



# Appendix I

## **Stormwater Management Plans Initiative**

The Florida Department of Transportation Aviation Office (FDOT AO) has a Statewide Airport Stormwater Management Program that is intended "to improve airport safety by reducing wildlife attractants, while meeting all state and federal water quality and water management requirements." As part of the Statewide Airport Stormwater Management Program, the FDOT AO conducted a multi-year study called the Florida Statewide Airport Stormwater Study that was completed in 2005 and revised in 2008 to evaluate stormwater systems at airports throughout the state. Following the 2008 revision, the FDOT AO prepared the Statewide Airport Stormwater Best Management Practices Manual (BMP Manual) in 2013 to identify effective strategies and procedures for managing and improving stormwater systems at airports.

Over the years, several airports in Florida have developed Stormwater Management Plans (SWMPs) either as stand-alone documents or in conjunction with other planning and design efforts. This inventory of SWMPs was conducted in conjunction with the Florida Aviation System Plan 2043 (FASP 2043). The purpose is to provide the FDOT AO with a listing of all Florida airports that have recently updated SWMPs by FDOT district and by airport classification as identified in the Federal Aviation Administration's (FAA's) National Plan of Integrated Airport Systems (NPIAS), or by non-NPIAS classification. It is noted that this effort did not include a review of any specific SWMPs nor the effectiveness of those plans and was not intended to provide recommendations for any new best management practices for airports and consultants to consider in new SWMPs. The following sections are included in this document:

- Data Collection Methodology.
- Florida Airport SWMPs by FDOT District.
- Florida Airport SWMPs by FAA NPIAS Classification.
- Conclusions.

## **Data Collection Methodology**

A detailed survey effort was conducted for the FASP 2043 and was distributed to 106 publicly owned facilities in Florida that are included in the FASP including 103 airports, two seaplane bases, and one heliport. The survey included several questions about different types of studies that airports have conducted including whether they have SWMPs, the most recent dates for their Master Plans and Airport Layout Plans (ALPs), and if they have Wildlife Hazard Management Plans (WHMPs). Regarding SWMPs, airports were asked to respond either 'yes' or 'no' as to whether they have made recent updates to such a plan. Responses were received from all 106 facilities and a total of 57 respondents indicated 'yes,' that they have made recent updates to their SWMP. All 57 'yes' responses were received from airport facilities that are included in the NPIAS (i.e., no non-NPIAS airports and no seaplane bases or heliports). Therefore, 53.77 percent of all facilities included in the FASP 2043 have made recent updates to their SWMPs. **Table 1** 



summarizes the breakdown of Florida airports with SWMPs by NPIAS Commercial Service Airports, NPIAS General Aviation (GA) Airports, and Non-NPIAS Airports.

Table 1. Summary of Airports in Florida with SWMPs by NPIAS Classification

<b>NPIAS Classification</b>	Number of Airports	Number with SWMPs	% with SWMPs
NPIAS Commercial	21	16	76.19%
NPIAS GA	78	41	52.56%
Non-NPIAS	7	0	0.00%
Total	106	57	53.77%

Notes: GA-General Aviation, NPIAS-National Plan of Integrated Airport Systems, SWMP-Stormwater Management Plan.

Source: AVCON, INC.

## Florida Airport SWMPs by FDOT District

**Table 2** presents an overall listing of airports that responded 'yes' to having recently updated SWMPs by FDOT district. **Table 3** shows all 106 facilities included in the FASP 2043 by FDOT district and indicates whether they responded 'yes' to having a recently updated SWMP. If a date for the most recent update to the SWMP was provided by the respondent, it is also included in Table 3.

Table 2. Summary of Airports in Florida with SWMPs by FDOT District

FDOT District	District Name	Number of Airports	Number with SWMPs	% with SWMPs
1	Southwest	21	10	47.62%
2	Northeast	16	6	37.50%
3	Northwest	15	9	60.00%
4	Southeast	15	7	46.67%
5	Central	21	11	52.38%
6	South	7	6	85.71%
7	West Central	11	8	72.73%
Total		106	57	53.77%

Notes: FDOT-Florida Department of Transportation, GA-General Aviation, SWMP-Stormwater Management Plan.

Source: AVCON, INC.



Table 3. Detailed Listing of Airports in Florida with SWMPs by FDOT District

Airport ID	Airport Name	Yes SWMP	No SWMP	Year (if provided)
	District 1 - Southwes	1	1	
2IS	Airglades Airport	Yes		2010
APF	Naples Municipal Airport	Yes		2017
BOW	Bartow Executive Airport	Yes		
LAL	Lakeland Linder International Airport	Yes		2000
PGD	Punta Gorda Airport	Yes		2023
SRQ	Sarasota Bradenton International Airport	Yes		2019
VNC	Venice Municipal Airport	Yes		2020
X06	Arcadia Municipal Airport	Yes		2021
X07	Lake Wales Municipal Airport	Yes		2023
X14	La Belle Municipal Airport	Yes	N	2011
AVO	Avon Park Executive Airport		No response	
CHN	Wauchula Municipal Airport		No response	
FMY	Page Field		No	
GIF	Winter Haven Regional Airport		No response	
IMM	Immokalee Regional Airport		No	
MKY	Marco Island Executive Airport		No	
OBE	Okeechobee County Airport		No	
RSW	Southwest Florida International Airport		No	
SEF	Sebring Regional Airport		No	
X01	Everglades Airpark		No	
X36	Buchan		No response	
District 1 Totals	21 Total Airports	10	11	47.62%
041	District 2 - Northeas			
24J	Suwannee County Airport	Yes		2000
42J	Keystone Heights Airport	Yes		2020
HEG	Herlong Recreational Airport	Yes		2021
JAX	Jacksonville International Airport	Yes		2000
LCQ	Lake City Gateway Airport	Yes		2023
VQQ	Cecil Airport	Yes		
01J	Hilliard Airpark		No	
28J	Palatka Municipal - Lt Kay Larkin Field		No	
CDK	George T. Lewis Airport		No	
CRG	Jacksonville Executive at Craig Airport		No	
CTY	Cross City Airport		No	
FHB	Fernandina Beach Municipal Airport		No	
FPY	Perry-Foley Airport		No	
GNV	Gainesville Regional Airport		No	
SGJ	Northeast Florida Regional Airport		No	
X60	Williston Municipal Airport	•	No	27 500/
District 2 Totals	16 Total Airports  District 3 - Northwes	6	10	37.50%
2J9	Quincy Municipal Airport	Yes		2020
2R4		163		2020
	Peter Prince Field	Vec		
RCD.	Peter Prince Field  Tri County Airport	Yes		
BCR CFW	Tri-County Airport	Yes		2023
CEW	Tri-County Airport Bob Sikes Airport	Yes Yes		2023
CEW DTS	Tri-County Airport Bob Sikes Airport Destin Executive Airport	Yes Yes Yes		2023 2023
CEW DTS ECP	Tri-County Airport  Bob Sikes Airport  Destin Executive Airport  Northwest Florida Beaches International Airport	Yes Yes Yes Yes		2023
CEW DTS ECP PNS	Tri-County Airport  Bob Sikes Airport  Destin Executive Airport  Northwest Florida Beaches International Airport  Pensacola International Airport	Yes Yes Yes Yes Yes Yes		
CEW DTS ECP PNS TLH	Tri-County Airport  Bob Sikes Airport  Destin Executive Airport  Northwest Florida Beaches International Airport  Pensacola International Airport  Tallahassee International Airport	Yes Yes Yes Yes Yes Yes Yes		2023
CEW DTS ECP PNS TLH VPS	Tri-County Airport  Bob Sikes Airport  Destin Executive Airport  Northwest Florida Beaches International Airport  Pensacola International Airport  Tallahassee International Airport  Destin-Fort Walton Beach Airport	Yes Yes Yes Yes Yes Yes	No	2023
CEW DTS ECP PNS TLH VPS 2J0	Tri-County Airport  Bob Sikes Airport  Destin Executive Airport  Northwest Florida Beaches International Airport  Pensacola International Airport  Tallahassee International Airport  Destin-Fort Walton Beach Airport  Wakulla County Airport	Yes Yes Yes Yes Yes Yes Yes	No No	2023
CEW DTS ECP PNS TLH VPS 2J0 54J	Tri-County Airport  Bob Sikes Airport  Destin Executive Airport  Northwest Florida Beaches International Airport  Pensacola International Airport  Tallahassee International Airport  Destin-Fort Walton Beach Airport  Wakulla County Airport  DeFuniak Springs Airport	Yes Yes Yes Yes Yes Yes Yes	No	2023
CEW DTS ECP PNS TLH VPS 2J0 54J AAF	Tri-County Airport  Bob Sikes Airport  Destin Executive Airport  Northwest Florida Beaches International Airport  Pensacola International Airport  Tallahassee International Airport  Destin-Fort Walton Beach Airport  Wakulla County Airport  DeFuniak Springs Airport  Apalachicola Regional - Cleve Randolph Field	Yes Yes Yes Yes Yes Yes Yes	No No	2023
CEW DTS ECP PNS TLH VPS 2J0 54J AAF F95	Tri-County Airport  Bob Sikes Airport  Destin Executive Airport  Northwest Florida Beaches International Airport  Pensacola International Airport  Tallahassee International Airport  Destin-Fort Walton Beach Airport  Wakulla County Airport  DeFuniak Springs Airport  Apalachicola Regional - Cleve Randolph Field  Calhoun County Airport	Yes Yes Yes Yes Yes Yes Yes	No No No	2023
CEW DTS ECP PNS TLH VPS 2J0 54J AAF F95 MAI	Tri-County Airport  Bob Sikes Airport  Destin Executive Airport  Northwest Florida Beaches International Airport  Pensacola International Airport  Tallahassee International Airport  Destin-Fort Walton Beach Airport  Wakulla County Airport  DeFuniak Springs Airport  Apalachicola Regional - Cleve Randolph Field  Calhoun County Airport  Marianna Municipal Airport	Yes Yes Yes Yes Yes Yes Yes	No No No No	2023
CEW DTS ECP PNS TLH VPS 2J0 54J AAF F95	Tri-County Airport  Bob Sikes Airport  Destin Executive Airport  Northwest Florida Beaches International Airport  Pensacola International Airport  Tallahassee International Airport  Destin-Fort Walton Beach Airport  Wakulla County Airport  DeFuniak Springs Airport  Apalachicola Regional - Cleve Randolph Field  Calhoun County Airport  Marianna Municipal Airport  Carrabelle-Thompson Airport	Yes Yes Yes Yes Yes Yes Yes	No No No	2023
CEW DTS ECP PNS TLH VPS 2J0 54J AAF F95 MAI X13	Tri-County Airport  Bob Sikes Airport  Destin Executive Airport  Northwest Florida Beaches International Airport  Pensacola International Airport  Tallahassee International Airport  Destin-Fort Walton Beach Airport  Wakulla County Airport  DeFuniak Springs Airport  Apalachicola Regional - Cleve Randolph Field  Calhoun County Airport  Marianna Municipal Airport  Carrabelle-Thompson Airport	Yes Yes Yes Yes Yes Yes Yes Yes Yes	No No No No	2023 2023
CEW DTS ECP PNS TLH VPS 2J0 54J AAF F95 MAI X13	Tri-County Airport  Bob Sikes Airport  Destin Executive Airport  Northwest Florida Beaches International Airport  Pensacola International Airport  Tallahassee International Airport  Destin-Fort Walton Beach Airport  Wakulla County Airport  DeFuniak Springs Airport  Apalachicola Regional - Cleve Randolph Field  Calhoun County Airport  Marianna Municipal Airport  Carrabelle-Thompson Airport  15 Total Airports  District 4 - Southeas	Yes Yes Yes Yes Yes Yes Yes Yes Yes	No No No No	2023 2023
CEW DTS ECP PNS TLH VPS 2J0 54J AAF F95 MAI X13 District 3 Totals	Tri-County Airport  Bob Sikes Airport  Destin Executive Airport  Northwest Florida Beaches International Airport  Pensacola International Airport  Tallahassee International Airport  Destin-Fort Walton Beach Airport  Wakulla County Airport  DeFuniak Springs Airport  Apalachicola Regional - Cleve Randolph Field  Calhoun County Airport  Marianna Municipal Airport  Carrabelle-Thompson Airport	Yes	No No No No	2023 2023
CEW DTS ECP PNS TLH VPS 2J0 54J AAF F95 MAI X13 District 3 Totals	Tri-County Airport  Bob Sikes Airport  Destin Executive Airport  Northwest Florida Beaches International Airport  Pensacola International Airport  Tallahassee International Airport  Destin-Fort Walton Beach Airport  Wakulla County Airport  DeFuniak Springs Airport  Apalachicola Regional - Cleve Randolph Field  Calhoun County Airport  Marianna Municipal Airport  Carrabelle-Thompson Airport  15 Total Airports  District 4 - Southeas  Fort Lauderdale - Hollywood International Airport	Yes	No No No No	2023 2023 2023 60.00%
CEW DTS ECP PNS TLH VPS 2J0 54J AAF F95 MAI X13 District 3 Totals  FLL FPR PMP	Tri-County Airport  Bob Sikes Airport  Destin Executive Airport  Northwest Florida Beaches International Airport  Pensacola International Airport  Tallahassee International Airport  Destin-Fort Walton Beach Airport  Wakulla County Airport  DeFuniak Springs Airport  Apalachicola Regional - Cleve Randolph Field  Calhoun County Airport  Marianna Municipal Airport  Carrabelle-Thompson Airport  15 Total Airports  District 4 - Southeas  Fort Lauderdale - Hollywood International Airport  Treasure Coast International Airport	Yes	No No No No	2023 2023 2023 60.00%
CEW DTS ECP PNS TLH VPS 2J0 54J AAF F95 MAI X13 District 3 Totals  FLL FPR PMP SUA	Tri-County Airport  Bob Sikes Airport  Destin Executive Airport  Northwest Florida Beaches International Airport  Pensacola International Airport  Tallahassee International Airport  Destin-Fort Walton Beach Airport  Wakulla County Airport  DeFuniak Springs Airport  Apalachicola Regional - Cleve Randolph Field  Calhoun County Airport  Marianna Municipal Airport  Carrabelle-Thompson Airport  15 Total Airports  District 4 - Southeas  Fort Lauderdale - Hollywood International Airport  Treasure Coast International Airport  Pompano Beach Airpark  Witham Field	Yes	No No No No	2023 2023 2023 60.00%
CEW DTS ECP PNS TLH VPS 2J0 54J AAF F95 MAI X13 District 3 Totals  FLL FPR PMP	Tri-County Airport  Bob Sikes Airport  Destin Executive Airport  Northwest Florida Beaches International Airport  Pensacola International Airport  Tallahassee International Airport  Destin-Fort Walton Beach Airport  Wakulla County Airport  DeFuniak Springs Airport  Apalachicola Regional - Cleve Randolph Field  Calhoun County Airport  Marianna Municipal Airport  Carrabelle-Thompson Airport  15 Total Airports  District 4 - Southeas  Fort Lauderdale - Hollywood International Airport  Treasure Coast International Airport	Yes	No No No No	2023 2023 2023 60.00%

April 1, 2024



Table 3. Detailed Listing of Airports in Florida with SWMPs by FDOT District

Airport ID	Airport Name	Yes SWMP	No SWMP	Year (if provided)
ВСТ	Boca Raton Airport		No	
DT1	Downtown Fort Lauderdale Heliport		No	
F45	North Palm Beach County General Aviation Airport		No	
FXE	Fort Lauderdale Executive Airport		No	
HWO	North Perry Airport		No	
LNA	Palm Beach County Park Airport		No	
PBI	Palm Beach International Airport		No	
PHK	Palm Beach County Glades Airport		No	
District 4 Totals	15 Total Airports	7	8	46.67%
	District 5 - Central			
DAB	Daytona Beach International Airport	Yes		
FIN	Flagler Executive Airport	Yes		2021
ISM	Kissimmee Gateway Airport	Yes		2022
LEE	Leesburg International Airport	Yes		2000
MCO	Orlando International Airport	Yes		Current
OCF	Ocala International - Jim Taylor Field	Yes		2012
OMN	Ormond Beach Municipal Airport	Yes		
ORL	Orlando Executive Airport	Yes		2023
SFB	Orlando Sanford International Airport	Yes		2009
X35	Marion County Airport	Yes		
X59	Valkaria Airport	Yes		
2J8	Pierson Municipal Airport	1.00	No	
3FL	St Cloud Seaplane Base		No	
COI	Merritt Island Airport		No	
DED	DeLand Municipal - Sidney H. Taylor Field		No	
EVB	New Smyrna Beach Municipal Airport		No	
FA1	Tavares Seaplane Base		No	
MLB	Melbourne Orlando International Airport		No response	
TIX	Space Coast Regional Airport		No	
X21	Arthur Dunn Airpark		No	
X23	Umatilla Municipal Airport		No	
District 5 Totals	21 Total Airports	11	10	52.38%
Diotriot o Totalo	District 6 - South		10	02.0070
EYW	Key West International Airport	Yes		2018
MIA	Miami International Airport	Yes		2010
MTH	Florida Keys/Marathon International Airport	Yes		2018
OPF	Miami-Opa Locka Executive Airport	Yes		20.0
TMB	Miami Executive Airport	Yes		
X51	Miami Homestead General Aviation Airport	Yes		
TNT	Dade-Collier Training and Transition Airport	100	No	
District 6 Totals	7 Total Airports	6	1	85.71%
	District 7 - West Centr		-	
BKV	Brooksville-Tampa Bay Regional Airport	Yes		2023
PCM	Plant City Airport	Yes		2022
PIE	St. Pete Clearwater International Airport	Yes		2021
SPG	Albert Whitted Airport	Yes		2020
TPA	Tampa International Airport	Yes		2021
TPF	Peter O. Knight Airport	Yes		2022
VDF	Tampa Executive Airport	Yes		2022
ZPH	Zephyrhills Municipal Airport	Yes		
CGC	Crystal River-Captain Tom Davis Field	. 55	No	
CLW	Clearwater Airpark		No response	
INF	Inverness Airport		No response	
District 7 Totals	11 Total Airports	8	3	72.73%
Grand Total	106 Total Airports	57	49	53.77%
	ment of Transportation GA-General Aviation SWMP-Stormwater Management		70	JU.11 /0

Notes: FDOT-Florida Department of Transportation, GA-General Aviation, SWMP-Stormwater Management Plan.

Source: AVCON, INC.



### Florida Airport SWMPs by FAA NPIAS Classification

**Table 4** presents a further breakdown of the airports with recently updated SWMPs by NPIAS classification as reported in the FAA's 2023-2027 NPIAS. It is noted that 100.00 percent of Primary Large Hub Commercial Service Airports as well as Primary Small Hub Commercial Service Airports have recently updated SWMPs. As previously mentioned, none of the non-NPIAS airports have recently updated SWMPs and there are no seaplane bases or heliports with recently updated SWMPs.

Table 4. Summary of Airports in Florida with SWMPs by NPIAS Classification

NPIAS Classification	Number of Airports	Number with SWMPs	% with SWMPs
Primary CS Large Hub	4	4	100.00%
Primary CS Medium Hub	3	1	33.33%
Primary CS Small Hub	8	8	100.00%
Primary CS Non Hub	4	2	50.00%
Commercial Service (CS) National	2	1	50.00%
Reliever National	5	3	60.00%
Reliever Regional	10	6	60.00%
Reliever Local	2	1	50.00%
GA National	5	4	80.00%
GA Regional	24	13	54.17%
GA Local	23	13	56.52%
GA Basic	7	0	0.00%
General Aviation (GA) Unclassified	2	1	50.00%
Non-NPIAS	7	0	0.00%
Total	106	57	53.77%

Notes: NPIAS-National Plan of Integrated Airport Systems, SWMP-Stormwater Management Plan.

Source: AVCON, INC.

#### **Conclusions**

This inventory of SWMPs is intended to provide the FDOT AO with information to facilitate discussions with airport sponsors about future airport drainage improvements and updates to SWMPs. It is noted that SWMPs are eligible for funding through the FAA's Airport Improvement Program (AIP) as well as FDOT's Aviation Grant Program. Because Florida is a state that is vulnerable to the negative impacts from stormwater due to its extensive coastline, rainy summers, history of hurricane events, rapid growth, and low elevations, it is important that airports keep their SWMPs up-to-date and consider the potential long-term vulnerabilities in conjunction with the demand for future aviation development.