FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT
STORMWATER POLLUTION PREVENTION PLAN

BROWARD COUNTY, FLORIDA

PREPARED FOR:
Broward County Aviation Department
100 Aviation Blvd.
Fort Lauderdale, Florida 33315

March 2016

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FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

Storm Water Pollution Prevention Plan

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the systems, or those persons directly responsible for gathering the information submitted, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Mr. Michael Pacitto, Date
Director of Planning and Environmental,
Broward County Aviation Department

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

Storm Water Pollution Prevention Plan

Record of Revision

Michael Baker International completely revised the Fort Lauderdale-Hollywood International Airport SWPPP and provided copies to all SWPPP holder on March 4, 2016. Record of revision including date and revision numbers will be listed under this section.

Revision Number	Date	Page Number	Section

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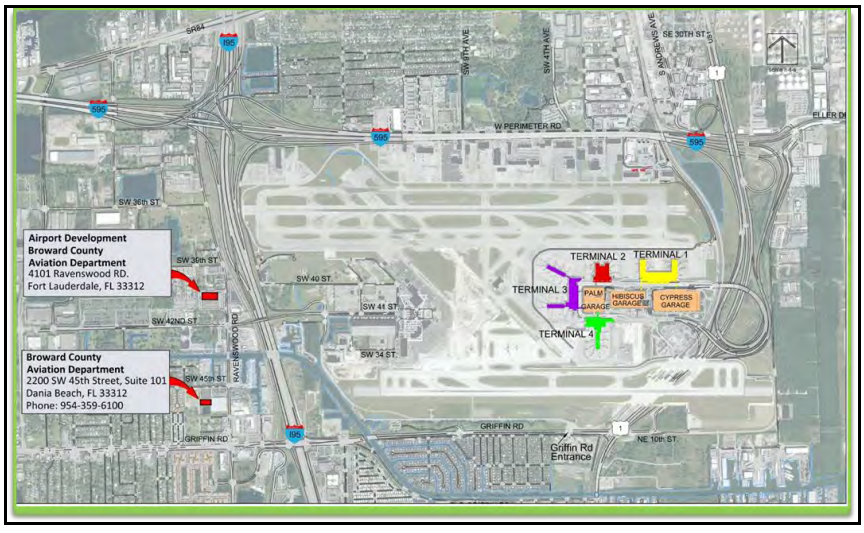
CHAPTER 1
INTRODUCTION

1.1 PROJECT LOCATION

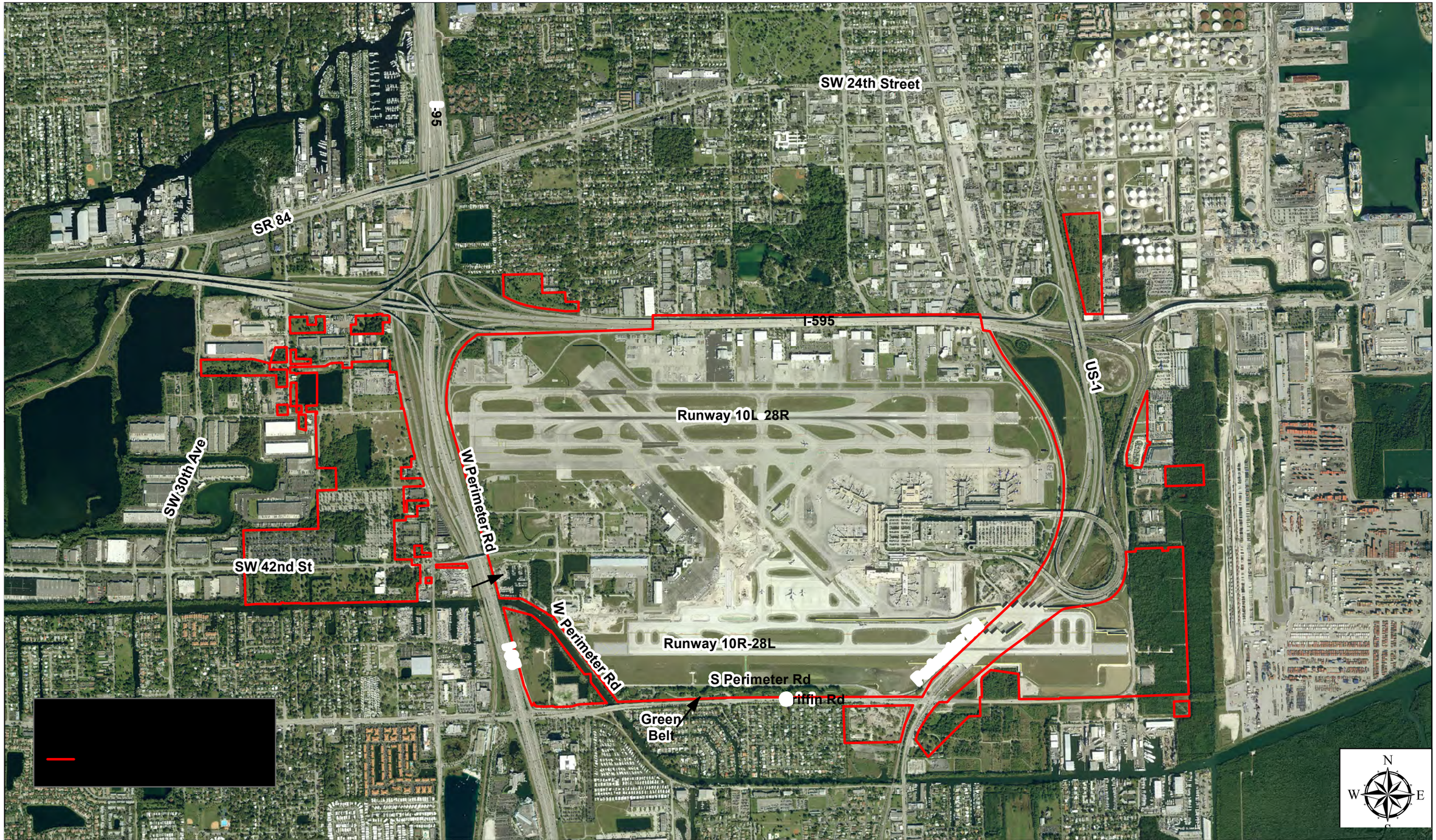
The Fort Lauderdale-Hollywood International Airport (Airport) is located in Broward County, Florida, between Interstate 595 to the north, US-1 to the east, Griffon Rd. to the south and Interstate 95 to the west (**Figure 1-1**). The geographic location is listed below.

Latitude:	26.122438
Longitude:	-80.137314
Section(s):	21, 22, 27, and 28
Township (s):	50S
Range(s):	42E
City:	Fort Lauderdale
County:	Broward County

1.2 PROJECT DESCRIPTION



The Broward County Aviation Department (BCAD) contracted Michael Baker International, Inc. to prepare an updated Stormwater Pollution Prevention Plan (SWPPP) for the Airport. The most recent version was completed in January 2009, in order to comply with the requirements of the Airport's National Pollutant



BROWARD COUNTY FLORIDA

PROJECT LOCATION

Fort Lauderdale-Hollywood International Airport
Stormwater Pollution Prevention Plan

0 0.25 0.5 1 Miles

FIGURE 1-1

Discharge Elimination System (NPDES) Multi-Sector Generic permit (MSGP). The 2016 SWPPP revision replaces the 2009 SWPPP in its entirety.
Annual compliance inspections or site evaluations were conducted and the results of the inspections are detailed in a separate document, the Annual Compliance Inspection Report.

1.3 REGULATORY BACKGROUND

1.3.1 Federal Regulations

In 1972, Congress passed the Federal Water Pollution Control Act (FWPCA), also known as the Clean Water Act (CWA), to restore and maintain the quality of the nation's waterways. The ultimate goal was to ensure rivers and streams were fishable, swimmable, and drinkable. In 1987, the Water Quality Act (WQA) added provisions to the CWA that allowed the Environmental Protection Agency (EPA) to govern stormwater discharges from industrial activities. EPA published the final notice for Phase I of the Multi-Sector General Stormwater Permit program (Federal Register Volume 60 No. 189, September 20, 1995, page 50804) which included provisions for the development of a SWPPP by each industrial facility discharging stormwater, including airports.

In 1973, the Federal Aviation Administration (FAA) published Advisory Circular (AC) 150/5320-10, *Environmental Enhancement at Airports - Industrial Waste Treatment*, to address industrial waste management at airports. In 1991 and 1997, the AC was updated and 150/5320-15, *Management of Airport Industrial Waste*, was issued. This AC was updated in September 8, 2008, to 150/5320-

15A, *Management of Airport Industrial Waste*. The goal of AC 150/5320-15A was to provide additional guidance for waste management at airports and SWPPP development that is focused on best management practices to eliminate, prevent, or reduce pollutants in storm water runoff associated with airport activities. This SWPPP was developed based on the guidance provided in AC 150/5320-15A (**Appendix A**).

1.3.2 State Regulations

In October 2000, the EPA authorized the Florida Department of Environmental Protection (FDEP) to implement the NPDES stormwater permitting program in the State of Florida, except on Native American County Lands. The FDEP's authority to administer the NPDES program is set forth in Section 403.0885 of the Florida statutes (**Appendix B**). Leased areas of the Airport property that engage in industrial activities are required to be permitted under the industrial NPDES program.

As a transportation facility that discharges stormwater to surface waters of the State, the Airport is required to obtain and operate under the conditions of an NPDES Multi Sector Generic Permit, Sector S. BCAD submitted a Notice of Intent (NOI) for Stormwater Discharges Associated with Industrial Activity under the NPDES Multi-Sector Generic Permit (MSGP) for the Airport. The Airport's MSGP was issued by the FDEP and became effective on February 17, 2016. The Airport has been assigned Facility Identification Number FLR05A457-003. A copy of the NOI application and NOI acknowledgement letter from the FDEP is provided in **Appendix C**. The permit identifies BCAD as the permittee for the Airport, and coverage under the generic permit expires on February 10, 2021.

BCAD has numerous tenants that perform aircraft and vehicle fueling, maintenance, cleaning/degreasing, painting and other activities that may have the potential to discharge pollutants into the stormwater system at Airport. As previously stated, BCAD has a MSGP on file with FDEP to address stormwater discharges associated with industrial activities for BCAD facilities. However, BCAD requires the tenants that conduct industrial activities at the Airport to obtain their own MSGP. **Table 4.1** of the Annual Compliance Inspection Report lists the tenants that have MSGPs according to the FDEP database.

1.3.3 County Regulations

Section 27-193 of the Broward County Code of Ordinances states that "*It shall be unlawful for any person to discharge any substance in such quantities as may cause the receiving waters to be of quality less stringent than the water quality standards set forth in Section 27-195, or less stringent than allowed by the effluent standards as established in Section 27-196, or to cause pollution of water or a nuisance as defined in Section 27-4.*" The Broward County Code of Ordinances Section 27-195 refers to Water Quality Standards for Marine Waters and Fresh Waters and Section 27-196 refers to Groundwater Quality Standards **(Appendix D)**. The ordinance also incorporates the State Water Quality Standards by reference. The Broward County Environmental Protection & Growth Management Department (BCEPGMD) enforces the Broward County Codes of Ordinances and has a hot line and a web-site with an on-line form for reporting environmental violations such as water quality violations and discharges into storm drains.[1]

[1] http://www.broward.org/EnvironmentAndGrowth/EnvironmentalProgramsResources/Enforcement/Pages/ExamplesofEnvironmentalViolations.aspx#water

1.4 CONTENT OF THE SWPPP

The SWPPP for the Airport has been compiled in compliance with the requirements of the NPDES MSGP Program administered by the FDEP and includes the following:

- The SWPPP Coordinator responsibilities and duties;
- The members of the Pollution Prevention Team;
- A description of the facility;
- A description of the stormwater drainage system and receiving waters;
- A discussion of potential pollution sources resulting from practices and activities at the Airport;
- A discussion of stormwater management controls and BMPs to prevent or reduce pollutants from entering the stormwater system;
- A description of the facility monitoring plan;
- A discussion of the implementation schedule; and,
- Provisions for amendment of the plan.

The information contained in this SWPPP, was obtained from the most recent site evaluation of the Airport performed, the 2009 SWPPP update, tenant and Airport personnel interviews, and information provided by BCAD personnel. Photographs from the annual site evaluation are included in the *Annual Compliance Inspection Report*. In association with the site evaluation, BCAD distributed Tenant Questionnaire to new tenants. Copies of the completed New Tenant Questionnaires are included in the **Appendix F** of the *Annual Compliance Inspection Report*.

1.5 SWPPP PROGRAM APPROACH

In addition to Airport operations, the Airport's tenants perform a variety of activities such as fueling, maintenance, and cleaning that have the potential to discharge pollutants to the stormwater drainage system. In order to address the

permitting of stormwater discharges for industrial activities at Airport-operated facilities, BCAD obtained a MSGP for the entire Airport. However, BCAD requires that the industrial tenants at FLL that engage in activities that could potentially result in pollution of stormwater to obtain their own MSGPs. State and federal regulations require an annual inspection of the facilities that conduct industrial activities in order to satisfy the MSGP conditions. As a service, BCAD conducts annual inspection of their own facilities and their tenants' facilities. BCAD provides the results and recommended BMPs to the tenants to provide feedback, guidance, and to document the annual inspection of tenant leaseholds, pursuant to MSGP requirements. The Airport manages the permitting of stormwater discharges associated with industrial activities throughout the Airport except for those tenant facilities listed in **Table 4.1** of the Annual Inspection Report. This approach conforms to current federal and state regulations, and facilitates the implementation of consistent stormwater pollution prevention measures for each tenant.

The Airport's tenants have been categorized according to the Occupational Safety and Health Administration (OSHA) Standard Industrial Codes (SICs). The SIC system is a hierarchical coding structure developed to classify all forms of industrial and/or economic activity. The SIC system uses a series of four letters and/or digits to represent the type activity. There are four SICs for the Airport and they are described below:

1. **4512-Scheduled Air Transportation**- Establishments primarily engaged in furnishing air transportation over regular routes and on regular schedules. This industry includes air carriers operating over regular or irregular routes.

2. **4513-Air Courier Services**- Establishments primarily engaged in furnishing air delivery of individually addressed letters, parcels, and packages (generally under 100 pounds), except by the U.S. Postal Service. While these establishments deliver letters, parcels, and packages by air, the initial pick-up and the final delivery are often made by other modes of transportation, such as by truck, bicycle, or motorcycle. Separate establishments of air courier companies engaged in providing pick-up and delivery only; "drop-off points"; or distribution centers are all classified in this industry.

3. **4522-Non-scheduled Air Transportation**- Establishments primarily engaged in furnishing nonscheduled air transportation. Also included in this industry are establishments primarily engaged in furnishing airplane sight-seeing services, air taxi services, air ambulance and helicopter

passenger transportation services to, from, or between local airports, whether scheduled or not scheduled.

4. **4581-Airport, Flying Fields, and Airport Terminal Services**- Establishments primarily engaged in operating and maintaining airports and flying fields; in servicing, repairing (except on a factory basis), maintaining, and storing aircraft; and in furnishing coordinated handling services for airfreight or passengers at airports. This industry also includes private establishments primarily engaged in air traffic control operations.

CHAPTER 2
POLLUTION PREVENTION TEAM

2.1 SWPPP TEAM

Table 2.1
SWPPP Team Members for the Airport

Name	Position	Title	Contact Phone Number
Michael Pacitto	SWPPP Team Leader	Director of Planning and Environmental	(954)359-6103
Brad Ostendorf	SWPPP Inspector	Environmental Compliance Specialist	(954)359-2395
Winston Cannicle	SWPPP Inspector	Environmental Compliance Specialist	(954)359-6181

The success of pollution prevention efforts is dependent on the level of effort put forth by the Storm Water Pollution Prevention (SWPPP).Team. The implementation of an effective storm water pollution prevention program requires success in two areas; permit maintenance and BMP implementation.

It is suggested that a facility director be closely involved in maintaining the SWPPP and renewing the MSGP, and that the operations manager oversee BMP implementation and be responsible for facility inspections. The BCAD SWPPP Team is detailed below:

The *SWPPP Team Leader* is appointed by BCAD and is responsible for the implementation of the SWPPP. The Team Leader is also responsible for filing all information required by FDEP and assuring the plan is reviewed annually and updated as needed. As SWPPP Team Leader, Director of Environmental Planning's responsibilities include the following:

- Implementing the SWPPP;
- Assigning tasks associated with SWPPP development and implementation to other qualified BCAD Staff or Authorized Agents, where appropriate;
- Ensuring that BMPs that are identified in the SWPPP are implemented;
- Ensuring the implementation of changes in facility operation that are identified in the SWPPP;
- Evaluating and identifying measures that would improve the SWPPP;
- Evaluating, identifying, and correcting the deficiencies in the SWPPP;
- Coordinating with BCAD Staff and Tenants to evaluate, identify, and recommend new BMPs;
- Coordinating with maintenance personnel to identify maintenance needs that are related to implementation of the SWPPP;
- Coordinating inspection and/or monitoring activities;
- Identifying existing or potential SWPPP violations;
- Coordinating the documentation and reporting of spills with the Broward County Aviation Facilities Development and Operations Regulatory Specialist;
- Maintaining spill incident records;
- Documenting corrective actions following spills;
- Providing employee and tenant training; and,
- Preparing and submitting reports.

2.2 TENANTS

As discussed in the Program Approach (**Chapter 1**, Section 5), the Airport's operation involves multiple tenants that perform heavy and light industrial activities that may discharge pollutants to the stormwater drainage system. **Table 4.1** of the Annual Compliance Inspection Report lists the designated personnel for each of the tenants that are responsible for implementing the SWPPP at their facilities. The Layout Plan for the Airport depicts the locations of the tenants (**Appendix E**). All tenants are responsible for implementing the appropriate BMPs at their facilities and retaining an on-site copy of the BMPs and SWPPP inspection documents for their facilities.

CHAPTER 3
FACILITY DESCRIPTION

3.1 SITE FACILITIES

The Airport consists of the following:

- Runways: Runway 10L-28R and Runway 10R-28L;
- Taxiways: Taxiway A, B, C, D, E, F, G, H, J, L, N, Q, R, S, and T
- Terminal Apron;
- Air Cargo Apron;
- Corporate hangars and T-hangars*;
- Fixed Base Operator (FBO)*;
- Fences and Security Gates;
- Terminals 1, 2, 3, and 4;
- Concourses A through H;
- Hibiscus, Palm and Cypress Parking Garages;
- Tenant Fuel Farms;
- Tenant Self-Service Fuel Farm;
- Rental Car Service Facilities (Avis/Budget and Dollar/Thrifty);
- Parking lots;
- Perimeter Road; and
- Aviation Boulevard.

*Occupied by private or industrial tenants

The Airport operates 24-hours a day and seven (7) days a week. BCAD's operating normal business hours are from 8:30 am to 5:00 pm, Monday through Friday. The Airport has staff from the Maintenance, Operations and Security Departments onsite after normal business hours including Saturdays, Sundays, and holidays:

3.2 TENANTS

For a list of current industrial-use tenants at the Airport please refer to **Table 4.1** of the *Annual Inspection Report*. All industrial use tenants have their own NPDES permit NOIs and are not covered under BCAD's NPDES permit.

3.3 FACILITY CHANGES

Since the last SWPPP was updated, the following facility improvements have been constructed:

1. South Runway Expansion: expanded and elevated the South Runway to 8,000 feet long and 150 feet and constructed associated drainage facilities;
2. Construction of a new maintenance building and associated stormwater treatment system.

The site plan has been revised accordingly (**Appendix E**).

3.4 STORMWATER DRAINAGE SYSTEM

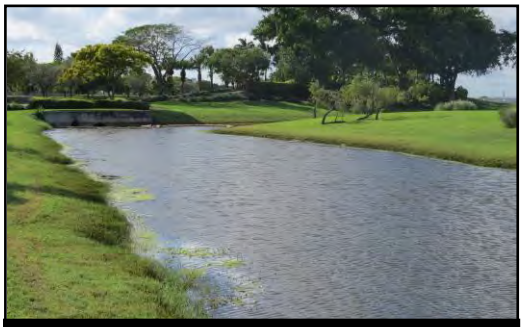
The Airport is divided into seven drainage basins. The Airport's surface water runoff is collected in catch basins, swales, and ditches routed through open or piped conveyance systems into stormwater treatment ponds. This stormwater conveyance system provides passive stormwater treatment before the runoff even reaches the treatment facility. The swales and ditches at the Airport are vegetated, which passively removes small amounts of pollutants from stormwater runoff by filtration through the grass and infiltration through the soil. Additionally, the vegetation provides limited control of erosion that results from concentrated

flows and significantly reduces sediment loads. More specifically, the stormwater runoff flows are conveyed off-site from the Airport, discharging southward into Dania Cutoff Canal, northward through Osceola Creek to the South Fork of New River Canal, and eastward into the Florida Department of Transportation (FDOT) drainage system and finally into the Dania Cutoff Canal. The Drainage Map (**Appendix F**) shows the locations of the catch basins, storm drains, swales, ditches, and stormwater treatment ponds (ponds) located within the Airport. Stormwater flow direction within ditches and pipes is illustrated with arrows.

Site inspections were conducted during the annual compliance inspection which included a visual inspection of the NPDES permitted outfalls. Photographs of each outfall and descriptions of the conditions of each outfall are included in **Appendices D and E** of the SWPPP Annual Compliance Inspection Report. The locations of the outfalls are depicted in **Figure 3-1**. The following paragraphs briefly discuss each outfall within the Airport drainage system.

3.4.1 NPDES PERMITTED OUTFALLS

Outfall 1



Outfall 1

Outfall 1 is located on the southeast portion of the airport near the entrance to Perimeter Road from Griffin Road. Outfall 1 drains approximately 487 acres, the largest drainage area at FLL. This drainage area consists of the eastern portion of the north side operations area, the eastern half of the airfield, Terminals 2, 3, and 4, and the Palm parking garage. The storm water collected in the drainage area is conveyed to the detention area near Perimeter Road and Griffin Road through two 24-inch culverts into a conveyance canal to the Dania Cutoff Canal (**Figure 3-1**).

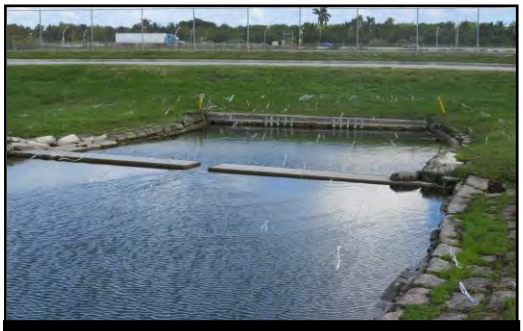
INSERT FIGURE 3-1

Outfall 2

Outfall 2

Outfall 2 drainage area is located on the eastern side of the US-1 overpass. The drainage area for Outfall 2 is approximately 416 acres; of which approximately half is occupied by US-1 and the US-1 overpass. The Hibiscus parking garage and the GSE storage area are all located within the drainage area for Outfall 2. The storm water collected from the GSE storage area and the BCAD administrative offices travel through two box culverts under perimeter road to the east side of the FEC railway, and then northward to the US-1 overpass. The storm water collected from the Hibiscus garages travel to the US-1 overpass area as well; where it joins with the storm water from other portions of the drainage basin prior to being discharged to the wetland area to the east of the US-1 overpass **(Figure 3-1)**.

Outfall 3



Outfall 3

The drainage area for Outfall 3 is approximately 190 acres, and is comprised of one block on the eastern portion of the north side operations area, Terminal 1, and the I-595/US-1 Interchange. The storm water that is collected near Terminal 1 passes through an Oil Water Separator (OWS)

prior to entering the detention pond on the northeast corner of the airfield. The drainage basin for Outfall 3 collects in the FDOT Lake located near the northeastern portion of FLL. The FDOT Lake is connected to a conveyance canal which flows into the wetland area located east of the US-1 overpass.

Outfall 4

Outfall 4

The drainage area for Outfall 4 is approximately 282 acres. Outfall 4 is comprised of the western half of the north side operations area, the areas surrounding Taxiway A, and the parking area located on the northwestern portion of FLL. The storm water collected around Taxiway A and the north side operations area travels through vegetated swales to a conveyance canal located near the northwest corner of runway 13-31. The conveyance canal is piped under I-595 to a portion of Osceola Creek that is located in Edgewood Passive Park. The Osceola Creek joins the South Fork of the New River at the Yacht Haven Marina.

Outfall 5

Outfall 5

The drainage area for Outfall 5 is approximately 232 acres. The storm water collected in the Park and Save area that is located north of SW 42nd

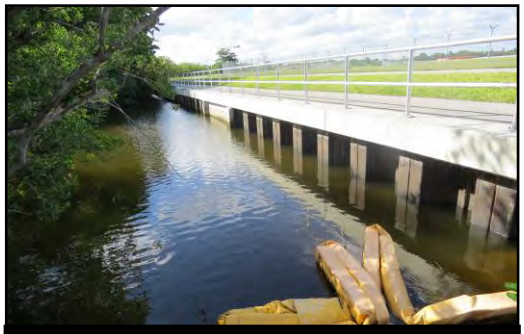
St., west of I-95 drains into the conveyance canal located to the south of SW 42nd St. The conveyance canal flows over a rectangular weir before discharging into Dania Cutoff Canal.

Outfall 6

Outfall 6

Outfall 6 has a drainage area of approximately 224 acres, and consists of a majority of the west facilities. The storm water that is collected from the drainage area discharges into a detention area that is located east of SW 16th Terrace on the southwest corner of FLL. The drainage area flows into the mitigation area located west of SW 16th Terrace which connects to the Ft. Lauderdale Small Boat Club located on Dania Cutoff Canal.

Outfall 7



Outfall 7

The drainage area for Outfall 7 is approximately 210 acres. It collects stormwater runoff from the general aviation operations area, and the western half of Runway 9R-27L. This outfall is located in the Green Belt on the southwest corner of the airport. Stormwater is discharged into a retention area in the Green Belt prior to flowing into Dania Cutoff Canal.

3.4.2 PONDS

There are multiple ponds located at the Airport. These ponds provide pre-treatment of stormwater prior to its entering the surrounding waterways. Refer to **Appendix F** for a diagram showing all the ponds located at the Airport. The following paragraphs briefly discuss the wet stormwater ponds within the Airport drainage system.

Two wet ponds located in the northeastern portion of the Airport are connected to each other through a series of culverts and pipes. These wet ponds are connected to NPDES permitted Outfall 1. These wet ponds store and treat stormwater from US 1, various parking lots north of the Terminal Building, runways, and taxiways.

The two wet ponds located west of W. Perimeter Road and south of SW 42nd Street provides drainage for the various tenants near the southern runway (Runway 10R-28L).

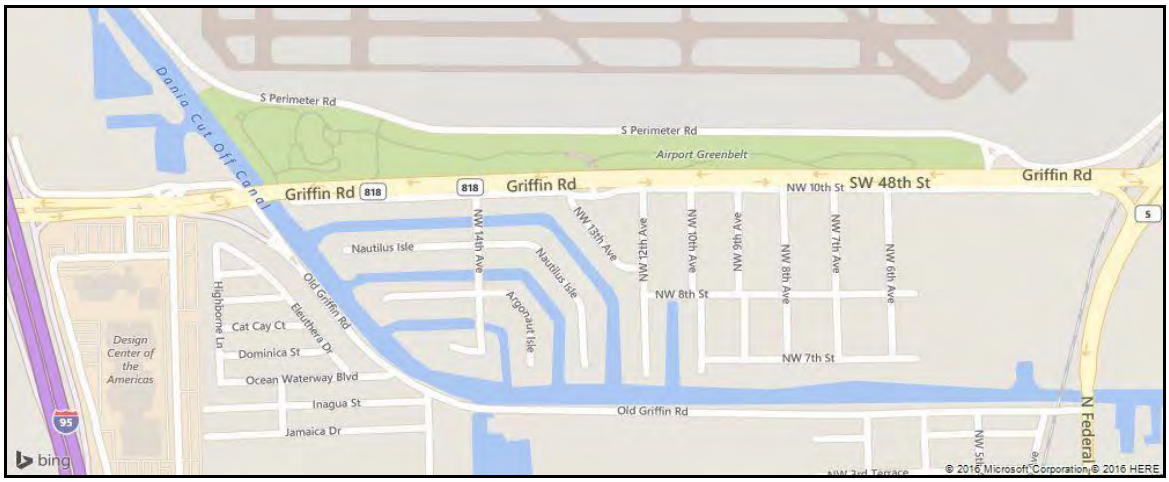
The last two wet ponds are located on the south west portion of the Airport, north of Griffin Road and south of South Perimeter Road. These wet ponds are directly connected to NPDES permitted Outfall 7, the wet ponds store and treat stormwater from parking lots, runways, taxiways, and general aviation ramps.

3.5 RECEIVING WATERS

The receiving water body for the Airport's stormwater runoff is Dania Canal. Prior to entering Dania Canal, water passes through a series of ditches, ponds and canals within the Airport property then flowing into Dania Canal which connects to Stranahan River to the east and empties into the Atlantic Ocean.

3.6 OFF SITE INFLUENCES

The site evaluation for off-site watersheds was limited to the areas along SW 34th Street, US 1, I-95 and Griffin Road. The Dania Cutoff Canal drains the commercial and residential area south of the Airport and serves as a commingling point south of Airport property. Hazardous materials from vehicles using Griffin Road, NW 10th Street Access Road, and commercial and residential areas south of the Airport may potentially enter the stormwater in the Dania Cutoff Canal.



In addition, hazardous materials from vehicles using Griffin Road and NW 10th Street Access Road may potentially enter the stormwater ponds that are located near the intersection of these two roads. These pollutants may enter the ponds that ultimately discharge through Outfall 6 and ultimately into Dania Cutoff Canal.

3.5 WATER SAMPLING DATA

Florida Administrative Code Chapter 62-61 adopted the NPDES regulation and requires stormwater quality monitoring for airports that conduct deicing activities and use 100,000 gallons or more of glycol based deicing or anti-icing chemicals and/or 100 tons or more or urea on an average annual basis. The Airport's airline tenants conduct deicing activities but do not meet or exceed the use of 100,000 gallon or more glycol based deicing chemical. Airline tenants use a small amount of deicing fluids while preparing airplanes for flights to northern states that have snow during winter. Because the amount used is below the threshold, FLL ***not required to perform stormwater quality monitoring***. However, FLL started a voluntary surface ambient water quality monitoring program in 2003. The program collects water quality samples at each of the permitted NPDES outfall and Dania Cutoff Canal. Annual reports of the monitoring program are available upon request.

CHAPTER 4
POTENTIAL STORMWATER CONTAMINANTS

4.1 SIGNIFICANT MATERIAL INVENTORY

Code of Federal Regulations, Volume 40 (40 CFR), Section 122.26(b)(12) defines significant materials as substances related to industrial activities such as process chemicals, raw materials, fuels, pesticides, and fertilizers. Results of the inventory of materials used by BCAD owned and operated facilities at the Airport that may be present in stormwater runoff are listed in **Table 4.1**. The table includes information regarding material type, chemical and physical description, and specific stormwater pollutants associated with each material. The inventory provides a summary of the information collected from the following sources:

- 2009 SWPPP;
- Completed Tenant Questionnaires;
- Material Safety Data Sheets (MSDS);
- Materials observed during the site inspection;
- Interviews with Airport personnel and tenants; and,
- Other information provided by the Airport.

U.S. Department of Transportation
Federal Aviation Administration

Advisory Circular

The significant materials table was created according to recommendations contained in FAA Advisory Circular 150/5320-15A, *Management of Airport Industrial Waste* and EPA Publication 832-R-92-006, *Storm Water Management of Industrial Activities– Developing Pollution Prevention Plans and Best Management Practices*, and includes the following information:

- ALP building number;
- Trade/product name;
- Active ingredients/materials;
- Container size;
- Storage location;
- Likelihood of material contacting stormwater; and,
- Whether leaks or spills of the material have occurred and, if so, the quantities involved.

Table 4.1
Significant Materials Used at the Airport

Trade Name	Materials	Facility Name	Storage Location	Container Size	Likelihood of Contact with Stormwater	Past Significant Leak or Spill	Quantity Exposed in Last 3 Years
Denatured alcohol	Solvent	N-33	Cabinet	1 gallon	Potential spillage during building maintenance.	No	N/A
Sikaflex - polyurethane sealant	Xylene, Ethyl benzene	N-28	Covered Storage Area	5 gallons	Potential spillage during building maintenance.	No	N/A
Solvent Base	Solvent	N-33	Covered Storage Area	5 gallons	Potential spillage during building maintenance.	No	N/A
Toluene	Toluene	N-28	Fire cabinet	1 gallon	Potential spillage during vehicle maintenance.	No	N/A
Transmission Fluid	Highly refined mineral oils and additives (DMSO-extract)	E-26	Covered Storage Area	5 gallons	Potential spillage during vehicle maintenance	No	N/A

*Data was obtained from the MSDS sheet for each product.

Table 4.1 Cont'd. Significant Materials Used at the Airport							
Trade Name	**Materials**	**Building Number**	**Storage Location**	**Trade Name**	**Likelihood of Contact with Stormwater**	**Past Significant Leak or Spill**	**Quantity Exposed in Last 3 Years**
Anti-freeze	Ethylene glycol	N-28	Covered on Spill Pallet	55 gallons	Potential spillage during vehicle or equipment maintenance.	No	N/A
Gasoline	Benzene, n-Butane, Ethyl Alcohol, Ethyl Benzene, n-Hexane, Methyl-tertiary butyl ether, Tertiary-amyl methyl ether, Toluene, 1,2,4-Trimethylbenzene, Xylene	E-26	Fire Cabinet	5 gallon	Potential spillage during vehicle fueling.	No	N/A
		N-33					
		N-28	Covered Storage Area				
			Covered on Spill Pallet				
Diesel	Fuels, diesel, no.2 Napthalene	E-26	Fire Cabinet	5 gallons	Potential spillage during vehicle fueling	No	N/A
*Data was obtained from the MSDS sheet for each product.							

Table 4.1 Cont'd.
Significant Materials Used at the Airport

Trade Name	Materials	Facility Name and Building Number	Storage Location	Container Size	Likelihood of Contact with Stormwater	Past Significant Leak or Spill	Quantity Exposed in Last 3 Years
Motor oil	Highly Refined Mineral Oil	N-28	Covered on Spill Pallet	55 gallons	Potential spillage during vehicle maintenance.	No	N/A
		E-26	Fire Cabinet	32 oz.			
			Shelf	5 gallon.			
Gear oil	Highly Refined Mineral Oil, Non-Hazardous Additive Blend in Refined Oil	E-26	Fire cabinet	5 gallons	Potential spillage during vehicle maintenance.	No	N/A
Acrylic paint	Propenoic Acid Ethylenecarboxylic Acid, acrylic polymer emulsion, polyethylene-based	N-33	Covered on Spill Pallet	55 gallons	Potential spillage during building or vehicle painting.	No	N/A
			Outside fire shed	5 gallons			
		N-28	Fire Cabinet				
Paint thinner	Xylene	N-33	Outside Fire Cabinet	1 gallon	Potential spillage during building or vehicle painting.	No	N/A
		N-28	Fire Cabinet	5 gallons			
Cleaner	Xylene, Nonane (all isomers), Octanes (all isomers), Ethylbenzene	E-26	Fire cabinet	1 gallon	Potential spillage during building maintenance.	No	N/A

*Data was obtained from the MSDS sheet for each product.

Significant materials used and stored by tenants conducting industrial activities at the Airport are located in **Appendix F** of the *Annual Compliance Inspection Report*.

Based upon the data collected, the majority of the observed significant materials are being properly stored and protected from exposure to precipitation.

4.2 HISTORIC SPILL AND LEAK RECORD

According to FAA AC 150 5320-15A, the SWPPP should include a list of significant spills and leaks of toxic or hazardous materials that have occurred on Airport property within three years prior to the effective date of the permit. A search was conducted using Broward County's Environmental Inquiry and Resource System (ENVIROS) website that produced a historical contaminated sites map of reported spills in Broward County, facility ID numbers were then cross referenced to generate the reports from spills at the Airport facilities. Copies of spills that are less than 25 gallons are stored electronically and are available upon request. Copies of any future reported spills that are more than 25 gallons will be located in **Appendix G**.

4.3 POTENTIAL SOURCES OF STORMWATER CONTAMINATION

Many activities occur daily at the facilities within the Airport. The potential exists for stormwater pollutants to be accidentally discharged into the storm drain system. **Table 4.2** lists the areas for potential stormwater contamination from BCAD owned and operated facilities at the Airport. **Table 4.3** lists the potential stormwater pollutants used during heavy or light industrial activities at BCAD facilities at the airport. The stormwater pollutants listed in **Table 4.3** were based on observations during the site evaluation. The list of potential stormwater pollutants for each industrial tenant are provided in **Appendix F** of the *A*nnual Compliance Inspection Report.

Table 4.2 Potential Sources of Stormwater Contamination at the Airport			
Facility or Area	**Potential Contamination Area**	**Potential Pollutant**	**Potential Problem**
Roads	Roadway	Hydraulic fluids, brake fluid, gasoline, and antifreeze/coolant.	Leaking fluids from the vehicles using the roads around the Airport.
Hangars	Aprons	Hydraulic fluids, brake fluid, gasoline, and antifreeze/coolant.	Leaking fluids from the vehicles and aircraft in the apron areas.
Commercial and General Aviation Aprons	Aircraft maintenance and storage areas	Hydraulic fluids, brake fluid, gasoline, antifreeze/coolant, lubricants, cleaning solutions, deicing fluid, and aviation fuel.	Fluid spills during maintenances activities. Fuel leaks and spills during fueling. Spills and waste from cleaning operations. Addition of deicing fluid during aircraft fueling.
Runways	Grassy areas and stormwater drainage adjacent to the runways	Hydraulic fluids, brake fluid, antifreeze/coolant, aviation fuel, and gasoline.	Leaking fluids from aircraft and/or vehicles.
Taxiways	Grassy areas and stormwater drainage adjacent to the taxiways	Hydraulic fluids, brake fluid, antifreeze/coolant, aviation fuel, and gasoline.	Leaking fluids from aircraft and/or vehicles.

Table 4.2 Cont'd. Potential Sources of Stormwater Contamination at the Airport			
Facility or Area	**Potential Contamination Area**	**Potential Pollutant**	**Potential Problem**
Parking Areas	Vehicle parking areas	Hydraulic fluids, brake fluid, gasoline, and antifreeze/coolant.	Leaking fluids from parked vehicles.
Fuel Farm	Fueling areas	Hydraulic fluids, brake fluid, antifreeze/coolant, aviation fuel, diesel fuel, and gasoline.	Spills during fueling. Leaking fluids from parked vehicles and mobile refueling trucks.
Lawns, Swales, and Ditches	Fertilizer, herbicide, and pesticide application areas	Pesticides, herbicides, and fertilizers.	Spills during transport and application of fertilizers, pesticides, and herbicides.
Maintenance Buildings	Maintenance equipment storage areas	Pesticides, herbicides, hydraulic fluids, cleaning agents, lubricants, brake fluids, paints, solvents and antifreeze/coolant.	Leaking fluids from parked maintenance equipment, stored materials, and storage containers. Spills during fueling.
Industrial Tenant Hangars	Hangar interiors	Hydraulic fluids, cleaning agents, lubricants, brake fluids, antifreeze/coolant, solvents, used batteries, and paints.	Leaking fluids from stored materials, storage containers, parked vehicles, and aircraft in hangars.

Table 4.3 Potential Stormwater Pollutants for Facilities with Industrial Use at the Airport						
Potential Stormwater Pollutant	**Facility**					
	N-28	**E-26**	**N-33**	**N-32**	**Southside Lavatory Waste Dump**	**Northside Lavatory Waste Dump**
Anti-freeze	X					
Brake fluid						
Cleaning agents	X					
Degreasing solvents	X	X				
Pesticides	X					
Herbicides						
Fertilizers						
Gasoline	X	X	X			
Thinner			X			
Hydraulic fluid	X					
Lubricants						
Oil	X	X				
Paint	X		X			
Used batteries						
Deicing fluid						
Fire Foam		X				

CHAPTER 5
ANNUAL COMPLIANCE INSPECTION RESULTS

The Airport has numerous facilities and hangars that are leased to tenants. These tenants use the facilities for commercial and industrial applications. The results of the annual site inspections or comprehensive site evaluations were compiled in the *Annual Compliance Inspection Report,* a standalone document. The *Annual Compliance Inspection Report* includes contact information of the tenant. their SWPPP coordinator, and spill abatement contractor, NPDES permit information including expiration date, list of industrial activities conducted within the tenant's leasehold, an inventory of significant materials exposed to precipitation, BMPs currently implemented and recommended, and photos of the inspection. The *Annual Compliance Inspection Report* also includes copies of completed new tenant questionnaires, completed inspection forms, and new tenant compliance certificates. Recommendations include safety, spill kits, waste management, and material storage best management practices.

Appendix E of the *Annual Compliance Inspection Report* contains the results of the Non-Stormwater Discharge and Drainage Structures Visual Inspection.

Blank copies of the SWPPP Industrial Tenant SWPPP Inspection Report are included in **Appendix H**; the blank Non-Stormwater Discharge and Drainage Structures Inspection forms are in **Appendix I**, and blank Fuel Tank and Farm Inspection forms are included in **Appendix J**.

An annual visual inspection and testing of the oil-water separators (OWS) located within the Airport was also conducted. A copy of the blank OWS inspection form is contained in **Appendix K.** Copies of the annual OWS inspection are available upon request from the BCAD Maintenance Department.

CHAPTER 6
STORMWATER MANAGEMENT CONTROLS

6.1 COMPLIANCE WITH OTHER PROGRAMS

The Resource Conservation and Recovery Act (RCRA) of 1976, which amended the Waste Disposal Act, established the regulatory requirements for the management of solid and hazardous materials. The Airport complies with the requirements of the RCRA by inspecting material storage areas for leaks or spills. During the inspections, leaks or spills that may impact stormwater are noted and cleaned immediately. The BMPs included in this SWPPP are also designed to prevent soil and groundwater contamination, which could lead to Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) enforcement action. The Airport FBOs are required to develop and implement a Spill Prevention Control and Countermeasures (SPCC) Plan, which includes BMPs for oil storage and procedures to contain and clean up an oil spill. Broward County has enforced state petroleum cleanup rules under contract with FDEP since 2003.

6.2 EXISTING AND PLANNED MANAGEMENT PRACTICES

A stormwater BMP is defined as any technology, program, process, citing criteria, operating method, measure, or device that controls, removes, or reduces

stormwater pollution. The MSGP requires the development and implementation of BMPs to address pollutants from industrial sources. The BMPs currently implemented at facilities located within the Airport and the BMPs appropriate for Airport activities were compiled based on the site evaluation, completed Tenant Questionnaires, tenant and Airport staff interviews, and documentation provided by the Airport. The Airport plans to continue implementing and evaluating existing BMPs, and make the necessary improvements to reduce pollutants that may enter surface waters. Below are the BMP categories that apply at the Airport. **Appendix M** contains specific BMPs under each activity category.

- Aircraft, Vehicle, and Equipment Cleaning Areas;
- Aircraft, Vehicle, and Equipment Fueling;
- Aircraft, Vehicle, and Equipment Maintenance Areas;
- Aircraft, Vehicle, Equipment Painting and Storage;
- Fire Fighting Foam Discharge;
- Lavatory Waste;
- Fuel Farm
- Non-Stormwater Discharges;
- Oil/Water Separator;
- Outdoor Washdown/Sweeping Areas;
- Outdoor Waste and Material Handling;
- Significant Materials Storage;
- Spill Prevention Control and Countermeasures Plan (SPCC Plan);
- SWPPP Training and Education; and,
- Waste/Garbage Storage and Disposing.

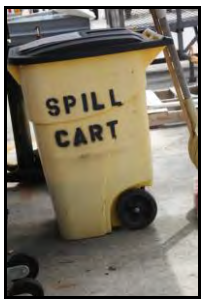
Prior to the annual compliance inspections, BMP checklists were generated for each of the activity categories listed above. The BMP checklists which were incorporated in the SWPPP Inspection Report form were used to determine which BMPs were implemented, recommended, or not applicable to the facilities at the Airport or tenants at the Airport. The SWPPP Inspection Report that contains BMP Checklists for Airport facilities and each industrial tenant are located in **Appendix F** of the *Annual Compliance Inspections Report*.

6.2.1 Structural BMPs

Many of the BMPs discussed in this Plan are measures to reduce pollutants at the source before they have an opportunity to contaminate stormwater runoff. BMPs may also be used to remove pollutants in stormwater through treatment. The Airport currently uses structural BMPs such as grassed swales, ditches, oil-water separators, stormwater treatment ponds, and pump basins to divert runoff and reduce the discharge of pollutants. Stormwater from taxiways, runways, aprons, hangars, and other paved surfaces drains into swales, ditches, and/or ponds before being discharged into surrounding surfaces waters.

6.2.2 Preventive Maintenance Program

The Airport has a preventive maintenance program that involves the inspection and maintenance of stormwater structures and equipment. The program aims to inspect, test, maintain, and repair Airport equipment and systems to prevent breakdowns or failures that may result in the discharge of pollutants to surface waters. Tenants shall report any problems that may lead to pollutant discharges into stormwater to the *SWPPP Team Leader*. The Airport also distributes SWPPP educational materials to their tenants on BMPs that they can implement at their facilities (**Appendix P**).



6.2.3 Spill Prevention and Response Procedures

The Airport has a spill prevention and response program, and each tenant that operates a fuel farm at the Airport has its own SPCC Plan. The tenants' SPCC Plans comply with 40 CFR Part 112 and are consistent with the requirements of Broward County's Petroleum Contamination Cleanup Criteria Ordinance (**Appendix L**). For a list of the tenants that have current SPCC Plans on file with the BCAD please refer to **Table 4.1** of the Annual Compliance Inspection Report.

6.2.4 Routine Facility Inspections

The Airport's BMP implementation program includes routine daily, semiweekly, monthly, and annual inspections. The Facility Monitoring Plan is discussed in **Chapter 7**.

6.2.5 Elimination of Non-Stormwater Discharges

No non-stormwater discharges were identified during the site evaluation. The Airport currently conducts site evaluations of all outfalls and tenants to identify any potential unauthorized discharge. In addition to these annual site inspections, it is recommended that the Airport implement the following:

- Stagger inspection times to cover all work periods.
- Determine the source of any illicit discharges that are discovered.
- Continue to perform inspections during design review and project construction phases of new facilities or upgrades to existing facilities to ensure drainage, wastewater, and water supply connections are correct. This will enable the identification of potential cross connections or illicit connections so that they can be remedied.
- Continue to maintain a set of files containing as-built prints of all new projects and existing facilities and keep a set of prints at the facility and in the BCAD's files so that they will be accessible to SWPPP Team members.
- Continue to Design new projects or upgrades to existing facilities to include waste repositories at locations near waste point origins.
- Provide adequate and appropriate design for new facilities or for upgrades to existing facility functions. This includes painting, mechanical maintenance, degreasing, material handling and storage, lavatory service, food preparation, and other Airport services.

CHAPTER 7
FACILITY MONITORING PLAN

The Facility Monitoring Plan includes both routine informal and formal comprehensive inspections of Airport facilities. The following sections discuss these inspections based on their frequency.

7.1 DAILY INSPECTIONS

Several areas of the Airport are inspected on a daily basis as part of the Airport's SWPPP. Operations and maintenance personnel perform visual inspections of the runways and taxiways on a daily basis to ensure that there are no spills, debris, waste, or any other issue that may impact normal Airport operations.

The tenants that conduct industrial activities are responsible for inspecting and documenting the inspection of their leaseholds on a daily basis. Tenants that own and operate fuel farms are required to have an SPCC Plan.

7.2 MONTHLY INSPECTIONS

Storage tank inspections are performed monthly to confirm that fuel systems are not leaking and that electronic monitoring systems are working properly. Inspection procedures for other materials storage areas that are owned and operated by BCAD, such as emergency generator fuel tanks, are detailed in the specific Spill Prevention Control and Countermeasures (SPCC) Plans for FLL. A copy of the FLL SPCC plan is available upon request from BCAD.

As discussed in **Section 7.1**, tenants who own and operate fuel farms and tanks have their own SPCC Plan.

7.3 SEMI-ANNUAL INSPECTIONS

Visual inspections of the drainage conveyance system structures are conducted semi-annually, or every 36 months, to make sure the system is operating correctly and free of obstruction. Should a structure be obstructed or fail, measures are taken to clear or repair the structure.

7.4 ANNUAL COMPREHENSIVE INSPECTIONS

The Airport conducts an annual inspection of all industrial use tenants and Airport facilities to accomplish the following objectives:

- Confirm the accuracy of the description of potential pollutants contained in the SWPPP;
- Evaluate BMP implementation;
- Determine the effectiveness of the SWPPP;
- Assess compliance with the terms and conditions of the General Permit;
- Evaluate general housekeeping; and,
- Ensure proper storage of materials.

When possible, designated tenant representatives accompany Airport personnel performing the inspection for each tenant leased facility. Blank copies of the annual inspection checklist is located in **Appendix H**.

The inspection will determine if the BMPs have been implemented and assess their effectiveness. The inspection will also identify if operations have changed since the development of this SWPPP. If operational changes have been made, the *SWPPP Team Leader* will evaluate if those changes will impact stormwater quality and develop new BMPs to address the changes. All operational changes and new BMPs will be recorded as updates in this SWPPP. Additionally, the inspection date, each inspector's name, the scope of the inspection, major observations, and any needed revisions will be recorded. If revisions to the plan are deemed necessary, they will occur within 30 days of the annual inspection.

7.5 NON STORMWATER DISCHARGE MONITORING

An annual non stormwater discharge and drainage structures visual inspection is conducted to determine if there are illicit discharges at the NPDES permitted outfalls. During the inspection, the water, if present at the outfall, is characterized based upon the following:

1. Presence or absence of colored sheen on the surface from oil or other hydrocarbons;
2. Presence or absence of dark colored streaks from soil erosion or suspended sediment in the water column;
3. Presence or absence of foam from naturally occurring macrobacteria or solvents such as soap;
4. Presence or absence of trash and debris;
5. Presence of dead vegetation or animals;
6. Presence of healthy vegetation, aquatic life and wildlife;
7. Presence of foul odor;
8. Obstruction of flow to and from the structure; and,
9. Condition of the structure such as presence of cracks.

Should an illicit discharge be determined during the visual inspection, then a dye test would be conducted to determine the source of the illicit discharge.

The NPDES permitted outfalls are also inspected six times a year during the voluntary water quality monitoring. A copy of the FLL Water Quality Monitoring Field Data sheet is contained in **Appendix N.**

Copies of blank Non-Stormwater Discharge and Drainage Structures Inspection forms are included in **Appendix I**.

7.6 STORMWATER QUALITY MONITORING

Florida Administrative Code Chapter 62-61 requires stormwater quality monitoring for airports that conduct deicing activities and uses 100,000 gallons or more of glycol based deicing or anti-icing chemical and/or 100 tons or more or urea on an average annual basis. The Airport's airline tenants conduct deicing activities but does not meet or exceed the use of 100,000 gallon or more glycol based deicing chemical. Airline tenants use a small amount of deicing fluids while preparing airplanes for flights to northern states that have snow during winter. Because the amount used is below the threshold, the airport is not required to perform stormwater water quality monitoring. However, the Airport has a voluntary water quality monitoring program. Annual reports for each year since 2003 is available upon request.

CHAPTER 8
COMPLIANCE AND REPORTING REQUIREMENTS

8.1 SWPPP COMPLIANCE

According to the NPDES Multi-Sector General Permit (FLRO5A457-003), the Airport is required to amend the SWPPP five years from the effective date or when and if a significant change occurs at the Airport, such as the addition of a runway, terminal, fuel farm, maintenance building or other changes that have the potential to contaminate stormwater. The last revision to the SWPPP was conducted in January 2009. This SWPPP update amends and replaces the entire document for compliance with FDEP NPDES permit conditions. A copy of the FDEP Notice of Intent letter is provided in **Appendix C**. The SWPPP will be kept at the Airport in the BCAD Building and will be made available to the state compliance inspection officer upon request.

8.2 EMPLOYEE AND TENANT TRAINING

Proper training of employees and tenants reduces the potential for mishandling of materials. The Airport has developed a SWPPP Training Manual and implements an Employee Training Program to educate employees about the requirements of the Airport SWPPP. This education program covers the following items:

- Goals of the SWPPP
- Emergency Response Plan
- Good housekeeping
- Disposal and control of waste
- Container filling and transfer

- Material handling and storage procedures
- Inspection procedures
- BMPs
- Airport Emergency Plan
- Notification Process

The Airport's policy is that supervisory Airport staff members and at least one representative from each division are required to attend an annual training workshop. These personnel are then responsible for providing instruction to personnel under their supervision. The training records will be kept at the *SWPPP Team Leader's* office. The training program will be reviewed annually by the *SWPPP Team Leader* to determine its effectiveness and to make any necessary changes to the program.

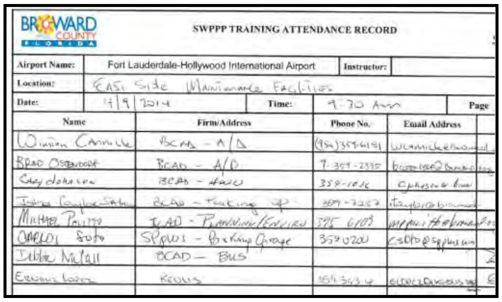
8.3 IMPLEMENTATION SCHEDULE

In accordance with the NPDES General Permit (FLRO5A457-003), the SWPPP implementation schedule is presented in **Table 8.1**.;

Table 8.1
BMP Implementation Schedule

Stormwater Pollution Prevention Action Items	Implementation Schedule
BMP implementation	Continuous
Waste dumpster inspections	Semiweekly
Oil-water separator inspections	Monthly
Inlet drain and catch basin inspections	Semi-Annually
Material storage areas inspections	Semi-Annually
Ditch and swale inspections	Semi-Annually
Airport comprehensive inspections	Annually
Employee training	Annually

8.4 RECORD RETENTION REQUIREMENTS



SWPPP TRAINING ATTENDANCE RECORD

Airport Name:	Fort Lauderdale-Hollywood International Airport	Instructor:	
Location:	East Side Maintenance Facilities		
Date:	4/9/2014	Time:	9:30 AM

Name	Firm/Address	Phone No.	Email Address
[illegible]	BCAD - A/D	(954)359-6191	[illegible]
Brad [illegible]	BCAD - A/D	7-359-2395	[illegible]
[illegible]	BCAD - [illegible]	359-[illegible]	[illegible]
[illegible]	BCAD - Parking [illegible]	359-7257	[illegible]
Michael Pacitto	BCAD - Planning/Environ	395 6103	[illegible]
[illegible] Soto	SP Plus - Parking Garage	359 0200	[illegible]
Debbie [illegible]	BCAD - Bus		
[illegible]	Keolis	[illegible]	[illegible]

Records described in the SWPPP must be retained on site for five years. These records shall be made available to the state and federal compliance officer upon request. Additionally, training records, maintenance logs, checklists, and inspection logs shall also be maintained. Maintaining a record of events that occur at the Airport is an effective way of documenting the progress of pollution prevention efforts and waste minimization. The records will provide information on past spills, ineffective BMPs, and other useful information that may be used for developing improved BMPs to prevent pollutant discharge to stormwater. Records used for reporting incidents are included in **Appendix O.**

8.5 PRINCIPAL EXECUTIVE OFFICER SIGNATURE

In accordance with the State of Florida, this plan has been approved and signed by *Mr. Michael Pacitto*, the authorized representative for the operation of the Airport. *Mr. Pacitto's* signature is found on the certification page at the beginning of this document.

8.6 PROVISIONS FOR AMENDMENT OF THE PLAN

If the facility expands, experiences any significant modification, or has changes in materials used or in handling and storage practices that may impact stormwater, the SWPPP will be amended appropriately. The amended SWPPP will have a description of the new activities that contribute to the increased pollutant loading and planned pollution control activities. The SWPPP will also be amended if the state or federal compliance inspection officer determines that it is ineffective in controlling stormwater pollutant discharges to waters.

8.7 PROFESSIONAL ENGINEER CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry, the person or persons who manages the system, and those persons directly responsible for gathering the information, the information submitted is, to the best of knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Professional Engineer's Name:	Mr. Gregg B. Hamm, P.E.
Company:	Michael Baker International, Inc.
Signature:	
Certification Date:	
P. E. Registration No.	P.E. 69760
P. E. Registration State:	Florida

P. E. Engineering Seal:

Appendix A
Federal Regulations

Document can be found at:
http://www.faa.gov/documentLibrary/media/advisory_circular/150-5320-15A/150_5320_15a.pdf

Appendix B
State Regulations

Document can be found at:
http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0400-0499/0403/Sections/0403.0885.html
-and-
http://www.dep.state.fl.us/legal/Rules/shared/62-621.pdf

Appendix C
FDEP Notice of Intent Letter

Document can be found at:
http://depedms.dep.state.fl.us/Oculus/servlet/preview?Action=ViewDoc&DocGUID=29.331759.1&SearchTerm=

Appendix D
Broward County Water Resource Management Ordinance

Document can be found at:
https://www.municode.com/library/fl/broward_county/codes/code_of_ordinances?nodeId=PTIICOOR_CH36WAREMA#!

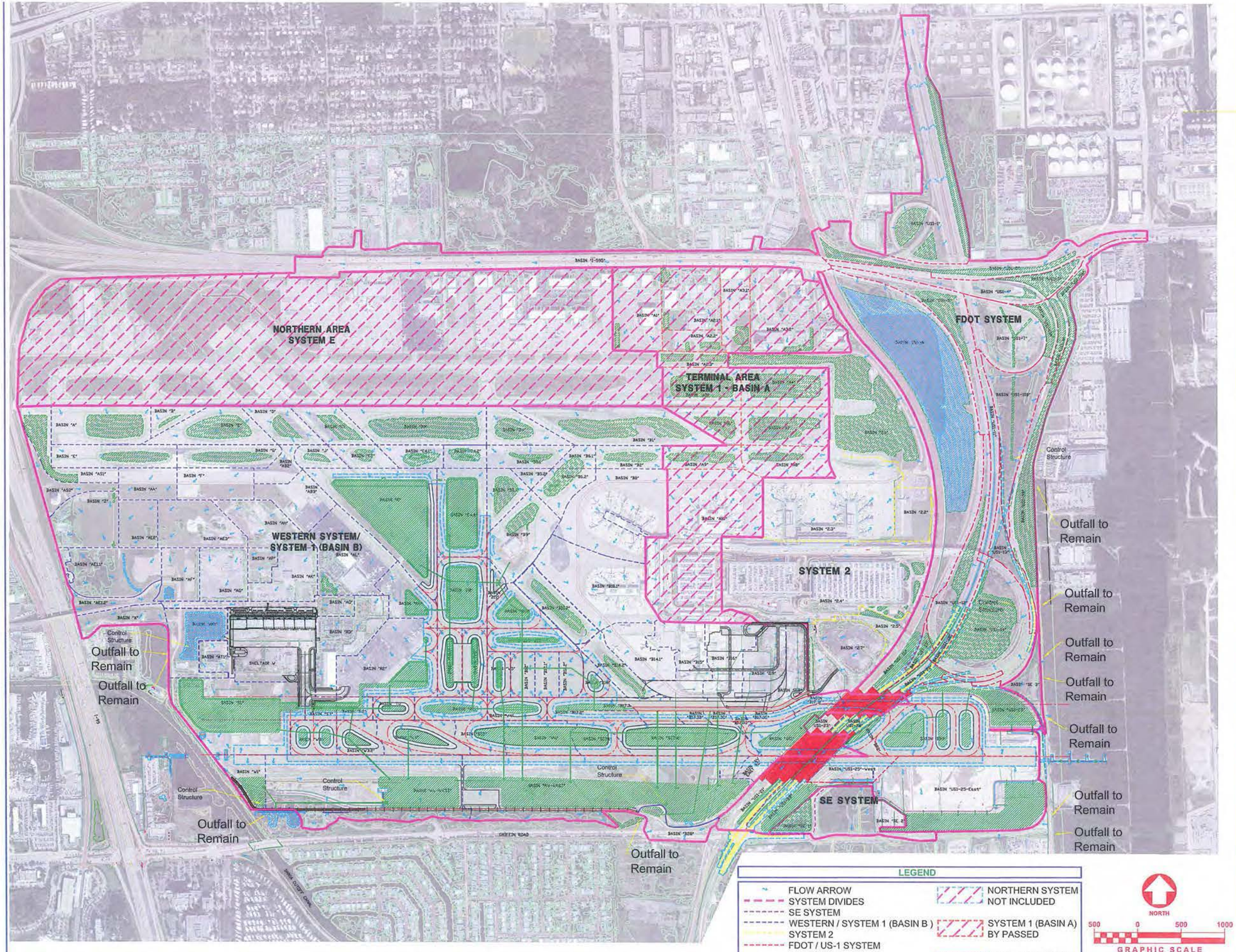
Appendix E
Fort Lauderdale-Hollywood International Airport Site Plan

An electronic copy of the Fort Lauderdale-Hollywood International Airport ALP Site Map can be obtained in its entirety by contacting:

Brad Ostendorf
bostendorf@broward.org
-or-
Winston Cannicle
WCANNICLE@broward.org

2200 SW 45th Street
Suite 101
Dania Beach, Florida
33312
(954) 359-6100

Appendix F
Fort Lauderdale-Hollywood International Airport Drainage Map



LEGEND

- FLOW ARROW
- SYSTEM DIVIDES
- SE SYSTEM
- WESTERN / SYSTEM 1 (BASIN B)
- SYSTEM 2
- FDOT / US-1 SYSTEM
- NORTHERN SYSTEM NOT INCLUDED
- SYSTEM 1 (BASIN A) BY PASSED
- EXISTING WET/DRY DETENTION AREAS
- PROPOSED DRY DETENTION AREAS

NORTH

500 0 500 1000

GRAPHIC SCALE (IN FEET)

CALL 48 HOURS BEFORE YOU DIG IT'S THE LAW! 1-800-432-4770 SUNSHINE STATE ONE CALL OF FLORIDA, INC.

WARNING!!! WARNING!!! WARNING!!!
THERE ARE A NUMBER OF AIRPORT, PUBLIC UTILITIES, AND FAA LIGHTING, COMMUNICATIONS, UNDERGROUND CABLES AND PIPES TRAVERSING THE AIRFIELD PAVEMENTS AREAS. THE ENGINEER HAS MADE EVERY ATTEMPT TO SHOW THE APPROXIMATE LOCATION OF ALL ITEMS. HOWEVER, THE ENGINEER IS NOT RESPONSIBLE FOR SHOWING OR LOCATING EVERY ITEM CURRENTLY IN PLACE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE EVERY ITEM LOCATED, STAKED AND IDENTIFIED PRIOR TO START OF CONSTRUCTION. ANY DAMAGE DONE TO ANY OF THE EXISTING ITEMS SHALL BE THE RESPONSIBILITY

BROWARD COUNTY
FLORIDA

FORT LAUDERDALE - HOLLYWOOD INTERNATIONAL AIRPORT

AIRPORT EXPANSION PROGRAM

AVIATION DEPARTMENT
100 AVIATION BOULEVARD
FORT LAUDERDALE, FLORIDA, 33315

CONSULTANT / DESIGNER
ATKINS
FORMERLY PBS&J

DESIGNER
RS&H
IMPROVING YOUR WORLD
Reynolds, Smith & Hills, Inc.

THE EXPANSION OF RUNWAY 9R-27L

FAA CONTRACT NO. :
BCAD CONTRACT NO. :
CIP NO. :

REVISIONS

NO.		

DATE ISSUED: APRIL 2013
DRAWN BY: RHT
REVIEWED BY: CBJ
DESIGNED BY: RHT
FILENAME: 2013 Post-Development Drainage M

SHEET TITLE

POST-DEVELOPMENT DRAINAGE MAP (CURRENT APPLICATION)

SHEET NUMBER

C 09.61

Appendix G
Fort Lauderdale-Hollywood International Airport Spill Records

An electronic copy of the FDEP Discharge Incident Spill Records for Fort Lauderdale-Hollywood International Airport can be obtained in its entirety by contacting:

Brad Ostendorf
bostendorf@broward.org
-or-
Winston Cannicle
WCANNICLE@broward.org

2200 SW 45th Street
Suite 101
Dania Beach, Florida 33312
(954) 359-6100

Appendix H
SWPPP Industrial Tenant BMP Checklist

FORT LAUDERDALE - HOLLYWOOD INTERNATIONAL AIRPORT
SWPPP INSPECTION REPORT

☒ **Initial Inspection** ☐ **Reinspection**

FACILITY AND INSPECTOR INFORMATION

Facility Name: Tenant — ALP Bldg. No.:
FDEP Facility ID: — Phone:
Address:
Subtenant (s) ☐ Yes ☐ No — Tenant Name:
Facility Rep. Name: — Phone:
Spill Coord. Name: — Phone:
Inspectors Name: *Jay Gable and Austin Gower* — Date: Nov. 2015

INSPECTION SUMMARY

☐ MSGP ☐ HW License ☐ SWPPP ☐ Outside Area ☐ BMPs

Previous Year Inspection Summary

☐ MSGP ☐ HW License ☐ SWPPP ☐ Outside Area ☐ BMPs

Recommended Action

☐ Reinspection ☐ None ☐ Letter Notice ☐ Other

S = Satisfactory M = Marginal (needs improvement) U = Unsatisfactory N/A = Not applicable

PERMIT INFORMATION

NPDES MSGP	☐ Yes	☐ No	☐ N/A	Exp. Date
Subtenant covered by tenant MSGP?	☐ Yes	☐ No	☐ N/A	
MSGP hard copy?	☐ on site	☐ Corp. Ofc.	☐ None	
No Exposure?	☐ Yes	☐ No	☐ N/A	
Haz. Material/ Tank License?	☐ Yes	☐ No	☐ N/A	Exp. Date
HW License copy?	☐ on site	☐ Corp. Ofc.	☐ N/A	

SWPPP COMPLIANCE INFORMATION

SWPPP?	☐ Yes	☐ No	☐ N/A	Date
SWPPP hard copy?	☐ on site	☐ Corp. Ofc.	☐ None	
Updated?	☐ Yes	☐ No	☐ N/A	
Inspection Records?	☐ Yes	☐ No	☐ N/A	Date
Training Records?	☐ Yes	☐ No	☐ N/A	Date
3 yrs. Of Records?	☐ Yes	☐ No	☐ N/A	

CONDITION OF STORM DRAIN AND OUTSIDE AREA WITHIN LEASEHOLD

Outside area clean?	☐ Yes	☐ No	☐ N/A	
Stormdrain present?	☐ Yes	☐ No	☐ N/A	
Distance of drain from facility?	☐ ≤ 50'	☐ > 50'	☐ ≥ 100'	
Oil water separator present?	☐ Yes	☐ No	☐ N/A	
Staining from spills evident?	☐ Yes	☐ No	☐ N/A	
Evidence of illicit dumping into drain?	☐ Yes	☐ No	☐ N/A	

FORT LAUDERDALE - HOLLYWOOD INTERNATIONAL AIRPORT
SWPPP INSPECTION REPORT

Facility Name Tenant Date Nov. 2015

SUMMARY OF ACTIVITIES

- ☐ Aircraft lavatory service
- ☐ Aircraft maintenance
- ☐ Aircraft painting
- ☐ Aircraft refueling
- ☐ Aircraft washing
- ☐ Cargo handling
- ☐ Equipment cleaning
- ☐ Equipment maintenance
- ☐ Equipment repair
- ☐ Equipment storage
- ☐ GSE
- ☐ Food service
- ☐ Potable water flushing
- ☐ Vehicle fueling
- ☐ Vehicle maintenance
- ☐ Vehicle painting
- ☐ Vehicle repair
- ☐ Vehicle washing
- ☐ Chemical storage
- ☐ Oil storage
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

INVENTORY OF SIGNIFICANT MATERIALS EXPOSED TO PRECIPITATION

oil, Avgas, sump fuel, mineral spirits, stripper, soap, solvents, deicing fluid, fertilizers, herbicide, pesticide, lavatory waste, cleaning products, etc.

	Material	Qty.	Container Size	Location *(I-inside O-outside)*		Condition *(G -good B- bad/poor)*	
☐							
☐							
☐							
☐							
☐							
☐							
☐							
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☐							

Comments _____

O - original container FC - fire cabinet L - cabinet S - Shelf F - floor W - warehouse/storage Area L - locked U - unlocked
C - covered/has roof E - exposed/uncovered A - on concrete pad P - on spill pallet R - rusted

Inspectors Name *Jay Gable and Austin Gower* Initials JG and AG

FORT LAUDERDALE - HOLLYWOOD INTERNATIONAL AIRPORT
SWPPP INSPECTION REPORT

Facility Name Tenant Date Nov. 2015

GOOD HOUSEKEEPING BMPs

Clean & orderly work space?	☐ Yes ☐ No	
Waste collected regularly?	☐ Yes ☐ No	
Maintains MSDS sheets?	☐ Yes ☐ No	

MAINTENANCE BMPs ☐ Yes ☐ No ☐ N/A

☐ *Aircraft* ☐ *Vehicle* ☐ *Equipment*

				Contact Information
Performed in house?	☐ Yes	☐ No	☐ N/A	**Name**
Subcontracted?	☐ Yes	☐ No	☐ N/A	**Phone**
Performed indoors only?	☐ Yes	☐ No	☐ N/A	
Uses drip pans?	☐ Yes	☐ No	☐ N/A	
Has spill kit in facility?	☐ Yes	☐ No	☐ N/A	
Has spill kit in vehicles?	☐ Yes	☐ No	☐ N/A	
Cleans up drips & spills?	☐ Yes	☐ No	☐ N/A	
Reduces waste/recycles?	☐ Yes	☐ No	☐ N/A	
Has used oil/oil filter bin	☐ Yes	☐ No	☐ N/A	
Inspects & cleans OWS?	☐ Yes	☐ No	☐ N/A	

BMPs appear sufficient to protect surface water? ☐ Yes ☐ No ☐ N/A

CLEANING AND WASHING BMPs ☐ Yes ☐ No ☐ N/A

☐ *Aircraft* ☐ *Vehicle* ☐ *Equipment*

				Contact Information
Performed in house?	☐ Yes	☐ No	☐ N/A	**Name**
Subcontracted?	☐ Yes	☐ No	☐ N/A	**Phone**
Dry washing only?	☐ Yes	☐ No	☐ N/A	
Washing under cover?	☐ Yes	☐ No	☐ N/A	
Wash water contained?	☐ Yes	☐ No	☐ N/A	
Washing in bermed area?	☐ Yes	☐ No	☐ N/A	
Wash water recycled?	☐ Yes	☐ No	☐ N/A	
Inspects & cleans wash area?	☐ Yes	☐ No	☐ N/A	
Uses water-based cleaning agents?	☐ Yes	☐ No	☐ N/A	

BMPs appear sufficient to protect surface water? ☐ Yes ☐ No ☐ N/A

LAVATORY CLEANOUT BMPs ☐ Yes ☐ No ☐ N/A

Performed in house?	☐ Yes	☐ No	☐ N/A	***Contact Information***
Subcontracted?	☐ Yes	☐ No	☐ N/A	**Name**
Secures all hoses & valves?	☐ Yes	☐ No	☐ N/A	**Phone**
Cleans cart/truck at triturator?	☐ Yes	☐ No	☐ N/A	
Inspects hoses & fittings?	☐ Yes	☐ No	☐ N/A	
Maintains lavatory truck/cart?	☐ Yes	☐ No	☐ N/A	
Lavatory truck maint. logs?	☐ Yes	☐ No	☐ N/A	
Spill kit in lavatory truck?	☐ Yes	☐ No	☐ N/A	
Employee training records?	☐ Yes	☐ No	☐ N/A	

BMPs appear sufficient to protect surface water? ☐ Yes ☐ No ☐ N/A

Inspectors Name *Jay Gable and Austin Gower* Initials JG and AG

FORT LAUDERDALE - HOLLYWOOD INTERNATIONAL AIRPORT
SWPPP INSPECTION REPORT

Facility Name Tenant Date Nov. 2015

FUELING BMPs ☐ Yes ☐ No ☐ N/A

☐ *Aircraft* ☐ *Vehicle* ☐ *Equipment*

Contact Information

Performed in house?	☐ Yes	☐ No	☐ N/A	**Name**
Subcontracted?	☐ Yes	☐ No	☐ N/A	**Phone**
Fueling under cover?	☐ Yes	☐ No	☐ N/A	
Spill pan used?	☐ Yes	☐ No	☐ N/A	
Spill kit & spill kit supplies?	☐ Yes	☐ No	☐ N/A	
Spill kit in refueling trucks?	☐ Yes	☐ No	☐ N/A	
Proper containment?	☐ Yes	☐ No	☐ N/A	
Cleans up spills immediately?	☐ Yes	☐ No	☐ N/A	
Curbing around fuel pumps?	☐ Yes	☐ No	☐ N/A	
Inspects/cleans fueling area?	☐ Yes	☐ No	☐ N/A	
Inspects/cleans hoses/valves?	☐ Yes	☐ No	☐ N/A	
Dry cleanup of fueling area only?	☐ Yes	☐ No	☐ N/A	
Spill prevention/containment trng?	☐ Yes	☐ No	☐ N/A	
Employee spill training records?	☐ Yes	☐ No	☐ N/A	

BMPs appear sufficient to protect surface water? ☐ Yes ☐ No ☐ N/A

PAINTING BMPs ☐ Yes ☐ No ☐ N/A

☐ *Aircraft* ☐ *Vehicle* ☐ *Equipment*

Contact Information

Performed in house?	☐ Yes	☐ No	☐ N/A	**Name**
Subcontracted?	☐ Yes	☐ No	☐ N/A	**Phone**
Painting indoors only?	☐ Yes	☐ No	☐ N/A	
Paint equipment maintained?	☐ Yes	☐ No	☐ N/A	
Painting area ventilated?	☐ Yes	☐ No	☐ N/A	
Sanding/stripping indoors?	☐ Yes	☐ No	☐ N/A	
Paints properly stored?	☐ Yes	☐ No	☐ N/A	
Wastes collected/disposed?	☐ Yes	☐ No	☐ N/A	
Waste storage maintained?	☐ Yes	☐ No	☐ N/A	
Storage area vented?	☐ Yes	☐ No	☐ N/A	
Waste-/storage inspected?	☐ Yes	☐ No	☐ N/A	
Wash water collected?	☐ Yes	☐ No	☐ N/A	
Thinners/solvents recycled?	☐ Yes	☐ No	☐ N/A	
Containers labeled properly?	☐ Yes	☐ No	☐ N/A	
Containers inspected?	☐ Yes	☐ No	☐ N/A	
Spill kit and supplies?	☐ Yes	☐ No	☐ N/A	
Haz. Waste disposal procedures/trng.?	☐ Yes	☐	No ☐ N/A	
Spill prevention/clean up trng.?	☐ Yes	☐	No ☐ N/A	

BMPs appear sufficient to protect surface water? ☐ Yes ☐ No ☐ N/A

Inspectors Name *Jay Gable and Austin Gower* Initials JG and AG

FORT LAUDERDALE - HOLLYWOOD INTERNATIONAL AIRPORT
SWPPP INSPECTION REPORT

Facility Name Tenant Date Nov. 2015

SIGNIFICANT MATERIALS STORAGE BMPs ☐ Yes ☐ No ☐ N/A

Spill containment and cleanup ***Contact Information***

Performed in house?	☐ Yes	☐ No	☐ N/A	**Name**
Subcontracted?	☐ Yes	☐ No	☐ N/A	**Phone**
Materials stored indoors?	☐ Yes	☐ No	☐ N/A	
Original containers used?	☐ Yes	☐ No	☐ N/A	
Secondary containment?	☐ Yes	☐ No	☐ N/A	
Inventory & MSDS book?	☐ Yes	☐ No	☐ N/A	
Proper labels?	☐ Yes	☐ No	☐ N/A	
Containers inspected?	☐ Yes	☐ No	☐ N/A	
Spills cleaned up?	☐ Yes	☐ No	☐ N/A	
Spill kits & supplies?	☐ Yes	☐ No	☐ N/A	
Proper disposal?	☐ Yes	☐ No	☐ N/A	
Drip pans for transfers?	☐ Yes	☐ No	☐ N/A	
Storage area inspected?	☐ Yes	☐ No	☐ N/A	
Spill clean up training?	☐ Yes	☐ No	☐ N/A	
Fire extinguishers?	☐ Yes	☐ No	☐ N/A	
Spill training records?	☐ Yes	☐ No	☐ N/A	
What to do in case of a spill sign?	☐ Yes	☐ No	☐ N/A	
Corrosives away from flammables?	☐ Yes	☐ No	☐ N/A	

BMPs appear sufficient to protect surface water? ☐ Yes ☐ No ☐ N/A

WASTE MANAGEMENT BMPs ☐ Yes ☐ No ☐ N/A

Performed in house?	☐ Yes	☐ No	☐ N/A	**Name**
Subcontracted?	☐ Yes	☐ No	☐ N/A	**Phone**
Adequate waste containers?	☐ Yes	☐ No	☐ N/A	
Proper visible labels?	☐ Yes	☐ No	☐ N/A	
Outside waste dumpster?	☐ Yes	☐ No	☐ N/A	
Dumpster on concrete?	☐ Yes	☐ No	☐ N/A	
Dumpster covered/lockable	☐ Yes	☐ No	☐ N/A	
Frequent garbage removal?	☐ Yes	☐ No	☐ N/A	
Wastes disposed of properly?	☐ Yes	☐ No	☐ N/A	
Haz. disposal procedures?	☐ Yes	☐ No	☐ N/A	
Haz waste disposal trng.?	☐ Yes	☐ No	☐ N/A	
Inventory & MSDS book?	☐ Yes	☐ No	☐ N/A	
Spill kits & training?	☐ Yes	☐ No	☐ N/A	
Corrosives away from flammables?	☐ Yes	☐ No	☐ N/A	
Waste storage area inspected?	☐ Yes	☐ No	☐ N/A	
Recycles?	☐ Yes	☐ No	☐ N/A	

☐ Oil ☐ Aluminum ☐ Plastic ☐ _____

☐ Oil Filters ☐ Paper ☐ _____ ☐ _____

BMPs appear sufficient to protect surface water? ☐ Yes ☐ No ☐ N/A

Inspectors Name *Jay Gable and Austin Gower* Initials JG and AG

FORT LAUDERDALE - HOLLYWOOD INTERNATIONAL AIRPORT
SWPPP INSPECTION REPORT

Facility Name Tenant Date Nov. 2015

BULK FUEL STORAGE INFORMATION AND BMPs ☐ Yes ☐ No ☐ N/A

No. of tanks ☐ *Aggregate Capacity* _____

Tank No.	Tank Type	Tank Product	Capacity	Condition	Comments

SW-single wall DW-double wall AG - Avgas LL-100LL J-JetA G-gasoline D-diesel O- oil U-used oil S-Good P-Poor M-needs work

SPCC PLAN COMPLIANCE INFORMATION

SPCC Plan?	☐ Yes	☐ No	☐ N/A	Date
SPCC Plan hard copy?	☐ on site	☐ Corp. Ofc.	☐ None	
Updated?	☐ Yes	☐ No	☐ N/A	
Inspection Records?	☐ Yes	☐ No	☐ N/A	Date
Training Records?	☐ Yes	☐ No	☐ N/A	Date

Spill containment and cleanup

Performed in house?	☐ Yes	☐ No	☐ N/A	**Name**
Subcontracted?	☐ Yes	☐ No	☐ N/A	**Phone**

Contact Information

Fuel Farm/Tank BMPs

Tank car un-/loading area	☐ Yes	☐ No	☐ N/A	
Secondary containment?	☐ Yes	☐ No	☐ N/A	
Spill kit present?	☐ Yes	☐ No	☐ N/A	
Fire extinguishers present?	☐ Yes	☐ No	☐ N/A	
Lock on dispensing nozzle?	☐ Yes	☐ No	☐ N/A	
Bollard near dispensing unit?	☐ Yes	☐ No	☐ N/A	
Security fence around tanks	☐ Yes	☐ No	☐ N/A	
Proper signage	☐ Yes	☐ No	☐ N/A	
_____	☐ Yes	☐ No	☐ N/A	

Fuel Farm/Tank Condition *S-Good P-Poor M- moderate or needs work* ☐

Piping?	☐ Good	☐ Poor	☐ Moderate	☐ N/A	
Hoses & nozzles?	☐ Good	☐ Poor	☐ Moderate	☐ N/A	
Dust caps?	☐ Good	☐ Poor	☐ Moderate	☐ N/A	
Bonding cables?	☐ Good	☐ Poor	☐ Moderate	☐ N/A	
Clamps & reels?	☐ Good	☐ Poor	☐ Moderate	☐ N/A	
Security fence?	☐ Good	☐ Poor	☐ Moderate	☐ N/A	
Signage?	☐ Good	☐ Poor	☐ Moderate	☐ N/A	

Inspectors Name *Jay Gable and Austin Gower* Initials JG and AG

FORT LAUDERDALE HOLLYWOOD INTERNATIONAL AIRPORT
SWPPP INSPECTION REPORT

Facility Name Tenant Date Nov. 2015

ADDITIONAL COMMENTS:

Inspectors Name *Jay Gable and Austin Gower* Initials JG and AG

Appendix I
Non-Stormwater Discharge and Drainage Structures Inspection Forms

ANNUAL NON-STORMWATER DISCHARGE COMPLIANCE INSPECTION FORM

Name _____ **Date** _____

Test Type: Visual Inspection **Time** _____

Inspectors Signature: _____

(Please check if the outfall has discharge or not and check the boxes that applies and/or fill in the blanks)

Outfall #1: **North of Griffin Road, east of the Intersection of U.S. Route 1, south of Perimeter Road, and west of Green Belt Buffer Area**

☐ no discharge ☐ has discharge ☐ other

Water has/is: ☐ soap suds ☐ oil film/sheen ☐ clear ☐ cloudy

Potential discharge source: _____

Comments: _____

Outfall #2: **North of the new runway over U.S. Route 1, west of U.S. Route 1 and east of the railroad tracks.**

☐ no discharge ☐ has discharge ☐ other

Water has/is: ☐ soap suds ☐ oil film/sheen ☐ clear ☐ cloudy

Potential discharge source: _____

Comments: _____

Outfall #3: **North of Terminal Ramp, southeast of Runway 10L-28R, and west of Perimeter Road**

☐ no discharge ☐ has discharge ☐ other

Water has/is: ☐ soap suds ☐ oil film/sheen ☐ clear ☐ cloudy

Potential discharge source: _____

Comments: _____

ANNUAL NON-STORMWATER DISCHARGE COMPLIANCE INSPECTION FORM

Outfall #4: **Northeast of Runway 13-31, east of north side general aviation ramp, and south of the SW 34th Street**

☐ no discharge ☐ has discharge ☐ other

Water has/is: ☐ soap suds ☐ oil film/sheen ☐ clear ☐ cloudy

Potential discharge source: _____

Comments: _____

Outfall #5: **North Dania Cut-off Canal, east of Anglers Avenue, and south of SW 42th Street**

☐ no discharge ☐ has discharge ☐ other

Water has/is: ☐ soap suds ☐ oil film/sheen ☐ clear ☐ cloudy

Potential discharge source: _____

Comments: _____

Outfall #6: **North of Dania Cut-off Canal, east of Interstate 95, south of SW 42th Court, and west of West Perimeter Road**

☐ no discharge ☐ has discharge ☐ other

Water has/is: ☐ soap suds ☐ oil film/sheen ☐ clear ☐ cloudy

Potential discharge source: _____

Comments: _____

Outfall #7: **North of Griffin Road, east of the Intersection of U.S. Route 1, south of Perimeter Road, and on the western of Green Belt Buffer Area**

☐ no discharge ☐ has discharge ☐ other

Water has/is: ☐ soap suds ☐ oil film/sheen ☐ clear ☐ cloudy

Potential discharge source: _____

Comments: _____

ANNUAL NON-STORMWATER DISCHARGE COMPLIANCE INSPECTION FORM

INSPECTOR CERTIFICATION

I, _____certify under penalty of law that I completed these inspections and that
print full name
I am qualified to gather and evaluate the information necessary to determine if the discharge is from stormwater runoff or from an illicit source. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Inspector's Signature: _____ Date: _____

CERTIFICATION

I, _____certify under penalty of law that this document was prepared under
print full name
my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person of persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Date: _____

Appendix J
Fuel Tank and Farm Inspection Forms

FORT LAUDERDALE HOLLYWOOD INTERNATIONAL AIRPORT
SWPPP INSPECTION REPORT

☐ **Initial Inspection** ☐ **Reinspection**

FACILITY AND INSPECTOR INFORMATION

Facility Name _____ ALP Bldg. No. _____

FDEP Facility ID _____ Phone _____

Address _____

Subtenant (s) ☐ Yes ☐ No Tenant Name _____

Facility Rep. Name _____ Phone _____

Spill Coord. Name _____ Phone _____

Inspectors Name _____ Date _____

INSPECTION SUMMARY

☐ MSGP ☐ HW License ☐ SWPPP ☐ Outside Area ☐ BMPs

Previous Year Inspection Summary

☐ MSGP ☐ HW License ☐ SWPPP ☐ Outside Area ☐ BMPs

Recommended Action

☐ Reinspection ☐ None ☐ Letter Notice ☐ Other _____

S = Satisfactory M = Marginal (needs improvement) U = Unsatisfactory N/A = Not applicable

PERMIT INFORMATION

NPDES MSGP	☐ Yes	☐ No	☐ N/A	Exp. Date _____
Subtenant covered by tenant MSGP?		☐ Yes	☐ No	☐ N/A _____
MSGP hard copy?	☐ on site	☐ Corp. Ofc.	☐ None	_____
No Exposure?	☐ Yes	☐ No	☐ N/A	_____
Haz. Material/ Tank License?	☐ Yes	☐ No	☐ N/A	Exp. Date _____
HW License copy?	☐ on site	☐ Corp. Ofc.	☐ N/A	_____

FUELING BMPs ☐ Yes ☐ No ☐ N/A

☐ *Aircraft*	*Vehicle*	*Equipment*		***Contact Information***
Performed in house?	Yes	No	N/A	**Name** _____
Subcontracted?	Yes	No	N/A	**Phone** _____
Fueling under cover?	Yes	No	N/A	_____
Spill pan used?	Yes	No	N/A	_____
Spill kit & spill kit supplies?	Yes	No	N/A	_____
Spill kit in refueling trucks?	Yes	No	N/A	_____
Proper containment?	Yes	No	N/A	_____
Cleans up spills immediately?	Yes	No	N/A	_____
Curbing around fuel pumps?	Yes	No	N/A	_____
Inspects/cleans fueling area?	Yes	No	N/A	_____
Inspects/cleans hoses/valves?	Yes	No	N/A	_____
Dry cleanup of fueling area only?	Yes	No	N/A	_____
Spill prevention/containment trng?	Yes	No	N/A	_____
Employee spill training records?	Yes	No	N/A	_____

BMPs appear sufficient to protect surface water? ☐ Yes ☐ No ☐ N/A

FORT LAUDERDALE HOLLYWOOD INTERNATIONAL AIRPORT
SWPPP INSPECTION REPORT

Facility Name _____ Date _____

BULK FUEL STORAGE INFORMATION AND BMPs ☐ Yes ☐ No ☐ N/A

No. of tanks ☐ *Aggregate Capacity* _____

Tank No.	Tank Type	Tank Product	Capacity	Condition	Comments

SW-single wall DW-double wall AG - Avgas LL-100LL J-JetA G-gasoline D-diesel O- oil U-used oil S-Good P-Poor M-needs work

SPCC PLAN COMPLIANCE INFORMATION

SPCC Plan?	☐ Yes	☐ No	☐ N/A	Date _____
SPCC Plan hard copy?	☐ on site	☐ Corp. Ofc.	☐ None	_____
Updated?	☐ Yes	☐ No	☐ N/A	_____
Inspection Records?	☐ Yes	☐ No	☐ N/A	Date _____
Training Records?	☐ Yes	☐ No	☐ N/A	Date _____

Spill containment and cleanup				***Contact Information***
Performed in house?	☐ Yes	☐ No	☐ N/A	**Name** _____
Subcontracted?	☐ Yes	☐ No	☐ N/A	**Phone** _____

Fuel Farm/Tank BMPs

Tank car un-/loading area	☐ Yes	☐ No	☐ N/A	_____
Secondary containment?	☐ Yes	☐ No	☐ N/A	_____
Spill kit present?	☐ Yes	☐ No	☐ N/A	_____
Fire extinguishers present?	☐ Yes	☐ No	☐ N/A	_____
Lock on dispensing nozzle?	☐ Yes	☐ No	☐ N/A	_____
Bollard near dispensing unit?	☐ Yes	☐ No	☐ N/A	_____
Security fence around tanks	☐ Yes	☐ No	☐ N/A	_____
Proper signage	☐ Yes	☐ No	☐ N/A	_____
_____	☐ Yes	☐ No	☐ N/A	_____

Fuel Farm/Tank Condition *S-Good P-Poor M- moderate or needs work* ☐

Piping?	☐ Good	☐ Poor	☐ Moderate	☐ N/A	_____
Hoses & nozzles?	☐ Good	☐ Poor	☐ Moderate	☐ N/A	_____
Dust caps?	☐ Good	☐ Poor	☐ Moderate	☐ N/A	_____
Bonding cables?	☐ Good	☐ Poor	☐ Moderate	☐ N/A	_____
Clamps & reels?	☐ Good	☐ Poor	☐ Moderate	☐ N/A	_____
Security fence?	☐ Good	☐ Poor	☐ Moderate	☐ N/A	_____
Signage?	☐ Good	☐ Poor	☐ Moderate	☐ N/A	_____

Inspectors Name _____ Initials _____

FORT LAUDERDALE HOLLYWOOD INTERNATIONAL AIRPORT
SWPPP INSPECTION REPORT

Facility Name _____ Date _____

ADDITIONAL COMMENTS:

Inspectors Name _____ Initials _____

Appendix K
OWS Inspection Forms

Fort Lauderdale-Hollywood International Airport

OIL WATER SEPARATOR VISUAL INSPECTION FORM

INSTRUCTIONS: Please check the boxes that apply and/or fill in the blanks for each outfall structure)

Name _____ Date _____

Time: _____ Weather: ☐ sunny ☐ clear ☐ cloudy ☐ light rain ☐ heavy rain

Inspector's Signature: _____

OWS #1 - North of terminal ramp, SE of Runway 28R and west of Perimeter Road

Water level

☐ below grate ☐ at grate ☐ over grate

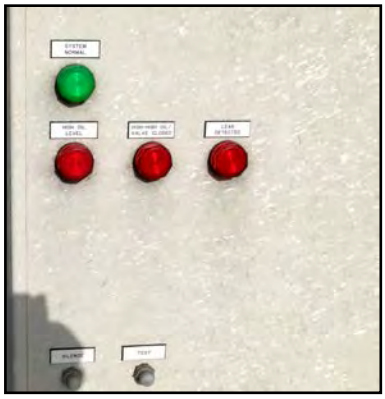
Structure has/is: ☐ no discharge ☐ discharge/flowing ☐ dry ☐ standing water ☐ overflowing

☐ no cracks ☐ cracks ☐ silted in ☐ trash

☐ obstructed with vegetation

Water has:

☐ soap suds ☐ oil film/sheen ☐ clear



☐ cloudy ☐ foam on surface ☐ algae ☐ odor _____

☐ color _____ ☐ other _____

Near/around structure: ☐ healthy/green plants ☐ dead plants ☐ no plants

Press the test button on the monitoring system

☐ test is working ☐ not working

Test is not working

☐ Notified Maintenance Supervisor _____

Print Name

Overall OWS Condition

☐ good ☐ poor & requires maintenance

Comments: _____

_____

Michael Baker INTERNATIONAL

OWS #2 - NW of Terminal 2 near Taxiway T3

Water level
☐ below grate ☐ at grate ☐ over grate

Press the test button on the monitoring system
☐ test is working ☐ not working

Structure has/is: ☐ no discharge ☐ discharge/flowing
☐ dry ☐ standing water ☐ overflowing
☐ no cracks ☐ cracks ☐ silted in ☐ trash
☐ obstructed with vegetation

Water has: ☐ soap suds ☐ oil film/sheen ☐ clear ☐ cloudy ☐ foam on surface
☐ algae ☐ odor _____ ☐ color _____ ☐ other _____

Near/around structure: ☐ healthy/green plants ☐ dead plants ☐ no plants

Overall OWS Condition
☐ good ☐ poor & requires maintenance

Take a long stick (8 feet) through the grate and measure the sludge/soil. Any resistance through the bottom indicates sludge build up. Service the OWS if the build up is 8 inches deep.

Stain on stick is _____ inches

Comments: _____

OWS #3 - Near Taxiway T5

Structure has/is:

☐ no discharge ☐ discharge/flowing ☐ dry

☐ standing water ☐ overflowing

☐ no cracks ☐ cracks ☐ silted in

☐ trash ☐ obstructed with vegetation

Water has: ☐ soap suds ☐ oil film/sheen ☐ clear

☐ cloudy ☐ foam on surface ☐ algae

☐ odor _____ ☐ color _____

☐ other _____

Near/around structure:

☐ healthy/green plants ☐ dead plants ☐ no plants

Concrete slough has:

☐ silt/sediment ☐ black staining ☐ dry

☐ flowing

Wildlife observed: ☐ fish ☐ turtles ☐ birds

☐ other _____

Take a long stick (8 feet) through the grate and measure the sludge/soil. Any resistance through the bottom indicates sludge build up. Service the OWS if the build up is 8 inches deep.

Overall OWS Condition

☐ good ☐ poor & requires maintenance

Comments: _____

_____

_____

_____

_____

OWS #5 - West of Terminal 3 near Taxiway T7

Structure has/is: ☐ no discharge ☐ discharge/flowing ☐ dry ☐ standing water ☐ overflowing ☐ no cracks ☐ cracks ☐ silted in ☐ trash ☐ obstructed with vegetation

Water has: ☐ soap suds ☐ oil film/sheen ☐ clear ☐ cloudy ☐ foam on surface ☐ algae ☐ odor _____ ☐ color _____ ☐ other _____

Near/around structure: ☐ healthy/green plants ☐ dead plants ☐ no plants

Wildlife observed: ☐ fish ☐ turtles ☐ birds ☐ Other _____

Overall OWS Condition

☐ good ☐ poor & requires maintenance

Comments: _____

_____

_____

_____

_____

_____

_____

_____

_____

FLL Oil Water Separator Inspection Form

OWS #7 – Maintenance Facility

Press the test button on the OWS monitoring system (located on building wall)

☐ test is working ☐ not working

Test is not working

☐ Notified Maintenance Supervisor _____

Print Name

Take the cover off.

☐ dry ☐ standing water ☐ standing water with oil sheet

☐ not overflowing ☐ overflowing

Overall OWS Condition

☐ good ☐ poor & requires maintenance

Comments: _____

_____

_____

_____

_____

_____

_____

_____

Appendix L
Broward County Petroleum Contamination Cleanup Criteria Ordinance

Document can be found at:
https://www2.municode.com/library/fl/broward_county/codes/code_of_ordinances?nodeId=PTIICOOR_CH27POCO_ARTXSTTA_S27-305NORE

Appendix M
Best Management Practices

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

AIRCRAFT, VEHICLE, AND EQUIPMENT FUELING

PURPOSE:
Prevent fuel spills and leaks, and reduce their impacts to stormwater.

APPROACH TO FUTURE FACILITIES AND UPGRADES:

Design of New Facilities and Existing Facility Upgrades

- ☐ Design fueling areas to prevent the run-on of stormwater and the runoff of spills by employing the following approaches:
  - o Cover the fueling area if possible.
  - o Use a perimeter drain or slope the fueling area to a dead-end sump or oil/water separator.
  - o Pave the fueling area with concrete rather than asphalt.
- ☐ If stormwater runoff from fueling areas is not collected, install an appropriately-sized oil/water separator.
- ☐ Install and maintain vapor recovery systems where required and/or appropriate.
- ☐ Existing underground fuel storage tanks should be upgraded with leak detection, spill containment, and overfill protection.
- ☐ Design facilities to include secondary containment where required and/or appropriate.

APPROACH TO EXISTING FACITILITY ACTIVITIES:

Operational Considerations

Implement the following to the maximum extent practicable.

Good Housekeeping

- ☐ Fuel pumps intended for vehicular use (not aircraft) should be posted with signs stating "No Topping Off" to prevent overflow.
- ☐ Use absorbent materials and spot cleaning for small spills; do not hose down the areas unless the storm drain is blocked and drainage is collected by vacuum truck and disposed of through a permitted connection to the sanitary sewer.
- ☐ Properly dispose of any fuel spills and leaks. Always dispose of materials in an approved manner; use an approved treatment facility through a permitted connection. Never discharge materials to a catch basin or storm drain.
- ☐ Use pigs/mats over catch basins during fueling activity.
- ☐ Manage the disposal of water that collects in fuel tanks and fueling hydrant sumps according to state and federal regulations.
- ☐ Provide curbing or posts around fuel pumps to prevent collisions from vehicles.
- ☐ Clearly label fuel drums (used, diesel, gasoline).

TARGETED ACTIVITIES

- Aircraft/Vehicle/Equipment Fueling
- Taking pre-flight fuel samples
- Apron/Floor Washdown

SIGNIFICANT MATERIALS

- Fuel

KEY APPROACHES

- Install berms or curbing around fueling areas
- Use absorbent materials and/or vacuum equipment for spills
- Install proper equipment for fuel dispensing and tank monitoring to prevent spills, leaks and overflows
- Use GATS JARS to take fuel samples; dispose of samples at collection sites; use fire-rated containers for storage of fuel samples

Physical Site Usage

- ☐ Avoid mobile fueling of equipment wherever feasible; fuel equipment at designated fueling areas.
- ☐ Store fuel drums indoors, when possible.

Structural Controls

- ☐ Cover the fueling area, if possible.
- ☐ Divert stormwater runoff away from fueling area to avoid stormwater contact with contaminated surfaces through the use of berms or curbing.
- ☐ Install gate valves at catch basins for use during fueling activity.
- ☐ Employ secondary containment or cover when transferring fuel from a tank truck to a fuel tank.
- ☐ Use double-walled tanks with overflow protection, if possible.

Equipment

- ☐ Provide appropriate monitoring for tanks containing fuel, such as:
  - o Level indicators and gauges.
  - o Overfill protection and alarms.
  - o Intertital leak detection for double-walled tanks.
  - o Routine inspection/lockout for drainage valves for tank containment areas.
- ☐ Fuel dispensing equipment should be equipped with "breakaway" hose connections that will provide emergency shut-down of flow should the fueling connection be broken through movement.
- ☐ Automatic shut-off mechanisms should be in place on fuel tankers. These valves should remain in the closed position unless manually opened during fueling.
- ☐ Use GATS JARS for collecting fuel samples, which enables clear and bright fuel to be returned to the aircraft fuel tank.

Maintenance

- ☐ Inspect, clean, and maintain sumps and oil/water separators at appropriate intervals.

Contingency Response

- ☐ Develop and implement a Spill Prevention Control and Countermeasure (SPCC) Plan or Spill Response Plan.
- ☐ Maintain a well stocked spill kit in locations where spills are likely to occur.
- ☐ Furnish adequate spill response information, equipment, and materials on all fueling vehicles.

Inspection and Training

- ☐ Inspect fueling areas and storage tanks regularly. Record all maintenance activities and inspections relating to fueling equipment and containers in a log book.
- ☐ Underground fuel storage tanks should be tested as required by federal and state laws.
- ☐ Provide spill response training to personnel to address all types of spills.

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

RELEVANT RULES AND REGULATIONS:

- Rule 62-621.300 Florida Administrative Code (FAC) – NPDES Generic Permits
- Subsection 62-770.160(1) of the Florida Administrative Code – Petroleum Contamination Clean Up Criteria
- 40 CFR 261 – Resource Conservation Act (RCRA) – hazardous wastes
- 42 CFR 103 – Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – hazardous substances
- 40 CFR 110.3 Discharge of Oil
- 40 CFR 112 Oil Pollution Prevention (SPCC OPA/Plans)
- 40 CFR 117.3 Determination of Reportable Quantities for a Hazardous Substance
- 40 CFR 122-124 NPDES Regulations for Storm Water Discharges
- 40 CFR 401 Effluent Limitation Guidelines

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

AIRCRAFT, VEHICLE, AND EQUIPMENT MAINTENANCE AREAS

PURPOSE:

Prevent or reduce the discharge of pollutants to stormwater from aircraft, vehicle, and equipment maintenance and repair, including ground vehicle and equipment painting/stripping and floor washdowns.

APPROACH TO FUTURE FACILITIES AND UPGRADES:

Design of New Facilities and Existing Facility Upgrades

- ☐ Provide covered maintenance areas when designing new facilities or upgrading existing facilities. Utilize indoor areas, lean-tos, or portable covers.
- ☐ Include appropriate stormwater quality structures (oil/water separators, sumps, first flush diversion basins, etc) in the design of outdoor maintenance areas.

APPROACH TO EXISTING FACITILITY ACTIVITIES:

Operational Considerations

Implement the following to the maximum extent practicable.

Good Housekeeping

- ☐ Use drip pans.
- ☐ Use absorbent materials at potential problem areas. Collect/remove absorbent materials from the area after use and dispose in appropriate manner.
- ☐ Drain and crush oil filters (and oil containers) before recycling or disposal. Store crushed oil filters and empty lubricant containers in a leak-proof container – cover if outdoors.
- ☐ Label storm drain inlets to indicate they are to receive no wastes.
- ☐ Drain and properly dispose of all fluids and remove batteries from salvage aircraft, vehicles, and equipment.
- ☐ Drain parts and equipment of all fluids. Store on secondary containment under cover.
- ☐ Recycle or properly dispose of grease, oil, antifreeze, brake fluid, cleaning solutions, hydraulic fluid, batteries, transmission fluid, and filters.
- ☐ Use biodegradable products and substitute materials with less hazardous properties where feasible.

Physical Site Usage

- ☐ Where feasible, move maintenance activities indoors or provide cover over work area.
- ☐ Use designated washing, steam cleaning, and degreasing areas to clean equipment.
- ☐ Store mechanical parts and equipment that may yield even small amounts of contaminants (e.g. oil or grease) under cover and away from drains.

TARGETED ACTIVITIES

- Aircraft/Vehicle/ Equipment Maintenance
- Aircraft/Vehicle/ Equipment Painting or Stripping
- Apron/Floor Washdown
- Potable Water System Cleaning

SIGNIFICANT MATERIALS

- Oil and Grease
- Vehicle Fluids
- Solvents/Cleaning Solutions
- Fuel
- Battery Acid
- Paint

KEY APPROACHES

- Conduct maintenance indoors, or in covered area
- Prevent wash water discharges to the storm drain
- Clean catch basins regularly
- Collect and properly dispose of all fluids

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

AIRCRAFT, VEHICLE, AND EQUIPMENT MAINTENANCE AREAS

Structural Controls

- ☐ Provide maintenance and cleaning areas with runoff controls that prevent discharge to storm sewers.
- ☐ Install and maintain catch basin filter inserts that assist in the removal of oil and grease, sediments and floatables.

Maintenance

- ☐ Maintain clean equipment by eliminating excessive amounts of external oil and grease buildup. Use water-based cleaning agents or non-chlorinated solvents to clean equipment.
- ☐ Regularly clean any catch basins which receive runoff from a maintenance area, especially after larger storms.
- ☐ Inspect, clean and maintain sump and oil/water separators, if necessary.

Contingency Response

- ☐ Maintain a well stocked spill kit in locations where spills are likely to occur.
- ☐ Furnish all maintenance vehicles with a spill kit and spill response procedures.

Inspection and Training

- ☐ Provide employee training for spill response and prevention, stormwater pollution prevention education, right-to-know awareness training, and hazardous materials management.
- ☐ Provide employee stormwater quality awareness training.
- ☐ Develop regular maintenance and inspection programs for oil/water separators.
- ☐ Characterize wastes collected from oil/water separators. Provide appropriate employee training.

RELEVANT RULES AND REGULATIONS:

- Rule 62-621.300 Florida Administrative Code (FAC) – NPDES Generic Permits
- Subsection 62-770.160(1) of the Florida Administrative Code – Petroleum Contamination Clean Up Criteria
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AIRCRAFT, VEHICLE, AND EQUIPMENT PAINTING AND STORAGE

PURPOSE:

Prevent or reduce discharge of pollutants to stormwater drains from aircraft, vehicle, or equipment painting activities or paint storage.

APPROACH:

Good Housekeeping

- ☐ Use efficient paint equipment to reduce the amount of over spray waste.
- ☐ Tarps, drip pans, or other spill control devices are used to prevent paints, solvents, or other materials from entering stormwater drainage.
- ☐ Paint equipment should be cleaned and maintained regularly.
- ☐ Painting is performed in ventilated areas and does not allow overspray to enter stormwater drainage.
- ☐ Sanding of vehicles, aircraft, and equipment is performed inside in a well ventilated area.
- ☐ After sanding is complete, the waste is collected and disposed of properly.
- ☐ Work areas are clean and clear of debris and grit to prevent wind from carrying dust into stormwater drainage.
- ☐ Paint, paint thinner, and solvents are recycled.
- ☐ Waste paint, paint thinner, and solvents are disposed of properly or stored in cabinets away from stormwater drainage.

Maintenance

- ☐ Use dirty solvents to clean painting equipment.

Inspection and Training

- ☐ Provide employee training for spill prevention and clean up, right-to-know awareness, hazardous materials management and stormwater pollution prevention.

TARGETED ACTIVITIES

- Aircraft / Vehicle / Equipment Painting or Stripping
- Chemical Storage

SIGNIFICANT MATERIALS

- Solvents
- Paints
- Cleaning Solutions

KEY APPROACHES

- Prevent paint waste from reaching stormwater drainage.
- Use spill control devices.
- Painting and sanding are performed in ventilated areas.
- Waste paint, paint thinner, and solvents are either stored or disposed of properly.

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AIRCRAFT, VEHICLE, AND EQUIPMENT PAINTING AND STORAGE

RELEVANT RULES AND REGULATIONS:

- Rule 62-621.300 Florida Administrative Code (FAC) – NPDES Generic Permits
- Subsection 62-770.160(1) of the Florida Administrative Code – Petroleum Contamination Clean Up Criteria
- 40 CFR 261 – Resource Conservation Act (RCRA) – hazardous wastes
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- 40 CFR 401 Effluent Limitation Guidelines

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

FIRE FIGHTING FOAM DISCHARGE

PURPOSE:
Eliminate discharges to the storm drain system associated with flushing or testing of aircraft fire fighting foam (AFFF) systems.

APPROACH TO FUTURE FACILITIES AND UPGRADES:
Design of New Facilities and Existing Facility Upgrades

- ☐ Design testing facility with the following characteristics:
  - o Located away form storm drain inlets, drainage facilities, or water bodies.
  - o Paved with concrete or asphalt, or stabilized with an aggregate base.
  - o Berm to contain foam and to prevent run-on.
  - o Configure discharge area with a sump to allow collection and disposal of foam.
- ☐ Discharge foam waste to a sanitary sewer (industrial waste water permitting may be required). Foam waste shall not be discharged to storm drains or water bodies.

APPROACH TO EXISTING FACITILITY ACTIVITIES:
Operational Considerations

- ☐ Perform fire fighting foam testing operations only in designated areas.
- ☐ Properly dispose of, or recycle, foam discharge.
- ☐ Conduct berm repair and patching.
- ☐ Regularly inspect, clean, and maintain equipment and testing facility.

Contingency Response

- ☐ Maintain a well stocked spill kit in locations near area of activity.

Inspection and Training

- ☐ Regularly inspect testing facility.
- ☐ Provide employee training for spill response and prevention, stormwater pollution prevention education, right-to-know awareness training, and hazardous materials management.

TARGETED ACTIVITIES
- ➢ Fire Fighting Equipment Testing and Flushing

SIGNIFICANT MATERIALS
- ➢ Aircraft Fire Fighting Foam (AFFF)

KEY APPROACHES
- ➢ Perform testing operations in designated areas
- ➢ Properly dispose of, or recycle, foam discharge
- ➢ Service sump regularly

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FIRE FIGHTING FOAM DISCHARGE

RELEVANT RULES AND REGULATIONS:

- Rule 62-621.300 Florida Administrative Code (FAC) – NPDES Generic Permits
- Subsection 62-770.160(1) of the Florida Administrative Code – Petroleum Contamination Clean Up Criteria
- 40 CFR 261 – Resource Conservation Act (RCRA) – hazardous wastes
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FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

MARINA AND BOATYARD MAINTENANCE

PURPOSE:

Prevent or reduce the discharge of pollutants to stormwater from marina/boat wash-down and maintenance operations.

APPROACH TO FUTURE FACILITIES AND UPGRADES:

Design of New Facilities and Existing Facility Upgrades

- ☐ Install oil/grit separators to capture petroleum spills and coarse sediment. Sweep routinely around storm drains to keep debris out.
- ☐ Incorporate appropriate waste receiving facilities for maintenance and washing equipment.
- ☐ Incorporate oil/water separators or other water quality devices into project designs.
- ☐ Pressure washing pads are cleaned daily and/or immediately after use to prevent organic material and paint chips from entering the stormwater systems.
- ☐ Build a wash rack with berms to minimize run-on to other areas.

APPROACH TO EXISTING FACITILITY ACTIVITIES:

Operational Considerations

- ☐ Collect and discharge wash water to the sanitary sewer system through a permitted connection.
- ☐ Use designated and approved discharge facilities to dispose of waste derived from apron/ramp cleaning.
- ☐ Perform boat repair and maintenance work inside a building or under a covered area, if possible.
- ☐ Use tarps, plastic sheeting or petroleum absorbent pads to catch any leaks which might occur during service.
- ☐ Conduct berm repair and patching.
- ☐ Zincs, stainless steel, aluminum, brass, bronze and other metals should be stored in a container and recycled.

Contingency Response

- ☐ Maintain a well stocked spill kit in locations where spills are likely to occur.

TARGETED ACTIVITIES

- Boat Repair and Maintenance
- Vessel Washing
- Dry Sanding of Vessels

SIGNIFICANT MATERIALS

- Oil and Grease
- Solvents/ Cleaning Solutions
- Fuel
- Aircraft Fire Fighting Foam (AFFF)
- Sediment
- Floatables

KEY APPROACHES

- Repair or replace any leaking connections, valves, pipes, and hoses on vessels while inside a building or covered area.
- Use dustless sanding techniques
- Stationary skids for fueling watercrafts.

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MARINA AND BOATYARD MAINTENANCE

Inspection and Training

- ☐ Provide employee training for spill response and prevention, stormwater pollution prevention education, right-to-know awareness training, and hazardous materials management.
- ☐ Develop regular maintenance and inspection programs for oil/water separators.
- ☐ Characterize wastes collected from oil/water separators.
- ☐ Dispose of wastes properly and provide appropriate employee training.

RELEVANT RULES AND REGULATIONS:

- Rule 62-621.300 Florida Administrative Code (FAC) – NPDES Generic Permits
- Subsection 62-770.160(1) of the Florida Administrative Code – Petroleum Contamination Clean Up Criteria
- 40 CFR 261 – Resource Conservation Act (RCRA) – hazardous wastes
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AIRCRAFT, VEHICLE, AND EQUIPMENT WASHING CLEANING AND

PURPOSE:

Prevent or reduce the discharge of pollutants to stormwater drains from aircraft, vehicle, and equipment cleaning activities.

APPROACH TO FUTURE FACILITIES AND UPGRADES:

Design of New Facilities and Existing Facility Upgrades

- ☐ Use off-site commercial washing where feasible.
- ☐ Evaluate the need for incorporating a wash water recycling system into the project design.
- ☐ Outdoor washing operations should have the following design characteristics:
  - o Paved with portland cement concrete (PCC).
  - o Bermed and/or covered to prevent contact with stormwater.
  - o Sloped to facilitate wash water collection.
  - o Wash water should be collected in a dead-end sump for removal or discharged to the sanitary sewer through a permitted connection.
  - o Discharge piping serving uncovered wash areas should have a positive shut-off valve that allows switching between the storm drain and the sanitary sewer.
  - o Wash areas should be clearly identified with appropriate signage.
  - o Equipped with an oil/water separator designed to operate under stormwater runoff conditions to treat stormwater volumes and flow rates. (Regulatory agency approvals are required.)

APPROACH TO EXISTING FACITILITY ACTIVITIES:

Operational Considerations

Implement the following to the maximum extent practicable.

Good Housekeeping

- ☐ Use "dry" washing and surface preparation techniques when possible. Consider dry washing as an option regardless of aircraft size. Remove all materials (i.e., drippings and residue) using vacuum methods. Dispose of properly.
- ☐ Provide secondary containment, and cover if possible, for containers of washing and steam cleaning additives.
- ☐ Use pigs/mats to control the discharge of wash water.
- ☐ Use biodegradable phosphate-free detergents.
- ☐ Keep wash area clean and free of waste.
- ☐ Include proper signage to prohibit the discharge of waste oils into the drains.
- ☐ Collect stormwater runoff from cleaning area and provide treatment or recycling.

TARGETED ACTIVITIES

- ➢ Aircraft/Vehicle/Equipment Painting or Stripping
- ➢ Aircraft/Vehicle/Equipment Washing or Cleaning

SIGNIFICANT MATERIALS

- ➢ Oil and Grease
- ➢ Solvent
- ➢ Vehicle Fluids
- ➢ Cleaning Solutions

KEY APPROACHES

- ➢ Use designated area
- ➢ Use dry washing techniques
- ➢ Recycle wash water or discharge appropriately
- ➢ Cover catch basins
- ➢ Provide training

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AIRCRAFT, VEHICLE, AND EQUIPMENT WASHING CLEANING AND

- ☐ Keep degreasing activities in a fully enclosed area, if possible, and located away from storm drains.
- ☐ Properly dispose of cleaning/degreasing waste.

Physical Site Usage

- ☐ Use off-site commercial washing and steam cleaning where feasible.
- ☐ Use designated wash areas that are covered and/or bermed to prevent contamination of stormwater by contact with wastes.
- ☐ Perform all cleaning operations indoors, when possible.

Structural Controls

- ☐ Gate valves at catch basins will prevent discharge to the storm drainage system during washing activities by facilitating the collection of wash water.
- ☐ Filter and recycle wash water when possible.

Maintenance

- ☐ Patch and repair berms and PCC to maintain contaminant system.
- ☐ Inspect, clean, and maintain sumps, oil/water separators, and on-site treatment and recycling units.

Management

- ☐ File a Wash Plan for approval by the Aviation Department prior to commencing wet washing activities in any area outside designated wash rack.

Contingency Response

- ☐ Maintain a well stocked spill kit in locations where spills of cleaning chemicals are likely to occur.

Inspection and Training

- ☐ Provide employee training for spill response and prevention, stormwater pollution prevention education, right-to-know awareness training, and hazardous materials management.
- ☐ Develop regular maintenance and inspection programs.
- ☐ Characterize wastes derived from oil/water separators. Provide appropriate employee training.

RELEVANT RULES AND REGULATIONS:

- Rule 62-621.300 Florida Administrative Code (FAC) – NPDES Generic Permits
- Subsection 62-770.160(1) of the Florida Administrative Code – Petroleum Contamination Clean Up Criteria
- 40 CFR 261 – Resource Conservation Act (RCRA) – hazardous wastes
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FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

LAVATORY WASTE

PURPOSE:

Eliminate discharges to the storm drain system associated with ground servicing of aircraft lavatory facilities. The sanitary sewage and associated rinse waters producing during the servicing of aircraft lavatory facilities must be discharged to a wastewater treatment facility under appropriate permitting, Trucks or trailers equipped with bulk storage tanks are typically used to service lavatory facilities. Non-stormwater discharges and residuals associated with servicing these facilities can be classified as follows:

- ☐ Discharges and residuals associated with diluting and mixing the surfactants and disinfectants used for servicing lavatory facilities.
- ☐ Discharges and residuals associated with transferring materials from the aircraft.
- ☐ Discharges and residuals associated with transporting and disposing materials to the sanitary sewer system.

APPROACH TO FUTURE FACILITIES AND UPGRADES:

Design of New Facilities and Existing Facility Upgrades

- ☐ If possible, design triturator facilities to be covered, with low roll-over type berming.
- ☐ Include a source of water at the triturator for clean up of lavatory service equipment.
- ☐ Coordinate permitting of the triturator sanitary sewer connection through the local stormwater and sanitary sewer agencies.
- ☐ Triturator facilities should not be located near storm drains.

APPROACH TO EXISTING FACITILITY ACTIVITIES:

Operational Considerations

- ☐ Do not discharge lavatory waste to sanitary sewer connections other than triturator facilities. Other industrial-type connections may be equipped with bypass gates, which, if improperly maintained or defective, may discharge to the stormwater collection system.
- ☐ Drain the aircraft connecting hose as completely as possible into the storage tank after servicing an aircraft. Properly secure all hoses, valves, and equipment when transporting waste to eliminate leakage and spills.
- ☐ Use only surfactants and disinfectants approved for discharge to the sanitary sewer system. Do not discharge or rinse other unapproved chemicals or materials into the triturator facility.
- ☐ If possible, perform surfactant/disinfectant mixing and transfers in the triturator area or under cover. This will allow the rinsing of minor spills and splashes to enter the sanitary sewer system.
- ☐ Do not perform lavatory truck cleanout/backflushing at any location other than triturator facilities.
- ☐ Utilize buckets or pans to capture drippage from aircraft lavatory access fittings. Immediately dump the drippage into the bulk storage tank on the service cart or truck.

TARGETED ACTIVITIES

- Aircraft Lavatory Service
- Lavatory Truck Cleanout/Backflushing

SIGNIFICANT MATERIALS

- Lavatory Chemicals
- Lavatory Waste
- Lavatory Truck Wash Water

KEY APPROACHES

- Do not discharge lavatory waste to sanitary sewer connections other than triturator facilities
- Utilize buckets or pans to capture drippage from aircraft lavatory access fittings
- Do not perform lavatory truck cleanout or backflushing at any location other than triturator facilities
- Carry absorbent and other containment equipment on the lavatory service equipment

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LAVATORY WASTE

- ☐ Carefully handle chemicals and chemical concentrates. Immediately collect dry chemicals or absorb liquid chemicals for proper disposal. Do not hose down spills unless the discharge enters the sanitary sewer system through a permitted connection (triturator facility).
- ☐ Practice good housekeeping techniques at the triturator facility. Immediately clean spills of wastes and chemicals.

Contingency Response

- ☐ Carry absorbent and other containment equipment on the lavatory service equipment.
- ☐ Maintain a well stocked spill kit in locations where spills are likely to occur.

Inspection and Training

- ☐ Perform regular inspections of the hose and fittings used for transferring lavatory waste. Keep the equipment in good working order. Replace worn equipment before leaks develop. Notify appropriate ground service personnel if it is noticed that the aircraft lavatory fittings require maintenance.
- ☐ Provide employee training for spill response and prevention, stormwater pollution prevention education, right-to-know awareness training, and hazardous materials management.

RELEVANT RULES AND REGULATIONS:

- Rule 62-621.300 Florida Administrative Code (FAC) – NPDES Generic Permits
- Subsection 62-770.160(1) of the Florida Administrative Code – Petroleum Contamination Clean Up Criteria
- 40 CFR 261 – Resource Conservation Act (RCRA) – hazardous wastes
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NON-STORMWATER DISCHARGES

PURPOSE:

***Existing discharges**:* Eliminate non-stormwater discharges to the stormwater collection system. Non-stormwater discharges can be classified as follows: 1) *Activity-based* (subtle), and 2) *Overt* (hard pipe connection). Activity-based non-stormwater discharges may include: wash water, and spillage. Overt non-stormwater discharges may include: process wastewater, treated cooling water, and sanitary wastewater.

Prevention of illicit connections: Prevent improper physical connections to the storm drain system from sanitary sewers, floor drains, industrial process discharge lines, and wash racks through education, developing project approval conditions, and performing both construction phase and post-construction inspections.

GENERAL APPROACH:

Identification of <u>Activity-Based</u> (Subtle) Discharges:

The following techniques may be used to identify activity-based non-stormwater discharges to the stormwater collection system:

- ☐ Perform frequent activity inspections to identify non-stormwater discharges – stagger inspection times to cover all work periods.
- ☐ Perform visual inspections of discharge points to the storm drain system – observe uncharacteristic volumes, colors, turbidity, odors, deposition, staining, floatables, and foaming characteristics of any flow.

APPROACH TO FUTURE FACILITIES AND UPGRADES:

Design of New Facilities and Existing Facility Upgrades

- ☐ Perform inspections during the design review and project construction phases to ensure drainage, wastewater, and water supply connections are correct (no cross connections or illicit hookups).
- ☐ Develop a set of as-built prints for all projects. Keep a set of the prints at the facility.
- ☐ Design projects to include adequate waste repositories at locations near waste origin points.
- ☐ Provide adequate and appropriate area for functions such as steam cleaning, degreasing, painting, mechanical maintenance, chemical/fuel storage and delivery, material handling, waste handling and storage, lavatory service, and food preparation.

TARGETED ACTIVITIES

- All activities with potential to impact stormwater

SIGNIFICANT MATERIALS

- Oil and Grease
- Antifreeze
- Fuel
- Solvent/Cleaning Solutions
- Battery Acid
- Pesticides/Herbicides/Fertilizers
- Paint
- Aircraft Fire Fighting Foam (ARFFF)
- Scrap Metal and Parts
- Garbage and Hazardous Wastes
- Sediment
- Landscape Waste
- Floatables
- Lavatory Chemicals and Waste
- Potable Water System Cleaning Chemicals
- Rubber Particles

KEY APPROACHES

- Perform inspections and enforcement
- Provide training for employees
- Promote education of vendors/public

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NON-STORMWATER DISCHARGES

APPROACH TO EXISTING FACITILITY ACTIVITIES:

Operational Considerations

- ☐ Use "dry" cleaning and surface preparation techniques where feasible.
- ☐ Limit the availability of outdoor water supplies (hose bibs).
- ☐ Post signs at outdoor water sources stating the appropriate uses and discouraging uses that would introduce pollutants to the storm drain system/receiving waters.

Contingency Response

- ☐ Develop and implement a Spill Prevention Control and Countermeasure (SPCC) Plan.
- ☐ Maintain a well stocked spill kit in locations where spills are likely to occur.

Inspection and Training

- ☐ Inspect waste containers frequently for leaks and proper closure seal.
- ☐ Develop employee training programs which emphasize the proper disposal procedures for operations-derived wastes.
- ☐ Provide employee training for spill response and prevention, stormwater pollution prevention education, right-to-know awareness training, and hazardous materials management.

RELEVANT RULES AND REGULATIONS:

- ➢ Rule 62-621.300 Florida Administrative Code (FAC) – NPDES Generic Permits
- ➢ Subsection 62-770.160(1) of the Florida Administrative Code – Petroleum Contamination Clean Up Criteria
- ➢ 40 CFR 261 – Resource Conservation Act (RCRA) – hazardous wastes
- ➢ 42 CFR 103 – Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – hazardous substances
- ➢ 40 CFR 110.3 Discharge of Oil
- ➢ 40 CFR 112 Oil Pollution Prevention (SPCC/OPA Plans)
- ➢ 40 CFR 117.3 Determination of Reportable Quantities for a Hazardous Substance
- ➢ 40 CFR 122-124 NPDES Regulations for Storm Water Discharges
- ➢ 40 CFR 401 Effluent Limitation Guidelines

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

OUTDOOR SIGNIFICANT MATERIALS STORAGE

PURPOSE:

Prevent or reduce the discharge of pollutants to stormwater from outdoor significant materials.

APPROACH TO FUTURE FACILITIES AND UPGRADES:

Design of New Facilities and Existing Facility Upgrades

- ☐ Require the use of appropriate water quality control structures for fuel, waste, and chemical storage areas. Develop appropriate minimum performance standards for these water quality control structures and implement a reporting program to monitor the performance and maintenance of these structures.
- ☐ Chemical, fuel, and oil dispensing (non-aircraft) sites, and waste collection areas should be sloped to contain releases and covered, if possible.
- ☐ Develop standardized guidelines for the management of stormwater, which collects in secondary containment areas.

APPROACH TO EXISTING FACITILITY ACTIVITIES:

Operational Considerations

Good Housekeeping

- ☐ Avoid dispensing from drums positioned horizontally in cradles. Dispensing materials from upright drums equipped with hand pumps is preferred. Always use secondary containment and self closing spigots if dispensing from horizontally positioned drums.
- ☐ Store drums and containers on spill containment pallets or other structures to keep the container out of contact with stormwater.
- ☐ Discharge collected stormwater from secondary containment areas according to guidelines developed by the federal government and applicable state and local regulations.
- ☐ Store all materials in their original containers or containers approved for that use. Ensure that all containers are appropriately sealed.
- ☐ Store empty containers in fully enclosed areas, under cover, or move them off-site.
- ☐ Protect all significant materials from rainfall, run-on, run-off, and wind dispersal to the maximum extent practicable. Viable options are:
    - o Store material in a fully enclosed area.
    - o Cover an outdoor storage area with a roof or awning.
    - o Cover the material with a temporary covering made of polyethylene, polypropylene, or hypalon.
    - o Minimize stormwater run-on by enclosing the area, building a berm around the area, storing indoors, or completely cover the stored material.
- ☐ Properly label all chemical containers with information, including their contents, hazards, spill response and first aid procedures, manufacturer's name and address, and storage requirements. Maintain copies of MSDS on file for any materials stored and/or handled by the applicator.

TARGETED ACTIVITIES

- ➢ Aircraft/Vehicle Equipment Fueling
- ➢ Aircraft/Vehicle Equipment Maintenance
- ➢ Aircraft Lavatory Service
- ➢ Aircraft/Vehicle Equipment Washing or Cleaning
- ➢ Fuel/Chemical Storage
- ➢ Equipment Storage

SIGNIFICANT MATERIALS

- ➢ Fuel
- ➢ Solvent
- ➢ Cleaning Solutions
- ➢ Liquid Wastes
- ➢ Lavatory Chemicals/Waste

KEY APPROACHES

- ➢ Store materials in a covered or fully enclosed area
- ➢ Provide a secondary contaminant
- ➢ Implement an SPCC, if requires
- ➢ Perform and document periodic inspections

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

OUTDOOR SIGNIFICANT MATERIALS STORAGE

☐ Maintain a spill response plan near the material or waste storage area.

Physical Site Usage

☐ Reduce the quantities of material and waste stored outside to the minimum volume required based on variables such as release potential, usage, and shelf life.
☐ Make use of existing overhangs as covered storage areas.

Structural Controls

☐ Provide berms or secondarily contain storage tankers, ASTs, drums, and containers.
☐ Install and maintain catch basin filter inserts.

Maintenance

☐ Inspect, clean, and maintain sumps, if applicable.

Contingency Response

☐ Develop and implement a Spill Prevention Control and Countermeasure (SPCC) Plan.
☐ Maintain a well stocked spill kit where spills are likely to occur.
☐ Post signs at all chemical storage locations in clearly visible locations noting the materials stored, emergency contacts, and spill cleanup procedures.

Inspection and Training

☐ Provide employee training for spill response and prevention, stormwater pollution prevention education, right-to-know awareness training, and hazardous materials management.
☐ Perform and document periodic inspections in a log book. Inspection items should include the following:
  - Check containers for external corrosion and structural failure.
  - Check for spills and overfills due to operator failure.
  - Check for failure of piping system (pipes, pumps, flanges, couplings, hoses, and valves).
  - Check for leaks or spills during pumping of liquids or gases.
  - Visually inspect new tanks or containers for loose fittings, poor welds, and improper or poorly fitted gaskets.
  - Inspect tank foundations and storage area coatings

RELEVANT RULES AND REGULATIONS:

- Rule 62-621.300 Florida Administrative Code (FAC) – NPDES Generic Permits
- Subsection 62-770.160(1) of the Florida Administrative Code – Petroleum Contamination Clean Up Criteria
- 40 CFR 261 – Resource Conservation Act (RCRA) – hazardous wastes
- 42 CFR 103 – Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – hazardous substances
- 40 CFR 110.3 Discharge of Oil
- 40 CFR 112 Oil Pollution Prevention (SPCC/OPA Plans)
- 40 CFR 117.3 Determination of Reportable Quantities for a Hazardous Substance
- 40 CFR 122-124 NPDES Regulations for Storm Water Discharges
- 40 CFR 401 Effluent Limitation Guidelines
- 40 CFR 260 et. seq. Identification and Listing of Hazardous Waste

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

OIL/WATER SEPARATOR

PURPOSE:

Oil/water separators are baffled chambers designated to remove petroleum compounds and greases from stormwater. Oil/water separators also remove floatable debris and settled solids (sediment).

APPROACH TO FUTURE FACILITIES AND UPGRADES:

Design of New Facilities and Existing Facility Upgrades

Oil/water separators are typically used in areas where the concentrations of petroleum hydrocarbons, floatables, or sediment may be abnormally high and source control techniques are not very effective. There are two types of oil/water separators: the American Petroleum Institute (API) separator and the coalescing plate separator (CPS). Design, sizing, and placement of oil/water separators are dependent on several factors including: tributary area, type of activity, pollutant type and concentration, and water temperature.

APPROACH TO EXISTING FACITILITY ACTIVITIES:

Operational Considerations

- ☐ Separators must be inspected and cleaned frequently of accumulated oil, grease, floating debris, and sediments to be effective stormwater quality controls.
- ☐ Oil absorbent pads are to be replaced as needed but will always be replaced prior to the wet season.
- ☐ The effluent shutoff valve will be closed during cleanup operations.
- ☐ Any standing water removed during the cleanup operation must be disposed of in accordance with federal, state, and local regulatory requirements.
- ☐ Any standing water removed during the cleanup operation must be replaced with clean water to prevent oil carry-over through the outlet.

Contingency Response

- ☐ Maintain a well stocked spill kit in locations where spills are likely to occur.

Inspection and Training

- ☐ Provide employee training for spill response and prevention, stormwater pollution prevention education, right-to-know awareness training, and hazardous materials management.
- ☐ Perform and document in a log book all inspections and maintenance operations.
- ☐ Develop a written operating, sampling, and reporting procedure under local stormwater authority guidelines. Train appropriate employees to implement these procedures.

TARGETED ACTIVITIES

- Aircraft/Vehicle/Equipment Fueling
- Aircraft/Vehicle/Equipment Washing
- Fuel/Chemical Storage
- Installing, Cleaning, and Maintaining Oil/Water Separators

SIGNIFICANT MATERIALS

- Oil and Grease
- Fuel
- Floatables
- Sediment

KEY APPROACHES

- Frequently inspect and clean separators
- Replace absorbent pads as needed

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OIL/WATER SEPARATOR

RELEVANT RULES AND REGULATIONS:

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- 40 CFR 261 – Resource Conservation Act (RCRA) – hazardous wastes
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- 40 CFR 110.3 Discharge of Oil
- 40 CFR 112 Oil Pollution Prevention (SPCC/OPA Plans)
- 40 CFR 117.3 Determination of Reportable Quantities for a Hazardous Substance
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- 40 CFR 401 Effluent Limitation Guidelines

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

OUTDOOR WASHDOWN/SWEEPING

PURPOSE:

Prevent or reduce the discharge of pollutants to stormwater from indoor and outdoor washdown and sweeping operations.

APPROACH TO FUTURE FACILITIES AND UPGRADES:

Design of New Facilities and Existing Facility Upgrades

- ☐ Consider contracting apron washing/sweeping services. Using appropriate contractors will decrease waste handling responsibilities.
- ☐ Incorporate appropriate waste receiving facilities for sweepers and washing equipment.
- ☐ Incorporate oil/water separators or other water quality devices into project designs.
- ☐ Consider incorporating gate valves in areas where apron washing will occur. The gate valves will direct wash water to the sanitary sewer in dry weather and will direct stormwater to the storm drain system during wet weather.
- ☐ Employ berms to minimize run-on to other areas.

APPROACH TO EXISTING FACITILITY ACTIVITIES:

Operational Considerations

- ☐ Collect and discharge wash water to the sanitary sewer system through a permitted connection.
- ☐ Use designated and approved discharge facilities to dispose of waste derived from apron/ramp cleaning.
- ☐ Use “dry” sweeping techniques where feasible.
- ☐ Dispose of sweepings in an appropriate manner.
- ☐ Conduct berm repair and patching.
- ☐ Inspect, clean, and maintain sumps and oil/water separators.

Contingency Response

- ☐ Maintain a well stocked spill kit in locations where spills are likely to occur.

Inspection and Training

- ☐ Provide employee training for spill response and prevention, stormwater pollution prevention education, right-to-know awareness training, and hazardous materials management.
- ☐ Develop regular maintenance and inspection programs for oil/water separators.
- ☐ Characterize wastes collected from oil/water separators. Dispose of wastes properly and provide appropriate employee training.

TARGETED ACTIVITIES

- Apron Washing
- Ramp Scrubbing
- Outdoor/Power Washing
- Floor Washdown

SIGNIFICANT MATERIALS

- Oil and Grease
- Solvents/ Cleaning Solutions
- Fuel
- Aircraft Fire Fighting Foam (AFFF)
- Sediment
- Floatables

KEY APPROACHES

- Collect and discharge wash water to the sewer
- Use “dry” sweeping techniques
- Dispose of sweepings

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OUTDOOR WASHDOWN/SWEEPING

RELEVANT RULES AND REGULATIONS:

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- Subsection 62-770.160(1) of the Florida Administrative Code – Petroleum Contamination Clean Up Criteria
- 40 CFR 261 – Resource Conservation Act (RCRA) – hazardous wastes
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- 40 CFR 110.3 Discharge of Oil
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- 40 CFR 401 Effluent Limitation Guidelines

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

OUTDOOR WASTE AND MATERIAL HANDLING

PURPOSE:

Prevent or reduce the discharge of pollutants to stormwater from handling potential pollutants outside enclosed buildings.

APPROACH TO FUTURE FACILITIES AND UPGRADES:

Design of New Facilities and Existing Facility Upgrades

- ☐ Design outdoor waste and material handling areas to prevent stormwater run-on through the use of the following practices:
  - o Grading or berming
  - o Positioning roof downspout to direct stormwater away from outdoor waste and material handling areas
- ☐ Design facilities so that materials which may contribute pollutants to stormwater may be stored indoors or under cover.
- ☐ Incorporate oil/water separators into exposed loading dock designs.

APPROACH TO EXISTING FACITILITY ACTIVITIES:

Operational Considerations

Good Housekeeping

- ☐ Use seals or door skirts between vehicles and structures to prevent material exposure to rainfall.
- ☐ Contain and adsorb leaks during transfers and spillage from hose disconnections; dispose of residue properly.
- ☐ Avoid transferring or using materials in close proximity to storm drain inlets. Cover nearby storm drain inlets during material transfer or use.
- ☐ Use drip pans to contain small releases and promptly clean and remove drip pans when not in use.
- ☐ Transfer and use liquids only in paved areas.
- ☐ Provide contractors and haulers with copies of pertinent BMPs. Require contractor/hauler adherence to BMP specifications.
- ☐ Consider contracting maintenance operations for material handling equipment. Designate an appropriate area for contractors to perform maintenance activities. Verify proper waste disposal practices of contractors.

Physical Site Usage

- ☐ Protect all loading/unloading activities and material use areas from rainfall, run-on and wind dispersal to the maximum extent practicable. Viable options include conducting activities under existing cover, or moving indoors.
- ☐ Position tank trucks or delivery vehicles so that possible spills or leaks can be contained.
- ☐ Provide appropriate spill containments, hand pumps, and other devices to minimize releases during material transfer.

TARGETED ACTIVITIES

- ➢ Aircraft/Vehicle/Equipment Deicing
- ➢ Aircraft/Vehicle/Equipment Fueling
- ➢ Aircraft/Vehicle/Equipment Maintenance
- ➢ Aircraft Lavatory Service
- ➢ Cargo Handling
- ➢ Fuel/Chemical Storage
- ➢ Pesticide/Herbicide Usage
- ➢ Runway Deicing

SIGNIFICANT MATERIALS

- ➢ Fuel
- ➢ Pesticides and Herbicides
- ➢ Oil and Grease
- ➢ Solvents/Cleaning Solutions
- ➢ Battery Acid
- ➢ Lavatory Chemicals and Waste
- ➢ Deicing Chemicals

KEY APPROACHES

- ➢ Conduct loading/unloading under cover
- ➢ Transfer materials in paved areas, away from storm drain inlets
- ➢ Contain and absorb releases
- ➢ Maintain readily accessible spill kits
- ➢ Immediately place waste and materials in proper storage/disposal location

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

OUTDOOR WASTE AND MATERIAL HANDLING

Structural Controls

- ☐ Cover loading/unloading areas/docks and material use areas to reduce exposure of materials to rain. Construct roofing structures over material handling areas, or move indoors.
- ☐ Investigate feasibility of relocating storm drain inlets away from fuel hydrants or fuel dispensing and storage areas.

Maintenance

- ☐ Inspect loading/unloading areas and material use areas for repair and patching.
- ☐ Inspect, clean, and maintain oil/water separators.

Contingency Response

- ☐ Maintain a well stocked spill kit in locations where spills are likely to occur.
- ☐ Include spill kits on appropriate material handling vehicles and equipment.

Inspection and Training

- ☐ Conduct regular inspections and make repairs s necessary.
- ☐ Check loading/unloading equipment (valves, pumps, flanges, and connections) regularly for leaks.
- ☐ Develop and implement a written operations plan which describes loading/unloading procedures.
- ☐ Provide proper training for material handling equipment operators.
- ☐ Provide employee training for spill response and prevention, stormwater pollution prevention education, right-to-know awareness training, and hazardous materials management.

RELEVANT RULES AND REGULATIONS:

- Rule 62-621.300 Florida Administrative Code (FAC) – NPDES Generic Permits
- Subsection 62-770.160(1) of the Florida Administrative Code – Petroleum Contamination Clean Up Criteria
- 40 CFR 261 – Resource Conservation Act (RCRA) – hazardous wastes
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- 40 CFR 401 Effluent Limitation Guidelines

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

PARKING AREAS

PURPOSE:
Prevent or reduce discharge of pollutants to stormwater drains from aircraft, vehicle, and equipment parking areas.

APPROACH TO FUTURE FACILITIES AND UPGRADES:

- ☐ Install an oil removal system such as oil water separator, catch basin filter, or equivalent in high use areas.
- ☐ Apply only as much sealer as required to completely cover the paved area. Remove any excess and store or dispose of appropriately.

APPROACH TO EXISTING FACITILITY ACTIVITIES:

- ☐ Collect all waste, liquid and solid, for appropriate disposal.
- ☐ Schedule maintenance, such as seal coating and repair work as needed.
- ☐ Protect storm drains, gutters, or off-site migration points from any liquid or solid waste during maintenance or repair work.
- ☐ Regularly clean parking lots to remove dirt, accumulations of grease and oil, general debris, and trash.
- ☐ If a wet cleaning method is used, ensure that the storm drains or off-site migration points are protected.

Contingency Response

- ☐ Keep spill response equipment for hydrocarbon clean up on-site. Promptly clean up any spill of liquid or solid wastes. Do not hose down an area to clean or handle a spill, unless the liquid will be completely contained.

Inspection and Training

- ☐ Inspect all outfall drainage structures for illicit discharges.
- ☐ Provide employee training for spill prevention and clean up, right-to-know awareness, hazardous materials management, and stormwater pollution prevention.

TARGETED ACTIVITIES

- ➢ Aircraft / Vehicle / Equipment Parking

SIGNIFICANT MATERIALS

- ➢ Oil and grease
- ➢ Waste

KEY APPROACHES

- ➢ Regularly clean parking areas.
- ➢ Properly dispose of all liquid and solid waste.
- ➢ Protect storm drains, gutters, or off-site migration points from any liquid or solid waste.

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PARKING AREAS

RELEVANT RULES AND REGULATIONS:

- Rule 62-621.300 Florida Administrative Code (FAC) – NPDES Generic Permits
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FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

PEST MANAGEMENT AND LANDSCAPING MAINTENANCE

PURPOSE:

Prevent or reduce the discharge of pollutants to stormwater from pest management and landscaping maintenance by minimizing the use of pesticides and fertilizers, keeping debris form entering storm drains, and maintaining the stormwater collection system.

APPROACH TO FUTURE FACILITIES AND UPGRADES:

Design of New Facilities and Existing Facility Upgrades

- ☐ Incorporate areas of landscape into project design to reduce runoff discharge from a site.
- ☐ Incorporate design considerations such as leaving or planting native vegetation to reduce irrigation, fertilizer, and pesticide needs.
- ☐ Select landscaping plants that require little maintenance and/or pest control.
- ☐ Incorporate stormwater detention/retention to reduce peak runoff flows and for water quality control.

APPROACH TO EXISTING FACITILITY ACTIVITIES:

Operational Considerations

Good Housekeeping

- ☐ Collect outdoor washdown water and properly dispose of it through a permitted connection to the sanity sewer.
- ☐ Clean any catch basins that receive runoff from maintenance areas on a regular basis.
- ☐ Minimize the use of pesticides, herbicides, and fertilizers. Use according to directions. Seek less harmful/toxic products to replace ones currently used.
- ☐ Utilize integrated pest management where appropriate.
- ☐ Properly dispose of landscape waste, wash water, sweepings, and sediments.
- ☐ Regularly clean paved surfaces that are exposed to industrial activity. Use "dry" cleaning techniques, such as sweeping, whenever possible.

Structural Controls

- ☐ Provide landscaped areas where erosion is becoming a problem.

Contingency Response

- ☐ Maintain a well stocked spill kit in locations where spills are likely to occur.

Inspection and Training

- ☐ Provide employee training for spill response and prevention, stormwater pollution prevention education, right-to-know awareness training, and hazardous materials management.

TARGETED ACTIVITIES

- ➢ Building Maintenance
- ➢ Grounds Maintenance
- ➢ Pesticide/Herbicide Use
- ➢ Outdoor Washdown

SIGNIFICANT MATERIALS

- ➢ Pesticides/Herbicides/Fertilizers
- ➢ Oil and Grease
- ➢ Sediment
- ➢ Landscape Waste
- ➢ Washdown Waste
- ➢ Building Maintenance Materials

KEY APPROACHES

- ➢ Keep paved surfaces cleaned and swept
- ➢ Clean catch basins regularly using vacuum trucks
- ➢ Manage use of pesticides/herbicides/fertilizers

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

PEST MANAGEMENT AND LANDSCAPING MAINTENANCE

RELEVANT RULES AND REGULATIONS:

- Rule 62-621.300 Florida Administrative Code (FAC) – NPDES Generic Permits
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FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

RUNWAY RUBBER REMOVAL

PURPOSE:
Eliminate discharges to the storm drain of particulate rubber generated by runway rubber removal activities.

APPROACH TO FUTURE FACILITIES AND UPGRADES:

Design of New Facilities and Existing Facility Upgrades

- ☐ Design runway storm drain culverts to allow placement of particulate capture devices, such as haybales or filter fabric, that will capture rubber and dirt particles generated during runway rubber removal activities.

APPROACH TO EXISTING FACITILITY ACTIVITIES:

Operational Considerations

- ☐ Place devices that will capture rubber and dirt particulates, such as haybales or filter fabric, over storm drain culverts or at other areas that will capture rubber and dirt particles generated during runway rubber removal activities.
- ☐ Use manual or mechanical cleaning methods (ordinary mechanical street sweepers) to remove rubber particulates from the runway and adjacent paved areas after runway rubber removal activities.

Inspection and Training

- ☐ Provide employee training for spill response and prevention, stormwater pollution prevention education, right-to-know awareness training, and hazardous materials management.
- ☐ Inspect storm drain culverts or runway drainage areas after runway rubber removal activities.

RELEVANT RULES AND REGULATIONS:

- Rule 62-621.300 Florida Administrative Code (FAC) – NPDES Generic Permits
- Subsection 62-770.160(1) of the Florida Administrative Code – Petroleum Contamination Clean Up Criteria
- 40 CFR 261 – Resource Conservation Act (RCRA) – hazardous wastes
- 42 CFR 103 – Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – hazardous substances
- 40 CFR 110.3 Discharge of Oil
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- 40 CFR 401 Effluent Limitation Guidelines

TARGETED ACTIVITIES

- Runway Rubber Removal

SIGNIFICANT MATERIALS

- Rubber particles
- Dirt particles

KEY APPROACHES

- Use haybales or filter fabric over culverts
- Use manual or mechanical cleaning methods (e.g., street sweepers) to remove particulates following normal removal process

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

EROSION AND SEDIMENT CONTROL

PURPOSE:

Prevent or reduce the discharge of pollutants to stormwater from construction and landscaping activities, runoff, and other ground disturbing activities.

APPROACH TO FUTURE FACILITIES AND UPGRADES:

- ☐ Incorporate sediment and erosion control measures into design to prevent or minimize discharge of pollutants into stormwater.
- ☐ Preserve and incorporate natural vegetation into design.
- ☐ Locate construction staging areas and waste collection areas away from drainage structures.
- ☐ Use appropriate BMPs for stormwater runoff treatment.

APPROACH TO EXISTING FACITILITY ACTIVITIES:

Good Housekeeping

- ☐ Clean catch basins and drainage structures regularly.
- ☐ Collect and dispose of waste regularly.

Physical Site Usage

- ☐ Locate staging areas in disturbed areas.
- ☐ Preserve natural vegetation.
- ☐ Utilize erosion control measures over exposed ground.

Structural Controls

- ☐ Silt fence, sand bags and sand
- ☐ Brush barrier, mulching, and sodding
- ☐ Check dams, berms, interceptor dikes and swales
- ☐ Dust control and inlet protection
- ☐ Sediment trap/filters/chambers
- ☐ Temporary sediment basin/rock dams
- ☐ Gradient terraces and subsurface drains
- ☐ Ponds, baffle boxes, stormceptors, and stormwater vaults

Maintenance

- ☐ Inspection of erosion and sediment control measures
- ☐ Drainage system maintenance

Contingency Response

- ☐ Maintain adequate sediment and erosion control materials to replace damaged materials (silt fence, etc.)
- ☐ Maintain adequate supplies of spill response equipment and materials in accessible locations near areas where spills may occur.

TARGETED ACTIVITIES

- Design
- Construction
- Landscaping
- Maintenance
- Inspections

SIGNIFICANT MATERIALS

- Sediment
- Pesticides/Herbicides/Fertilizers
- Oil and Grease
- Trash

KEY APPROACHES

- Preserve natural vegetation
- Utilize the 2007 FDOT FDEP Sediment and Erosion Control Manual http://www.dot.state.fl.us/rddesign/dr/ files/Erosion-and-Sediment-Control-Manual-June-2007.pdf
- Keep erosion and sediment control measures in place at all times.

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EROSION AND SEDIMENT CONTROL

Inspection and Training

- ☐ Provide adequate level of training.
- ☐ Require contractor construction inspectors to have a certificate from Florida Stormwater, Erosion and Sediment Control Inspectors Training Certification Program.

RELEVANT RULES AND REGULATIONS:

- Rule 62-621.300 Florida Administrative Code (FAC) – NPDES Generic Permits
- Subsection 62-770.160(1) of the Florida Administrative Code – Petroleum Contamination Clean Up Criteria
- 40 CFR 261 – Resource Conservation Act (RCRA) – hazardous wastes
- 42 CFR 103 – Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – hazardous substances
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FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

SPILL PLAN

PURPOSE:

Prevent or reduce the discharge of pollutants to stormwater resulting from petroleum products or other materials.

GENERAL APPROACH:

Owners and operators of facilities that store, process, or refine oil or oil products may be required by federal law (40 CFR 112) to develop and implement a Spill Prevention Control and Countermeasure (SPCC) Plan. Emergency spill cleanup plans should include the following information:

- ☐ A description of the facility including the owner's name and address, the nature of the facility activity, and at the general types and quantities of chemicals stored at the facility.
- ☐ A site plan showing the location of storage areas for chemicals, the location of storm drains, site drainage patterns, fire water source locations, and the location and description of any devices used to contain spills, such as positive shut-off control valves.
- ☐ Notification procedures to be implemented in the event of a spill, such as key company personnel and local, state, and federal agencies.
- ☐ Instructions regarding spill containment and cleanup procedures.
- ☐ Designated personnel with overall spill response cleanup responsibility.

APPROACH TO EXISTING FACITILITY ACTIVITIES:

Operational Considerations

- ☐ Post a summary of the plan at appropriate site locations, identifying the spill cleanup coordinators, location of cleanup equipment, and phone numbers of regulatory agencies to be contacted in the event of a spill.
- ☐ Maintain an inventory of appropriate cleanup materials on-site and strategically deploy cleanup materials based on the type and quantities of chemicals present.
- ☐ Make absorbents readily available in fueling areas.
- ☐ Label spill kit containers.

Contingency Response

- ☐ Perform the following notifications in the event of a spill:
  - o Fire Department
  - o Local Health Department
  - o State Office of Emergency Services
  - o National Response Center – if spill exceeds reportable quantity (RQ)
- ☐ Containment and cleanup of spills shall begin immediately.

TARGETED ACTIVITIES

- ➢ Aircraft/Vehicle/Equipment Deicing
- ➢ Aircraft/Vehicle/Equipment Fueling
- ➢ Aircraft Lavatory Service
- ➢ Aircraft/Vehicle/Equipment Washing
- ➢ Cargo Handling
- ➢ Fuel/Chemical Storage
- ➢ Pesticide/Herbicide Use
- ➢ Runway Deicing

SIGNIFICANT MATERIALS

- ➢ Lavatory Chemicals and Waste
- ➢ Fuel
- ➢ Oil and Grease
- ➢ Solvents/Cleaning Solutions
- ➢ Pesticides/Herbicides/Fertilizers
- ➢ Battery Acid
- ➢ Antifreeze
- ➢ Deicing Fluid

KEY APPROACHES

- ➢ Implement SPCC (if required)
- ➢ SPCC implementation training
- ➢ Immediate containment/cleanup of spills
- ➢ Availability of spill response equipment/materials
- ➢ Required agency notification

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

SPILL PLAN

Inspection and Training

☐ Provide formal training in plan execution to key personnel, with additional training for first responder level personnel (29 CFR 1910.120). All employees should have basic knowledge of spill control procedures.

RELEVANT RULES AND REGULATIONS:

- Rule 62-621.300 Florida Administrative Code (FAC) – NPDES Generic Permits
- Subsection 62-770.160(1) of the Florida Administrative Code – Petroleum Contamination Clean Up Criteria
- 40 CFR 261 – Resource Conservation Act (RCRA) – hazardous wastes
- 42 CFR 103 – Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – hazardous substances
- 40 CFR 110.3 Discharge of Oil
- 40 CFR 112 Oil Pollution Prevention (SPCC/OPA Plan)
- 40 CFR 117.3 Determination of Reportable Quantities for a Hazardous Substance
- 40 CFR 122-124 NPDES Regulations for Storm Water Discharges
- 40 CFR 401 Effluent Limitation Guidelines

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

STORMWATER POLLUTION PREVENTION TRAINING AND EDUCATION

PURPOSE:

Prevent or reduce the discharge of pollutants to stormwater through implementing an educational program targeting employees, contractors, vendors, and the public.

APPROACH TO FUTURE FACILITIES AND UPGRADES:

Design of New Facilities and Existing Facility Upgrades

- ☐ Work early on with design and construction engineers, and local stormwater authorities to incorporate proactive stormwater management features into projects, such as decreased impervious areas, infiltration BMPs, biofilters, oil/water separators, etc.
- ☐ Inform all construction contractors of their responsibility to comply with adopted BMPs and with regulations prohibiting cross connections between sanitary sewers and storm drains. Provide contractors subcontractors with copies of relevant BMPs during specification and bidding phases.

APPROACH TO EXISTING FACITILITY ACTIVITIES:

Contingency Response

- ☐ Provide adequate implementation training for facilities with a Spill Prevention Control and Countermeasure (SPCC) Plan.
- ☐ Adequately train employees in the use of spill response equipment and materials.

Inspection and Training

- ☐ Perform and document frequent inspections of work areas, waste storage facilities, maintenance areas, and contractor projects to examine compliance with BMPs. Follow up with additional training or enforcement as required. Incorporate inspection findings into subsequent training efforts.
- ☐ Design stormwater pollution education programs to contain the following elements:
  - o Promote the proper storage, use, and disposal of landscape maintenance chemicals and other potentially harmful chemicals.
  - o Promote the use of safer alternative products such as: short-lived pesticides, non-chlorinated solvents, water-based paints, non-aerosol products.
  - o Encourage the use of "dry" washing processes for aircraft, vehicles, and equipment.

TARGETED ACTIVITIES

- All Activities with Potential to Impact Stormwater

SIGNIFICANT MATERIALS

- Oil and Grease
- Vehicle Fluids
- Fuel
- Solvents/Cleaning Solutions
- Battery Acid
- Pesticides/Herbicides/Fertilizers
- Paint
- Metals
- Dumpster Wastes
- Sediment
- Landscape Waste
- Floatables
- Lavatory Chemicals and Waste
- Runway Rubber Waste
- Other Miscellaneous Chemicals

KEY APPROACHES

- Perform inspections and enforcement
- Provide training for employees
- Promote education of vendors/public
- Show Storm Water Training Video to employees

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

STORMWATER POLLUTION PREVENTION TRAINING AND EDUCATION

Inspection and Training (Continued)

- ☐ Design stormwater pollution education programs to contain the following elements:
  - o Encourage efficient and safe housekeeping practices in industrial activity areas.
  - o Increase awareness of the detrimental environmental impacts that results when fuel, antifreeze, pesticides, lubricants, detergents, paints and other wastes are dumped onto the ground or into storm drains.
  - o Promote source reduction and recycling of waste materials.
  - o Increase awareness of possible penalties and fines associated with discharge of pollutants into storm drains.
  - o Increase awareness of what is and what is not allowed in storm drains. Provide a mechanism for violations to be reported.
  - o Hold annual training workshops.
  - o Provide new employee training.

RELEVANT RULES AND REGULATIONS:

- Rule 62-621.300 Florida Administrative Code (FAC) – NPDES Generic Permits
- Subsection 62-770.160(1) of the Florida Administrative Code – Petroleum Contamination Clean Up Criteria
- 40 CFR 261 – Resource Conservation Act (RCRA) – hazardous wastes
- 42 CFR 103 – Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – hazardous substances
- 40 CFR 110.3 Discharge of Oil
- 40 CFR 112 Oil Pollution Prevention (SPCC/OPA Plans)
- 40 CFR 117.3 Determination of Reportable Quantities for a Hazardous Substance
- 40 CFR 122-124 NPDES Regulations for Storm Water Discharges
- 40 CFR 401 Effluent Limitation Guidelines

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

WASTE/GARBAGE COLLECTION, STORAGE, AND DISPOSAL

PURPOSE:

Prevent or reduce the discharge of pollutants to stormwater from waste storage and disposal by tracking waste generation, storage, and proper disposal; reducing waste generation and disposal through source reduction, re-use, and recycling; and preventing run-on and runoff from waste management areas.

APPROACH TO FUTURE FACILITIES AND UPGRADES:

Design of New Facilities and Existing Facility Upgrades

- ☐ Avoid the following characteristics when examining candidate sites for storing wastes:
  - o Excessive slope
  - o High water table
  - o Locations near storm drain inlets
  - o Locations near public access areas
- ☐ Waste handling and storage areas should be covered, if possible.
- ☐ Develop standardized guidelines for the management of stormwater that collects in secondary containment areas.
- ☐ Incorporate sanitary sewer drains into bermed, outdoor, non-hazardous waste storage areas, if approved by the local wastewater treatment agencies/regulations.
- ☐ Provide contained (and covered, if possible) area for hazardous waste collection sites.

APPROACH TO EXISTING FACITILITY ACTIVITIES:

Operational Considerations

Good Housekeeping

- ☐ Perform regular housekeeping to maintain waste storage areas in a clean and orderly condition.
- ☐ Recycle materials whenever possible.
- ☐ Inspect waste management areas for spills and waste management containers for leaks.
- ☐ Ensure that sediments and wastes are prevented from being washed, leached, or otherwise carries off-site.
- ☐ Completely drain containers (e.g., quart oil cans) prior to disposal in trash receptacles.
- ☐ Eliminate waste collection piles (i.e., "boneyards").
- ☐ Schedule waste pickup as frequently as necessary to keep storage of waste to a minimum and to avoid overloaded/overfilled disposal containers.
- ☐ Minimize spills and fugitive losses such as dust or mist from loading areas.
- ☐ Maintain a minimal inventory of required chemicals to reduce the magnitude of potential spills and limit waste generation.
- ☐ Track waste generation:
  - o Characterize waste streams
  - o Evaluate the process generating the waste for pollution prevention opportunities.

TARGETED ACTIVITIES

- ➢ Aircraft/Vehicle/Equipment Maintenance
- ➢ Aircraft/Vehicle/Equipment Painting or Stripping
- ➢ Fuel/Chemical Storage
- ➢ Garbage Collection

SIGNIFICANT MATERIALS

- ➢ Oil and Grease
- ➢ Vehicle Fluids
- ➢ Solvents/Cleaning Solutions
- ➢ Dumpster Wastes

KEY APPROACHES

- ➢ Cover waste storage areas
- ➢ Recycle materials
- ➢ Regularly inspect and clean waste storage areas
- ➢ Berm waste storage areas to prevent contact with run-on or runoff
- ➢ Perform dumpster cleaning in designated areas
- ➢ Properly dispose of all fluids

- o Maintain accurate information on waste streams using: manifests, bills of lading, biennial reports, permits, environmental audits, SARA Title III reports, emission reports, Material Safety Data sheets (MSDS), NPDES discharge monitoring reports, inventory reports, data on chemical spills, and emissions data.

☐ Find substitutes for harmful chemicals.
☐ Properly dispose of unusable chemical inventory.

Physical Site Usage

☐ Segregate and separate wastes.
☐ Avoid locating waste handling and storage in areas with storm drain inlets/catch basins.
☐ Locate waste storage areas beneath existing cover, if possible.

Structural Controls

☐ Enclose or berm waste storage areas, if possible, to prevent contact with run-on or runoff.

Garbage Collection Areas

☐ Design facilities to provide shelter and secondary containment for dumpsters.
☐ Use covered dumpsters and keep them closed and locked.
☐ Use only dumpsters with plugged drain holes to prevent leaks from waste materials.
☐ Do not dispose of liquid wastes into dumpsters. Completely drain liquid waste containers prior to disposal.
☐ Perform dumpster cleaning in designated areas that are bermed to contain wash water for a subsequent disposal or discharge to the sanitary sewer. Dispose of or recycle all fluids collected.

Contingency Response

☐ Maintain a well stocked spill kit in locations where spills are likely to occur.
☐ Equip waste transport vehicles with spill containment equipment.

Inspection and Training

☐ Provide employee training for spill response and prevention, stormwater pollution prevention education, right-to-know awareness training, and hazardous materials management.
☐ Perform and document periodic inspections of hazardous and non-hazardous waste storage areas. Inspection items should include the following:
- o Check containers for external corrosion and structural failure.
- o Check for spills and overfills due to operator failure.
- o Check for failure of piping system (pipes, pumps, flanges, couplings, hoses, and valves).
- o Check for leaks or spills during pumping of liquids or gases.
- o Visually inspect new tanks or containers for loose fittings, poor welds, and improper or poorly fitted gaskets.
- o Inspect tank foundations and storage area coatings.
- o Inspect dumpster areas for signs of leakage.

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

WASTE/GARBAGE COLLECTION, STORAGE, AND DISPOSAL

RELEVANT RULES AND REGULATIONS:

- Rule 62-621.300 Florida Administrative Code (FAC) – NPDES Generic Permits
- Subsection 62-770.160(1) of the Florida Administrative Code – Petroleum Contamination Clean Up Criteria
- 40 CFR 261 – Resource Conservation Act (RCRA) – hazardous wastes
- 42 CFR 103 – Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – hazardous substances
- 40 CFR 110.3 Discharge of Oil
- 40 CFR Oil Pollution Prevention (SPCC/OPA Plans)
- 40 CFR 117.3 Determination of Reportable Quantities for a Hazardous Substance
- 40 CFR 122-124 NPDES Regulations for Storm Water Discharges
- 40 CFR 401 Effluent Limitation Guidelines
- 40 CFR 260 et. seq. Identification and Listing of Hazardous Waste

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

Food Handling and Restaurant Waste Water

PURPOSE:
Prevent or reduce discharge of pollutants to stormwater drains from food handling, kitchen cleaning activities or grease handling.

APPROACH:

Good Housekeeping

- ☐ Pour wash water into a utility sink or curbed cleaning facility with a floor drain, do not pour into parking lots, alley, sidewalk or street.
- ☐ Use dry methods for spill cleanup, do not hose down spills.
- ☐ Clean floor mats, filters and garbage cans in a utility sink or curbed cleaning facility with a drain.
- ☐ Recycle grease and oil, do not pour it into sinks, floor drains or onto a parking lot or street.
- ☐ Keep dumpster area clean and lid closed, do not fill with liquid waste or hose it out.

Maintenance

- ☐ Ensure solidified grease is not present around grease trap.
- ☐ Make sure storage areas and trash containers are free of cracks, leaks and spillage.

Inspection and Training

- ☐ Provide employee training for spill prevention and clean up, right-to-know awareness, hazardous materials management and stormwater pollution prevention.

TARGETED ACTIVITIES
- Food Handling / Cleaning / Cooking Waste Handling
- Oil/Grease Handling and Storage

SIGNIFICANT MATERIALS
- Oil
- Grease
- Cleaning Solutions

KEY APPROACHES
- Prevent oil/grease and cleaning byproducts from reaching stormwater drainage.
- Use spill control devices.
- Cleaning and disposal of oil and grease are performed in proper sinks or drain areas.
- Waste cooking byproducts are either stored or disposed of properly.

RELEVANT RULES AND REGULATIONS:

- Rule 62-621.300 Florida Administrative Code (FAC) – NPDES Generic Permits
- Subsection 62-770.160(1) of the Florida Administrative Code – Petroleum Contamination Clean Up Criteria
- 40 CFR 261 – Resource Conservation Act (RCRA) – hazardous wastes
- 42 CFR 103 – Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – hazardous substances
- 40 CFR 110.3 Discharge of Oil
- 40 CFR 117.3 Determination of Reportable Quantities for a Hazardous Substance
- 40 CFR 122-124 NPDES Regulations for Storm Water Discharges
- 40 CFR 401 Effluent Limitation Guidelines

Appendix N
Water Quality Monitoring Field Data Sheet

Outfall Reconnaissance Inventory/Sample Collection Field Sheet

Name _____ **Date** _____

Inspectors Signature: _____

Air temperature range for sampling date	Low _____ ºF High _____ ºF
Cloud cover	☐ Sunny ☐ Clear ☐ Cloudy _____ % Cloud Cover
Precipitation during sampling event	☐ None ☐ Light ☐ Moderate ☐ Heavy
Wind	Direction _____ Estimated speed (mph) _____

Outfall #1:	North of Griffin Road, east of the Intersection of U.S. Route 1, south of Perimeter Road, and west of Green Belt Buffer Area		
	☐ flow present ☐ stagnant ☐ other:		
	Water has/is: ☐ soap suds ☐ oil film/sheen ☐ clear ☐ cloudy		
	Color		
	Comments/ Observations:		
Time Sampled		Salinity (ppt)	
Total water depth (ft)		Dissolved Oxygen (mg/l)	
pH		Turbidity (NTU)	
Temperature (ºC)		Conductivity (µS/cm)	

Outfall #2:	North of the new runway over U.S. Route 1, west of U.S. Route 1 and east of the railroad tracks.		
	☐ flow present ☐ stagnant ☐ other:		
	Water has/is: ☐ soap suds ☐ oil film/sheen ☐ clear ☐ cloudy		
	Color		
	Comments/ Observations:		
Time Sampled		Salinity (ppt)	
Total water depth (ft)		Dissolved Oxygen (mg/l)	
pH		Turbidity (NTU)	
Temperature (ºC)		Conductivity (µS/cm)	

Outfall Reconnaissance Inventory/Sample Collection Field Sheet

Name _____ **Date** _____

Inspectors Signature: _____

Outfall #3:	North of Terminal Ramp, southeast of Runway 10L-28R, and west of Perimeter Road		
	☐ flow present ☐ stagnant ☐ other:		
	Water has/is: ☐ soap suds ☐ oil film/sheen ☐ clear ☐ cloudy		
	Color		
	Comments/ Observations:		
Time Sampled		Salinity (ppt)	
Total water depth (ft)		Dissolved Oxygen (mg/l)	
pH		Turbidity (NTU)	
Temperature (ºC)		Conductivity (µS/cm)	

Outfall #4:	Northeast of Runway 13-31, east of north side general aviation ramp, and south of the SW 34th Street		
	☐ flow present ☐ stagnant ☐ other:		
	Water has/is: ☐ soap suds ☐ oil film/sheen ☐ clear ☐ cloudy		
	Color		
	Comments/ Observations:		
Time Sampled		Salinity (ppt)	
Total water depth (ft)		Dissolved Oxygen (mg/l)	
pH		Turbidity (NTU)	
Temperature (ºC)		Conductivity (µS/cm)	

Outfall Reconnaissance Inventory/Sample Collection Field Sheet

Name _____ **Date** _____

Inspectors Signature: _____

Outfall #5:	North Dania Cut-off Canal, east of Anglers Avenue, and south of SW 42th Street		
	☐ flow present ☐ stagnant ☐ other:		
	Water has/is: ☐ soap suds ☐ oil film/sheen ☐ clear ☐ cloudy		
	Color		
	Comments/ Observations:		
Time Sampled		Salinity (ppt)	
Total water depth (ft)		Dissolved Oxygen (mg/l)	
pH		Turbidity (NTU)	
Temperature (ºC)		Conductivity (µS/cm)	

Outfall #6:	North of Dania Cut-off Canal, east of Interstate 95, south of SW 42th Court, and west of West Perimeter Road		
	☐ flow present ☐ stagnant ☐ other:		
	Water has/is: ☐ soap suds ☐ oil film/sheen ☐ clear ☐ cloudy		
	Color		
	Comments/ Observations:		
Time Sampled		Salinity (ppt)	
Total water depth (ft)		Dissolved Oxygen (mg/l)	
pH		Turbidity (NTU)	
Temperature (ºC)		Conductivity (µS/cm)	

Outfall Reconnaissance Inventory/Sample Collection Field Sheet

Name _____ **Date** _____

Inspectors Signature: _____

Outfall #7:	North of Griffin Road, east of the Intersection of U.S. Route 1, south of Perimeter Road, and on the western of Green Belt Buffer Area		
	☐ flow present ☐ stagnant ☐ other:		
	Water has/is: ☐ soap suds ☐ oil film/sheen ☐ clear ☐ cloudy		
	Color		
	Comments/ Observations:		
Time Sampled		Salinity (ppt)	
Total water depth (ft)		Dissolved Oxygen (mg/l)	
pH		Turbidity (NTU)	
Temperature (ºC)		Conductivity (µS/cm)	

Dania Canal	Dania Cutoff 3, West of I-95, south of the Dania canal just east of SW 30th Avenue, from the boat ramp		
	☐ flow present ☐ stagnant ☐ other:		
	Water has/is: ☐ soap suds ☐ oil film/sheen ☐ clear ☐ cloudy		
	Color		
	Comments/ Observations:		
Time Sampled		Salinity (ppt)	
Total water depth (ft)		Dissolved Oxygen (mg/l)	
pH		Turbidity (NTU)	
Temperature (ºC)		Conductivity (µS/cm)	

Appendix O
Discharge and Incident Reporting Forms

Document can be found at:
http://www.dep.state.fl.us/waste/quick_topics/forms/documents/62-761/761_6.pdf

Appendix P
Educational Materials

An electronic copies of the Sustainable Operations and Green Practices Guidance Manual, Good Cleaning Practices to stop stormwater pollution, and Restaurant BMPs can be obtained in its entirety by contacting:

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-or-
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WCANNICLE@broward.org

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