DR) FROM E OF US 301 TO	Permitted			3.31	0.00	Peace Restor. Tampa Bay	69
Yes	2006	7	Hillsborough	Drainage Upper Coastal		W OF FALKENBURG RD	Deleted	2014	Mitigation Bank	0.86	0.15	Mitigation Bank	
Yes	2004	7	Citrus	Drainage	4058222	US 19 (SR 55) Green Acres to Jump Ct.	Permitted			0.53	0.30	Conner Preserve	77
Yes	2005	7	Citrus		4058223	US 19 (SR 55) Jump Court to Ft. Island Trail	Permitted			8.84	5.16	Conner Preserve	77
Yes	2015	7	Citrus		4058225	US 19 FRMOM CARDINAL ST TO GREEN ACRES ST	Deleted		Mitigation Bank	0.70	0.35	Upper Coastal Mitigation Bank	
No	2014	8	Sumter		4061101	Turnpike/ I-75 Interchange-Wildwood	Deleted		No Mitigation Available	2.00	1.00	??	
No	2014	8	Sumter			Turnpike/ I-75 Interchange-Wildwood	Deleted	2015	Mitigation Bank	18.00	10.50	Withlacoochee Mitigation Bank	
Yes	2006	8	Hillsborough		4061511	Veteran's Expressway Memorial Hwy. to Gunn Hwy.	Permitted	2014		10.46	2.90	Bahia Beach	78
Yes	2000	7	Pinellas		4062531	SR 686 (Roosevelt) at 49th Street	Permitted			0.20	0.00	Gateway Tract	45
Yes	2002	7	Pinellas	Tampa Bay Drainage	4062561	East-West Trail, Coopers Bayou to Bayshore	Permitted			0.10	0.00	Boyd Hill Nature Preserve	71
No	2004	1	Sarasota	South Coastal Drainage	4063143	I-75 N. River Rd. (CR 577) to SR 681	Permitted			14.55	8.62	Fox Creek ROMA	79
Yes	2004	1	Sarasota	South Coastal		I-75 N. River Rd. (CR 577) to SR 681	Permitted			0.77	0.49	Curry Creek ROMA	88
Yes	1999	5	Sumter	Withlacoochee		I-75 Lk. Panasoffkee Bridge	Permitted			5.93	0.00	Lake Panasoffkee	57
Yes	2007	7	Pasco			I-75 Northbound Rest Area	Permitted			2.20	1.14	Colt Creek State Park	84
Yes	2007	7	Pasco	Hillsborough River	4079442	I-75 Southbound Rest Area	Permitted			1.00	0.57	Colt Creek State Park	84
Yes	2008	7	Hernando	Upper Coastal Drainage	4079513	SR 50 US 19 to Mariner Dr.	Permitted			1.25	0.60	Conner Preserve	77
Yes	2015	7	Hillsborough		4080752	US 301 (SR 39) FM S OF CR 54/EILAND BLVD TO N OF KOSSIK RD	Active	2017		1.00	0.25	Conner Preserve	77
Yes	2001	7	Hillsborough	Tampa Bay Drainage	4082011	Himes Ave. at Hillsborough Ave.	Permitted			0.10	0.00	Boyd Hill Nature Preserve	71
Yes	2006	1	Polk	Peace River	4082685	US 98 Manor Drive to CR 540A	Permitted			0.68	0.24	Circle B Bar Reserve	66

Unique Record?	Mit. PlanYear	FDOT District	County	Drainage Basin	FM No.	Project Description	FDOT Project Status	Project Status Year	Delete/ Renew Reason	Total Impacted Acreage	Total Impacted FL	Mitigation Project Name	Mitigation Project ID
Yes	2003	7	Hillsborough	Hillsborough River	4084592	I-75 Fowler Avenue to CR 581	Permitted			23.79	16.84	Colt Creek State Park	84
No	2004	7	Pasco	Hillsborough River	4084593	I-75 - CR 581 (BB Downs) to SR 56 (Mainline)	Permitted			15.33	9.70	Colt Creek State Park	84
No	2004	7	Pasco	Hillsborough River	4084593	I-75 - CR 581 (BB Downs) to SR 56 (Mainline)	Permitted			0.64	0.36	Conner Preserve	77
Yes Yes	2004 2001	7	Pasco Hillsborough			I-75 SR 56 to S of CR 54 I-75 Off-Ramp at CR 581	Permitted Permitted			<u>11.63</u> 0.48	6.64 0.00	Colt Creek State Park Jennings Tract	84 61
	2004	7	Hillsborough			SR 39 @ Hillsborough River	Permitted			2.29	1.34	Colt Creek State Park	84
Yes Yes	2004	7	Pinellas	Upper Coastal Drainage		SR 688 (Ulmerton) - Wild Acres to El Centro/Ranchero Blvd.	Permitted			0.64		Conner Preserve	77
No	2004	7	Pinellas	Tampa Bay Drainage Withlacoochee	4091551	SR 688 (Ulmerton Rd.) Lake Seminole to Wild Acres	Permitted			0.07	0.02	Conner Preserve Withlacoochee	77
Yes	2002	7	Citrus	River	4092071	CR 470 (Gospel Isle)	Permitted			0.23	0.00	S.F Baird	64
Yes	2007	7	Pinellas	Upper Coastal Drainage	4107552	SR 679 (Pinellas Bay Structure E) at Intercoastal Waterway	Permitted			0.23	0.19	Ft. DeSoto Park	70
Yes	2007	7	Hernando	Withlacoochee River	4110113	I-75 (SR 93) FROM PASCO/HERNANDO CO/L TO US98/N SR50/CORTEZ BVD	Permitted			7.08	3.97	Colt Creek State Park	84
Yes	2007	7	Hernando	Withlacoochee River	4110114	I-75 (SR 93) FROM PASCO/HERNANDO CO/L TO US98/N SR50/CORTEZ BVD	Permitted			0.34	0.17	Colt Creek State Park	84
Yes	2007	7	Hernando	Withlacoochee River	4110122	I-75 SR 50 to Hernando/Sumter CL	Deleted	2013	No Mitigation Required	0.01	0.00	NA	
No	2006	7	Pasco			I-75 (SR 93) FROM N OF SR 52 TO PASCO/HERNANDO CO/L (design-build) I-75 (SR 93) FROM N OF SR 52 TO	Permitted		Additional Mit.	10.60		Conner Preserve	77
No	2006	7	Pasco	Hillsborough River	4110142	PASCO/HERNANDO CO/L (design-build)	Permitted	2015	Needed	0.17	0.08	Conner Preserve	77
No	2006	7	Pasco	Upper Coastal Drainage Withlacoochee	4110142	I-75 (SR 93) FROM N OF SR 52 TO PASCO/HERNANDO CO/L (design-build) I-75 (SR 93) FROM N OF SR 52 TO	Permitted			4.33	0.39	Conner Preserve Colt Creek State	77
No	2006	7	Pasco	River	4110142	PASCO/HERNANDO CO/L (design-build)	Permitted			3.05	1.92	Park	84
No	2006	7	Pasco	· ·	4110142	, <b>,</b>	Deleted	2014	Mitigation Bank	0.36	0.18	North Tamp Mitigation Bank	
No	2006	7	Pasco	Upper Coastal Drainage	4110142	I-75 (SR 93) FROM N OF SR 52 TO PASCO/HERNANDO CO/L (design-build)	Deleted	2014	Mitigation Bank	13.41	6.28	Upper Coastal Mitigation Bank	
Yes	2004	1	Polk	Peace River	4110391	US 27 CR 546 to SR 544	Permitted			1.96	0.88	Circle B Bar Reserve	66
No	2004	7	Hillsborough	Hillsborough River	4113371	US 92 - Eureka Springs to Thonotasassa Rd.	Permitted			1.45	0.74	Colt Creek State Park	84

Unique Record?	Mit. PlanYear	FDOT District	County	Drainage Basin	FM No.	Project Description	FDOT Project Status	Project Status Year	Delete/ Renew Reason	Total Impacted Acreage	Total Impacted FL	Mitigation Project Name	Mitigation Project ID
No	2004	7	Hillsborough	Tampa Bay Drainage	4113371	US 92 Eureka Springs to Thonotasassa Rd.	Permitted			0.34	0.06	Ekker Tract	82
			Thiosofough	Tampa Bay					Credit Cost for				
No	2007	7	Hillsborough	Drainage	4125311	SR 60 (Memorial HWY) fom I-275 to Spruce	Active	2016	Mangrove	0.20	0.14	Bahia Beach	78
No	2007	7	Hillsborough	Tampa Bay Drainage	4125311	SR 60 (Memorial HWY) fom I-275 to Spruce	Deleted	2016	Mitigation Bank	0.10	0.04	Tampa Bay Mitigation Bank	
_				Tampa Bay		I-275 @ I-275 NB Off-Ramp to SR 60 Airport			J				
Yes	2009	7	Pinellas	Drainage	4125313		Permitted			0.94	0.50	Mobbly Bayou	86
Yes	2010	1	Charlotte	Charlotte Harbor Drainage	4130423	I-75 from Tucker's Grade to N. Jones Loop	Permitted			1.10	0.00	Little Pine Island Mit. Bank	52
100	2010		Chanotte	Drainage	4100420	McMullen Road from Balm Riverview to Boyette				1.10	0.00		02
Yes	2008	7	Hillsborough	Alafia River	4131361		Permitted			0.17	0.11	Ekker Tract	82
Yes	2008	7	Pinellas	Tampa Bay Drainage		CR 296(FUTURE SR690) FROM US 19 (SR 55) TO E OF ROOSEVELT/CR 296	Deleted	2013	Mitigation Bank	4.59	3.01	Tampa Bay Mitigation Bank	
Vaa	2004	1	Saraaata	Myakka River	1120071	SR 72 Myakka River to Big Slough	Permitted			6.93	0.00	Myakka River State Park	51
Yes	2004	I	Sarasota	IVIYAKKA KIVEI	4130071		Fernilled			0.93	0.00		51
Yes	2002	TIA	Hillsborough	Tampa Bay Drainage	4143481	Taxiway E Reconstruction	Deleted	2014	No Mitigation Required	2.87	0.00	NA	
No	2003	TIA	Hillsborough	Tampa Bay Drainage	1112101	36R RPZ	Permitted			7.18	5.03	Brooker Ck. Buffer Preserve	90
INU	2003	ПА	Thisborough	Tampa Bay	4143401		Fernilled			7.10	5.05	Fieseive	30
No	2003	TIA	Hillsborough	Drainage		36R RPZ	Permitted			0.55	0.39	Bahia Beach	78
Yes	2002	TIA	Hillsborough	Tampa Bay Drainage		Airfield Drainage Rehab (fna Taxiway N Overpass)	Permitted			2.85	1.41	Bahia Beach	78
Yes	2007	TIA	Hillsborough	Tampa Bay Drainage Tampa Bay		Cargo/ Ground Support Equip. Facility High Speed Txwy for RW18R (fna Taxiway	Permitted			0.63	0.13	Bahia Beach	78
Yes	2005	TIA	Hillsborough	Drainage	4143481		Permitted			2.20	1.10	Bahia Beach	78
				Tampa Bay								Brooker Ck. Buffer	
Yes	2002	TIA	Hillsborough	Drainage	4143481	North Terminal Airside 2	Active	2017		3.64	3.28	Preserve	90
Yes	2002	TIA	Hillsborough		4143481	North Terminal Airside 3	Active	2017		4.74	3.43	Brooker Ck. Buffer Preserve	90
Yes	2002	TIA	Hillsborough	Tampa Bay Drainage	4143481	North Terminal Airside 4	Active			3.66	2.56	Brooker Ck. Buffer Preserve	90
Yes	2002	TIA	Hillsborough	Tampa Bay Drainage		Runway 17-35	Active			6.82		Bahia Beach	78
Yes	2002	TIA	Hillsborough	Tampa Bay Drainage		South Development Area - Includes CONRAC Car Rental facility	Active			5.24		Bahia Beach	78
				Tampa Bay								Brooker Ck. Buffer	
Yes	2002	TIA	Hillsborough		4143481	Taxiway A Extension	Active	2017		0.43	0.89	Preserve	90
Yes	2004	TIA	Hillsborough	Tampa Bay Drainage	4143481	Taxiway B rehab, Bridge and N. Terminal Stormwater	Permitted			3.29	1.99	Bahia Beach	78
Yes	2003	TIA	Hillsborough	Tampa Bay Drainage	4143481	Taxiway V&W	Permitted			0.66	0.28	Bahia Beach	78

Unique Record?	Mit. PlanYear	FDOT District	County	Drainage Basin	FM No.	Project Description	FDOT Project Status	Project Status Year	Delete/ Renew Reason	Total Impacted Acreage	Total Impacted FL	Mitigation Project Name	Mitigation Project ID
Yes	2002	TIA	Hillsborough	Tampa Bay Drainage		East Development Area (Drew Park Improvements)	Deleted	2017	No Mitigation Required	0.00	0.00	Bahia Beach	78
Yes	2002	TIA	Hillsborough	v	4143481	North Terminal Phase 1	Deleted		No Mitigation Required	2.48	1.74	Brooker Ck. Buffer Preserve	90
Yes	2002	TIA	Hillsborough	Tampa Bay Drainage	4143481	TAXIWAY s extension	Deleted		No Wetland Impacts	0.00	0.00	Bahia Beach	78
Yes	2012	7	Hillsborough	Tampa Bay Drainage	4152349	SR 597 (Dale Mabry) Lakeview Dr. to Van Dyke Rd.	Deleted		No Mitigation Required	0.30	0.00	NA	
No	2006	7	Hillsborough	Tampa Bay Drainage	4154892	US 301, Balm Road to Gibsonton Drive	Permitted			11.85	0.00	Ekker Tract	82
No	2006	7	Hillsborough	Tampa Bay Drainage	4154892	US 301, Balm Road to Gibsonton Drive	Permitted			1.50	0.58	Bahia Beach	78
No	2006	7	Hillsborough	Alafia River			Permitted			0.28		Ekker Tract	82
No	2006	7	Hillsborough	Tampa Bay Drainage	4154893	US 301, Sun City Center to Balm Road	Permitted			1.99	1.52	Boyd Hill Nature Preserve	71
No	2006	7	Hillsborough	Tampa Bay Drainage Little Manatee	4154893	US 301, Sun City Center to Balm Road	Permitted			1.99	1.00	Ekker Tract Little Manatee	82
No	2006	7	Hillsborough		4154893	US 301, Sun City Center to Balm Road	Permitted			0.65	0.33	River, Lower Tract	83
Yes	2006	1	Desoto	Peace River	4154901	US 17 Charlotte C.L. to SW Collins	Permitted			2.23	1.15	Peace River Mit. Bank	85
No	2006	1	Desoto	Peace River	4154901	US 17 Charlotte C.L. to SW Collins	Permitted			2.15	0.93	Boran Ranch Mit. Bank	53
Yes	2009	1	Manatee	Manatee River	4161201	SR 64 Carlton Arms Blvd. to I-75	Permitted	_		0.78	0.28	Hidden Harbour	80
Yes	2006	7	Pasco	Hillsborough River			Deleted	2013	Application date	0.00	0.00	NA	
Yes	2010	7	Pasco	Hillsborough River	4165612		Permitted	2015		2.58	1.73	Conner Preserve	77
Yes	2016	7	Pasco	Hillsborough River		US 301 FROM SR 56 (PROPOSED) TO SR 39/PAUL BUCHMAN HWY	Deleted	2016	NO MIT LEFT THIS BASIN	0.60	0.32	bank	
Yes	2014	7	Hernando	Withlacoochee River Withlacoochee	4167323	SR 50 from US 98/ McKethan Rd. to US 301 SR 50 from Windmere Rd./ Bronson Bl. To US	Deleted	2016	dropped	0.50	0.02	Dropped Colt Creek State	
No	2014	7	Hernando	River		98/ McKethan Rd.	Renew	2016	no herb at Bank	0.04	0.02	Park	84
No	2014	7	Hernando	Withlacoochee River		SR 50 from Windmere Rd./ Bronson Bl. To US 98/ McKethan Rd.	Deleted	2016	Dropped	1.00	0.70	Bank	

Unique Record?	PlanYear	District	Ą	ainage Basin	ö	ct Description	DOT Project Status	ct Status Year	e/ Renew Reason	Total Impacted Acreage	Impacted FL	ation Project	Mitigation Project ID
Jniqu	Ait. P	TOO <sup>1</sup>	County	Drain	M No.	roje	LOG	roject	)elete/	Total ∖crea	otal	Aitiga	Aitiga
		<u> </u>	U	Upper Coastal	U	SR 50/SR 50A FROM CO BB RD TO BROAD	<u> </u>					Upper Coastal	
Yes	2015	7	Hillsborough	Drainage	4167332		Deleted	2017	Mitigation Bank	2.00	0.93	Mitigation Bank	
No	2015	7	Hillsborough	Upper Coastal Drainage		SR 50/SR 50A BYPASS FROM BROAD ST TO JEFFERSON N ST	Deleted	2017	Mitigation Bank	1.00	0.70	Bank	
INU	2015	1	Thilsborough	Withlacoochee	4107351	SR 50/SR 50A BYPASS FROM BROAD ST TO		2017	Milligation Darik	1.00	0.70	Colt Creek State	
No	2015	7	Hillsborough	River	4167351	JEFFERSON N ST	Active	2017		1.00	0.70	Park	84
				Upper Coastal		SR 50/SR 50A BYPASS FROM BROAD ST TO						Upper Coastal	
No	2015	7	Hillsborough	Drainage	4167351		Deleted	2015	Mitigation Bank	1.00	0.25	Mitigation Bank	
No	2009?	7	Pinellas	Tampa Bay Drainage	4168381	US 92 (SR 600/GANDY) PELICAN SOUND TO GANDY BRIDGE	Permitted	2015		0.90	0.50	Mobbly Bayou	86
	2003:			Tampa Bay		US 92 (SR 600/GANDY) PELICAN SOUND TO		2010		0.00	0.00	Mobbly Dayou	00
No	2009?	7	Pinellas	Drainage			Permitted	2015		0.67	0.44	Bahia Beach	78
		_		Upper Coastal								_	
Yes	2006	7	Pinellas	Drainage			Permitted			0.41	0.21	Conner Preserve	77
Yes	2007	7	Hillsborough	Tampa Bay Drainage	4209331	Dale Mabry Ave. Van Dyke Rd. to Lutz Lake	Deleted	2013	Application Date	0.90	0.00	NA	
100	2007	,	rinoborougn	Drainage	4200001	I-75 - CR 581 (BB Downs) to SR 56 ("Waddah	Deleted	2010	Application Date	0.00	0.00	Colt Creek State	
No	2003	7	Hillsborough	Hillsborough River	4218311		Permitted			21.54	16.25	Park	84
						I-75 - CR 581 (BB Downs) to SR 56 ("Waddah							
No	2003	7	Hillsborough	Hillsborough River	4218311	Ramps")	Permitted			9.66	5.14	Conner Preserve	77
Yes	2004	7	Pasco	Hillsborough River	1218311	I-75 S of CR 56 to N of CR 54	Permitted			16.88	8.20	Colt Creek State Park	84
103	2004		1 4300	1 misseredgir raver	4210014					10.00	0.20		0-
Yes	2009	1	Manatee	Manatee River			Permitted			2.73	0.41	Hidden Harbour	80
		_		Tampa Bay		1275 (HOWARD FRKL) FM N OF HOWARD							
Yes	2017	7	Hillsboroug and Pinellas	Drainage Tampa Bay		FRANKLAND TO S OR SR 60 I-275 (HOWARD FRKL) FM N OF HOWARD	NEW/DELETE	2017	Other Mitigation	11.20	6.72	BANK/UNKNOWN	
No	2014	7	Hillsborough	Drainage			Deleted	2017	Provided	4.00	2.40	other offsite	
		•		Tampa Bay		I-275 (HOWARD FRKL) FM N OF HOWARD							
No	2014	7	Hillsborough	Drainage	4229044	FRANKLAND TO S OF SR 60	Deleted	2017	Mitigation Bank	0.05	0.02	Bank	
				<b>TD</b> .									
Yes	2013	7	Pinellas	Tampa Bay Drainage	4230801	I-275/SR 93 SOUTHBOUND @ BUNCES	Permitted?	2014		0.10	0.10	Ft. DeSoto Park	70
103	2010		T Inclido	Tampa Bay	420001	SR 616 FROM E OF OBRIEN ST TO DALE		2014		0.10	0.10	Tampa Bay	10
Yes	2013	7	Hillsborough	Drainage	4230881		Deleted	2013	Mitigation Bank	0.20	0.14	Mitigation Bank	
				Withlacoochee					No Mitigation				
Yes	2012	5	Lake	River	4230961		Deleted	2014	Required	1.00	0.00	NA Tompo Dov	
Yes	2015	7	Pinellas	Tampa Bay Drainage	4245012	I-275 (SR 93) FROM S OF 118TH AVE N TO S OF 4TH ST N	Deleted	2015	Mitigation Bank	0.80	0.44	Tampa Bay Mitigation Bank	
103	2010	1	FILICIIAS	Tampa Bay	727012			2013	NO FORESTED	0.00	0.44		
Yes	2017	7	Hillsborough	Drainage	4245132	I-75 AT BIG BEND RD SB OFF RAMP	NEW/DELETE	2017	AVAILABLE	0.50	0.35	UNKNOWN	
				Withlacoochee									
Yes	2011	5	Sumter	River	4245241		Deleted	2014	Dropped	0.50	0.00	Dropped	
Yes	2012	7	Hillsborough	Tampa Bay Drainage	4245501	US 41 (SR 45) FROM MANATEE/HILLS CO/L TO N OF 15TH AV	Deleted	2013	No Mitigation Required	0.80	0.13	NA	
100	2012	'	riiissorougn	Tampa Bay		SR 60 - Pinellas/Hillsborough C.L. to Rocky		2013		0.00	0.13		
Yes	2010	7	Hillsborough	Drainage		• •	Permitted			0.13	0.04	Mobbly Bayou	86

Unique Record?	Mit. PlanYear	FDOT District	County	Drainage Basin	FM No.	Project Description	FDOT Project Status	Project Status Year	Delete/ Renew Reason	Total Impacted Acreage	Total Impacted FL	Mitigation Project Name	Mitigation Project ID
				Tampa Bay		SR 60 (CCAMPBLL CWY) FROM BAYSHORE						Tampa Bay	
Yes	2012	7	Pinellas	Drainage	4245613	BLVD TO E OF TAMPA BAY BRIDGE	Deleted	2013	Mitigation Bank	0.34	0.24	Mitigation Bank	
Vaa	2012	7	Dinellee	Tampa Bay	4045044	SR 60 (CCAMPBLL CWY) FROM E OF	Deleted	2012	No Mitigation	0.40	0.00	Tampa Bay	
Yes	2012	1	Pinellas	Drainage	4245614	BRIDGE #138 TO PINELLAS/HILLS CO/L	Deleted	2013	Required	0.10	0.00	Mitigation Bank	<u> </u>
Yes	2010	1	Polk	Peace River	4251371	SR 17 @ Mountain Lake Cutoff Intersection Improvements	Permitted			0.16	0.07	Circle B Bar Reserve	66
Yes	2012	7	Hillsborough	Tampa Bay Drainage	4255001	US 41(SR45) FROM N OF LINWOOD DR TO N OF COUNTY LINE RD	Deleted	2013	Mitigation Bank	0.20	0.00	Tampa Bay Mitigation Bank	
Yes	2016	7	Pinellas	Tampa Bay Drainage	4271432	SR 579 (PIN BYWAY S) FROM N OF YACHT CLUB LN TO S OF MADONNA BL	Deleted		No Mitigation Required	0.00	0.00		
Yes	2011	7	Pasco	Upper Coastal Drainage	4271571	US 19 (SR 55) FROM NEW YORK AVE TO PASCO/HERNANDO CO/L	Deleted		No Mitigation Required	0.02	0.00	NA	
Yes	2011	7	Hillsborough	Hillsborough River	1271501	US 92 (SR 580/600) Benjamin Rd. to	Deleted		No Mitigation Required	0.20	0.00	NA	
165	2011	1	Tillisbolougii	Withlacoochee	427 1591	US 301/98 (SR 35/700) Pioneer Museum Rd. to		2013	No Mitigation	0.20	0.00		
Yes	2011	7	Pasco	River	4271651	Mosstown Rd.	Deleted		Required	0.20	0.00	NA	
	0040	_		Tampa Bay	1000011	SR 597 (Dale Mabry) Cheval Blvd. to County			No Mitigation	o o <del>,</del>			
Yes	2012	7	Hillsborough	Drainage	4289241	Line Ra.	Deleted	2013	Required	0.07	0.00	NA	
Yes	2012	7	Hillsborough	Tampa Bay Drainage	4289361	SR 60/E ADAMO DR FROM E OF N 22ND ST TO W OF 50TH ST	Deleted	2013	Mitigation Bank	0.20	0.00	Tampa Bay Mitigation Bank	
Yes	2015	7	Hillsborough	Tampa Bay Drainage	1200521	I-75 (SR 93A) FM WB SR60 ENTRANCE RAMP TO S OF CSX/CR 574	Deleted	2017	to Brooker then to Bank	1.50	0.38	Bank	
Tes	2015	1	riiisborougri	Dialitage	4209031	KAMF TO 3 OF CSX/CK 374	Deleted	2017	ITIETI TO DATIK	1.50	0.30	Dalik	
No	2016	7	Hillsborough	Tampa Bay Drainage	4289541	I-75(SR93A) NB ON RAMP FROM EB/WB I-4 TO SOUTH OF BYPASS CANAL	Permitted		Mit. assigned at Alligator	0.31	0.18	Alligator Lake	87
No	2016	7	Hillsborough	Tampa Bay Drainage	4289541	I-75(SR93A) NB ON RAMP FROM EB/WB I-4 TO SOUTH OF BYPASS CANAL	Deleted	2016	Mitigation Bank	0.74	0.35	Tampa Bay Mitigation Bank	
Yes	2015	7	Hillsborough	Tampa Bay Drainage		I-75 (SR93A) & SR60 FM S OF SR60 @ SLIP	Deleted		herb to Bank, no forested avail	0.50	0.13	Bank	
Yes	2015	7	Hillsborough	Tampa Bay Drainage	4289561	I75(SR 93A) FM S OF SELMON EXP OVERPASS TO N OF SR 60	Deleted	2017	herb to Bank, no forested avail	0.40	0.10	Bank	
Yes	2015	7	Hillsborough	Tampa Bay Drainage	4289571	I75 (SR 93A) SB OFF RMP FROM S OF BYPASS CANAL TO EB/WB I-4	Deleted	2017	herb to Bank, no forested avail	7.84	3.44	Bank	
Yes	2012	7	Hillsborough	Hillsborough River	4289611	SR 39/JAMES L REDMAN FROM SR 60(HOPEWELL RD) TO N OF CHARLIE GRIF	Deleted		No Mitigation Required	0.33	0.23	Conner Preserve	77

Unique Record?	Mit. PlanYear	FDOT District	County	Drainage Basin	FM No.	Project Description	FDOT Project Status	Project Status Year	Delete/ Renew Reason	Total Impacted Acreage	Total Impacted FL	Mitigation Project Name	Mitigation Project ID
Yes	2014	7	Hillsborough	Tampa Bay Drainage		US 41 (SR 45) FROM E OF 47TH ST TO E END BRIDGE #299/338	Deleted	2013	Mitigation Bank	0.10	0.07	Tampa Bay Mitigation Bank	
Yes	2013	7	Pasco	Tampa Bay Drainage	4290081	SR 597 DALE MABRY FROM COUNTY LINE RD TO N OF BRINSON RD	Permitted			0.25	0.13	Alligator Lake	87
Yes	2014	7	Pinellas	Tampa Bay Drainage		SR 686 (ROOSEVELT) FROM N OF 28TH ST N TO N OF GANDY BLVD	Deleted	2013	Mitigation Bank	0.44	0.20	Tampa Bay Mitigation Bank	
Yes	2013	7	Hillsborough	Tampa Bay Drainage	4290732		Deleted	2013	Mitigation Bank	0.20	0.00	Tampa Bay Mitigation Bank	
Yes	2014	7	Hillsborough	Tampa Bay Drainage		US 41/SR45/599/50TH FROM N OF 27TH AVE S TO N OF E 10TH AVE	Deleted	2014	No Mitigation Required	0.10	0.07	Dropped	
Yes	2015	7	Hillsborough	Tampa Bay Drainage	4292511	1-75 (SR93A) FROM S OF CSX/BROADWAY AVE TO EB/WB I4 EXIT RAMP	Deleted	2017	Mitigation Bank	0.40	0.10	Bank	
Yes	2014	8	Hillsborough	Tampa Bay Drainage	4293501	Veteran's Expressway Gunn Hwy. to Van Dyke	Permitted	2014		3.56	1.76	Bahia Beach	78
Yes	2012	5	Marion	Withlacoochee River	4295821		Deleted		No Mitigation Required	0.00	0.00	Halpata Tastanki Preserve	92
Yes	2013	7	Citrus	Upper Coastal Drainage			Deleted		mitigation bank	0.37	0.24	Upper Coastal Mitigation Bank	
Yes	2015	7	Hillsborough	Withlacoochee River	4300512	SR 50 FORM LOCKART RD TO E OF REMINGTON RD	NEW		MITIGATION BANK	0.60	0.30	BANK	
Yes	2018	5	Sumter	Withlacoochee River	4301321		NEW	2018		1.00	1.00	Colt Creek State Park	
No	2015	7	Hillsborough	Tampa Bay Drainage			Deleted	2017	Mitigation Bank	0.28	0.10	North Tampa Mitigation Bank	
No	2015	7	Hillsborough	Tampa Bay Drainage	4303351		Deleted	2017	No Mit. Available	0.20	0.05	??	
Yes	2015	7	Hillsborough	Tampa Bay Drainage			Deleted	2016	Mitigation Bank	0.40	0.10	Bank	
Yes	2015	7	Hillsborough	Tampa Bay Drainage	4303371		Deleted	2017	Mitigation Bank	1.00	0.25	Bank	
No	2015	7	Hillsborough	Tampa Bay Drainage	4303381	I-4 (SR 400) EB FM WEST OF ORIENT ROAD TO W OF I-75 (SR 93A)	Deleted	2017	Mitigation Bank	0.40	0.10	Bank	
Yes	2014	7	Pasco	Upper Coastal Drainage	4303811		Deleted	2014	included in 2563231	0.10	0.14	Conner Preserve	77
Yes	2015	7	Hillsborough	Tampa Bay Drainage	4305011	9TH ST S (MLK STREET) FROM 7TH AVE S TO 8TH AVE S	Deleted		Dropped	0.50	0.35	Bahia Beach	78
Yes	2015	7	Hillsborough	Tampa Bay Drainage		BIG BEND RD FROM E OF DICKMAN ROAD TO W OF WYANDOTTE ROAD	NEW		previously at bank; new in 2018; no mangrove at mit. Bank	0.03	0.02	Bahia Beach	
No	2015	7	Pasco	Hillsborough River			Deleted	2018	Mitigation Bank	2.88	2.00	Bank	77
No	2015	7	Pasco	Hillsborough River		175/SR56 INTERCHANGE FROM W OF CR 54 TO W OF CYPRESS RIDGE BLVD	Deleted	2017	Mitigation Bank	0.20	0.05	Hillsborough River Mitigation Bank	

Unique Record?	PlanYear	T District	ţţ	ainage Basin	No.	ect Description	DOT Project Status	ect Status Year	te/ Renew Reason	Total Impacted Acreage	Impacted FL	ation Project e	Mitigation Project ID
Uniq	Mit. F	FDOT	County	Drair	FM N	Proje	EDO.	Project	Delete/	Total Acre	Total	Mitigat Name	Mitig
Yes	2017	 7	Hillsborough	Hillsborough River	4305732	I-75/275 FROM CO LINE RD TO SR 56 (PHASE III)	NEW	2017		1.50	1.05	Conner Preserve	77
Yes	2017	7	Hillsborough	Hillsborough River		175/275 FROM S OF CO LINE RD TO CO LINE		2017		1.50	1.05	Conner Preserve	77
100	2017		Thioborough		10007.00			2011		1.00	1.00		
Yes	2015	7	Pinellas	Upper Coastal Drainage		ALT US 19 (SR 595) FM S OF SR 586/CURLEW RD TO N OF WHISPER LAKE	Deleted	2015	Mitigation Bank	0.08	0.06	Tampa Bay Mitigation Bank	
Yes	2013	7	Pinellas	Upper Coastal Drainage		ALT US19 (SR 595) FM N OF SR 586/CURLEW RD TO N OF WHISPER LAKE R	Deleted	2015	No Mitigation Available	0.22	0.09	Upper Coastal Mitigation Bank	
	2010	•			1000001					0122	0.00		
Yes	2013	7	Hillsborough				Deleted	2015	Exempt/Dropped	0.20	0.14	Conner Preserve	77
Yes	2014	7	Pinellas	Tampa Bay Drainage	4309001		Deleted	2014	Mitigation Bank	0.10	0.07	Tampa Bay Mitigation Bank	
Yes	2013	7	Hillsborough	Hillsborough River		SR 574/MLK JR BLVD FM E OF MCINTOSH RD TO W OF WHEELER CT	Deleted	2014	No Mitigation Required	0.20	0.00	Conner Preserve	77
		-	-	Upper Coastal		US 41 (SR 45/BROAD) FM S OF CR			No Mitigation				
Yes	2014	7	Hernando	Drainage	4311431		Deleted	2014	Required	0.00	0.00	Conner Preserve	
Yes	2014	7	Pasco	Withlacoochee River	4312431	US98/US301/GALL BLVD FROM N OF KOSSIK RD TO BOUGAINVILLEA AVE	Deleted	2014	No Mitigation Required	0.20	0.07	Colt Creek State Park	84
		7				I-4 FROM I-4/SELMON CONNECTOR TO E							
Yes	2017	1	Hillsborough	Hillsborougn River	4317462	OF BRANCH FORBES ROAD I-275 FROM JEFFERSON/ORANGE ST TO N	NEW	2017		6.00	3.00	Conner Preserve	77
Yes	2015	7	Hillsborough	Hillsborough River			Deleted	2017	Dropped	0.50	0.13	Conner Preserve	77
Yes	2014	7	Pinellas	Tampa Bay Drainage		US 19 FROM 38TH AVENUE NORTH TO 44TH AVENUE NORTH	Deleted	2014	Mitigation Bank	0.66	0.20	Tampa Bay Mitigation Bank	
100	2014			Upper Coastal		SR 679 (BAYWAY) FR N END OF BOCA		2011	Miligation Bank	0.00	0.20	Miligation Dank	
Yes	2015	7	Pinellas	Drainage			Deleted	2015	No Impacts	0.00	0.00	NA	
Yes	2015	7	Hernando	Withlacoochee River		SR50/700/US98/CORTEZ FROM E OF SR50/CORTEZ BL TO W OF LIVE OAK DR	Renew	2017		0.10	0.07	Colt Creek State Park	84
163	2013		nemando	Tampa Bay		BROADWAY FROM US 41 TO N 62ND ST	Renew	2017		0.10	0.07	Tampa Bay	04
Yes	2015	7	Hillsborough	Drainage	4330711	CSX INTRMD	Deleted	2015	Mitigation Bank	0.00	0.00	Mitigation Bank	
Yes	2015	7	Hillsborough	Tampa Bay Drainage		SR 60 (SR 589) FROM N OF INDEPENDENCE TO I-275 AT WESTSHORE	Deleted	2017	Mitigation Bank	0.20	0.05	Bank	
		•		Tampa Bay		1275/SR 93 NB FLYOVER FROM SR 60 EB TO			Ŭ	0.20			
Yes	2015	7	Hillsborough	Drainage	4335355		Deleted	2017	Mitigation Bank	0.20	0.05	Bank	
No	2015	7	Pinellas	Upper Coastal Drainage		US 19 (SR 55) FROM N OF CR 95 TO N OF NEBRASKA AVE	Deleted	2017	Mitigation Bank	0.10	0.07	Bank	
No	2015	7	Pinellas	Upper Coastal Drainage		US 19 (SR 55) FROM N OF CR 95 TO N OF NEBRASKA AVE	Deleted	2017	Mitigation Bank	0.20	0.10	Upper Coastal Mitigation Bank	
				Tampa Bay		US 19 (SR 55) FROM N OF NEBRASKA AVE			-				
Yes	2015	7	Hillsborough	Drainage			Deleted	2017	Mitigation Bank	0.20	0.10	ТВМВ	
Yes	2017	7	Pinellas	Tampa Bay Drainage		US19 (SR 55) FROM N OF CR 95 TO S OF PINE RIDGE WAY S	NEW/DELETE	2017	BANK	1.00	0.40	Bank	
No	2015	7	Hillsborough	¥	4338212	I-275 @ I-4 I-275 FM ROME TO MLK I-4 FM I- 275 TO CONNECTOR	Active	2016		0.50	0.25	Conner Preserve	77
No	2015	7	Hillsborough	Tampa Bay Drainage			Deleted		Moved Basin, to Bank	0.50	0.25	Bank	
Yes	2015	7	Hillsborough	Hillsborough River		CR 582/KNIGHTS GRIFF FM ITCHEPACKESASSA CK TO BR # 100265	Active	2017		0.28	0.14	Conner Preserve	77

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Unique Record?	Mit. PlanYear	FDOT District	County	Drainage Basin	FM No.	Project Description	FDOT Project Status	Project Status Year	Delete/ Renew Reasc	Total Impacted Acreage	Total Impacted FL	Mitigation Project Name	Mitigation Project ID
Yes	2015	7	Hillsborough	Hillsborough River		SR 574/W REYNOLDS ST FROM E OF TURKEY CREEK RD TO THONOTOSASSA RD	Deleted		No Mitigation Required	0.00	0.00	Conner Preserve	77
Yes	2015	7	Hillsborough	Tampa Bay Drainage		SR60 (ADAMO DR) FROM E OF FALKENBURG RD TO W OF LAKE KATHY	Deleted		No Mitigation Required	0.00	0.00		
						SR 56 FROM MEADOW POINTE BLVD TO US							
Yes	2015	7	Pasco	Hillsborough River Upper Coastal		301 US 19 (SR55) FROM S OF LIVE OAK ST TO N	Permitted	2017		44.85	28.41	Conner Preserve	77
Yes	2015	7	Pinellas	Drainage		OF BRITTANY PARK BLV	Active	2017		0.10	0.07	Conner Preserve	77
Yes	2015	7	Pasco			SR 52 EXTENSION FROM E OF MCKENDREE RD TO E OF US 301	RENEW		INSUFFICIENT FNF AT BANK, FF MORE EXPENSIVE AT BANK	3.00	1.60	Conner Preserve	77
Yes	2018	5	Sumter	Withlacoochee River	4354711	S. Sumter Connector Trail from Withlacoochee State Trail to Van Fleet	NEW	2018		1.00	1.00	Colt Creek State Park	
No	2015	7	Hillsborough	Tampa Bay Drainage		TRI-COUNTY TRAIL FROM CR 611 @ KEYSTONE RD TO PASCO CO/L	Deleted	2016	Mitigation Bank	0.80	0.38	BANK	
No	2015	7	Pasco	Upper Coastal Drainage		TRI-COUNTY TRAIL FROM PASCO CO/L TO S TERMINUS OF STARKEY TRAIL	Deleted		Mitigation Bank	2.00		BANK	
No	2015	7	Pasco	Upper Coastal Drainage		TRI-COUNTY TRAIL FROM PASCO CO/L TO S TERMINUS OF STARKEY TRAIL	Deleted		Mitigation Bank	0.30	0.15	Upper Coastal Mitigation Bank	
No	2015	7	Pasco	Withlacoochee River		GOOD NEIGHBOR TRL CONNECTOR FM W OF SUNCOAST PKWY TO TERMINUS OF	Deleted		Mitigation Bank	0.15		BANK	
No	2015	7	Pasco	Withlacoochee River		GOOD NEIGHBOR TRL CONNECTOR FM W	Deleted		Mitigation Bank	0.10		BANK	
No No	2015 2015	7	Pasco Hillsborough	Upper Coastal Drainage Hillsborough River	4357201	GOOD NEIGHBOR TRL CONNECTOR FM W OF SUNCOAST PKWY TO TERMINUS OF SR 60 ROM VALRICO RD TO DOVER RD	Deleted Active		Mitigation Bank Updated Basin	0.25		Upper Coastal Mitigation Bank Conner Preserve	77
No	2015	7	Hillsborough			SR 60 ROM VALRICO RD TO DOVER RD	Deleted		Mitigation Bank	0.03	0.02	Hillsborough River Mitigation Bank	
No	2015	7	Hillsborough	Alafia River		SR 60 FROM DOVER RD TO SR 39	Active	2017		1.06		Balm Boyette	81
No	2015	7	Hillsborough	Alafia River		SR 60 FROM DOVER RD TO SR 39	Deleted	2017	BANK	1.77	0.44	BANK Colt Creek State	
Yes	2018	5	Hernando	Withlacoochee River		SR 50 from SR 35 (US 301) to Hernando/Sumter County Line	NEW	2018		26.40	26.40	Park	

Unique Record?	Mit. PlanYear	FDOT District	County	Drainage Basin	FM No.	Project Description	FDOT Project Status	Project Status Year	Delete/ Renew Reason	Total Impacted Acreage	Total Impacted FL	Mitigation Project Name	Mitigation Project ID
Vee	2018	5	Sumter	Withlacoochee River		SR 50 from Hernando/Sumter County Line to W of CR 757	NEW	2018		10.20	10.20	Colt Creek State	
Yes	2010	5	Sumer	Withlacoochee		SR 50 from W of CR 757 to the Sumter/Lake		2010		10.20	10.20	Park Colt Creek State	
Yes	2018	5	Sumter	River	4358594		NEW	2018		21.60	21.60	Park	
100	2010	Ŭ	Currior	Withlacoochee	4000004	SR 575 OVER WITHLACOOCHEE RIVER		2010		21.00	21.00	Colt Creek State	
Yes	2016	7	Pasco	River	4358941	BRIDGE #140031	Deleted	2016		0.20	0.14	Park	84
				Tampa Bay		10th & 11th Ave at Brooker Creek Bridge						Brooker Ck. Buffer	
Yes	2018	7	Pinellas	Drainage	4360561		NEW	2018		0.40	0.20	Preserve	
				Tampa Bay		MADISON AVE FROM US 41 TO 78TH ST (CR							
Yes	2017	7	Hillsborough	Drainage	4370021		NEW	2017		4.00	2.35	Bahia Beach	78
				Tampa Bay		I-75/SR 93A from Manatee County Line to N of							
Yes	2018	7	Hillsborough		4373121		NEW	2018		0.60	0.30	Bahia Beach	
				Upper Coastal		US 19/US 98/ SR 55/ S Suncoast Blvd from			MITIGATION				
Yes	2018	7	Citrus	Drainage			NEW		BANK	0.40	0.20	BANK	
N/ · · ·	0040	7		Upper Coastal		Alt US 19/ SR 595 from Mohawk St to N of			MITIGATION	0.40	0.00	DANK	
Yes	2018	7	Pinellas	Drainage		Tilden St/Skinner Blvd US 301/SR 43 FM FALKNERBURG RD TO	NEW	2018	BANK	0.40	0.20	BANK	
No	2017	7	Hillsborough	Tampa Bay Drainage		SLIGH AVE	NEW/DELETE	2017		1.00	0.30	BANK	
No	2017	1	Hillsbolough	Tampa Bay		US 301/SR 43 FM FALKNERBURG RD TO		2017	DAINK	1.00	0.30	Brooker Ck. Buffer	
No	2017	7	Hillsborough	Drainage		SLIGH AVE	NEW	2017		0.50	0.30	Preserve	90
	2017	'	Thisborough	Hillsborough and		US 41/SR45/LAND O LAKES BLVD FR N OF		2017		0.00	0.00	FIESEIVE	50
Yes	2017	7	Pasco	Upper Coastal		EHREN CUTOFF TO N OF CALIENTE	NEW/DELETE	2017		1.00	0.50	BANK	
				Upper Coastal		US 19 (SR55) @ JOES CREEK BETWEEN					0.00	27 11 11 1	
Yes	2017	7	Pinellas	Drainage		44TH AVE N AND 46TH AVE N	NEW/DELETE	2017	BANK	0.24	0.08	BANK	
				Withlacoochee								Colt Creek State	
Yes	2018	5	Sumter	River	4386522	I-75 (SR93) at Sumter Co. NB Rest Area	NEW	2018		0.99	0.99	Park	
				Upper Coastal		US 98/US 19/SR 55/N SUNCOAST BLVD AT							
Yes	2017	7	Citrus	Drainage		INTERSECTION OF SR 44/NE 5TH ST	NEW/DELETE	2017	BANK	1.98	0.14	BANK	
				Tampa Bay		S MAYDELL DR AT PALM RIVER BRIDGE							
Yes	2017	7	Hillsborough	Drainage	4394121	REPLACEMENT	NEW/DELETE	2017	BANK	0.50	0.30	BANK	
Yes	2017	7	Pinellas	Tampa Bay Drainage			NEW	2017		0.50	0.35	Bahia Beach	78
				Tampa Bay		Lee Roy Selmon Crosstown Extension -					• • •		
Yes	2009	THEA	Hillsborough	Drainage	9999999	Temporary Haul Road	Permitted			0.21	0.06	Ekker Tract	82