

INDUSTRIAL ACTIVITIES STORMWATER POLLUTION PREVENTION PLAN

for

Santa Barbara Municipal Airport

Facility Address:

601 Norman Firestone Road
Santa Barbara
California, 93117

Waste Discharge Identification (WDID):

3-42I00-4505

Exceedance Response Action (ERA) Status:

Baseline

Legally Responsible Person (LRP):

City of Santa Barbara – Airport Department
601 Norman Firestone Road, Santa Barbara, CA 93117
Andrew R. Bermond
(805) 967-7111

SWPPP Preparation Date

July 1, 2015
Revised June 2024

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Legally Responsible Person

Approval and Certification of the Stormwater Pollution Prevention Plan

Facility Name: Santa Barbara Municipal Airport

Waste Discharge Identification
(WDID): 3-42I00-4505

"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 system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is, 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."

Andrew R. Bermond

Legally Responsible Person

Andrew R. Bermond

Signature of Legally Responsible Person or
Approved Signatory

June 6, 2024

Date

(805) 967-7111

Telephone Number

Amendment Log

Facility Name:

Santa Barbara Municipal Airport

Waste Discharge Identification (WDID):

3-42I00-4505

Amendment No.	Date	Page and Section No.	Requested By	Brief Description of Amendment; include reason for change, site location, and BMP modifications.	Prepared and Approved By
1	12.24.15		JM	<ul style="list-style-type: none"> • Updated Responsible Party to reflect Airport Department reorganization, (Section 1, Page 1 and 4) • Updated Description of Drainage Areas and Existing Drainage to reflect map corrections (Section 2.1.4, page 13) • As a result of errors discovered in the stormwater collection system map, update sampling plan to include: <ul style="list-style-type: none"> ○ Revised list of drainage areas and outfalls discharging stormwater from Airport industrial sources (Table 5.1 and 5.2, page 59) ○ Added representative sampling reduction justification for Airline Terminal Ramp and Atlantic Aviation Ramp. (Section 5.6.2, page 61) ○ Update sample locations to reflect map corrections, (Table 5.4, page 62) • Update site map with corrections, primarily focused on collection system for discharges 9B and 9C. (Appendix A, page 85) • Update monthly inspection form (Appendix I, page 133) 	JM
2	5.9.18		JM	<ul style="list-style-type: none"> • Updated Responsible Parties List (Table 1.1) • Combine Accurate and Coastal – new location at 495 S. Fairview 	

Amendment No.	Date	Page and Section No.	Requested By	Brief Description of Amendment; include reason for change, site location, and BMP modifications.	Prepared and Approved By
				<ul style="list-style-type: none"> • List airlines separately • Add Avionics & Maintenance West • Add Attention to Detail • Eliminate MAG/Add Signature • Eliminate 495 S. Fairview/Add individual industrial tenants in hangar complex (Atlantic, Signature, FedEx, Coastal and Avionics & Maintenance West) • Revise BMP regarding maintenance on the ramp, allowing outdoor equipment maintenance with proper BMPs • Update facility map • Add Frontier and Sun Country • Eliminate Aerobrite • Updated reference to “Ampersand” to 495 S. Fairview 	
3	10/8/21		AB	<ul style="list-style-type: none"> • Updated Responsible Parties List (Table 1.1) • Add fleet vehicles to BMP 7 • Update airline list. 	AB
4	11/1/23		AB	<ul style="list-style-type: none"> • Updated Responsible Parties List (Table 1.1) • Update references to Atlantic Aviation location. • Updated Industrial Activities and Associated Materials List (Table 2.1) 	AB
5	6/6/24		AB	<ul style="list-style-type: none"> • Update airline list. • Updated Industrial Activities and Associated Materials List (Table 2.1) • Eliminate references to Hangar 5 (demolished) and associated sample site (no longer on airfield). • 	AB

Section 1 SWPPP Requirements

1.1 INTRODUCTION

The Santa Barbara Municipal Airport property comprise a total of 952 acres. Of the 952 acres owned by the City of Santa Barbara - Airport, aviation activities including aircraft parking (ramps) and active aircraft movements (runways and taxiways) occur on approximately 133 acres. Industrial activities occur on about 55 of those 133 acres. The remainder of the area within the airfield fence consists of runways, taxiways, safety areas, field areas and portions of the Goleta Slough. Areas outside the airfield fence are primarily commercial/industrial properties owned by the Airport and leased to tenants.

Airport administration offices are located at 601 Firestone Road in Santa Barbara, California. The property is owned and operated by the City of Santa Barbara. The facility location is shown on the Site Map(s) in Appendix A.

This Stormwater Pollution Prevention Plan (SWPPP) is designed to comply with California's General Permit for Stormwater Discharges Associated with Industrial Activities (General Permit) Order No. 2014-0057-DWQ (NPDES No. CAS000001) issued by the State Water Resources Control Board (State Water Board). This SWPPP has been prepared following the SWPPP Template provided on the California Stormwater Quality Association Stormwater *Best Management Practice Handbook Portal: Industrial and Commercial* (CASQA 2014). In accordance with the General Permit, Section X.A, this SWPPP contains the following required elements:

- Facility Name and Contact Information;
- Site Map;
- List of Significant Industrial Materials;
- Description of Potential Pollution Sources;
- Assessment of Potential Pollutant Sources;
- Minimum BMPs;
- Advanced BMPs, if applicable;
- Monitoring Implementation Plan (MIP);
- Annual Comprehensive Facility Compliance Evaluation (Annual Evaluation); and,
- Date that SWPPP was Initially Prepared and the Date of Each SWPPP Amendment, if Applicable.

1.2 PERMIT REGISTRATION DOCUMENTS

Required Permit Registration Documents (PRDs) were submitted to the State Water Board via the Stormwater Multi Application and Report Tracking System (SMARTS) by the Legally Responsible Person (LRP), or authorized personnel (i.e., Approved Signatory) under the direction of the LRP. The project-specific PRDs include:

1. Notice of Intent (NOI);
 2. Signed Certification Statement (LRP Certification is provided electronically with SMARTS PRD submittal);
 3. Site Map(s);
 4. SWPPP; and
 5. Annual Fee.
- The Site Map(s) can be found in Appendix A. A copy of the submitted PRDs are also kept in Appendix B of the SWPPP along with the Waste Discharge Identification (WDID) confirmation.
 - The SWPPP uploaded into SMARTS should not include a copy of the General Permit.
 - In the event of future significant changes to the facility layout, the Discharger will certify and submit new PRDs via SMARTS.

1.3 SWPPP AVAILABILITY AND IMPLEMENTATION

The SWPPP is available on-site to all employees during all hours of operation (see Section 2.5 for the Operations Schedule), and will be made available upon request by a State or Municipal inspector. The SWPPP will be implemented by July 1, 2015.

1.4 POLLUTION PREVENTION TEAM

Facility staff that have been designated as Pollution Prevention Team members are listed below in Table 1.1., along with their responsibilities and duties. A list of alternate team members is also provided, and these personnel will perform SWPPP activities when regular members of the Pollution Prevention Team are absent or unavailable. This table will be updated as needed when there are changes to staff and staff responsibilities. All team members will be trained to perform the duties assigned to them. Employee training logs are provided in Appendix C.

Table 1.1 Pollution Prevention Team

Name	Title	Phone Number	Responsibilities and Duties
Andrew Bermond	Facilities Manager	(805) 692-6057	Legally Responsible Person Lead SWPPP implementation/oversight/coordination
Matt Donahue	Airport Maintenance Supervisor	(805) 692-6060	Back-up SWPPP implementation/oversight/coordination Responsible for Maintenance Yard compliance and Airport Maintenance staff training
Bradley Klinzing	Supervising Engineer	(805) 692-6020	Coordination between industrial activities and capital projects (construction).

Vonya Dangerfield	Manager Signature Flight Support	(805) 967-5608	Responsible for compliance on leasehold, including sub-tenant compliance and fuel farm.
Cassandra Corral	Manager Atlantic Aviation	(805) 964-6733	Responsible for compliance on leasehold, including sub-tenant compliance and fuel farm.
Shawn Sullivan	Owner Above All Aviation	(805) 683-7575	Responsible for compliance on leasehold.

1.5 DULY AUTHORIZED REPRESENTATIVES

- Duly Authorized Representative(s) who are responsible for SWPPP implementation and have authority to sign PRDs are listed below in Table 1.2. Written authorizations from the LRP for these individuals are provided in Appendix D.

Table 1.2 Duly Authorized Representatives

Name	Title	Phone Number
Andrew Bermond	Facilities Manager	(805) 692-6057
Matthew Donahue	Airport Maintenance Supervisor	(805) 692-6007
Bradley Klinzing	Supervising Engineer	(805) 692-6020
Phil Davis	Project Engineer	(805) 692-6010

1.6 PERMITS AND GOVERNING DOCUMENTS

In addition to the General Permit, the following documents have been taken into account while preparing this SWPPP:

- TMDL Requirements;
- Spill Prevention Control and Countermeasures Plans (City of Santa Barbara – Airport Department, Signature Flight Support, Atlantic Aviation and MAG Aviation);
- Hazardous Material Business Plan;
- Hazardous Waste Regulations and Permits;
- Air Quality Regulations and Permits ; and
- Clean Water Act Section 401 Water Quality Certifications and 404 Permits, MS4, 303(d).

1.7 SWPPP AMENDMENTS

This SWPPP will be amended or revised as needed. A list of amendments (Amendment Log) is included in the front of this SWPPP (page 7), and amendment certifications are included in Appendix E. The Amendment Log will include the date of initial preparation and the date of each amendment. The SWPPP should be revised when:

- There is a General Permit violation;
- There is a reduction or increase in the total industrial area exposed to stormwater;
- BMPs do not meet the objectives of reducing or eliminating pollutants in stormwater discharges;
- There is a change in industrial operations which may affect the discharge of pollutants to surface waters, groundwater(s), or a municipal separate storm sewer system (MS4);
- There is a change to the parties responsible for implementing the SWPPP; or
- Otherwise deemed necessary by the QISP.

The following items will be included in each amendment:

- Who requested the amendment;
- The location of proposed change;
- The reason for change;
- The original BMP(s) proposed, if any; and
- The new BMP(s) proposed.

Amendments will be logged at the front of the SWPPP and certification kept in Appendix E. The SWPPP text will be revised replaced, and/or hand annotated as necessary to properly convey the amendment. SWPPP amendments must be certified and submitted by the LRP or their designated Duly Authorized Representative via SMARTS within 30 days whenever the SWPPP contains significant revisions. With the exception of significant revisions, SWPPP changes will be certified and uploaded to SMARTS once every three (3) months in the reporting year.

1.8 RETENTION OF RECORDS

- Paper or electronic records of documents required by this SWPPP will be retained for a minimum of five (5) years from the date generated or date submitted, whichever is later, for the following items:
 - Employee Training Records;
 - BMP Implementation Records;
 - Spill and Clean-up Related Records;
 - Records of Sampling and Analysis Information

- The date, exact location, and time of sampling or measurement;
- The date(s) analyses were performed;
- The individual(s) that performed the analyses;
- The analytical techniques or methods used; and
- The results of such analyses;
- Records of Visual Observations
 - The date
 - The industrial areas/drainage areas of the facility observed during the inspection (Location);
 - The approximate time of the observation;
 - Presence and probable source of observed pollutants; and
 - Name of the individual(s) that conducted the observations;
- Response to the observations including identification of SWPPP revisions if needed. Level 1 ERA Reports;
- Level 2 ERA Action Plan;
- Level 2 ERA Technical Report; and
- Annual Reports from SMARTS (checklist and any explanations).

Copies of these records will be available for review by the Water Board's staff at the facility during scheduled facility operating hours. Upon written request by U.S. EPA or the local MS4, Dischargers will provide paper or electronic copies of requested records to the Water Boards, U.S. EPA, or local MS4 within ten (10) working days from receipt of the request.

1.9 EXCEEDANCE RESPONSE ACTIONS (ERAs)

If a General Permit NAL exceedance occurs in a given reporting year, a Level 1 ERA Evaluation and a Level 1 ERA Report will be required in the following year, or, if in a subsequent year, a Level 2 ERA Action Plan and a Level 2 ERA Report will be required in accordance with the General Permit. The results of either of the ERA reports may require that the SWPPP be amended.

1.10 ANNUAL COMPREHENSIVE FACILITY COMPLIANCE EVALUATION

The General Permit (Section XV) requires the Discharger to conduct one Annual Comprehensive Facility Compliance Evaluation (Annual Evaluation) for each reporting year (July 1 to June 30). Annual Evaluations will be conducted at least eight (8) months and not more than sixteen (16) months after the previous Annual Evaluation. The planned window for conducting the Annual Evaluation is April through June of each year. The SWPPP will be revised, as appropriate based on the results of the Annual Evaluation, and the revisions will be implemented within 90 days of the Annual Evaluation.

At a minimum, Annual Evaluations will consist of:

- A review of all sampling, visual observation, and inspection and monitoring records and sampling and analysis results conducted during the previous reporting year;
- A visual inspection of all areas of industrial activity and associated potential pollutant sources for evidence of, or the potential for, pollutants entering the stormwater conveyance system;
- A visual inspection of all drainage areas previously identified as having no exposure to industrial activities and materials in accordance with the definitions in Section XVII;
- A visual inspection of equipment needed to implement the BMPs;
- A visual inspection of any BMPs;
- A review and effectiveness assessment of all BMPs for each area of industrial activity and associated potential pollutant sources to determine if the BMPs are properly designed, implemented, and are effective in reducing and preventing pollutants in industrial stormwater discharges and authorized NSWDS; and
- An assessment of any other factors needed to comply with the Annual Reporting requirements in General Permit Section XVI.B.

1.11 ANNUAL REPORT

The Annual Report will be prepared, certified, and electronically submitted no later than July 15th following each reporting year using the standardized format and checklists in SMARTS based on the reporting requirements identified in Section XVI of the General Permit. Annual reports will be submitted in SMARTS and in accordance with information required by the on-line forms.

1.12 TERMINATION AND CHANGES TO GENERAL PERMIT COVERAGE

When any of the following conditions occur, termination of coverage under the General Permit will be requested by certifying and submitting a Notice of Termination (NOT) via SMARTS:

- Operation of the facility has been transferred to another entity;
- The facility has ceased operations, completed closure activities, and removed all industrial related pollutant generating sources;
- The facility's operations have changed and are no longer subject to the General Permit.

The SWPPP and all of the provisions of the General Permit will be complied with until a valid NOT is received and accepted by the Board.

If ownership changes, the new owner of the facility will be notified of the General Permit and regulatory requirements for permit coverage.

Section 2 Facility Information

2.1 FACILITY DESCRIPTION

2.1.1 Facility Location

The entire Santa Barbara Municipal Airport facility comprises approximately 944 acres and is located at 601 Firestone Road, in Santa Barbara, California. Industrial activities addressed in this SWPPP occur inside the airfield security fence, in hangars, buildings and on aircraft ramps on approximately 55 acres. Commercial tenants occupy buildings on the outside of the airfield security fence and are required to obtain appropriate permits individually based on the specifics of their operation, and are not covered under this plan.

The airfield security fence perimeter is located approximately 0.5 miles south of highway US 101 and adjacent to, and north of the University of California, Santa Barbara. The airfield security fence also encompasses portions of the Goleta Slough and is approximately 400 feet north of the Pacific Ocean at its closest point.

The facility is located at 34.4332°N latitude and -119.8364°W longitude and is identified on the Site Map(s) in Appendix A.

Stormwater from the industrial portions of the site discharge to San Pedro Creek, Carneros Creek and directly to the Goleta Slough. The 303(d) impairments listed below are sourced from the 2010 Integrated Report. All of the impairments are from sources that the Regional Water Board has determined are not typically associated with industrial stormwater. **Dischargers subject to the General Permit are not required to analyze for additional parameters associated with these impairments, unless directed by the Regional Water Board.**

For information purposes only, following is a list of adopted TMDLs and water quality impairments from the most recent 303(d) list.

San Pedro Creek

San Pedro Creek does not have adopted TMDLs, but is listed for water quality impairment on the most recent 303(d) list for the following impairments:

- Enterococcus
- E. Coli
- Fecal Coliform
- Sodium
- Temperature
- pH

Carneros Creek

Carneros Creek has an adopted TMDL for Nitrate, and is listed for water quality impairment on the most recent 303(d) list for the following impairments:

- Conductivity
- Enterococcus
- E. Coli
- Nitrate
- pH

Goleta Slough

The Goleta Slough does not have adopted TMDLs, but is listed for water quality impairment on the most recent 303(d) list for the following impairments:

- Pathogens
- Priority Organics

2.1.2 Facility Operations

Industrial operations at the Santa Barbara Municipal Airport are conducted by Airport tenants operating private businesses on the airfield, and by City staff operating a maintenance yard. There is also an Aircraft Rescue and Firefighting (ARFF) station staffed by city firefighters.

Tenant activities include aircraft repairs, fueling, servicing, rehabilitation, lubrication, washing and occasional deicing. Airfield tenants may also maintain equipment primarily related, and ancillary to aviation, performing activities such as repairs, servicing, fueling, lubrication, rehabilitation and washing.

City staff wash and fuel vehicles and equipment, and only occasionally perform light maintenance on equipment. Preventative maintenance and repairs of City vehicles and equipment, including ARFF apparatus, is typically performed off-site by the City's fleet maintenance division. ARFF personnel regularly test firefighting apparatus function and wash apparatus. The city operates 24 T-hangars and 14 outdoor tie-downs for aircraft storage. Due to the warm climate at Santa Barbara Municipal Airport, no deicing of the airfield is necessary. No deicing materials are applied to Airport infrastructure, such as runway, taxiways or ramps.

A list of specific industrial activities is provided below:

- Vehicle (including equipment and aircraft) maintenance, including repairs, rehabilitation, painting, fueling and lubrication.
- Equipment (including vehicle and aircraft) cleaning
- Airport (aircraft only) deicing

2.1.3 Existing Conditions

The City of Santa Barbara owns the Airport facility site and operates an Airport maintenance yard and an Aircraft Rescue and Fire Fighting facility. Airport Maintenance is responsible for maintaining airfield infrastructure, lighting, signage and vegetation. Tasks also include maintenance responsibility for City facilities outside the airfield fence at the Airport. Aircraft Rescue and Fire Fighting resources are solely responsible for responding to aircraft incidents on the airfield. City vehicles and equipment are maintained off-site by the City's Motorpool Division. Underground storage tanks that supply diesel and gasoline to City fleet vehicles are located at the maintenance yard.

Tenants lease buildings, hangars and aircraft ramps to provide aviation services at the Airport.

Two tenants (Signature, Atlantic) maintain and operate commercial fuel storage facilities. The fixed base operators, Signature and Atlantic, provide mobile fuel service for aircraft on the aircraft ramps. Signature also provides self-service fueling at a fixed location, formerly owned and operated by MAG Aviation.

Empire, Above All Aviation, Coastal Aircraft Maintenance and Avionics and Maintenance West offer aircraft maintenance services on the airfield. Maintenance services range from minor to major aircraft repairs and may include rehabilitation. Empire and Avionics Maintenance West store very small amounts of waste and product in indoor storage areas. Coastal stores all product and waste in an indoor storage area adjacent to the maintenance area. Above All Aviation stores product in the shop area and wastes in a covered storage area outdoors.

Powerwash and Attention to Detail provide aircraft washing services at the Airport. Aircraft washing services are required to use the aircraft wash rack or employ specific BMPs to be permitted to wash aircraft on the aircraft ramp.

Five airlines provide scheduled commercial airline service to Santa Barbara Airport. Those airlines include Alaska Airlines American Airlines, Delta Air Lines, Southwest Airlines, and United Airlines. Envoy, United Ground Express UGE), and Unifi provide ground service for the airlines. UGE services Alaska, Southwest, and United, Envoy services American Airlines, and Unifi services Delta. The airlines are responsible for ensuring that their subcontractors comply with stormwater pollution prevention requirements.

FedEx operates a sorting facility that ships and receives air and ground freight at 495 S. Fairview – Hangar 3. All vehicle maintenance takes place indoors. Freight aircraft are parked and may be fueled or serviced on the ramp. Signature Flight Support typically provides fuel and Empire typically provides aircraft service or maintenance. Since FedEx does not directly perform any outdoor maintenance, deicing or washing, they will not be specifically covered under this permit. Service providers operate under the requirements of this SWPPP.

Commercial airlines periodically deice aircraft located on the commercial airline terminal ramp. Because of the warm climate, the total volume of deicing fluid applied annually at Santa Barbara Airport is approximately 100 gallons. The general permit does not require sampling for additional parameters at airports that apply less than 100,000 gallons of deicing material annually (IGP, Section XI, Table 1 footnote). Airlines and most other tenants operate various pieces of ground service equipment that occasionally require repair.

All industrial activity occurs inside hangars or on impervious, paved surfaces.

Of the developed area, aircraft are parked and fueled (and potentially washed or deiced) on 55 acres. These areas which are defined as industrial sources because of maintenance (fueling), cleaning and deicing are directly exposed to precipitation and stormwater runoff. Proposed BMPs for this facility are described in Section 3.

Existing sources of contamination at the site include: At the southeast corner of the 495 S. Fairview leasehold there is known solvent contamination linked to previous aircraft rehabilitation and maintenance activities that occurred at the site.

2.1.4 Description of Drainage Areas and Existing Drainage

The industrial portions of the facility are divided into seven drainage areas: outfalls, 1, 2, 5, 6, 9b, 10 and 495 S. Fairview South, as shown on the Site Map(s) in Appendix A. The Site Map(s) shows the area layout, including the general site topography, storm drainage system, drainage inlets, its respective drainage areas, and discharge locations.

The facility site is very flat and close to sea level. The elevation of the project site ranges from 10 -15 feet above mean sea level (msl). Surface drainage at the site generally flows to the south, towards the Goleta Slough. Localized surface flow may also drain to the east and west into San Pedro and Carneros Creeks. Airport stormwater is conveyed through surface runoff, swales and storm drains to the outfalls.

Detailed descriptions of all drainage areas are provided below.

Drainage Area 1 – Storm drain and swale system that drains the western portion of the aircraft ramp, including the Signature self-service fueling facility and Hangar 1. Also drains stormwater from Cook Place, and the active aircraft movement area (runways and taxiways)/safety area/infield area of the airfield. Discharges to Carneros Creek.

Drainage Area 2 - Storm drain captures run-off from all of the Airport maintenance yard, except a very small portion in the northeast corner. Discharges to Carneros Creek.

Drainage Area 5 - Storm drain and swale system that collects stormwater from a large area on the northeast corner of the airfield, that includes the Hollister corridor, Signature and Atlantic fuel farms, 495 S. Fairview ramp, portions of the Signature ramp, helicopter pads and infield. Stormwater from the active aircraft movement areas (runways and taxiways)/safety areas/field areas of the airfield is also collected. Discharges to San Pedro Creek.

Drainage Area 6 - Storm drain system that collects stormwater from the airline terminal ramp and stormwater from the active aircraft movement areas (runways and taxiways)/safety areas/field areas of the airfield. Discharges to San Pedro Creek.

Drainage Area 9b - Storm drain system that drains the southern portion of the airline terminal ramp, and Southfield area. Stormwater from the active aircraft movement areas (runways and/or taxiways)/safety areas/field areas of the airfield is

also collected. Also receives some stormwater from the hangar 5 parking lot. Discharges to Goleta Slough.

Drainage Area 9c - Storm drain system that drains the most of the western portion of the airline terminal ramp. Stormwater from the active aircraft movement areas (runways and/or taxiways)/safety areas/field areas of the airfield is also collected. Discharges to Goleta Slough.

Drainage Area 10 - Storm drain system that collects stormwater from a large area in the center of the Airport, including the Hangar 2 ramp, city t-hangars, Above-All Aviation, ARFF and infield area. The collection system also receives stormwater from the streetside slot drain located behind Airport Administration extending to Building 258. Stormwater from the active aircraft movement areas (runways and taxiways)/safety areas/field areas of the airfield is also collected. Discharges to Goleta Slough.

495 S. Fairview South -

495 S. Fairview south storm drains collect stormwater from ramps adjacent to the large hangars near the corner of Hollister and Fairview Avenues where aircraft fueling may take place, then collects building maintenance facility and non-industrial sources from public parking and streets. 495 S. Fairview South discharges to San Pedro Creek.

2.1.5 Stormwater Run-On from Offsite Areas

There is little anticipated offsite run-on to areas where industrial activities are occurring at this site because the existing stormwater conveyance system is designed to minimize standing water on the airfield. Stormwater that is generated from off-airfield, is collected and carried away from the airfield industrial areas by the stormwater conveyance system.

2.2 OPERATIONS SCHEDULE

The Santa Barbara Municipal Airport facility is available for aircraft operations 24 hours each day, 365 days a year. To ensure safety and security of the Airport, Operations and/or Patrol personnel staff the Airport 24 hours each day, 365 days a year. Airport Administration operates from 0800 to 1700, Monday – Friday and is closed alternating Fridays and holidays. Airport Facilities Maintenance staff, who are primarily responsible for implementing the Airport storm water pollution prevention program are on-site Monday - Friday from 0600 to 1630, except holidays. For purposes of this plan the Airport Facilities Maintenance operating hours will serve as the scheduled facility operating hours.

Individual Airport tenants that perform industrial activities such as aircraft maintenance, aircraft/equipment cleaning or deicing have varying operating days and hours. Self-service fueling is available 24 hours each day and mobile fueling is available during Fixed Based Operators operating hours (0600 – 2200 daily) and by call-out after hours. Variations in actual operating hours may occur as necessary.

This SWPPP will be implemented, and a copy made available to all facility staff at all times. A copy will be available to regulatory agency personnel upon request.

If industrial activities are temporarily suspended for ten (10) or more consecutive calendar days during a reporting year, BMPs that are necessary to achieve compliance with this General Permit during the temporary suspension of the industrial activity will be identified and incorporated into the SWPPP.

2.3 POLLUTANT SOURCE ASSESSMENT

This section presents a list of all industrial materials and potential pollutant sources at the Santa Barbara Municipal Airport facility. It identifies specific pollutants associated with these sources and pollutant sources that are most susceptible to stormwater exposure. A summary of significant spill and leaks that have occurred onsite is also provided.

2.3.1 Description of Potential Pollutant Sources

Table 2.1 includes a list of industrial activities and associated materials that are anticipated to be used onsite. These activities and associated materials will or could potentially contribute pollutants to stormwater runoff. The anticipated activities and associated pollutants provided in Table 2.1 are the basis for selecting the BMPs for the facility as described in Section 3. Locations of all material stockpiles, storage areas, anticipated pollutants, and associated BMPs are shown on the Site Map(s) in Appendix A.

Table 2.1 Industrial Activities and Associated Materials

Industrial Source	Industrial Activity	Associated Industrial Materials	Material Quantity	Material Physical Characteristics	Material Location	Associated Pollutants	Stormwater Exposure Pathway
Above All Aviation	Repairs/ Rehabilitation	Used absorbent	30 gallons	Solids	Storage building behind (east) 101 Hartley Pl	Suspended solids Petroleum Metals	Spills and leaks
		Oil	15 gallons (quarts)	Liquid	101 Hartley Pl	Petroleum	
		Used oil	55 gallons	Liquid	Storage building behind (east) 101 Hartley Pl		
Used oil filters	55 gallons	Solids	Storage building behind (east) 101 Hartley Pl				
Alaska Airlines	Cleaning	Lav Waste Cart		Liquid sewage	Airline Terminal Ramp	Sewage	Leaks and spills
		Sani-Pak – Lav additive/deodorizer		Glycerol based liquid lavatory additive		Glycerol	
	Deicing	UCAR PG Concentrate – Type 1 deicing fluid.	5 x 55 gallons	Liquid	Hangar 15 Storage Pavilion	Glycols	Container failure, equipment leaks, spills, inadequate cleanup

Table 2.1 Industrial Activities and Associated Materials

Industrial Source	Industrial Activity	Associated Industrial Materials	Material Quantity	Material Physical Characteristics	Material Location	Associated Pollutants	Stormwater Exposure Pathway
American Airlines	Cleaning	Lav Waste Cart	400 gallons	Liquid sewage	Airline Terminal Ramp	Sewage	Leaks and spills
		Sani-Pak – Lav additive/deodorizer	40 gallons	Glycerol based liquid lavatory additive		Glycerol	
	Deicing	UCAR PG Concentrate – Type 1 deicing fluid.	5 x 55 gallons	Liquid	Hangar 15 Storage Pavilion	Glycols	Container failure, equipment leaks, spills, inadequate cleanup
Atlantic Aviation	Repairs/ Rehabilitation	Used absorbent	55 gallons	Solid	204 Moffett - west of hangar 5	Suspended solids Petroleum Metals	Leaks and spills
	Lubrication	Oil	55 gallons	Liquid	204 Moffett - west of Hangar 5	Petroleum Metals	Leaks and spills
		Used oil	55 gallons	Liquid	327 Firestone Rd		
		Used oil filters	55 gallons	Liquid	204 Moffett - west of hangar 5		

Table 2.1 Industrial Activities and Associated Materials

Industrial Source	Industrial Activity	Associated Industrial Materials	Material Quantity	Material Physical Characteristics	Material Location	Associated Pollutants	Stormwater Exposure Pathway
	Fueling	Jet A AST	2 x 20,000 gallons	Liquid	327 Firestone Rd	Petroleum fuels	Tank/pipe failure, overfills, leaks and spills during transfer and fueling.
		Avgas AST	1 X 12,000 gallons	Liquid	327 Firestone Rd		
		Diesel AST	1,000 gallons	Liquid	327 Firestone Rd		
		Gasoline AST	1,000 gallons	Liquid	327 Firestone Rd		
		Waste Jet	2 X 55 gallons	Liquid	327 Firestone Rd/204 Moffett - west of Hangar 5	Glycol based fuel additive	Leaks and spills
		Waste Avgas	2 X 55 gallons	Liquid	327 Firestone Rd/204 Moffett - west of Hangar 5		Leaks and spills
		Prist	55 gallons	Liquid	204 Moffett - west of Hangar 5		Leaks and spills
	Cleaning	Lav Waste Cart	50 gallons	Liquid sewage	327 Firestone Rd Fuel Farm Oil-Water Separator	Glycerol Sewage Solids Petroleum Metals	Leaks and spills Prohibited washing outside Fuel Farm Oil-Water Separator without BMPs
		Blue juice – Lav additive/deodorizer	28 gallons	Glycerol based liquid lavatory additive			
		Wash Water	None Stored	Liquid			
Attention to Detail	Cleaning	Wash water	None stored	Wash water	Aircraft wash rack or vacuum recovery tank on truck	Solids Petroleum Metals	Prohibited washing outside wash racks without BMPs Leaks and spills

Table 2.1 Industrial Activities and Associated Materials

Industrial Source	Industrial Activity	Associated Industrial Materials	Material Quantity	Material Physical Characteristics	Material Location	Associated Pollutants	Stormwater Exposure Pathway
Avionics & Maintenance West	Repairs/ Rehabilitation	Used absorbent	5 gallons	Solid	495 S. Fairview	Suspended solids, Petroleum	Spills and leaks
	Lubrication	Oil	12 gallons in quart containers	Liquid	495 S. Fairview – Hgr 2	Petroleum	Spills and leaks
		Used oil	3 gallons	Liquid	495 S. Fairview – Hgr 2	Petroleum/ Metals	Spills and leaks
		Used oil filters	Less than 6	Liquid and solid waste	495 S. Fairview – Hgr 2	Petroleum/ Metals	Spills and leaks
City of Santa Barbara	Repairs/ Rehabilitation	Paint	400 gallons in various size containers up to 5 gallons stored indoors	Liquid	1699 Firestone Rd (Indoors - paint shops and quonset)	Organics/Metals/ Petroleum	Leaks and spills
		Herbicides	50 gallons in various size containers indoors	Liquid	1699 Firestone Rd (Indoors quonset)	Herbicides	
		Used absorbent	2 X 55 gallons	Solid	1699 Firestone Rd and 500 Fowler	Solids/Petroleum	
	Lubrication	Used oil	2 X 55 gallons	Liquid	1699 Firestone Rd and 40 Cass Pl	Petroleum	Leaks and spills
	Used oil filters	1 x 30 gallons	Solids	Metals			

Table 2.1 Industrial Activities and Associated Materials

Industrial Source	Industrial Activity	Associated Industrial Materials	Material Quantity	Material Physical Characteristics	Material Location	Associated Pollutants	Stormwater Exposure Pathway
	Fueling	Gasoline UST Diesel UST	10,000 gallon 1,000 gallon	Liquid Liquid	1699 Firestone Rd 1699 Firestone Rd	Petroleum	Leaks and spills
	Cleaning	Wash water	None stored	Liquid	Equipment Wash Rack (Hartley) Aircraft Wash Rack	Sediment Petroleum Metals	Prohibited washing outside wash racks
	Aircraft Rescue and Firefighting Apparatus Cleaning	Wash water	~10 gallons per wash	Liquid	Station 8	Sediment Petroleum Metals	Leaks and spills
	Fueling on ramp	Jet fuel Avgas	None stored except in aircraft		Northeast Apron (495 S. Fairview) Stratman Apron SBA T-Hangars	Petroleum	Spills and leaks
Coastal Aircraft Maintenance	Repairs/ Rehabilitation	Used absorbent	55 gallons	Solid	495 S. Fairview – Hgr 4B	Suspended solids Petroleum Metals	Leaks and spills
	Lubrication	Oil Used oil	20 gallons in quarts 100 gallons	Liquid Liquid	495 S. Fairview – Hgr 4B 495 S. Fairview – Hgr 4B	Petroleum	Leaks and spills

Table 2.1 Industrial Activities and Associated Materials

Industrial Source	Industrial Activity	Associated Industrial Materials	Material Quantity	Material Physical Characteristics	Material Location	Associated Pollutants	Stormwater Exposure Pathway
Delta Air Lines	Lav Waste Cart	400 gallons	Liquid sewage	Airline Terminal Ramp	Sewage	Leaks and spills	Lav Waste Cart
	Sani-Pak – Lav additive/deodorizer	40 gallons	Glycerol based liquid lavatory additive		Glycerol		Sani-Pak – Lav additive/deodorizer
Empire Airlines	Lubrication	Oil/Hydraulic fluid	30 gallons in quarts	Liquid	Hangar 1	Petroleum Metals	Leaks and spills
		Used oil	5 gallons				
		Waste fuel	1 gallon				
Powerwash	Cleaning	Wash water	None stored	Liquid	Aircraft wash rack	Solids Petroleum Metals	Prohibited washing outside wash racks without BMPs
Signature Flight Support	Repairs/Rehabilitation	Used absorbent	2x55 gallons	Solid	Signature fuel farm	Suspended solids Petroleum Metals	Leaks and spills

Table 2.1 Industrial Activities and Associated Materials

Industrial Source	Industrial Activity	Associated Industrial Materials	Material Quantity	Material Physical Characteristics	Material Location	Associated Pollutants	Stormwater Exposure Pathway
	Lubrication	Oil	10 gallons	Liquid	South end of hangar building 238	Petroleum Metals	Leaks and spills
		Used oil	55 gallons	Liquid			
		Used oil filters	2x55 gallons (fuel farm and	Solid			
	Cleaning	Blue Juice – lavatory deodorizer	30 gallons(lav cart and 12x1 gallon inventory)	Liquid	South end of hangar building 238	Glycerol Sewage Solids Petroleum Metals	Leaks and spills Prohibited washing outside Fuel Farm Oil-Water Separator without BMPs
		Lav Waste Cart	30 gallons		Ramp		
		Wash water	None Stored		Fuel Farm Oil-Water Separator		
	Fueling	Jet A ASTs	2 x 10,000 gallon & 1x12,000 gallons	Liquid	325 Firestone Rd	Petroleum hydrocarbons	Tank/pipe failure, overfills, leaks and spills during transfer and fueling.
		Avgas ASTs	12,000 gallons	Liquid	325 Firestone Rd		
	Fueling	Self service avgas AST	12,000 gallons	Liquid	1600 Cecil Cook Pl	Petroleum	Direct contact with contaminated surface, spill or tank leak, overfill
Southwest Airlines	Cleaning	Lav Waste Cart	400 gallons	Liquid sewage	Airline Terminal Ramp	Sewage	Leaks and spills
		Sani-Pak – Lav additive/deodorizer	40 gallons	Glycerol based liquid lavatory additive		Glycerol	

Table 2.1 Industrial Activities and Associated Materials

Industrial Source	Industrial Activity	Associated Industrial Materials	Material Quantity	Material Physical Characteristics	Material Location	Associated Pollutants	Stormwater Exposure Pathway
	Deicing	UCAR PG Concentrate – Type 1 deicing fluid.	5 x 55 gallons	Liquid	Airline Terminal Ramp	Glycols	Container failure, equipment leaks, spills, inadequate cleanup
United Airlines	Cleaning	Lav Waste Cart Sani-Pak – Lav additive/deodorizer		Liquid sewage Glycerol based liquid lavatory additive	Airline Terminal Ramp	Sewage Glycerol	Leaks and spills
	Deicing	UCAR PG Concentrate – Type 1 deicing fluid.	5 x 55 gallons	Liquid	Hangar 15 Storage Pavillion	Glycols	Container failure, equipment leaks, spills, inadequate cleanup

2.3.2 Significant Spills and Leaks

Table 2.2 includes a list of industrial materials where spills and leaks have potential to occur, and includes material characteristics, quantities, locations, and containers. Spills and leaks will be prevented by implementing the BMPs described in Section 3.

Santa Barbara Municipal Airport is not aware of any significant spills of reportable quantities as specified.

Table 2.2 Potential Material Spills and Leaks

Industrial Material	Material Physical Characteristics	Material Quantity	Material Container	Material Location
Fuel	Flammable liquids	110,000 gallon total capacity	Double walled AST/UST tanks	Signature Fuel Farm Atlantic Fuel Farm Signature Self-Service Fueling Airport Maintenance Yard
Oil	Flammable liquids	150 gallons	55 gallon drums/ quarts	Above All Aviation Avionics & Maintenance West Atlantic Aviation Coastal Aircraft Mtc. Empire Airlines Signature Flight Support
Deicing Fluid	Propylene glycol based liquid	330 gallons	55 gallon drums	American Airlines Alaska Airlines United Airlines

Table 2.2 Potential Material Spills and Leaks

Industrial Material	Material Physical Characteristics	Material Quantity	Material Container	Material Location
Used oil	Flammable liquid hydrocarbon	375 gallons	55 gallon drum	Above All Aviation Avionics & Maintenance West Atlantic Aviation City of Santa Barbara Coastal Aircraft Mtc. Empire Airlines Signature Flight Support
Prist	Combustible glycol ether based liquid	275 gallons	55 gallon drum	Atlantic Aviation Signature Flight Support
Waste Fuel	Flammable liquid hydrocarbon	110 gallons	55 gallon drum	Atlantic Aviation Empire Airlines Signature Flight Support
Lav Cart Waste	Liquid sewage	200 gallons	Lav Cart	Alaska Airlines American Airlines Atlantic Aviation Delta Air Lines Signature Flight Support Southwest Airlines United Airlines

Table 2.2 Potential Material Spills and Leaks

Industrial Material	Material Physical Characteristics	Material Quantity	Material Container	Material Location
Absorbent	Solid	220 gallons	55 gallon drum	Above All Aviation Avionics & Maintenance West Atlantic Aviation City of Santa Barbara Coastal Aircraft Mtc. Signature Flight Support

2.4 IDENTIFICATION OF NON-STORMWATER DISCHARGES (NSWDs)

Non-stormwater discharges (NSWDs) consist of discharges which do not originate from precipitation events. The General Permit provides allowances for specified NSWDs provided they:

- Do not cause erosion;
- Do not carry other pollutants;
- Are not prohibited by the local MS4; and
- Do not require a separate NPDES Permit from the Regional Water Board.

NSWDs into storm drainage systems or waterways, which are not authorized under the General Permit and listed in the SWPPP, or authorized under a separate NPDES permit, are prohibited.

Non-stormwater discharges that are authorized at this facility include the following:

- Fire-hydrant and fire prevention or response system flushing.
- Potable water sources including potable water related to the operation, maintenance, or testing of potable water systems.
- Drinking fountain water and atmospheric condensate including refrigeration, air conditioning, and compressor condensate.
- Irrigation drainage and landscape watering provided all pesticides, herbicides and fertilizers have been applied in accordance with the manufacturer’ label.
- Uncontaminated natural springs, groundwater, foundation drainage, footing drainage.
- Seawater infiltration where the seawater is discharged back into the source.

These authorized NSWDs will be managed with the stormwater and non-stormwater BMPs described in Section 3 of this SWPPP. These BMPs are implemented to:

- Reduce or prevent the contact of authorized NSWDS with materials or equipment that are potential sources of pollutants;
- Reduce, to the extent practicable, the flow or volume of authorized NSWDS;
- Ensure that authorized NSWDS do not contain quantities of pollutants that cause or contribute to an exceedance of a water quality standards; and
- Reduce or prevent discharges of pollutants in authorized NSWDS in a manner that reflects best industry practice considering technological availability and economic practicability and achievability.

Monthly visual observations will be conducted according to the General Permit (Section XI.A.1) for NSWDS and sources to ensure adequate BMP implementation and effectiveness. Monthly visual observations include observations for evidence of unauthorized NSWDS.

Activities at this site that may result in unauthorized non-stormwater discharges include:

- Fuel loading and unloading
- Storage of fuel, lubricants and associated wastes
- Aircraft and equipment washing
- Maintenance and storage of equipment and aircraft
- Aircraft deicing
- Aircraft lavatory servicing

Steps will be taken, including the implementation of appropriate BMPs as defined in Section 3, to ensure that unauthorized NSWDS are eliminated, controlled, disposed off-site, or treated on-site.

The following discharge(s) are authorized by regional NPDES permits:

- None

2.5 REQUIRED SITE MAP(S) INFORMATION

The facility’s Site Map(s) is (are) provided in Appendix A, and include(s) all information required by the General Permit. The maps include information regarding the facility boundary and stormwater drainage areas, nearby water bodies, locations of stormwater collection and conveyance systems including outfalls, locations and descriptions of all industrial activities and materials, and locations and descriptions of all structural control measures.

A summary of all information provided in the Site Map(s) is provided in Table 2.4 below.

Table 2.4 Required Site Map(s) Information Checklist

Included on Site Map(s)? Yes/No/ NA	Required Element
Yes	The facility boundary

Table 2.4 Required Site Map(s) Information Checklist

Included on Site Map(s)? Yes/No/ NA	Required Element
Yes	Stormwater drainage areas within the facility boundary
NA	Portions of any drainage area impacted by discharges from surrounding areas
Yes	Flow direction of each drainage area
Yes	On-facility surface water bodies
NA	Areas of soil erosion
Yes	Location(s) of nearby water bodies (such as rivers, lakes, wetlands, etc.)
Yes	Location(s) of municipal storm drain inlets that may receive the facility's industrial stormwater discharges and authorized NSWDS
Yes	Locations of stormwater collection and conveyance systems and associated points of discharge, and direction of flow
Yes	Any structural control measures (that affect industrial stormwater discharges, authorized NSWDS, and run-on)
Yes	All impervious areas of the facility, including paved areas, buildings, covered storage areas, or other roofed structures
NA	Locations where materials are directly exposed to precipitation
NA	Locations where significant spills or leaks (Section X.G.1.d of the General Permit) have occurred
Yes	Areas of industrial activity subject to the General Permit
Yes	All storage areas and storage tanks
Yes	Shipping and receiving areas
Yes	Fueling areas
Yes	Vehicle and equipment storage/maintenance areas
Yes	Material handling and processing areas
Yes	Waste treatment and disposal areas
NA	Dust or particulate generating areas
Yes	Cleaning and material reuse areas
NA	Any other areas of industrial activity which may have potential pollutant sources

Section 3 Best Management Practices

3.1 MINIMUM BMPs

All minimum BMPs that are required by the General Permit and necessary to meet the facility conditions will be implemented.

Guidance for BMP implementation is provided in the CASQA Stormwater BMP Handbook. Airport tailored best management practice fact sheets, based on CASQA guidance, to apply specifically to airport industrial activities. Airport Industrial Stormwater Best Management Practices Fact Sheets are included in Appendix G. Sections 3.1.1 through 3.1.5 list the requirements for each of these minimum BMPs.

Minimum BMPs will be implemented for additional targeted industrial activities, equipment, and materials as necessary. If any of the required minimum BMPs are applicable but cannot be implemented, an explanation and alternative approach will be provided in the following sections.

Table 3.1 provides a list of the five minimum General Permit BMP elements that are included in the relevant BMP fact sheets and indicates which BMPs are implemented at the facility. Employee Training, described in Section 3.1.6, and Quality Assurance and Record Keeping, described in Section 3.1.7, are additional minimum BMPs that will be implemented.

As required by the General Permit, a summary of all implemented BMPs is included in Section 3.3. The schedule for BMP implementation and the requirements for inspection and maintenance are contained in Section 4.

Table 3.1 Minimum BMPs

Fact Sheet Number	BMP Fact Sheet Name	Addresses Minimum General Permit BMP Requirements					BMP to be Implemented?		
		Good Housekeeping	Preventative Maintenance	Spill and Leak Prevention and Response	Material Handling and Waste Management	Erosion and Sediment Control	YES	NO	Not Applicable
SBA BMP 1	Mobile Aircraft Fueling	X	X	X	X	X	X		
SBA BMP 2	Fixed Location Vehicle and Aircraft Fueling	X	X	X	X	X	X		
SBA BMP 3	Bulk Fuel Storage	X	X	X	X	X	X		
SBA BMP 4	Outdoor Aircraft and Equipment Repairs	X	X	X	X	X	X		
SBA BMP 5	Aircraft Deicing Operations	X	X	X	X	X	X		
SBA BMP 6	Outdoor Equipment Operation and Storage	X	X	X	X	X	X		
SBA BMP 7	Aircraft and Equipment Washing	X	X	X	X	X	X		
SBA BMP 8	Dry Materials – Outdoor Delivery, Loading and Storage (Product and Waste)	X	X	X	X	X	X		
SBA BMP 9	Liquid Materials – Outdoor Delivery, Loading and Storage (Product and Waste)	X	X	X	X	X	X		
Additional BMPs Implemented:									

3.1.1 Good Housekeeping

The following good housekeeping measures will be implemented in accordance with the General Permit (Section X.H.1.a):

- Observe all outdoor areas associated with industrial activity including stormwater discharge locations, drainage areas, conveyance systems, waste handling/disposal areas, and perimeter areas impacted by off-facility materials or stormwater run-on to determine housekeeping needs. Any identified debris, waste, spills, tracked materials, or leaked materials will be cleaned and disposed of properly;
- Minimize or prevent material tracking;
- Minimize dust generated from industrial materials or activities;
- Ensure that all facility areas impacted by rinse/wash waters are cleaned as soon as possible;
- Cover all stored industrial materials that can be readily mobilized by contact with stormwater;
- Contain all stored non-solid industrial materials or wastes (e.g., particulates, powders, shredded paper, etc.) that can be transported or dispersed via by the wind or contact with stormwater;
- Prevent disposal of any rinse/wash waters or industrial materials into the stormwater conveyance system;
- Minimize stormwater discharges from non-industrial areas (e.g., stormwater flows from employee parking area) that contact industrial areas of the facility; and
- Minimize authorized NSWDS from non-industrial areas (e.g., potable water, fire hydrant testing, etc.) that contact industrial areas of the facility.

BMPs to be implemented are summarized in Table 3.1 and the BMP fact sheets are included in Appendix G. In addition to the standard good housekeeping best management practices, the Airport has identified the following good housekeeping best management practices tailored to Airport industrial activities to address the goals of the standard BMPs. Each of these BMPs may apply to one or several individual Airport industrial activities and are identified by function in Appendix G.

Good Housekeeping

- Inspect outdoor ramp and storage areas monthly where maintenance, deicing, washing or fueling is performed, and where supplies and wastes are stored, to determine housekeeping needs. Any identified debris, waste, spills, tracked materials shall be cleaned and disposed of properly.
- Sweep ramp areas quarterly to minimize dust generation and the possibility of material tracking.
- Spot clean leaks and drips routinely, including removal of absorbent.

- All industrial activities, including fueling, must take place on a paved surface to minimize dust generation.
- Cover and contain all stored wastes to reduce adverse impacts to stormwater quality
- Do not pour wash/rinse water or industrial materials down storm drain
- Manage stormwater that may accumulate in secondary containment on fuel carts appropriately. Do not discharge water from secondary containment directly to storm drains or to the ground surface.
- Maintain existing drainage systems and patterns to minimize contact and between industrial stormwater and stormwater from non-industrial sources (non-industrial areas and authorized non-industrial sources).
- All discharges of fuel to a stormwater inlet must be reported immediately to the Airport Operations Center
- Install signage on storm drain inlets to indicate that they are not to receive liquid or solid wastes.
- Post signs to remind employees and customers not to top off the fuel tank when filling.
- Do not pour wash/rinse water or industrial materials down storm drain
- Sweep fuel farm roads quarterly to minimize dust generation and the possibility of material tracking.
- Maintain an adequate stockpile of spill cleanup materials at locations where it will be readily accessible.
- All spills must be cleaned up immediately, using dry cleanup methods.
- Outdoor maintenance and repairs of ground equipment is prohibited. Ground equipment maintenance and repairs must be performed indoors or off-Airport.
- Outdoor aircraft repairs are generally prohibited. Use indoor facilities when available. All outdoor repairs shall be performed on paved surfaces only.
- All outdoor repairs, except emergency aircraft repairs, are prohibited during rain events.
- Minimize use of solvents
- Do not hose down work area
- Prevent excessive deicing fluid discharges to the ramp by applying only enough fluid to deice the aircraft.
- Remove all deicing liquids discharged to the ramp using dry cleanup methods (vacuum, absorbent) immediately following the deicing event. If absorbent is used to remove deicing liquid, absorbent must be immediately removed after cleanup.
- Avoid overfilling, drips and spills when transferring deicing fluid to deicing equipment.
- Designate a deicing zone that is away from all stormwater inlets
- Store deicing fluid inventory under cover and on secondary containment
- Install barriers to prevent deicing fluid from entering to a stormwater inlet, if necessary.
- Sealed batteries are required in all ground equipment that is stored outdoors.

- Inspect aircraft and equipment regularly for leaks. Repair leaking aircraft and equipment as soon as possible.
- Inspect wash racks monthly to determine housekeeping needs. Any identified debris, waste, spills, tracked materials shall be cleaned and disposed of properly.
- Report leaking aircraft/vehicles to owner and leaseholder.
- Automobiles and equipment licensed for highway use must be washed off-site. Use commercial carwash facilities that contain and recycle wash and rinse water.
- Aircraft and equipment wash racks are provided for Airport users. Wash rack facilities are graded to collect wash water and are connected to the sanitary sewer.
- The following requirements apply for washing equipment and aircraft at the Airport:
 - Aircraft and equipment may be washed using a dry wash methods, or
 - Wash aircraft and equipment on a designated, paved wash racks provided by the Airport, or
 - Aircraft or equipment washed on the ramp with water must be on an impervious surface away from a stormwater inlet and:
 - A vacuum boom or other method to entirely contain and remove wash water and rinse water must be deployed.
 - Wash water must be removed and all surfaces that wash water contacted shall be rinsed and the rinse water contained and removed.
 - Measures put in place to prevent wash water and rinse water from entering any stormwater inlet or conveyance.
 - Collected wash water and rinse water shall be disposed to the sanitary sewer.
- Wash racks will be marked clearly as a wash area by:
 - Posting signs stating that only washing is allowed in wash area
 - Provide information on how washing is done.
 - Provide trash containers in wash rack area.
- Inspect outdoor ramp and storage areas monthly where supplies and wastes are stored, to determine housekeeping needs. Any identified debris, waste, spills, tracked materials shall be cleaned and disposed of properly.
- Store materials that can be readily mobilized by contact with stormwater inside or under permanent cover. If this is not feasible, then outside storage areas should be covered and bermed or enclosed to prevent stormwater contact
 - If raw materials (stockpiles) that can be readily mobilized by contact with stormwater cannot all be stored inside or under permanent cover, prevent exposure to direct precipitation and stormwater run-on and dispersal by wind by installing berms and a storm-resistant waterproof covering like polyethylene over all materials stored outside. The covers must always be in place when work with the stockpiles is not occurring.
 - Stockpiles of raw materials that can be readily mobilized by contact with stormwater or easily dispersed or transported by wind (e.g. particulates, powders, shredded paper, etc.) that are too large to cover may not be stored without approval of the Airport Director.

- Conduct loading and unloading in dry weather if possible
- Have employees load and unload all materials and equipment in covered areas such as building overhangs at loading docks if feasible
- Pave loading areas with concrete instead of asphalt.
- Minimize the inventory of raw materials kept outside
- Do not store materials on top of or directly adjacent to storm drain inlets
- Keep storage areas clean and dry
- Keep waste dumpsters closed at all times, except when adding trash.
- Protect materials stored outside from rainfall and wind dispersal to prevent storm water contamination and sediment loading. Containers must be stored under cover to prevent contact with rain, if possible.
- Containers over 5 gallon must be stored on secondary containment with sufficient capacity to hold the contents of the largest container plus 10%.
- Locate storage areas away from concentrated flows of storm water, drainage courses and inlets. Store indoors if feasible.
- Provide spill response supplies and equipment
- Keep storage areas clean and dry (sweep or vacuum), do not hose down the area to a storm drain or conveyance ditch.
- Maintain containers in good condition with tight fitting lids
- Conduct loading and unloading in dry weather, if possible
- Have employees trained in spill containment and cleanup present during loading and unloading.
- Have employees load and unload all materials and equipment in covered areas such as building overhangs at loading docks if feasible
- Try to keep chemicals in their original containers, and keep them well labeled.
- Provide secure storage to prevent vandalism-caused contamination

3.1.2 Preventative Maintenance

The following preventative maintenance measures will be implemented in accordance with the General Permit (Section X.H.1.b):

- Identify all equipment and systems used outdoors that may spill or leak pollutants;
- Observe the identified equipment and systems to detect leaks, or identify conditions that may result in the development of leaks;
- Establish an appropriate schedule for maintenance of identified equipment and systems; and
- Establish procedures for prompt maintenance and repair of equipment, and maintenance of systems when conditions exist that may result in the development of spills or leaks.

Specific preventative maintenance BMPs to be implemented at the facility are provided in Table 3.1 and the BMP fact sheets are included in Appendix G.

Table 3.1.a Industrial Equipment and System Inspection and Maintenance Schedule

Industrial Tenant	Equipment	Inspection/Maintenance Frequency
Above All Aviation	No motorized equipment	NA
Avionics & Maintenance West	Golf Cart	Monthly
Atlantic	Bulk AST Fuel Tanks	Daily
	2 – 3,000 gallon Jet A fuel trucks	Daily/Weekly Inspections
	1-5,000 gallon Jet A fuel trucks	Daily/Weekly Inspections
	2-1,000 gallon Avgas fuel trucks	Daily/Weekly Inspections
	1 fuel cart (280 gal. Diesel/240 gal Avgas)	Daily/Annual Inspections
	7 ground power units	Weekly
	4 aircraft tugs	Weekly
	1 lav cart	Weekly
Attention to Detail	No motorized equipment	NA
City of Santa Barbara	3 Tractors	All equipment and vehicles are maintained off-site by motorpool. Schedule is based on mileage and time. Leaks are reported to motorpool and scheduled for repairs.
	2 Sweepers	
	Loader	
	Telehandler	
	Service Trucks	

	Gasoline UST	Audible Alarm/Weekly
	Diesel UST	Audible Alarm/Weekly
	4 Lighted X Runway Markers	Quarterly inspection
	Spray Tank	Quarterly inspection
	2 Generators	Monthly
	Aircraft Rescue and Firefighting Apparatus (2)	All equipment and vehicles are maintained off-site by motorpool. Schedule is based on mileage and time. Leaks are reported to motorpool and scheduled for repairs.
	2 aircraft tugs	Quarterly
Coastal Aircraft Maintenance	De-fuel truck	Daily/Weekly Inspections
	None	
Empire	2 - Pushback	Weekly Inspections
Delta Air Lines (Unifi)	1 – Aircraft Tow Tractor 1 – Air Start 1 – AC/Heat Combo Unit 1 – Ground Power Unit 2 – Belt Loader 6 – Baggage Cart 1 – Lav Cart 1 – Water Cart 2 – Tow Bar 1 – Passenger Ramp	
Southwest Airlines (UGE)	2 – Belt loaders	Weekly Inspections
	3 – Tractors (tug)	Daily Inspection
	1 – Lav Cart	
	1 - GPU	
	2 – TurboWay	
	2 - Pushback	
American Airlines (Envoy)	6 – Tractors (tug)	Daily Inspection
	3 – Belt Loaders	Weekly Inspections

	1 – Lav Cart/truck	
	1 - GPU	
	1 – Pre Conditioned Air	
	2 - Deicer	
	1 – Air start	
	3 Pushback (Lektro)	
Alaska Airlines (UGE)	1 Air Start	Weekly Inspections
	2 GPU	
	6 Tractors (tug)	
	4 Belt Loaders	
	2 Pre-Conditioned Air Units	
	2 – Lav Carts	
	3 Pushback (Lektro)	
United Airlines (UGE)	1 Air Start	Daily
	2 GPU	
	6 Tractors (tug)	
	4 Belt Loaders	
	2 Pre-Conditioned Air Units	
	2 – Lav Carts	
	Bulk fuel tank	
Signature Flight Support Self-Service Fuel	None	
Powerwash	Jet A & Avgas ASTs	Daily
Signature Flight Support	Fuel Cart	Daily inspection/maintenance every 90 days
	Ground Power Units (2)	Inspection daily/maintenance every 90 days
	Aircraft tugs (2)	Inspection daily/maintenance every 90 days

	Fuel Trucks (3)	Inspection daily/maintenance every 90 days
	Lav Cart	Inspection daily/maintenance every 180 days

BMPs to be implemented are summarized in Table 3.1 and the BMP fact sheets are included in Appendix G. In addition to the standard preventative maintenance best management practices, the Airport has identified the following preventative maintenance best management practices tailored to Airport industrial activities to address the goals of the standard BMPs. Each of these BMPs may apply to one or several individual Airport industrial activities and are identified by function in Appendix G.

- Identify outdoor equipment and systems that may spill or leak pollutants, and establish a maintenance schedule
- Establish a schedule and regularly inspect equipment and systems for leaks and conditions that may lead to leaks. Document inspections.
- Establish procedures for prompt repair of equipment and systems where leaks are found or conditions are found that may lead to leaks.
- Inspect condition of fuel trucks and storage tanks daily and repair immediately or take out of service in a manner that eliminates leaks and spills until leaks are repaired.
 - Check for corrosion, damage and structural failure
 - Check for spill and overflows due to operator error
 - Check for leaks and failure of piping system and hoses
 - Check for leaks and spills during pumping of liquids from truck
 - Visually inspect new tank and container installations for loose fittings, poor welding and improper or poorly fitted gaskets.
- When not in use, store fuel trucks on a hard surface away from a stormwater inlet. Inspect the parking area daily. Make repairs necessary to eliminate leaks. Cleanup all leaked material.
- Inspect condition of fueling equipment and tanks daily and repair immediately
 - Check for corrosion, damage and structural failure
 - Check for spill and overflows due to operator error
 - Check for leaks and failure of piping system and hoses
 - Check for leaks and spills during pumping of liquids
 - Visually inspect new tank and container installations for loose fittings, poor welding and improper or poorly fitted gaskets.
- Inspect bulk fuel storage areas daily
 - Check for corrosion, damage and structural failure
 - Check for spill and overflows due to operator error

- Check for leaks and failure of piping system and hoses
- Check for leaks and spills during pumping of liquids
- Visually inspect new tank and container installations for loose fittings, poor welding and improper or poorly fitted gaskets.
- Test internal spill prevention devices to confirm they are operational
- Service oil/water separators at least once per year, or more frequently as needed or if recommended by manufacturer.
- Inspect customer aircraft stored outdoors pending service for leaks. Use BMPs to prevent leaks from accumulating on the ramp and cleanup leaks immediately using dry methods.
- Keep equipment clean; don't allow excess build-up of oil and grease.
- Perform all vehicle and equipment fluid removal or changing inside or under cover to prevent run-on of stormwater and run-off of spills.
- Except when actively working on an aircraft outdoors, repairs must be covered or cowlings in place to prevent contact with stormwater
- A drip pan or drop cloth of adequate size must be used for outdoor projects where liquids or loose particles may be encountered. Mechanic must prevent the drip pan or drop cloth from becoming FOD. Collected particles, drips and spills must be disposed of properly.
- Use absorbent, broom or vacuum to remove any drips, spills or solid wastes particles that are not captured by the drip pan or drop cloth. Dispose of waste properly.
- Sweep outdoor aircraft storage areas quarterly.
- Promptly transfer used fluids to the proper waste or recycling drums. Do not leave drip pans or other open containers lying around.
- Mark storm drain inlets with No Dumping – Drains to Ocean signage to help prevent non-stormwater discharges.
- Inspect deicing equipment, transfer pumps and hoses for leaks weekly between November 1 and April 1, and repair leaking equipment immediately. During the remainder of the year inspect all deicing equipment monthly.
- Keep equipment clean; don't allow excess build-up of oil, grease or deicing fluids.
- Perform deicing equipment maintenance and repairs indoors.
- Outdoor ground equipment charging stations will be inspected on a quarterly basis to make sure stations are in good working order and shutting down after charge cycle is complete
- Maintain ground equipment batteries properly:
 - Use only sealed batteries in equipment that is stored outdoors.
 - Inspect batteries regularly for leaks or signs of failure
- To minimize stormwater contact and iron staining on the ramp, repaint portions of ground equipment annually where acid has damaged a painted surface or removed paint to a point where bare metal or rust is visible.

- If equipped to perform washing on the ramp, contractor should perform routine inspection and maintenance of boom vacuum equipment and liquid tanks and piping to ensure that the equipment is in proper working order
- Perform routine inspections and repairs of wash racks, including washwater collection system and associated sanitary sewer conveyance/treatment systems (baffles/sumps), water supply and trash receptacles.
- Mark “at risk” storm drain inlets with No Dumping – Drains to Ocean signage to help prevent non-stormwater discharges.
- Water sources for aircraft and equipment wash water should be equipped with a nozzle that automatically turns off when not in use.
- Maintain outdoor storage containers in good condition. Replace leaky or otherwise inadequate containers as necessary.
- Maintain outdoor waterproof covers (e.g. tarps) in good condition and properly secure them to be storm resistant and to avoid them becoming FOD. Replace tarps damaged by UV exposure or wear and tear on a regular basis.
- Use dry cleanup methods to clean the work area regularly. Do not wash outdoor material storage areas with water.
- Conduct regular inspections of storage areas so that leaks and spills are detected as soon as possible.
- Inspect berms, curbing, containment, and sediment controls quarterly for proper function and repair as necessary.
- Conduct and document regular inspections of outdoor storage areas for conditions where stormwater discharge contamination or sediment loading could occur. Remedy deficiencies found.
- Conduct and document routine inspections and check for external corrosion of material containers. Also check for structural failure, leaks, spills and overfills.
- Replace containers that are leaking, corroded, or otherwise deteriorating with ones in good condition. If the liquid chemicals are corrosive, containers made of compatible materials must be used, instead of metal drums.

3.1.3 Spill and Leak Prevention and Response

The following spill and leak prevention and response measures will be implemented in accordance with the General Permit (Section X.H.1.c):

- Establish procedures and/or controls to minimize spills and leaks;
- Develop and implement spill and leak response procedures to prevent industrial materials from discharging through the stormwater conveyance system. Spilled or leaked industrial materials will be cleaned promptly and disposed of properly;
- Identify and describe all necessary and appropriate spill and leak response equipment, location(s) of spill and leak response equipment, and spill or leak response equipment maintenance procedures; and

- Identify and train appropriate spill and leak response personnel.

Specific spill and leak prevention and response BMPs to be implemented at the Santa Barbara Municipal Airport facility are provided in Table 3.1 and the BMP fact sheets are included in Appendix G.

Table 3.1.b Spill supply inventories and locations

Industrial Tenant	Spill Supply Location	Inventory
Above All Aviation	Above All maintenance hangar	Spill Kit (booms and pads)
	Above All storage building (east of hangar)	Absorbent pads and 150# dry absorbent
Avionics & Maintenance West	Hangar 5	50# dry absorbent
Atlantic	Fuel Farm	100# dry absorbent, absorbent booms, absorbent pads
	Fuel Trucks	3 gallons dry absorbent, absorbent socks, absorbent pads on each truck
	FBO Terminal	100# dry absorbent, absorbent booms, absorbent pads
City of Santa Barbara	Maintenance Yard – Bay	Pallet of dry absorbent, various spare spill response supplies
	Maintenance Yard – Spill Trailer	300# dry spill absorbent, booms, pads.
	Maintenance Yard – Hazardous Waste Storage area	100# dry absorbent
	Airline Terminal Spill Cart	600# dry absorbent
	Used Oil Collection Station	Absorbent pads
Attention to Detail	NA	
Coastal Aircraft Maintenance	Hangar 3	100# dry absorbent

Empire	Hangar 1	Small overpack drum of spill supplies: boom, pads, absorbent.
American Airlines	Airline Terminal Ramp	Envoy provides 5 small overpack containers stocked with booms, pads and absorbent distributed on the airline terminal ramp.
Alaska Airlines		Airport stocks spill cart on Terminal ramp
United Airlines	Terminal Ramp	Airport stocks spill cart on Terminal ramp
Signature Flight Support	Self-Service fuel station	Large overpack drum of spill supplies: boom, pads, absorbent.
Powerwash	NA	
Signature Flight Support	Fuel farm	150 pads, 10 booms, 200# dry absorbent
	Spill cart	300 pads, 20 booms, 400# dry absorbent (8 bags)
	Fuel trucks	10 pads, 2 booms, 40# dry absorbent
	Maintenance shop	30 round barrel top pads.
Southwest Airlines	Terminal Ramp	Airport stocks spill cart on Terminal ramp

BMPs to be implemented are summarized in Table 3.1 and the BMP fact sheets are included in Appendix G. In addition to the standard spill and leak prevention and response best management practices, the Airport has identified the following spill and leak prevention and response best management practices tailored to Airport industrial activities to address the goals of the standard

BMPs. Each of these BMPs may apply to one or several individual Airport industrial activities and are identified by function in Appendix G.

- Keep your spill prevention and control plan up to date.
- Install overflow protection on tanks
- Install an emergency shut-off devices
- Prohibit unattended fueling
- Post signage warning fuelers against “topping off” fuel tanks
- Park fueler trucks and carts in a designated area away from stormwater inlets
- Maintain an adequate inventory of spill response supplies and equipment on fuel trucks, carts, fuel farms and at locations where it will be readily accessible.
 - Basic spill supplies may include:
 - Absorbent pads or mats
 - Dry absorbent (kitty litter)
 - Booms
 - Broom
 - Shovel
 - Waste container
- Respond to spills and use dry clean-up methods to address spills
 - Basic spill response, if safe to do so:
 - Protect self, coworkers and public, summon help if necessary
 - Stop spill source
 - Contain spill to prevent discharge to stormwater collection system
 - Collect and remove spilled material & dispose properly
 - Log spill and response effort/Report
- Response to small spills
 - Use dry clean-up methods (rags or absorbent) for leaks, drips, and other spills
 - Remove absorbent material promptly and dispose of properly
- Identify individual to lead spill response at your facility. Train designated spill and leak response staff.
- Install overflow protection devices on tank systems to warn the operator or automatically shut down transfer pumps when the tank reaches capacity
- Install overflow protection and automatic shut-off nozzles on dispensers
- Install secondary containment
- Install signage at self-service fueling locations instructing users in spill prevention, control and reporting.
- Install bollards or guard rail around public use tanks to protect tanks from damage
- Pave area with concrete rather than asphalt
- Develop and comply with SPCC plan for storage above applicable thresholds

- Spills and leaks must be addressed immediately upon discovery. Employees are instructed not to hose the spill with water.
- Trained fueler must be present during all bulk fuel loading/unloading operations
- If equipped, park fuel trucks on the transfer pad connected to an oil/water separator when loading and unloading fuel.
- Equip fuel storage facility with the following spill prevention devices
 - Leak detection system
 - High fuel level alarm
 - Deadman dispensers
 - Emergency stop button
- Apply parking brake on fuel truck when loading and unloading
- When receiving fuel deliveries:
 - Visually inspect fuel system components including the delivery hose, piping, pumps, filter vessels, tank inlet lines, etc. for evidence of damage, loose fittings, existing leaks, or leaks from previous transfers.
 - Read the receiving tank gauge to verify that the tank can accept the volume of fuel to be delivered by the tender
 - Place a drip pan or 5-gallon bucket beneath the hose to truck connection to catch fuel drips that may occur during
- Fence or place bollards around fuel farm facilities to prevent tank and piping from vehicular/aircraft damage.
- Inspect oil/water separator prior to rainy season.
- Contain leaks during deicing fluid transfer
- Post signage warning staff against “topping off” deicing equipment
- All discharges of deicing fluid to a stormwater inlet must be reported to the Airport Operations Center.
- Keep spill prevention and control plan up to date or have an emergency spill cleanup plan readily available, as applicable.
- If a battery acid spill or overflow occurs, responders:
 - Protect themselves with appropriate PPEs,
 - Neutralize spilled battery acid by applying a mixture containing 2 parts baking soda and one part water to the spill,
 - Use dry clean-up methods to pick up neutralized acid and baking soda,
 - Clean-up contaminants and store waste in hazardous waste storage area.
- Have an emergency plan and trained personnel ready at all times to deal immediately with spills.
- Contain leaks and spills during transfer
- Store and maintain appropriate spill cleanup materials (e.g. brooms, shovels, waste containers) in a location that is readily accessible and known to all employees.

- Identify individual to lead spill response at your facility and ensure that employees are familiar with the site's spill control plan and proper spill cleanup procedures
- Contain all leaks that occur during transfer and storage.

3.1.4 Material Handling and Waste Management

The following material handling and waste management measures will be implemented in accordance with the General Permit (Section X.H.1.d):

- Prevent or minimize handling of industrial materials or wastes that can be readily mobilized by contact with stormwater during a storm event;
- Contain all stored non-solid industrial materials or wastes (e.g., particulates, powders, shredded paper, etc.) that can be transported or dispersed by the wind or contact with stormwater during handling;
- Cover industrial waste disposal containers and industrial material storage containers that contain industrial materials when not in use;
- Divert run-on and stormwater generated from within the facility away from all stockpiled materials;
- Clean all spills of industrial materials or wastes that occur during handling in accordance with the spill response procedures (Section X.H.1.c); and
- Observe and clean as appropriate, any outdoor material or waste handling equipment or containers that can be contaminated by contact with industrial materials or wastes.

Specific material handling and waste management BMPs to be implemented at the Santa Barbara Municipal Airport facility are provided in Table 3.1 and the BMP fact sheets are included in Appendix G. In addition to the standard material handling and waste management best management practices, the Airport has identified the following material handling and waste management best management practices tailored to Airport industrial activities to address the goals of the standard BMPs. Each of these BMPs may apply to one or several individual Airport industrial activities and are identified by function in Appendix G.

- Minimize fueling activities during storm events.
- Contain waste and stored non-industrial materials to prevent them from being transported or dispersed by wind or rainfall.
- Cover waste disposal and industrial material containers when not in use, if possible.
- Minimize stormwater run-on by diverting stormwater flow away from storage areas (structure, berm, sandbags, elevate, etc)
- Provide secondary containment for liquid material and waste stored in containers greater than 5 gallons. Contain the materials in such a manner that if the storage container leaks or spills, the contents will not discharge, flow or be washed into the storm drain system or surface waters.
- Locate storage areas away from concentrated flows of storm water, drainage courses and inlets. Store indoors if feasible.

- Catch leaking or dripping fluids in drip pans or containers. Fluids are easier to recycle if kept separate. Prevent the drip pan or container from becoming FOD.
- Spot clean leaks and drips that occur during material handling and waste management, including removal of absorbent.
- Observe and clean all outdoor material and waste handling equipment or containers where contamination with industrial materials or waste could impact stormwater quality.
- Keep storage areas clean and dry (sweep or vacuum), do not hose down the area to a storm drain or conveyance ditch.
- Do not pour liquid wastes into floor drains, sinks, outdoor storm drain inlets or other storm drains or sewer connections.
- Promptly transfer used fluids to the proper waste or recycling drums. Do not leave drip pans or other open containers lying around.
- Do not refill deicing equipment during storm events.
- Provide bollards or an enclosure for deicing fluid stock to protect containers from being damaged by ramp equipment which could lead to a spill.
- Store deicing equipment away from stormwater inlets.
- Spot clean leaks and drips routinely to prevent runoff of spillage
- Collect all wash and rinse water from aircraft equipment cleaning operations that take place on the ramp. Discharge collected water to sanitary sewer.
- Have employees trained in spill containment and cleanup present during loading and unloading.
- Minimize material handling activities during storm events
- Use lav cart dump station connected to sanitary sewer to dispose of all aircraft lavatory waste.

3.1.5 Erosion and Sediment Controls

The following erosion and sediment control measures will be implemented in accordance with the General Permit (Section X.H.1.e):

- Implement effective wind erosion controls;
- Provide effective stabilization for all disturbed soils and other erodible areas prior to a forecasted storm event;
- Maintain effective perimeter controls and stabilize all site entrances and exits to sufficiently control discharges of erodible materials from discharging or being tracked off the site;
- Divert run-on and stormwater generated from within the facility away from all erodible materials; and
- If sediment basins are implemented, ensure compliance with the design storm standards in Section X.H.6. of the General Permit.

Specific erosion and sediment control BMPs to be implemented at the Santa Barbara Municipal Airport facility are provided in Table 3.1 and the BMP fact sheets are included in Appendix G. In addition to the standard erosion and sediment controls best management practices, the Airport has identified the following erosion and sediment controls best management practices tailored to Airport industrial activities to address the goals of the standard BMPs. Each of these BMPs may apply to one or several individual Airport industrial activities and are identified by function in Appendix G.

- All industrial activities must take place on a paved surface to prevent erosion and sediment transport.
- Sweep ramp areas quarterly to minimize dust generation and the possibility of material tracking.
- All industrial activities must take place on a paved surface to prevent erosion and sediment transport.
- Sweep fuel farm access roads quarterly to minimize dust generation and the possibility of material tracking.
- All industrial activities, including washing, must take place on a paved surface to prevent erosion and sediment transport.
- Keep materials covered to prevent erosion of stockpiles. This may not be feasible for large stockpiles.
- Install sediment controls such as fiber rolls or silt fences around the perimeter of stockpiles to prevent transport of raw materials to the storm drain.
- Install drain inlet protection around inlets down stream from outdoor stockpiles that are not completely covered or bermed to prevent stormwater run-on.
- Sweep storage areas quarterly to minimize dust generation and the possibility of material tracking.

3.1.6 Employee Training Program

An employee training program will be implemented in accordance with the following requirements in the General Permit (Section X.H.1.f):

- Ensure that all team members implementing the various compliance activities of this SWPPP are properly trained in topics including but not limited to: BMP implementation, BMP effectiveness evaluations, visual observations, and monitoring activities;
- Prepare or acquire appropriate training manuals or training materials;
- Identify which personnel need to be trained, their responsibilities, and the type of training they will receive;
- Provide a training schedule; and
- Maintain documentation of all completed training classes and the personnel that received training in the SWPPP.

The Pollution Prevention Team will be trained in implementing the various compliance activities specified in this SWPPP, and documentation of training activities is retained in SWPPP

Appendix C. To promote stormwater management awareness specific for this facility, refresher training will be provided every two years.

Task specific training for all employees engaged in activities that have the potential to cause stormwater pollution will be conducted when new employees are hired and refresher training will be provided annually.

This facility has Baseline Training. Each tenant involved in industrial activities at the Airport will be responsible for training their staff. A qualified team member from Airport staff will be available to provide information for tenant trainers. Best Management Practice fact sheets attached to this plan may form the basis of training. Individual tenants are responsible for providing information during training sessions and subsequently completing the training logs shown in Appendix C, which identifies the site-specific stormwater topics covered as well as the names of site personnel who attended the meeting. Each team member will be trained in the specific role they are responsible to undertake.

3.1.7 Quality Assurance and Record Keeping

The following quality assurance and record keeping activities will be performed in accordance with the requirements in the General Permit (Section X.H.1.g):

- Develop and implement management procedures to ensure that appropriate staff implements all elements of the SWPPP, including the Monitoring Implementation Plan (SWPPP Section 5);
- Develop a method of tracking and recording the implementation of BMPs identified in the SWPPP; and
- Maintain the BMP implementation records, training records, and records related to any spills and clean-up related response activities for a minimum of five (5) years as required in the General Permit (Section XXI.J.4).

BMPs will be implemented according to the schedule and procedures presented in SWPPP Section 4. BMPs will be implemented by properly trained team members as documented in Appendix C.

Airport staff will perform monthly visual observations as described in SWPPP Section 5.5. Potential pollutant sources and BMPs will be inspected during visual observations, and new BMPs will be implemented as needed. Records of visual observations of BMP implementation will be retained in Appendix H.

Paper or electronic records of documents required by this SWPPP will be retained for a minimum of five (5) years from the date generated or date submitted, whichever is later, for the following items:

- Employee Training Records;
- BMP Implementation Records;
- Spill and Clean-up Related Records;
- Records of Monitoring Information
 - The date, exact location, and time of sampling or measurement;

- The date(s) analyses were performed;
- The individual(s) that performed the analyses;
- The analytical techniques or methods used; and
- The results of such analyses;
- Level 1 ERA Reports;
- Level 2 ERA Action Plan;
- Level 2 ERA Technical Report; and
- Annual Reports.

3.2 ADVANCED BMPs

3.2.1 Exposure Minimization BMPs

Storm resistant shelters are installed onsite to prevent the contact of stormwater with industrial activities and material. The locations of these shelters and associated industrial activities and materials are presented in Table 3.2.

Table 3.2 Exposure Minimization BMPs

Shelter Location/Description	Associated Industrial Activity/Material
Airport Maintenance Yard – Approximately 5,625 square feet of covered parking for Airport maintenance vehicles and equipment.	Airport maintenance
Used Oil Collection Station	Aircraft maintenance

Airport has two covered parking areas for equipment and vehicles totaling approximately 5,625 square feet. Covered parking reduces the likelihood of stormwater contacting fluids that may leak from Airport maintenance vehicles and equipment.

Airport also provides a used oil collection station for Airport users. The collection station consists of a steel cabinet with a cover and secondary containment, a 55 gallon barrel for used oil, a container for used oil filters, spill response pads and a fire-proof refuse container for trash/related debris. There are also instructions for use, including instructions for users to follow in the event of a spill. The collection station is inspected and maintained by Airport staff.

Except for fueling, washing, deicing and emergency repairs, all other commercial maintenance activities take place indoors. In cases where aircraft cannot be maintained indoors, deployment of appropriate BMPs is required. BMPs have been developed to minimize exposure related to fueling, washing and deicing, as well as outdoor maintenance activities.

3.2.2 Stormwater Containment and Discharge Reduction BMPs

Stormwater containment and discharge reduction BMPs include BMPs that divert, reuse, contain, or reduce the volume of stormwater runoff. Specific stormwater containment and discharge

reduction BMPs to be implemented at the Santa Barbara Airport facility are provided in the BMP fact sheets are included in Appendix G.

The Airport has constructed vegetated swales to allow infiltration of stormwater and to reduce stormwater runoff at several sites around the Airport. None of these were installed to specifically serve or address industrial stormwater issues. Surface impoundment of stormwater is strongly discouraged at the Airport due to the fact that open water serves as a wildlife attractant. Increases in wildlife populations associated with surface impoundments of water may increase the risk of catastrophic collisions between aircraft and wildlife.

3.2.3 Treatment Control BMPs

Treatment control BMPs include one or more mechanical, chemical, biologic, physical, or any other treatment process technology and is sized to meet the treatment control design storm standard. Specific treatment control BMPs to be implemented at the Signature and Atlantic fuel farms are provided in the BMP fact sheets are included in Appendix G.

Stormwater runoff from Atlantic's commercial fuel farm areas and Signature's loading and unloading area are diverted to their respective oil/water separators prior to discharging to the storm drain system. The oil/water separators are equipped with overflow protection systems. Atlantic and Signature fuel farms are located in the northeast corner of the Airport, just east of the Signature FBO. Target constituents associated with these advanced BMP related to fuel storage include primarily oil and grease.

Stratman hangar facility was constructed in 2003. The project incorporated installation of swale system to collect stormwater from the west side of the building leading to a clarifier on the southeast corner of the site. Occupants of the south end of the hangar wash aircraft on their apron and all wash water passes through the clarifier before discharge to the stormwater collection system.

The Airport has installed other treatment control BMPs, such as filtered inlets and vegetative swales at several locations around the Airport. None of these treatment control BMPs directly serve storm drain inlets that receive discharge from industrial sources or are designed to address specific industrial pollutant sources.

3.2.4 Other Advanced BMPs

Aircraft wash rack – The aircraft wash rack is graded to reduce the potential for runoff and is equipped with an oil/water separator that connects to the sanitary sewer. The aircraft wash rack is located on the northeast portion of the airfield, south of the Signature FBO. Potential pollutants that are associated with washing, and addressed by this advanced BMP, include sediment, nutrients, metals, oil and grease and organics.

Equipment wash rack – The equipment wash rack is graded to reduce the potential for runoff and is equipped with a baffle box and diversion which discharge to the sanitary sewer during dry weather or to the storm drain during rain events. The flow diversion valve switches from

discharging to the sanitary sewer to the storm drain when the sensor detects rainfall. The equipment wash rack is located east of Station 8 on the landside of the airfield (outside the airfield fence). Potential pollutants that are associated with washing include sediment, nutrients, metals, oil and grease and organics.

Lav cart dump station – The lav cart dump station is graded and bermed to reduce the potential for runoff and is equipped with a grinder and connected directly to the sanitary sewer to receive lavatory waste from aircraft that is collected in lav carts. The lav cart dump station is located near the corner of Firestone Road and Hartley Place. Potential pollutants associated with lavatory waste are primarily sediments, trash, nutrients and bacteria.

Used oil collection station – Airport provides a used oil collection station, with secondary containment for disposal of used oil generated by do-it-yourself aircraft owners. The used oil collection station is located on the east end of the Airport T-hangars. This BMP reduces the potential for discharge of oil and grease.

Fuel farms – double walled steel tanks, equipped with overfill protection and electronic leak detection. Atlantic fuel tanks are situated in a concrete foundation with a 6-inch containment berm on the perimeter of the tank compound. Signature has containment for exposed loading and unloading areas only. Atlantic and Signature fuel farms are located in the northeast corner of the Airport, just east of the Signature FBO. Target constituents associated with these advanced BMP related to fuel storage include primarily oil and grease.

3.3 BMP SUMMARY TABLE

Table 3.5 summarizes the industrial activities, materials, pollutant sources, potential pollutants, and BMPs being implemented to prevent discharge of pollutants in stormwater runoff. Descriptions of the specific BMPs being implemented were provided in previous subsections. Implementation and maintenance of BMPs is described in Section 4.

Table 3.5 BMP Summary Table

Industrial Activity/Material	Pollutant Sources	Potential Pollutants	BMPs Implemented	BMP Fact Sheet	Required Equipment and Tools
Maintenance	Mobile Aircraft Fueling	Trash Metals Oil and Grease Organics	Good Housekeeping Preventative Maintenance Spill and Leak Prevention and Response Material Handling and Waste Management Erosion and Sediment Controls Employee Training Program Quality Assurance and Recordkeeping	SBA BMP 1	Broom or sweeper Secondary containment Spill supplies
	Fixed Vehicle and Aircraft Fueling	Trash Metals Oil and Grease Organics	Good Housekeeping Preventative Maintenance Spill and Leak Prevention and Response Material Handling and Waste Management Erosion and Sediment Controls Employee Training Program Quality Assurance and Recordkeeping	SBA BMP 2	Broom or sweeper Secondary containment Spill supplies
	Bulk fuel storage	Metals Oil and Grease	Good Housekeeping Preventative Maintenance Spill and Leak Prevention and Response Material Handling and Waste Management Erosion and Sediment Controls Employee Training Program Quality Assurance and Recordkeeping	SBA BMP 3	Broom or sweeper Secondary containment Spill supplies
	Outdoor Aircraft and Equipment Repairs and Lubrication	Trash Metals Oil and Grease Organics	Good Housekeeping Preventative Maintenance Spill and Leak Prevention and Response Material Handling and Waste Management Erosion and Sediment Controls Employee Training Program Quality Assurance and Recordkeeping	SBA BMP 4	Broom or sweeper Secondary containment Spill supplies Drip pan or drop cloth
	Outdoor Equipment	Sediment Nutrients	Good Housekeeping Preventative Maintenance	SBA BMP 6	Broom or sweeper

Table 3.5 BMP Summary Table

Industrial Activity/Material	Pollutant Sources	Potential Pollutants	BMPs Implemented	BMP Fact Sheet	Required Equipment and Tools
	Operation and Storage	Metals Oil and Grease Organics	Spill and Leak Prevention and Response Material Handling and Waste Management Erosion and Sediment Controls Employee Training Program Quality Assurance and Recordkeeping		Secondary containment Spill supplies Drip pan or drop cloth
	Dry Materials Outdoor Delivery, Loading and Storage	Sediment Nutrients Metals Oil and Grease Organics	Good Housekeeping Preventative Maintenance Spill and Leak Prevention and Response Material Handling and Waste Management Erosion and Sediment Controls Employee Training Program Quality Assurance and Recordkeeping	SBA BMP 8	Broom or sweeper Spill supplies Permanent cover, or temporary cover and berms.
	Liquid Materials Outdoor Delivery, Loading and Storage	Nutrients Metals Oil and Grease Organics	Good Housekeeping Preventative Maintenance Spill and Leak Prevention and Response Material Handling and Waste Management Erosion and Sediment Controls Employee Training Program Quality Assurance and Recordkeeping	SBA BMP 9	Broom or sweeper Secondary containment Spill supplies Drip pan or drop cloth
Cleaning	Aircraft and Equipment Washing	Sediment Nutrients Metals Oil and Grease Organics	Good Housekeeping Preventative Maintenance Spill and Leak Prevention and Response Material Handling and Waste Management Erosion and Sediment Controls Employee Training Program Quality Assurance and Recordkeeping	SBA BMP 7	Boom and vacuum system to wet wash on ramps.
Deicing	Aircraft Deicing Operations	Nutrients Metals Oil and Grease Organics	Good Housekeeping Preventative Maintenance Spill and Leak Prevention and Response Material Handling and Waste Management Erosion and Sediment Controls	SBA BMP 5	Broom or sweeper Secondary containment with cover and bollards or an enclosure

Table 3.5 BMP Summary Table

Industrial Activity/Material	Pollutant Sources	Potential Pollutants	BMPs Implemented	BMP Fact Sheet	Required Equipment and Tools
			Employee Training Program Quality Assurance and Recordkeeping		Absorbent or vacuum Spill supplies Drip pan or drop cloth

Section 4 BMP Implementation

4.1 BMP IMPLEMENTATION SCHEDULE

The schedule for implementing all minimum and advanced BMPs is presented in Table 4.1. BMPs will be implemented as necessary to reduce or prevent transport of industrial pollutants in stormwater runoff. Slight modifications to this schedule may be necessary to achieve this goal. Records of BMP implementation will be included in Appendix H.

Table 4.1 BMP Implementation Schedule

Industrial Activity/Material and Location	BMP Description	Person Responsible for Implementing BMP	Date and Time of Implementation	Implementation Duration
Aircraft ramps where ground service equipment is operated	Sealed batteries	All airfield tenants charging and storing ground service equipment on the ramps.	July 1, 2016	1 year
Aircraft ramps where ground service equipment is serviced	Maintain ground service equipment indoors or off-site	Airline Station Managers/FBO General Managers	January 1, 2016	6 months
Fueling/Storage Aircraft ramps	Sweeping Ramps	Airport Maintenance/FBO Managers	October 1, 2015	3 months
Outdoor material storage areas	Covered secondary containment for liquids stored in containers over 5 gallons.	Airline Station Managers/FBO General Managers	October 1, 2015	3 months

4.2 BMP INSPECTION AND MAINTENANCE

The General Permit requires, at a minimum, monthly observations of BMPs, along with inspections during sampling events. Monthly observations will be conducted during daylight hours of scheduled facility operating hours and on days without precipitation. A BMP observation checklist must be filled out for and maintained on-site with the SWPPP. The observation checklist includes the necessary information as discussed in Section 5.5. A blank observation checklist can be found in Appendix I, and completed checklists will be kept in Appendix H or in an accompanying file/binder that is referenced in the SWPPP and readily accessible on site.

BMPs will be maintained regularly to ensure proper and effective functionality. If necessary, corrective actions will be implemented within 72 hours of identified deficiencies and associated amendments to the SWPPP will be prepared and documented.

Specific guidance for maintenance, observation, and repair of advanced BMPs can be found in the BMP Factsheets in Appendix G.

Section 5 Monitoring Implementation Plan

5.1 Purpose

This Monitoring Implementation Plan was developed to address the following objectives:

1. Identify the monitoring team;
2. Describe weather and rain event tracking procedures;
3. Describe discharge locations, visual observations procedures
4. Describe visual observation response procedures;
5. Describe sample collection and handling procedures;
6. Describe field instrumentation calibration instructions and intervals;
7. Provide justification for alternative discharge locations, Representative Sample Reduction (RSR), and Qualified Combined Samples (QCS), as applicable; and
8. Provide an example Chain of Custody form to be used when handling and shipping water quality samples to the laboratory.

5.2. Weather and Rain Event Tracking

Stormwater sampling and visual observations will be conducted during Qualified Storm Events (QSEs). A QSE is defined as any precipitation event that produces a discharge for at least one drainage area and is preceded by 48 hours with no discharge from any drainage area. Weather and precipitation forecasts will be tracked to identify potential QSEs.

When targeting a QSE for stormwater sampling, the appropriate team member will weekly consult the National Oceanographic and Atmospheric Administration (NOAA) for weather forecasts. These forecasts can be obtained at <http://www.srh.noaa.gov/>. If weekly forecasts indicate potential for significant precipitation, the weather forecast will be closely monitored during the 48 hours preceding the event. Weather reports with precipitation data should be printed and maintained with the SWPPP in MIP Attachment 1 “Weather Reports” to document precipitation totals and antecedent conditions.

5.3 Monitoring Locations

Monitoring locations are shown on the Site Map(s) in Appendix A. Monitoring locations are described in Section 5.6.

Whenever changes in facility operations might affect the appropriateness of sampling locations, the sampling locations will be revised accordingly. All such revisions will be implemented as soon as feasible and the SWPPP amended.

5.4 Sample Collection and Visual Observation Exceptions

Safety practices for sample collection will be in accordance with the City of Santa Barbara Illness and Injury Prevention Plan dated July 1, 2007. A summary of the safety requirements that apply to sampling personnel is provided below.

- Field staff are required to wear appropriate personal protective equipment for the hazards associated with the task. Some sample containers have small amounts of acid preservative in the sample container. Staff performing sampling should use appropriate PPE to avoid acid contact with skin or eyes.
- Staff performing sampling should exercise due care in the course of their work to avoid hazardous weather and hazards resulting from severe weather to avoid injuries. If a hazardous situation is identified, staff should discontinue the hazardous work effort and contact the supervisor.
- At no time should staff enter any confined space associated with this stormwater pollution prevention plan, or stormwater sampling, without prior coordination with the supervisor.

Sample collection and visual observations are not required under the following conditions:

- During dangerous weather conditions such as flooding and electrical storms.
- Outside of scheduled site business hours.

Scheduled site business hours are presented in Section 2.2.

If monitoring (visual observations or sample collection) of the site is unsafe because of the dangerous conditions noted above then the appropriate team member will document the conditions for why an exception to performing the monitoring was necessary. The exception documentation will be filed in MIP Attachment 2 “Monitoring Records”.

5.5 Visual Observation Procedures

Visual monitoring includes observations of drainage areas, BMPs, and discharge locations.

- Observations of BMPs are required to identify and record BMPs that need maintenance to operate effectively, that have failed, or that could fail to operate as intended.
- Observations of the drainage areas are required to identify any spills, leaks, uncontrolled pollutant sources, and non-stormwater discharges.
- Observations of discharge locations are required to identify the presence of visible pollutants in stormwater discharged from the facility.

Visual observations will be performed at least once every calendar month during dry conditions. Visual observations will also be performed during stormwater sampling events when discharge is occurring.

5.5.1 Monthly Visual Observations

Monthly visual observations are necessary to document the presence of and to identify the source of any pollutants and non-stormwater flows. These should consist of observations of the outdoor facility operations, BMPs, and NSWV observations.

In the event that monthly visual observations are not performed, an explanation must be provided in the annual report.

5.5.1.1 *Outdoor Facility Operations Observations*

Observe potential sources of industrial pollutants including industrial equipment and storage areas, and outdoor industrial activities. Record observations of:

- Spills or leaks; and
- Uncontrolled pollutant sources

5.5.1.2 *BMP Observations*

Observe BMPs to identify and record:

- BMPs that are properly implemented;
- BMPs that need maintenance to operate effectively;
- BMPs that have failed; or
- BMPs that could fail to operate as intended.

5.5.1.3 *Non-Stormwater Discharge Observations*

Observe each drainage area for the presence of or indications of prior unauthorized and authorized non-stormwater discharges. Record:

- Presence or evidence of any non-stormwater discharge (authorized or unauthorized);
- Pollutant characteristics (floating and suspended material, sheen, discoloration, turbidity, odor, etc.); and
- Source of discharge.

For authorized non-stormwater discharges, also document whether BMPs are in place and are functioning to prevent contact with materials or equipment that could introduce pollutants

5.5.2 *Sampling Event Visual Observations*

Sampling event visual observations evaluate the general appearance of the stormwater as an indicator of potential pollutants. These observations will be conducted at the same time sampling occurs at the discharge locations identified in Section 5.6.2. At each discharge location where a sample is obtained, record observations of:

- Floating and suspended materials;
- Oil and grease;
- Discoloration;
- Turbidity;
- Odors; and
- Trash.

When pollutants are observed in the discharged stormwater, follow-up observations of the drainage area will be conducted to identify the probable source of the pollutants.

In the event that a discharge location is not visually observed during the sampling event, the location of the discharge and reasoning for not obtaining observations must be recorded.

5.5.3 Visual Monitoring Procedures

Visual monitoring will be conducted by trained team members. The name(s) and contact number(s) of the site visual monitoring personnel are listed below and their training qualifications are provided in Appendix C.

Assigned inspector: Juan Jaimes

Contact phone: (805) 692-6060

Alternate inspector: Matt Donahue

Contact phone: (805) 692-6060

Visual observations will be documented on the *Visual Observation Log* (see MIP Attachment 3 “Example Forms”). Visual observations will be supplemented with a site specific BMP inspection checklist. Photographs used to document observations will be referenced on the *Visual Observation Log* and maintained with the Monitoring Records in Attachment 2.

The completed logs and checklists will be kept in MIP Attachment 2 “Monitoring Records”.

5.5.4 Visual Monitoring Follow-Up and Reporting

Correction of deficiencies identified by the observations, including required repairs or maintenance of BMPs, will be initiated and completed as soon as possible. Response actions will include the following:

- Report observations to the Pollution Prevention Team Leader or designated individual;
- Identify and implement appropriate response actions;
- Determine if SWPPP update is needed;
- Verify completion of response actions; and
- Document response actions.

If identified deficiencies require design changes, including additional BMPs, the implementation of changes will be completed as soon as possible, and the SWPPP will be amended to reflect the changes.

BMP deficiencies identified in site observation reports and correction of deficiencies will be tracked on the *BMP Observation Checklist* and will be retained in Appendix I.

Results of visual monitoring must be summarized and reported in the Annual Report.

5.5.5 Visual Monitoring Locations

The observations identified in Sections 5.5.1 and 5.5.2 will be conducted at the locations identified in this section.

Visual monitoring locations are shown on the Site Map(s) in SWPPP Appendix A.

There are eight (8) drainage areas onsite that drain areas where industrial activities occur. Drainage area(s) are shown on the Site Map(s) in Appendix A and are identified in Table 5.1.

Table 5.1 Facility Drainage Areas

Location Identifier	Drainage Area Name
Drainage 1	Cass Place, Signature Self-Service Fueling and infields
Drainage 2	South Maintenance Yard
Drainage 5	Hollister Ave, fuel farms, 495 S. Fairview west, Signature ramp, helicopter pads, infields
Drainage 6	North Terminal ramp, taxiway and service road, infield
Drainage 9B	Infield, southwest Terminal ramp, Atlantic
Drainage 9C	Infield, west Terminal ramp
Drainage 10	Landside streets, Stratman hangar, 312 ramp, infield
Drainage at 495 S. Fairview South	South end of 495 S. Fairview

There are eight (8) discharge locations onsite that drain areas where industrial activities occur. Site stormwater discharge locations are shown on the Site Map in Appendix A and Table 5.2 identifies each stormwater discharge location.

Table 5.2 Stormwater Discharge Locations

Location Identifier	Discharge Location (Note Drainage Area that the discharge location drains)
Site 1	Drainage 1 discharges to Los Carneros Creek between Hangar 1 and the confluence with Tecolotito Creek.
Site 2 (N-X07-403)	Drainage 2 discharges to Los Carneros Creek at the southeast end of the Maintenance Yard
Site 5 (HW-Z07-462)	Drainage 5 discharges to San Pedro Creek south of Verhelle bridge.
Site 6 (HW-Z07-460)	Drainage 6 discharges to San Pedro Creek east of the WWII Memorial
Site 9B (HW-Y09-009)	Drainage 9B discharges to Goleta Slough near the southwest corner of the Slough Overlook
Site 9C (HW-Y09-009)	Drainage 9C discharges to Goleta Slough near the southwest corner of the Slough Overlook
Site 10 (N-X07-010)	Drainage 10 discharges to the Goleta Slough south of Taxiway F

Table 5.2 Stormwater Discharge Locations

Location Identifier	Discharge Location (Note Drainage Area that the discharge location drains)
495 S. Fairview Southeast (East of DI-Z06-347)	Drainage at 495 S. Fairview south discharges to San Pedro Creek north of Verhelle bridge.

There are 2 stormwater storage or containment area(s) onsite. Stormwater storage or containment area(s) are shown on the Site Map(s) in Appendix A and Table 5.3 identifies each stormwater storage or containment area by location.

Table 5.3 Stormwater Storage and Containment Areas

Location Identifier	Description of Containment (Note Drainage Area in which the containment is located)
Atlantic Fuel Farm Oil/Water Separator	Oil/water separator treats and stores/contains stormwater that accumulates within containment curbs surrounding the Atlantic fuel farm.
Signature Fuel Farm Oil/Water Separator	Oil/Water separator treats and stores/contains stormwater that accumulates within the loading pad.

5.6 Sampling and Analysis Procedures

This section describes the methods and procedures that will be followed for stormwater sampling and analysis. It contains information for sampling schedule, sampling locations, monitoring preparation, analytical constituents, sample collection, sample analysis, and data evaluation and reporting.

5.6.1 Sampling Schedule

Stormwater samples at each discharge location will be collected and analyzed from two (2) QSEs within the first half of each reporting year (July 1 to December 31), and two (2) QSEs within the second half of each reporting year (January 1 to June 30).

A QSE is a precipitation event that:

- Produces a discharge for at least one drainage area; and
- Is preceded by 48 hours with no discharge from any drainage area.

5.6.2 Sampling Locations

The Santa Barbara Airport has identified alternative discharge locations consistent with Section XI.C.3.a. of the IGP.

Many of the discharge locations at the site convey comingled stormwater from both industrial and non-industrial sources. In addition many of the Airport stormwater collection system discharge locations are very near sea level or below high water levels in the Goleta Slough. Despite being equipped with duckbills to prevent backflow, these outfalls are frequently underwater (making sampling impossible) and experience intrusion by brackish water during high tide or closed slough mouth conditions. Brackish water intrusion leads to sample results that do not reflect the true composition of the stormwater entering the collection system. By moving sampling locations up gradient from some outfalls more accurate assessments of industrial stormwater quality can be achieved.

Discharge locations with comingled industrial and non-industrial sources are presented in Table 5.3.a

Location Identifier	Description of Comingled Stormwater Source
Drainage 1	This drainage area comingles stormwater from airport ramps where fueling occurs (an industrial source) with stormwater from Cecil Cook Place and stormwater from runways, taxiways and field areas (non-industrial sources). Most drainage from the industrial source enters the collection system via a slot drain located at the intersection of Taxiway C and the primary runway.
Drainage 5	Drainage 5 comingles stormwater from non-industrial sources like Hollister Ave., runways, taxiways, service road and field areas, but also receives water from industrial sources like aircraft ramps, fuel storage areas and helicopter pads. Industrial discharges can be isolated from non-industrial sources for sampling at several points of connection along the collection system.
Drainage 6	Drainage area 6 collects industrial stormwater from the northern portion of the Airline Terminal ramp. As the industrial water is conveyed toward the discharge point, stormwater from non-industrial sources is also collected. The non-industrial sources that comingle are runways and taxiways, field areas and a service road.
Drainage 9B	Drainage area 9B collects water discharged from infield areas, Atlantic Aviation and terminal ramps, runways, taxiways and roadways, parking lots and landscape. The collection system then collects industrial stormwater from the southern portion of the Airline Terminal ramp and Atlantic ramp areas before it discharges in to the Goleta Slough.
Drainage 9C	Drainage area 9C collects water discharged from infield areas, runways and taxiway and industrial stormwater from the northern portion of the Airline Terminal ramp before it discharges in to the Goleta Slough.

	Industrial discharges can be isolated from non-industrial sources for sampling at several points of connection along the collection system.
Drainage 10	Drainage area 10 drains a large area of the central part of the airport including industrial and non-industrial sources. The catchment area includes non-industrial sources from roadways, parking lots, infield areas, runways and taxiways. Industrial sources that contribute to the conveyance in Drainage area 10 include aircraft ramps and aircraft maintenance facilities. Industrial discharges can be isolated from non-industrial sources for sampling at several points of connection along the collection system.
495 S. Fairview South	495 S. Fairview south collects stormwater from ramps where fueling may take place, then collects building maintenance facility and non-industrial sources from public parking and streets. Sampling before the non-industrial sources will give a more accurate assessment of industrial stormwater discharge quality.

A total of nineteen (19) industrial discharge locations have been identified on the project site. As discussed above, these locations represent the last point where stormwater from areas where industrial activities occur can be segregated from stormwater from non-industrial sources before being comingled with stormwater from other sources. In some cases inlets that collect stormwater from industrial sources comingles directly with stormwater from non-industrial sources already in the collection system making it nearly impossible to sample only the industrial source. Airport will select sample locations that will isolate stormwater that contacts areas with industrial activities to the maximum extent practicable.

Table 5.4.a Industrial Discharge Locations

Industrial Discharge Location Number	Industrial Discharge Location Description	Industrial Discharge Location Latitude and Longitude (Decimal Degrees)
CB-X07-324	South maintenance yard	34.43014 N 119.84777 W
MAG Fuel Farm	Hangar 1 slot drain at southwest corner of forest service ramp	34.42823 N 119.84655 W
DI-X07-045	Building 312 Ramp	34.42938 N 119.84397 W
DI-Y06-052	Southwest Stratman Ramp	34.43111 N 119.83951 W
DI-Y06-739	Signature Ramp/Helicopter Pads	34.43205 N 119.83444 W
DI-Y07-087	Terminal Ramp	34.42633 N 119.8371 W

Industrial Discharge Location Number	Industrial Discharge Location Description	Industrial Discharge Location Latitude and Longitude (Decimal Degrees)
DI-Y07-615	Inlet that collects stormwater from slot drain on Airline Terminal Ramp. (north end)	34.42613 N 119.83808 W
DI-Y07-616	Inlet that collects stormwater from slot drain on Airline Terminal Ramp. (second from north end)	34.42546 N 119.83877 W
DI-Y07-618	Inlet that collects stormwater from slot drain on Airline Terminal Ramp. (center inlet)	34.42489 N 119.83770 W
DI-Y07-619	Inlet that collects stormwater from slot drain on Airline Terminal Ramp. (second from south end)	34.42428 N 119.83750 W
DI-Y07-620	Inlet that collects stormwater from slot drain on Airline Terminal Ramp. (south end)	34.42395 N 119.83741 W
DI-Y07-621	Inlet that collects stormwater from slot drain on Airline Terminal Ramp. (north end)	34.42330 N 119.83721 W
DI-Y08-082	Southfield slot drain (north inlet)	34.42138 N 119.83622 W
DI-Y08-xxx	Southfield slot drain (south inlet)	34.42055 N 119.83596 W
Atlantic Fuel Farm	Atlantic Oil/Water Separator outfall	34.43399 N 119.83378 W
Signature Fuel Farm	Signature Separator outfall	34.43397 N 119.83310 W
HW-Y06-024	495 S. Fairview Northwest Ramp	34.43312N 119.83352 W
DI-Z06-135	495 S. Fairview Southeast Ramp	34.43140 N 119.83169 W

The Airport has identified Representative Sample Reduction for two areas. The Airline Terminal Ramp and the Southfield Ramp. Both areas are equipped with a slot drain that discharges in

multiple points to the collection system. Justification for representative sample reduction at the two sites per Section XI.C.4. is presented below in Table 5.3.b.1 and 5.4.b.2.

Table 5.4.b.1 Representative Sample Reduction Justification	
Airline Terminal Ramp	
Identification and description of each drainage area and corresponding discharge location	<p>The Airline Terminal ramp collects industrial discharges from commercial airline operations. There is a drop inlet on the far northwest corner of the ramp that drains the northern part of the ramp to Outfall 6. On the west side of the Airline Terminal there is a drop inlet near jet bridge 4 and a slot drain that extends the entire length of the western edge of the Airline Terminal Ramp. The slot drain has multiple connections to the pipe that conveys stormwater to the outfall 9C. The conveyance to outfall 9C also collects stormwater from non-industrial sources on the Airport. The southern end of the slot drain drains the southern portion of the Airline Terminal Ramp and connects to outfall 9B. Outfall 9B also combines stormwater collected from industrial and non-industrial sources. Non-industrial sources include vehicle parking, airport in-field areas, taxiways and runways.</p> <p>Outfall 6 discharges to San Pedro Creek, while Outfalls 9B and 9C discharge to the Goleta Slough.</p>
Description of industrial activities that occur throughout	Industrial activities that routinely occur on the Airline Terminal Ramp are fueling, emergency aircraft repairs and deicing. This is an active commercial airline ramp where associated equipment is used and stored.
A description of BMPs implemented in the drainage area	<ul style="list-style-type: none"> • SBA BMP 1 – Mobile Aircraft Fueling • SBA BMP 4 - Outdoor Aircraft and Equipment Repairs and Lubrication • SBA BMP 5 - Aircraft Deicing Operations • SBA BMP 6 – Outdoor Equipment Operation and Storage • SBA BMP 8 – Dry Materials - Outdoor Delivery, Loading and Storage • SBA BMP 9 – Liquid Materials – Outdoor Delivery, Loading and Storage.
A description of the physical characteristics of the drainage area.	The drainage area is very flat. The Airline Terminal Ramp, where industrial activities occur is an entirely concrete surface.
A rationale that demonstrates that the industrial activities and physical characteristics of the drainage area(s) are substantially similar.	Ground service activities associated with servicing and enplaning/deplaning arriving and departing aircraft are very similar. Fuelers from the Fixed Base Operators (FBO) fuel commercial aircraft on the ramp. Tugs are used to pull baggage carts from the Airline Terminal to and from the

	<p>aircraft. Belt loaders are used by to load luggage on to, and off of, commercial aircraft. Lav carts are used to service aircraft lavatories. Air start machines are occasionally used to help start aircraft. Ground power units (GPU) are used to supply power to aircraft when domestic power is not available. Tugs are used to push aircraft back from the parking spaces for departure. Infrequently airlines use deicing equipment to deice aircraft prior to early morning departures. Flights that arrive on the north side of the building are ground boarded, while flights that arrive on the west side of the building use jet bridges.</p>
<p>An identification of the discharge location(s) selected for representative sampling, and rationale demonstrating that the selected location(s) to be sampled are representative of the discharge from the entire drainage area.</p>	<p>The representative sample location will be at the slot drain collection and discharge point labeled Y07- 618 (34.42489 N/119.83770 W). This sample collection point receives stormwater from the center of the west side of the Airline Terminal ramp. At this location stormwater that is collected in a slot drain and a drop inlet is combined. All of the activities described above occur within the collection area for this drainage. Drain inlets in this area are designed to support the weight of a commercial aircraft and are very difficult to remove to provide access for sampling multiple locations.</p>

<p>Table 5.4.b.2 Representative Sample Reduction Justification</p>	
<p>Southfield Aviation Ramp</p>	
<p>Identification and description of each drainage area and corresponding discharge location</p>	<p>The drainage area on the Southfield Ramp consists of flat asphalt aircraft taxilanes and storage areas. The drainage area also houses T-hangars used for indoor aircraft storage. Stormwater is collected in a slot drain that has 2 connections to the storm water conveyance pipe that discharges at Outfall 9B. The stormwater collection system for Outfall 9B combines stormwater collected from industrial and non-industrial sources. Non-industrial sources include vehicle parking, airport in-field areas, taxiways and runways. Industrial sources include activities that occur on the south Airline Terminal Ramp, Hangar 5 and the northern portion of the Southfield Ramp. Outfall 9B discharges to the Goleta Slough.</p>
<p>Description of industrial activities that occur throughout</p>	<p>Aircraft maintenance, in the form of fueling, is the only industrial activity that occurs on the Southfield ramp.</p>
<p>A description of BMPs implemented in the drainage area</p>	<p>Atlantic Aviation is required to implement the following BMPs on their ramp:</p> <ul style="list-style-type: none"> • SBA BMP 1 – Mobile Aircraft Fueling

	<ul style="list-style-type: none"> • SBA BMP 4 - Outdoor Aircraft and Equipment Repairs and Lubrication • SBA BMP 6 – Outdoor Equipment Operation and Storage • SBA BMP 8 – Dry Materials - Outdoor Delivery, Loading and Storage • SBA BMP 9 – Liquid Materials – Outdoor Delivery, Loading and Storage.
A description of the physical characteristics of the drainage area.	The drainage area on the Southfield Ramp consists of flat asphalt aircraft taxilanes and storage areas. The drainage area also houses T-hangars used for indoor aircraft storage. Other portions of the collection area for outfall 9B receive stormwater vehicle parking lots, Airport in-field areas, taxiways and runways. Industrial sources that also connect to the upstream portions of the collection system for Outfall 9B include commercial airline activities that occur on the south Airline Terminal Ramp and discharges from areas where aircraft storage and maintenance occur on northern portion of the Southfield Ramp. This area is sampled separately from the drainage area for the Southfield Ramp.
A rationale that demonstrates that the industrial activities and physical characteristics of the drainage area(s) are substantially similar.	The primary function of the Southfield Ramp is aircraft storage. Activities related to that function include fueling and transporting pilots and passengers to and from their aircraft. Aircraft are either stored indoors in T-hangars or are tied down outdoors on the ramp.
An identification of the discharge location(s) selected for representative sampling, and rationale demonstrating that the selected location(s) to be sampled are representative of the discharge from the entire drainage area.	Airport will sample industrial discharges at the north slot drain collection and discharge point labeled DI-Y08 (34.42138 N/119.83622 W). This sample collection point receives stormwater from the south-central portion of the Southfield Ramp. At this location stormwater that is collected in a slot drain and a drop inlet is combined. Activities occurring in drainage areas on both ends of the slot drain are identical.

A total of twelve (12) industrial stormwater discharge locations will be sampled. Sample locations are shown on the Site Map(s) in Appendix A and are included in Table 5.4.c. Sample locations presented in Table 5.4.c were chosen based on site conditions discussed earlier in Section 5.6.2.

Sample Point Name	Location Number/Name	Sample Location Description	Sample Location Latitude and Longitude (Decimal Degrees)
Sample A	CB-X07-324	South maintenance yard	34.43014 N 119.84777 W

Sample Point Name	Location Number/Name	Sample Location Description	Sample Location Latitude and Longitude (Decimal Degrees)
Sample B	Signature Self-Service Fueling	Signature Self-Service Fueling Ramp slot drain at southwest corner of forest service ramp	34.42823 N 119.84655 W
Sample C	DI-X07-045	Building 312 Ramp	34.42938 N 119.84397 W
Sample D	DI-Y06-052	Southwest Stratman Ramp	34.43111 N 119.83951 W
Sample E	DI-Y06-739	Signature Ramp/Helicopter Pads	34.43205 N 119.83444 W
Sample F	DI-Y07-618	Terminal Ramp	34.42489 N 119.83770 W
Sample G	DI-Y08-xxx	Southfield Ramp	34.42138 N 119.83622 W
Sample H	Atlantic Fuel Farm	Atlantic Oil/Water Separator outfall	34.43399 N 119.83378 W
Sample I	Signature Fuel Farm	Signature Separator outfall	34.43397 N 119.83310 W
Sample J	HW-Y06-024	495 S. Fairview Northwest Ramp	34.43312N 119.83352 W
Sample K	DI-Z06-135	495 S. Fairview Southeast Ramp	34.43140 N 119.83169 W

5.6.3 Monitoring Preparation

Samples on the project site will be collected by the following sampling personnel:

Name/Telephone Number: Matt Donahue (805) 692-6060

Alternate(s)/Telephone Number: Andrew Bermond (805) 692-6057

An adequate stock of monitoring supplies and equipment for sampling will be available onsite prior to a sampling event. Monitoring supplies and equipment will be stored in a cool temperature environment that will not encounter rain or direct sunlight. Sampling personnel will be available to collect samples in accordance with the sampling schedule. Supplies maintained at the facility will include but are not limited to: clean powder-free nitrile gloves; sample collection

equipment; coolers; appropriate number and volume of sample containers; identification labels; re-sealable storage bags; paper towels; personal rain gear; ice; and *Sampling Field Log Sheets* and Chain of Custody (CoC) forms, which are provided in MIP Attachment 3 “Example Forms”.

5.6.4 Analytical Constituents

Table 5.5 identifies the constituents identified for sampling and analysis.

Table 5.5 Analytical Constituents

Constituent	Reason
pH	Basic required constituent
Oil and grease	Basic required constituent
Total Suspended Solids	Basic required constituent

5.6.5 Sample Collection

Samples of discharge will be collected at the designated sampling locations shown on the Site Map(s) in Appendix A. Samples from each discharge location will be collected within four (4) hours of:

- The start of the discharge; or
- The start of facility operations if the QSE occurs within the previous 12 hour period.

Sample collection is required during scheduled facility operating hours and when sampling conditions are safe.

Grab samples will be collected and preserved in accordance with the methods identified in Table 5.6, “Sample Collection, Preservation and Analysis for Water Quality Samples” provided in Section 5.6.6. Only team members properly trained in water quality sampling will collect samples.

The facility is not subject to Subchapter N ELGs mandating pH analysis and has not entered Level 1 Status for pH. Grab samples will be collected and analyzed for pH using litmus paper. The pH analysis will be performed as soon as practicable, but no later than 15 minutes after sample collection.

Samples from different discharge locations will not be combined or composited prior to shipment to the analytical laboratory. Sample collection and handling requirements are described in Section 5.8.

5.6.6 Sample Analysis

Samples will be analyzed using the analytical methods identified in the Table 5.6.

Samples will be analyzed by:

Laboratory Name: Eurofins Calscience, Inc
 Street Address: 2841 Dow Avenue, Suite 100

City, State Zip: Tustin, CA 92780
Telephone Number: +1-714-895-5494
Point of Contact: Don Burley
ELAP Certification Number: 2944

Samples will be delivered to the laboratory by:

- Facility Personnel Yes No
- Picked up by Laboratory Courier Yes No
- Shipped Yes No

Table 5.6 Sample Collection, Preservation and Analysis for Water Quality Samples

Constituent	Analytical Method	Minimum Sample Volume	Sample Containers	Sample Preservation	Reporting Limit	Maximum Holding Time
pH	Litmus Paper					
Suspended Solids, Total	SM 2540-D	1 L	HDPE or glass	None	1.0 mg/L	7 days
Oil & Grease	EPA 1664A	1 L	Glass with PTFE-lined screw cap	HCl or H ₂ SO ₄	5.0 mg/L	28 days
Notes: <div style="background-color: #cccccc; width: 30px; height: 20px; display: inline-block;"></div>						

5.6.7 Data Evaluation and Reporting

The designated member of the Pollution Prevention Team will complete an evaluation of the water quality sample analytical results.

All sampling and analytical results for all individual samples will be submitted via SMARTS within 30 days of obtaining all results for each sampling event.

The method detection limit will be provided when an analytical result from samples taken is reported by the laboratory as a “non-detect” or less than the method detection limit. A value of zero will not be reported.

Analytical results that are reported by the laboratory as below the minimum level (often referred to as the reporting limit) but above the method detection limit will be provided.

Reported analytical results will be averaged automatically by SMARTS at the end of the reporting year. For any calculations required by the General Permit a value of zero shall be used, all effluent sampling analytical results that are reported by the laboratory as “non-detect” or less than the Method Detection Limit (MDL).

5.7 Training of Sampling Personnel

Sampling personnel will be trained to collect, maintain, and ship samples in accordance with the General Permit and this SWPPP. Training records of designated sampling personnel are provided in Appendix C.

The stormwater sampler(s) and alternate(s) have received the following stormwater sampling training:

Name	Training
Andrew Bermond	<ul style="list-style-type: none"> • Completed a SWPPP training at Vandenberg Air Force Base in December 2005. • Reviewed EPA’s Industrial Stormwater Monitoring and Sampling Guide – March 2009 • Reviewed “How to do Stormwater Sampling - A guide for industrial facilities” - Washington State Department of Ecology December 2002 (rev. March 2010) • Reviewed IGP Attachment H –Sample Collection and Handling Instructions

The stormwater sampler(s) and alternates have the following stormwater sampling experience:

Name	Experience
Matthew Donahue	<ul style="list-style-type: none"> • 20 years’ experience in dry and wet weather storm water sampling
Andrew Bermond	<ul style="list-style-type: none"> • Assistant storm water inspector for Goleta Amtrak Station with AMEC Earth and Environmental 2005-2006.

Name	Experience
	<p>Completed storm water monitoring, collected samples, and did quarterly inspections.</p> <ul style="list-style-type: none"> • Lead revision of the Airport SWPPP 2021, 2023, and 2024 • Developed training and guidance materials based upon Airport stormwater sampling protocols • Developed spill response training materials. • Provided annual stormwater sampler and SPCC training to staff. • Analyzed sample results and drafted annual report of Airport industrial activities
Lucas Hathaway	<ul style="list-style-type: none"> • 3 years' experience storm water sampling

5.8 Sample Collection and Handling

5.8.1 Sample Collection

Samples will be collected at the designated sampling locations shown on the Site Map(s) and listed in the preceding sections. Samples will be collected, maintained and shipped in accordance with the requirements in the following sections.

Grab samples will be collected and preserved in accordance with the methods identified in preceding sections.

To maintain sample integrity and prevent cross-contamination, sample collection personnel will follow the protocols below.

- Collect samples (for laboratory analysis) only in analytical laboratory-provided sample containers;
- Wear clean, powder-free nitrile gloves when collecting samples;
- Change gloves whenever something not known to be clean has been touched;
- Change gloves between sites;
- Decontaminate all equipment (e.g. bucket, tubing) prior to sample collection using a trisodium phosphate water wash, distilled water rinse, and final rinse with distilled water. (Dispose of wash and rinse water appropriately, i.e., do not discharge to storm drain or receiving water). Do not decontaminate laboratory provided sample containers;
- Do not smoke during sampling events;
- Never sample near a running vehicle;
- Do not park vehicles in the immediate sample collection area (even non-running vehicles);
- Do not eat or drink during sample collection; and
- Do not breathe, sneeze, or cough in the direction of an open sample container.

The most important aspect of grab sampling is to collect a sample that represents the entire runoff stream. Typically, samples are collected by dipping the collection container in the runoff flow paths and streams as noted below.

- For small streams and flow paths, simply dip the bottle facing upstream until full.
- For larger stream that can be safely accessed, collect a sample in the middle of the flow stream by directly dipping the mouth of the bottle. Once again making sure that the opening of the bottle is facing upstream as to avoid any contamination by the sampler.
- For larger streams that cannot be safely waded, pole-samplers may be needed to safely access the representative flow.
- Avoid collecting samples from ponded, sluggish or stagnant water.
- Avoid collecting samples directly downstream from a bridge as the samples can be affected by the bridge structure or runoff from the road surface.
- Do not stand upstream of the sampling point within the flow path.

Note, that depending upon the specific analytical test, some containers may contain preservatives. These containers should **never** be dipped into the stream, but filled indirectly from the collection container.

5.8.2 Sample Handling

Field pH measurements must be conducted immediately. Do not store pH samples for later measurement.

Samples for laboratory analysis must be handled as follows. Immediately following sample collection:

- Cap sample containers;
- Complete sample container labels;
- Sealed containers in a re-sealable storage bag;
- Place sample containers into an ice-chilled cooler;
- Document sample information on the *Sampling Field Log Sheet*; and
- Complete the CoC.

All samples for laboratory analysis must be maintained between 0-6 degrees Celsius during delivery to the laboratory. Samples must be kept on ice, or refrigerated, from sample collection through delivery to the laboratory. Place samples to be shipped inside coolers with ice. Make sure the sample bottles are well packaged to prevent breakage and secure cooler lids with packaging tape.

Ship samples that will be laboratory analyzed to the analytical laboratory right away. Hold times are measured from the time the sample is collected to the time the sample is analyzed. The General Permit requires that samples be received by the analytical laboratory within 48 hours of the physical sampling (unless required sooner by the analytical laboratory).

5.8.3 Sample Documentation Procedures

All original data documented on sample bottle identification labels, *Sampling Log*, and CoCs will be recorded using waterproof ink. If an error is made on a document, sampling personnel will make corrections by lining through the error and entering the correct information. The erroneous information will not be obliterated. All corrections will be initialed and dated.

Duplicate samples will be identified consistent with the numbering system for other samples to prevent the laboratory from identifying duplicate samples. Duplicate samples will be identified in the *Sampling Log*.

Sample documentation procedures include the following:

Sample Bottle Identification Labels: Sampling personnel will attach an identification label to each sample bottle. Sample identification will uniquely identify each sample location.

Field Log Sheets: Sampling personnel will complete the *Effluent Sampling Field Log Sheet* and *Receiving Water Sampling Field Log Sheet* for each sampling event, as appropriate.

Chain of Custody: Sampling personnel will complete the CoC for each sampling event for which samples are collected for laboratory analysis. The sampler will sign the CoC when the sample(s) is turned over to the testing laboratory or courier.

5.9 Quality Assurance and Quality Control

An effective Quality Assurance and Quality Control (QA/QC) plan will be implemented as part of the IMP to ensure that analytical data can be used with confidence. QA/QC procedures to be initiated include the following:

- Field logs;
- Clean sampling techniques;
- CoCs;
- QA/QC Samples; and
- Data verification.

Each of these procedures is discussed in more detail in the following sections.

5.9.1 Field Logs

The purpose of field logs is to record sampling information and field observations during monitoring that may explain any uncharacteristic analytical results. Sampling information to be included in the field log include the date and time of water quality sample collection, sampling personnel, sample container identification numbers, and types of samples that were collected. Field observations should be noted in the field log for any abnormalities at the sampling location (color, odor, BMPs, etc.). Field measurements for pH and turbidity should also be recorded in the field log. A Visual Inspection Field Log, an Effluent Sampling Field Log Sheet are included in MIP Attachment 3 “Example Forms”.

5.9.2 Clean Sampling Techniques

Clean sampling techniques involve the use of certified clean containers for sample collection and clean powder-free nitrile gloves during sample collection and handling. As discussed in Section

6.8, adoption of a clean sampling approach will minimize the chance of field contamination and questionable data results.

5.9.3 Chain of Custody

The sample CoC is an important documentation step that tracks samples from collection through analysis to ensure the validity of the sample. Sample CoC procedures include the following:

- Proper labeling of samples;
- Use of CoC forms for all samples; and
- Prompt sample delivery to the analytical laboratory.

Analytical laboratories usually provide CoC forms to be filled out for sample containers. An example CoC is included in MIP Attachment 3 “Example Forms”.

5.9.4 QA/QC Samples

QA/QC samples provide an indication of the accuracy and precision of the sample collection; sample handling; field measurements; and analytical laboratory methods. The following types of QA/QC will be conducted for this project:

- Field Duplicates at a frequency of 1 duplicate per sampling event.
(Required for all sampling plans with field measurements or laboratory analysis)
- Equipment Blanks at a frequency of NA
(Only needed if equipment used to collect samples could add the pollutants to sample)
- Field Blanks at a frequency of NA
(Only required if sampling method calls for field blanks)
- Travel Blanks at a frequency of NA
(Required for sampling plans that include VOC laboratory analysis)

5.9.4.1 Field Duplicates

Field duplicates provide verification of laboratory or field analysis and sample collection. Duplicate samples will be collected, handled, and analyzed using the same protocols as primary samples. The sample location where field duplicates are collected will be randomly selected from the discharge locations. Duplicate samples will be collected immediately after the primary sample has been collected. Duplicate samples must be collected in the same manner and as close in time as possible to the original sample. Duplicate samples will not influence any evaluations or conclusion.

5.9.4.2 Equipment Blanks

Equipment blanks provide verification that equipment has not introduced a pollutant into the sample. Equipment blanks are typically collected when:

- New equipment is used.
- Equipment that has been cleaned after use at a contaminated site.
- Equipment that is not dedicated for surface water sampling is used; or
- Whenever a new lot of filters is used when sampling metals.

5.9.4.3 *Field Blanks*

Field blanks assess potential sample contamination levels that occur during field sampling activities. De-ionized water field blanks are taken to the field, transferred to the appropriate container, and treated the same as the corresponding sample type during a sampling event.

5.9.4.4 *Travel Blanks*

Travel blanks assess the potential for cross-contamination of volatile constituents between sample containers during shipment from the field to the laboratory. De-ionized water blanks are taken along for the trip and held unopened in the same cooler with the VOC samples.

5.9.5 **Data Verification**

After results are received from the analytical laboratory, the discharger will verify the data to ensure that it is complete, accurate, and the appropriate QA/QC requirements were met. Data must be verified as soon as the data reports are received. Data verification will include:

- Check the CoC and laboratory reports.
Make sure all requested analyses were performed and all samples are accounted for in the reports.
- Check laboratory reports to make sure hold times were met and that the reporting levels meet or are lower than the reporting levels agreed to in the contract.
- Check data for outlier values and follow up with the laboratory.
Occasionally typographical errors, unit reporting errors, or incomplete results are reported and should be easily detected. These errors need to be identified, clarified, and corrected quickly by the laboratory. Especially note data that is an order of magnitude or more different than similar locations or is inconsistent with previous data from the same location.
- Check laboratory QA/QC results.
EPA establishes QA/QC checks and acceptable criteria for laboratory analyses. These data are typically reported along with the sample results. Evaluate the reported QA/QC data to check for contamination (method, field, and equipment blanks), precision (laboratory matrix spike duplicates), and accuracy (matrix spikes and laboratory control samples). When QA/QC checks are outside acceptable ranges, the laboratory must flag the data, and usually provides an explanation of the potential impact to the sample results.
- Check the data set for outlier values and accordingly, confirm results and re-analyze samples where appropriate.
Sample re-analysis should only be undertaken when it appears that some part of the QA/QC resulted in a value out of the accepted range. Sample results may not be discounted unless the analytical laboratory identifies the required QA/QC criteria were not met and confirms this in writing.

Field data including pH measurements and visual observations must be verified as soon as the Visual Observation and Sampling Logs are received, typically at the end of the monitoring event. Field data verification will include:

- Check logs to make sure all required measurements were completed and appropriately documented.

- Check reported values that appear out of the typical range or inconsistent;
Follow-up immediately to identify potential reporting or equipment problems, if appropriate, recalibrate equipment after sampling.
- Verify equipment calibrations.
- Review observations noted on the logs; and
- Review notations of any errors and actions taken to correct the equipment or recording errors.

5.10 Records Retention

Records of stormwater monitoring information and copies of reports (including Annual Reports) must be retained for a period of at least five (5) years from date of submittal or longer if required by the Regional Water Board.

Results of visual observations, field measurements, and laboratory analyses must be kept in the SWPPP along with CoCs, and other documentation related to the monitoring.

Records to be retained include:

- The date, place, and time of inspections, sampling, visual observations, and/or measurements, including precipitation.
- The individual(s) who performed the inspections, sampling, visual observation, and/or field measurements.
- The date and approximate time of field measurements and laboratory analyses.
- The individual(s) who performed the laboratory analyses.
- A summary of all analytical results, the method detection limits and reporting limits, and the analytical techniques or methods used.
- Weather reports.
- QA/QC records and results.
- Calibration records.
- Visual observation and sample collection exception records; and
- The records of any corrective actions and follow-up activities that resulted from analytical results, visual observations, or inspections.

MIP Attachment 1: Weather Reports

MIP Attachment 2: Monitoring Records

MIP Attachment 3: Example Forms

Visual Observation Log - Monthly	
Date and Time of Inspection:	Report Date:
Facility Name:	
Weather	
Antecedent Conditions (last 48 hours):	Current Weather:
NSWD Observations	
Were any authorized non-stormwater discharges observed?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Were any unauthorized non-stormwater discharges observed?	Yes <input type="checkbox"/> No <input type="checkbox"/>
If yes to either, identify source:	
Outdoor Industrial Equipment and Storage Area Observations	
Complete Monthly BMP Inspection Report	Yes <input type="checkbox"/> No <input type="checkbox"/>
Drainage Area 1:	Were any deficiencies or any other potential source of industrial pollutants observed? Yes <input type="checkbox"/> No <input type="checkbox"/>
Drainage Area 2:	Were any deficiencies or any other potential source of industrial pollutants observed? Yes <input type="checkbox"/> No <input type="checkbox"/>
Drainage Area 3:	Were any deficiencies or any other potential source of industrial pollutants observed? Yes <input type="checkbox"/> No <input type="checkbox"/>
If yes to any, describe:	
Exception Documentation (explanation required if inspection could not be conducted).	
Inspector Information	
Inspector Name:	Inspector Title:
Signature:	Date:

Visual Observation Log – Sampling Events			
Date and Time of Inspection:		Report Date:	
Facility Name:			
Weather			
Antecedent Conditions (last 48 hours):		Weather:	
Precipitation Total:		Predicted % chance of rain:	
Estimate storm beginning: _____	Estimate storm duration: _____	Estimate time since last storm: _____	Rain gauge reading: _____
(date and time)	(hours)	(days or hours)	(inches)
Sampling Event Observations			
Observations: If yes identify location and observe drainage area to identify probable cause			
Odors	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Floating material	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Suspended Material	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Sheen	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Discolorations	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Turbidity	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
NSWD Observations			
Were any authorized non-stormwater discharges observed?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
Were any unauthorized non-stormwater discharges observed?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
If yes to either, identify source			
Drainage Area Observations			
Drainage Area		Deficiencies Noted	

Exception Documentation (explanation required if inspection could not be conducted).

--

Inspector Information

Inspector Name:

Inspector Title:

Signature:

Date:

Sampling Log		
Facility Name:	Date:	Time Start:
Sampler Name:		
Field Meter Calibration		
pH Meter ID No./Description:		
Calibration Date/Time:		
Field pH Measurements		
Discharge Location Identifier	pH	Time
Samples Collected		
Discharge Location Identifier	Constituent	Time
	Oil and Grease	
	Total Suspended Solids	
Additional Sampling Notes:		
Time End:		

CHAIN-OF-CUSTODY

DATE:

Lab ID:

DESTINATION LAB: ATTN: ADDRESS: Office Phone: Cell Phone:							REQUESTED ANALYSIS			Notes:	
							SAMPLED BY:				
							Contact:				
Facility Name											
Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container							
				#	Type	Pres.					
SENDER COMMENTS:							RELINQUISHED BY				
							Signature:				
							Print:				
							Company:				
Date:		TIME:									
LABORATORY COMMENTS:							RECEIVED BY				
							Signature:				
							Print:				
							Company:				
Date:		TIME			:						

MIP Attachment 4: Field Meter Instructions

MIP Attachment 5: Other Regulatory Documents

Section 6 References

State Water Resources Control Board (2014). Order 2014-0057-DWQ, NPDES General Permit No. CAS000001: National Pollutant Discharges Elimination System (NPDES) California General Permit for Storm Water Discharge Associated with Industrial Activities. Available online at: http://www.waterboards.ca.gov/water_issues/programs/stormwater/industrial.shtml.

CASQA 2012, *Stormwater BMP Handbook Portal: Industrial Commercial*, August 2014, www.casqa.org

Appendix A: Site Map(s)

Appendix B: Permit Registration Documents

Permit Registration Documents included in this Appendix

Y/N	Permit Registration Document
Y	Notice of Intent
Y	Certification
N	Copy of Annual Fee Receipt
Y	Site Map(s), see Appendix A

Appendix C: Training Reporting Form

Trained Team Member Log

Stormwater Management Training Log and Documentation

Facility Name: _____

WDID #: _____

Stormwater Management Topic: (check as appropriate)

- | | |
|---|---|
| <input type="checkbox"/> Good Housekeeping | <input type="checkbox"/> Preventative Maintenance |
| <input type="checkbox"/> Spill and Leak Prevention and Response | <input type="checkbox"/> Material Handling and Waste Management |
| <input type="checkbox"/> Erosion and Sediment Controls | <input type="checkbox"/> Quality Assurance and Record Keeping |
| <input type="checkbox"/> Advanced BMPs | <input type="checkbox"/> Visual Monitoring |
| <input type="checkbox"/> Stormwater Sampling and Analysis | |

Specific Training Objective: _____

Location: _____

Date: _____

Instructor: _____

Telephone: _____

Course Length (hours): _____

Attendee Roster (Attach additional forms if necessary)

Name	Company	Phone

As needed, add proof of external training (e.g., course completion certificates, credentials for QISP).

Appendix D: Responsible Parties

Authorization of Duly Authorized Representatives

Facility Name: **Santa Barbara Municipal Airport**

WDID #: **3-42I00-4505**

Name of Personnel	Project Role	Company	Signature	Date
Andrew Bermond	Lead SWPPP implementation/oversight/coordination	City of Santa Barbara		
Matthew Donahue	Back-up SWPPP implementation/oversight/coordination	City of Santa Barbara		
Bradley Klinzing	Coordination between industrial activities and capital projects (construction).	City of Santa Barbara		
Phil Davis	Back-up coordination between industrial activities and capital projects (construction).	City of Santa Barbara		

Andrew R. Bermond
LRP's Signature

June 6, 2024
Date

Andrew R. Bermond, Facilities Manager
LRP Name and Title

(805) 692-6057
Telephone Number

Identification of QISP

Facility Name: **Santa Barbara Municipal Airport**

WDID #: **3-42I00-4505**

The following are QISPs associated with this project

Name of Personnel ⁽¹⁾	Company	Date

(1) If additional QISPs are required, add additional lines and include information here

Appendix E: SWPPP Amendment Certifications

SWPPP Amendment No.

5

Project Name: Delta Airlines Launch

Project Number: _____

**Legally Responsible Person’s Certification of the
Stormwater Pollution Prevention Plan Amendment**

“This Stormwater Pollution Prevention Plan and attachments were prepared under my direction to meet the requirements of the California Industrial General Permit (SWRCB Order No. 2014-0057-DWQ).”

Andrew R. Bermond

LRP’s Signature

Andrew R. Bermond

LRP Name

Employee, City of Santa Barbara

Title and Affiliation

601 Norman Firestone Road - Santa Barbara, CA 93117

Address

June 6, 2024

Date

Facilities Manager

LRP Title

(805) 692-6057

Telephone

ABermond@SantaBarbaraCA.gov

Email

Appendix F: Calculations

Appendix G: Airport Industrial Stormwater Best Management Practice Fact Sheets

Mobile Aircraft Fueling SBA BMP 1

Description

Spills and leaks that occur during vehicle and equipment fueling can contribute hydrocarbons, oil and grease, as well as heavy metals to stormwater runoff. Implementing the following management practices can help prevent fuel spills and leaks.

Approach

Reduce potential for pollutant discharge through source control pollution prevention and BMP implementation. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

Target Constituents

- Trash
- Metals
- Oil and grease
- Organics

Best Management Practices

Good housekeeping

- Inspect outdoor ramp and storage areas monthly where maintenance, deicing, washing or fueling is performed, and where supplies and wastes are stored, to determine housekeeping needs. Any identified debris, waste, spills, tracked materials shall be cleaned and disposed of properly.
- Sweep ramp areas quarterly to minimize dust generation and the possibility of material tracking.
- Spot clean leaks and drips routinely, including removal of absorbent.
- All industrial activities, including fueling, must take place on a paved surface to minimize dust generation.
- Cover and contain all stored wastes to reduce adverse impacts to stormwater quality
- Do not pour wash/rinse water or industrial materials down storm drain
- Report leaking aircraft, vehicles and equipment to owner or landlord.
- Manage stormwater that may accumulate in secondary containment on fuel carts appropriately. Do not discharge water from secondary containment directly to storm drains or to the ground surface.
- Maintain existing drainage systems and patterns to minimize contact and between industrial stormwater and stormwater from non-industrial sources (non-industrial areas and authorized non-industrial sources).
- All discharges of fuel to a stormwater inlet must be reported immediately to the Airport Operations Center

Preventative Maintenance

- Identify outdoor equipment and systems that may spill or leak pollutants, and establish a maintenance schedule
- Establish a schedule and regularly inspect equipment and systems for leaks and conditions that may lead to leaks. Document inspections.
- Establish procedures for prompt repair of equipment and systems where leaks are found or conditions are found that may lead to leaks.
- Inspect condition of fuel trucks and storage tanks daily and repair immediately or take out of service in a manner that eliminates leaks and spills until leaks are repaired.
 - Check for corrosion, damage and structural failure
 - Check for spill and overflows due to operator error
 - Check for leaks and failure of piping system and hoses
 - Check for leaks and spills during pumping of liquids from truck
 - Visually inspect new tank and container installations for loose fittings, poor welding and improper or poorly fitted gaskets.
- When not in use, store fuel trucks on a hard surface away from a stormwater inlet. Inspect the parking area daily. Make repairs necessary to eliminate leaks. Cleanup all leaked material.

Spill and Leak Prevention and Response

- Keep your spill prevention and control plan up to date.
- Install overfill protection on tanks
- Install an emergency shut-off device
- Prohibit unattended fueling
- Post signage warning fuelers against “topping off” fuel tanks
- Park fueler trucks and carts in a designated area away from stormwater inlets
- Maintain an adequate inventory of spill response supplies and equipment on fuel trucks, carts, fuel farms and at locations where it will be readily accessible.
 - Basic spill supplies may include:
 - Absorbent pads or mats
 - Dry absorbent (kitty litter)
 - Booms
 - Broom
 - Shovel
 - Waste container
- Respond to spills and use dry clean-up methods to address spills
 - Basic spill response, if safe to do so:
 - Protect self, coworkers and public, summon help if necessary
 - Stop spill source
 - Contain spill to prevent discharge to stormwater collection system

- Collect and remove spilled material & dispose properly
 - Log spill and response effort/Report
- Response to small spills
 - Use dry clean-up methods (rags or absorbent) for leaks, drips, and other spills
 - Remove absorbent material promptly and dispose of properly
- Identify individual to lead spill response at your facility. Train designated spill and leak response staff.

Material Handling and Waste Management

- Minimize fueling activities during storm events.
- Contain waste and stored non-industrial materials to prevent them from being transported or dispersed by wind or rainfall.
- Cover waste disposal and industrial material containers when not in use, if possible.
- Minimize stormwater run-on by diverting stormwater flow away from storage areas (structure, berm, sandbags, elevate, etc)
- Provide secondary containment for liquid material and waste stored in containers greater than 5 gallons. Contain the materials in such a manner that if the storage container leaks or spills, the contents will not discharge, flow or be washed into the storm drain system or surface waters.
- Locate storage areas away from concentrated flows of storm water, drainage courses and inlets. Store indoors if feasible.
- Catch leaking or dripping fluids in drip pans or containers. Fluids are easier to recycle if kept separate. Prevent the drip pan or container from becoming FOD.
- Spot clean leaks and drips that occur during material handling and waste management, including removal of absorbent.
- Observe and clean all outdoor material and waste handling equipment or containers where contamination with industrial materials or waste could impact stormwater quality.
- Keep storage areas clean and dry (sweep or vacuum), do not hose down the area to a storm drain or conveyance ditch.
- Do not pour liquid wastes into floor drains, sinks, outdoor storm drain inlets or other storm drains or sewer connections.
- Promptly transfer used fluids to the proper waste or recycling drums. Do not leave drip pans or other open containers lying around.

Erosion and Sediment Controls

- All industrial activities must take place on a paved surface to prevent erosion and sediment transport.
- Sweep ramp areas quarterly to minimize dust generation and the possibility of material tracking.

Employee Training Program

- Establish a stormwater training plan that identifies staff to be trained, their responsibilities and the schedule for training.
- Educate employees about facility wide pollution prevention measures and goals using SBA BMP fact sheets and other materials specific to your operation.
- Train employees on proper methods for handling and disposing of waste.
- Make sure all employees understand stormwater discharge prohibitions, wastewater discharge requirements and these best management practices.
- Comply with FAA Aircraft Fueler training requirements (proper fueling and cleanup procedures)
- Comply with SPCC training requirements for your facility, including spill cleanup procedures
- Log training and record: training topic, trainer, attendees, frequency, comments, target date for completion of training and date completed.

Quality Assurance and Record Keeping

- Keep accurate logs that document completion of minimum BMP activities.
- Keep accurate training logs.
- Keep accurate logs of spill response actions that document types and volumes of spills, actions taken, how the waste was disposed and what was done to prevent future spills.
- Establish procedures to complete logs and file them in the central office.

Fixed Location Vehicle and Aircraft Fueling SBA BMP 2

Description

Spills and leaks that occur during vehicle and equipment fueling can contribute hydrocarbons, oil and grease, as well as heavy metals to stormwater runoff. Implementing the following management practices can help prevent fuel spills and leaks.

Approach

Reduce potential for pollutant discharge through source control pollution prevention and BMP implementation. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

Target Constituents

- Trash
- Metals
- Oil and grease
- Organics

Best Management Practices

Good housekeeping

- Inspect outdoor ramp and storage areas monthly where maintenance, deicing, washing or fueling is performed, and where supplies and wastes are stored, to determine housekeeping needs. Any identified debris, waste, spills, tracked materials shall be cleaned and disposed of properly.
- Sweep ramp areas quarterly to minimize dust generation and the possibility of material tracking.
- Spot clean leaks and drips routinely, including removal of absorbent.
- Report leaking aircraft and vehicles
- All industrial activities must take place on a paved surface to minimize dust generation.
- Cover and contain all stored wastes to reduce adverse impacts to stormwater quality
- Install signage on storm drain inlets to indicate that they are not to receive liquid or solid wastes.
- Post signs to remind employees and customers not to top off the fuel tank when filling.
- Do not pour wash/rinse water or industrial materials down storm drain
- Maintain existing drainage systems and patterns to minimize contact and between industrial stormwater and stormwater from non-industrial sources (non-industrial areas and authorized non-industrial sources).
- All discharges of fuel to a stormwater inlet must be reported immediately to the Airport Operations Center

Preventative Maintenance

- Identify outdoor equipment and systems that may spill or leak pollutants, and establish a maintenance schedule
- Establish a schedule and regularly inspect equipment and systems for leaks and conditions that may lead to leaks. Document inspections.
- Establish procedures for prompt repair of equipment and systems where leaks are found, or conditions are found that may lead to leaks.
- Inspect condition of fueling equipment and tanks daily and repair immediately
 - Check for corrosion, damage and structural failure
 - Check for spill and overflows due to operator error
 - Check for leaks and failure of piping system and hoses
 - Check for leaks and spills during pumping of liquids
 - Visually inspect new tank and container installations for loose fittings, poor welding and improper or poorly fitted gaskets.

Spill and Leak Prevention and Response

- Keep your spill prevention and control plan up to date.
- Maintain an adequate inventory of spill response supplies and equipment on fuel trucks, carts, fuel farms and at locations where it will be readily accessible.
 - Basic spill supplies may include:
 - Absorbent pads or mats
 - Dry absorbent (kitty litter)
 - Booms
 - Broom
 - Shovel
 - Waste container
- Respond to spills and use dry clean-up methods to address spills
 - Basic spill response, if safe to do so:
 - Protect self, coworkers and public, summon help if necessary
 - Stop spill source
 - Contain spill to prevent discharge to stormwater collection system
 - Collect and remove spilled material & dispose properly
 - Log spill and response effort/Report
- Response to small spills
 - Use dry clean-up methods (rags or absorbent) for leaks, drips, and other spills
 - Remove absorbent material promptly and dispose of properly
- Identify individual to lead spill response at your facility. Train designated spill and leak response staff.
- Prohibit unattended fueling
- Install emergency shut-off devices

- Install overflow protection devices on tank systems to warn the operator or automatically shut down transfer pumps when the tank reaches capacity
- Install overfill protection and automatic shut-off nozzles on dispensers
- Install secondary containment
- Install signage at self-service fueling locations instructing users in spill prevention, control and reporting.
- Install bollards or guard rail around public use tanks to protect tanks from damage
- Pave area with concrete rather than asphalt

Material Handling and Waste Management

- Minimize fueling activities during storm events.
- Contain waste and stored non-industrial materials to prevent them from being transported or dispersed by wind or rainfall.
- Cover waste disposal and industrial material containers when not in use, if possible.
- Minimize stormwater run-on by diverting stormwater flow away from storage areas (structure, berm, sand bags, elevate, etc)
- Provide secondary containment for liquid material and waste stored in containers greater than 5 gallons. Contain the materials in such a manner that if the storage container leaks or spills, the contents will not discharge, flow or be washed into the storm drain system or surface waters.
- Locate storage areas away from concentrated flows of storm water, drainage courses and inlets. Store indoors if feasible.
- Catch leaking or dripping fluids in drip pans or containers. Fluids are easier to recycle if kept separate. Prevent the drip pan or container from becoming FOD.
- Spot clean leaks and drips that occur during material handling and waste management, including removal of absorbent.
- Observe and clean all outdoor material and waste handling equipment or containers where contamination with industrial materials or waste could impact stormwater quality.
- Keep storage areas clean and dry (sweep or vacuum), do not hose down the area to a storm drain or conveyance ditch.
- Do not pour liquid wastes into floor drains, sinks, outdoor storm drain inlets or other storm drains or sewer connections.
- Promptly transfer used fluids to the proper waste or recycling drums. Do not leave drip pans or other open containers lying around.

Erosion and Sediment Controls

- All industrial activities must take place on a paved surface to prevent erosion and sediment transport.
- Sweep ramp areas quarterly to minimize dust generation and the possibility of material tracking.

Employee Training Program

- Establish a stormwater training plan that identifies staff to be trained, their responsibilities and the schedule for training.
- Educate employees about facility wide pollution prevention measures and goals using SBA BMP fact sheets and other materials specific to your operation.
- Train employees on proper methods for handling and disposing of waste.
- Make sure all employees understand stormwater discharge prohibitions, wastewater discharge requirements and these best management practices.
- Comply with SPCC training requirements for your facility, including spill cleanup procedures
- Log training and record: training topic, trainer, attendees, frequency, comments, target date for completion of training and date completed.

Quality Assurance and Record Keeping

- Keep accurate logs that document completion of minimum BMP activities.
- Keep accurate training logs.
- Keep accurate logs of spill response actions that document types and volumes of spills, actions taken, how the waste was disposed and what was done to prevent future spills.
- Establish procedures to complete logs and file them in the central office.

Bulk Fuel Storage

SBA BMP 3

Description

Spills and leaks that occur during loading, unloading and storing bulk fuel can contribute hydrocarbons, oil and grease, as well as heavy metals to stormwater runoff. Implementing the following management practices can help prevent fuel spills and leaks.

Approach

Reduce potential for pollutant discharge through source control pollution prevention and BMP implementation. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

Target Constituents

- Metals
- Oil and grease

Minimum BMP Covered

Good housekeeping

- Inspect outdoor ramp and storage areas monthly where maintenance, deicing, washing or fueling is performed, and where supplies and wastes are stored, to determine housekeeping needs. Any identified debris, waste, spills, tracked materials shall be cleaned and disposed of properly.
- Sweep fuel farm roads quarterly to minimize dust generation and the possibility of material tracking.
- Spot clean leaks and drips routinely, including removal of absorbent.
- Cover and contain all stored wastes to reduce adverse impacts to stormwater quality
- Maintain existing drainage systems and patterns to minimize contact and between industrial stormwater and stormwater from non-industrial sources (non-industrial areas and authorized non-stormwater discharge sources).
- Maintain an adequate stockpile of spill cleanup materials at locations where it will be readily accessible.
- All discharges of fuel to a stormwater inlet must be reported immediately to the Airport Operations Center

Preventative Maintenance

- Identify outdoor equipment and systems that may spill or leak pollutants, and establish a maintenance schedule
- Establish a schedule and regularly inspect equipment and systems for leaks and conditions that may lead to leaks. Document inspections.
- Establish procedures for prompt repair of equipment and systems where leaks are found or conditions are found that may lead to leaks.

- Inspect bulk fuel storage areas daily
 - Check for corrosion, damage and structural failure
 - Check for spill and overflows due to operator error
 - Check for leaks and failure of piping system and hoses
 - Check for leaks and spills during pumping of liquids
 - Visually inspect new tank and container installations for loose fittings, poor welding and improper or poorly fitted gaskets.
- When not in use, store fuel trucks on a hard surface away from a stormwater inlet. Inspect the parking area daily. Make repairs necessary to eliminate leaks. Cleanup all leaked material.
- Test internal spill prevention devices to confirm they are operational
- Service oil/water separators at least once per year, or more frequently as needed or if recommended by manufacturer.

Spill and Leak Prevention and Response

- Develop and comply with SPCC plan for storage above applicable thresholds
- Maintain an adequate inventory of spill response supplies and equipment on fuel trucks, carts, fuel farms and at locations where it will be readily accessible.
 - Basic spill supplies may include:
 - Absorbent pads or mats
 - Dry absorbent (kitty litter)
 - Booms
 - Broom
 - Shovel
 - Waste container
- Respond to spills and use dry clean-up methods to address spills
 - Basic spill response, if safe to do so:
 - Protect self, coworkers and public, summon help if necessary
 - Stop spill source
 - Contain spill to prevent discharge to stormwater collection system
 - Collect and remove spilled material & dispose properly
 - Log spill and response effort/Report
- Response to small spills
 - Use dry clean-up methods (rags or absorbent) for leaks, drips, and other spills
 - Remove absorbent material promptly and dispose of properly
- Identify individual to lead spill response at your facility. Train designated spill and leak response staff.
- Spills and leaks must be addressed immediately upon discovery. Employees are instructed not to hose the spill with water.
- Trained fueler must be present during all bulk fuel loading/unloading operations

- If equipped, park fuel trucks on the transfer pad connected to an oil/water separator when loading and unloading fuel.
- Equip fuel storage facility with the following spill prevention devices
 - Leak detection system
 - High fuel level alarm
 - Deadman dispensers
 - Emergency stop button
- Apply parking brake on fuel truck when loading and unloading
- When receiving fuel deliveries:
 - Visually inspect fuel system components including the delivery hose, piping, pumps, filter vessels, tank inlet lines, etc. for evidence of damage, loose fittings, existing leaks, or leaks from previous transfers.
 - Read the receiving tank gauge to verify that the tank can accept the volume of fuel to be delivered by the tender
 - Place a drip pan or 5 gallon bucket beneath the hose to truck connection to catch fuel drips that may occur during
- Fence or place bollards around fuel farm facilities to prevent tank and piping from vehicular/aircraft damage.
- Inspect oil/water separator prior to rainy season.

Material Handling and Waste Management

- Minimize fueling activities during storm events.
- Contain waste and stored non-industrial materials to prevent them from being transported or dispersed by wind or rainfall.
- Cover waste disposal and industrial material containers when not in use, if possible.
- Minimize stormwater run-on by diverting stormwater flow away from storage areas (structure, berm, sand bags, elevate, etc)
- Provide secondary containment for liquid material and waste stored in containers greater than 5 gallons. Contain the materials in such a manner that if the storage container leaks or spills, the contents will not discharge, flow or be washed into the storm drain system or surface waters.
- Locate storage areas away from concentrated flows of storm water, drainage courses and inlets. Store indoors if feasible.
- Catch leaking or dripping fluids in drip pans or containers. Fluids are easier to recycle if kept separate. Prevent the drip pan or container from becoming FOD.
- Spot clean leaks and drips that occur during material handling and waste management, including removal of absorbent.
- Observe and clean all outdoor material and waste handling equipment or containers where contamination with industrial materials or waste could impact stormwater quality.

- Keep storage areas clean and dry (sweep or vacuum), do not hose down the area to a storm drain or conveyance ditch.
- Do not pour liquid wastes into floor drains, sinks, outdoor storm drain inlets or other storm drains or sewer connections.
- Promptly transfer used fluids to the proper waste or recycling drums. Do not leave drip pans or other open containers lying around.

Erosion and Sediment Controls

- All industrial activities must take place on a paved surface to prevent erosion and sediment transport.
- Sweep fuel farm access roads quarterly to minimize dust generation and the possibility of material tracking.

Employee Training Program

- Train designated employees on proper fueling loading and unloading procedures.
- Establish a stormwater training plan that identifies staff to be trained, their responsibilities and the schedule for training.
- Educate employees about facility wide pollution prevention measures and goals using SBA BMP fact sheets and other materials specific to your operation.
- Train employees on proper methods for handling and disposing of waste.
- Make sure all employees understand stormwater discharge prohibitions, wastewater discharge requirements and these best management practices.
- Comply with SPCC training requirements for your facility, including spill cleanup procedures
- Log training and record: training topic, trainer, attendees, frequency, comments and date completed.

Quality Assurance and Record Keeping

- Keep accurate logs that document completion of minimum BMP activities.
- Keep accurate training logs.
- Keep accurate logs of spill response actions that document types and volumes of spills, actions taken, how the waste was disposed and what was done to prevent future spills.
- Establish procedures to complete logs and file them in the central office.

Outdoor Aircraft and Equipment Repairs /Lubrication SBA BMP 4

Description

Vehicle or equipment maintenance and repair are potentially significant sources of stormwater pollution, due to use of harmful material and wastes during maintenance and repair processes. Engine repair and service (e.g., parts cleaning), replacement of fluids (e.g., oil change), and outdoor equipment storage and parking (leaking equipment) can impact water quality if stormwater runoff from areas with these activities becomes polluted by a variety of contaminants. Implementation of the following activities must be done where applicable to prevent or reduce the discharge of pollutants to stormwater from vehicle and equipment maintenance and repair activities.

Approach

The BMP approach is to reduce the potential for pollutant discharges through source control pollution prevention and BMP implementation. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives. General pollution prevention protocols are presented followed by applicable minimum BMPs as required by the Industrial General Permit.

Target Constituents

- Metals
- Oil and grease
- Organics

Best Management Practices

Good housekeeping

- Inspect outdoor ramp and storage areas monthly where maintenance is performed, and where supplies and wastes are stored, to determine housekeeping needs. Any identified debris, waste, spills, tracked materials shall be cleaned and disposed of properly.
- Sweep ramp areas quarterly to minimize dust generation and the possibility of material tracking.
- All spills must be cleaned up immediately, using dry cleanup methods.
- All industrial activities must take place on a paved surface to minimize dust generation.
- Outdoor maintenance and repairs of ground equipment is generally prohibited. Ground equipment maintenance and repairs should be performed indoors or off-Airport.
- Outdoor aircraft repairs are generally prohibited. Use indoor facilities when available. All outdoor repairs shall be performed on paved surfaces only.
- All outdoor repairs, except emergency aircraft repairs, are prohibited during rain events.

- Maintain existing drainage systems and patterns to minimize contact and between industrial stormwater and stormwater from non-industrial sources (non-industrial areas and authorized non-stormwater discharge sources).
- Minimize use of solvents
- Do not hose down work area
- Do not pour wash/rinse water or industrial materials down storm drain

Preventative Maintenance

- Identify outdoor equipment and systems that may spill or leak pollutants, and establish a maintenance schedule
- Establish a schedule and regularly inspect equipment and systems for leaks and conditions that may lead to leaks. Document inspections.
- Establish procedures for prompt repair of equipment and systems where leaks are found or conditions are found that may lead to leaks.
- Inspect customer aircraft stored outdoors pending service for leaks. Use BMPs to prevent leaks from accumulating on the ramp and cleanup leaks immediately using dry methods.
- Keep equipment clean; don't allow excess build-up of oil and grease.
- Perform all vehicle and equipment fluid removal or changing inside or under cover, if possible, to prevent run-on of stormwater and run-off of spills.
- Except when actively working on an aircraft outdoors, repairs must be covered or cowlings in place to prevent contact with stormwater
- A drip pan or drop cloth of adequate size must be used for outdoor projects where liquids or loose particles may be encountered. Mechanic must prevent the drip pan or drop cloth from becoming FOD. Collected particles, drips and spills must be disposed of properly.
- Use absorbent, broom or vacuum to remove any drips, spills or solid wastes particles that are not captured by the drip pan or drop cloth. Dispose of waste properly.
- Sweep outdoor aircraft storage areas quarterly.
- Promptly transfer used fluids to the proper waste or recycling drums. Do not leave drip pans or other open containers lying around.
- Mark storm drain inlets with No Dumping – Drains to Ocean signage to help prevent non-stormwater discharges.

Spill and Leak Prevention and Response

- Keep spill prevention and control plan up to date
- Maintain an adequate inventory of spill response supplies and equipment on fuel trucks, carts, fuel farms and at locations where it will be readily accessible.
 - Basic spill supplies may include:
 - Absorbent pads or mats

- Dry absorbent (kitty litter)
 - Booms
 - Broom
 - Shovel
 - Waste container
- Respond to spills and use dry clean-up methods to address spills
 - Basic spill response, if safe to do so:
 - Protect self, coworkers and public, summon help if necessary
 - Stop spill source
 - Contain spill to prevent discharge to stormwater collection system
 - Collect and remove spilled material & dispose properly
 - Log spill and response effort/Report
- Response to small spills
 - Use dry clean-up methods (rags or absorbent) for leaks, drips, and other spills
 - Remove absorbent material promptly and dispose of properly
- Identify individual to lead spill response at your facility. Train designated spill and leak response staff.

Material Handling and Waste Management

- Minimize fueling activities during storm events.
- Contain waste and stored non-industrial materials to prevent them from being transported or dispersed by wind or rainfall.
- Cover waste disposal and industrial material containers when not in use, if possible.
- Minimize stormwater run-on by diverting stormwater flow away from storage areas (structure, berm, sandbags, elevate, etc)
- Provide secondary containment for liquid material and waste stored in containers greater than 5 gallons. Contain the materials in such a manner that if the storage container leaks or spills, the contents will not discharge, flow or be washed into the storm drain system or surface waters.
- Locate storage areas away from concentrated flows of storm water, drainage courses and inlets. Store indoors if feasible.
- Catch leaking or dripping fluids in drip pans or containers. Fluids are easier to recycle if kept separate. Prevent the drip pan or container from becoming FOD.
- Spot clean leaks and drips that occur during material handling and waste management, including removal of absorbent.
- Observe and clean all outdoor material and waste handling equipment or containers where contamination with industrial materials or waste could impact stormwater quality.
- Keep storage areas clean and dry (sweep or vacuum), do not hose down the area to a storm drain or conveyance ditch.

- Do not pour liquid wastes into floor drains, sinks, outdoor storm drain inlets or other storm drains or sewer connections.
- Promptly transfer used fluids to the proper waste or recycling drums. Do not leave drip pans or other open containers lying around.

Erosion and Sediment Controls

- All industrial activities must take place on a paved surface to prevent erosion and sediment transport.
- Sweep ramp areas quarterly to minimize dust generation and the possibility of material tracking.

Employee Training Program

- Establish a stormwater training plan that identifies staff to be trained, their responsibilities and the schedule for training.
- Educate employees about facility wide pollution prevention measures and goals using SBA BMP fact sheets and other materials specific to your operation.
- Make sure all employees understand stormwater discharge prohibitions, wastewater discharge requirements and these best management practices.
- Conduct training to ensure that employees are familiar with your spill control plan and/or proper spill cleanup procedures. Employees should have the tools and knowledge to immediately begin cleaning up a spill should one occur.
- Train employees in the proper handling and disposal of engine fluids and waste materials
- Log training and record: training topic, trainer, attendees, frequency, comments and date completed.

Quality Assurance and Record Keeping

- Keep accurate logs that document completion of minimum BMP activities.
- Keep accurate training logs.
- Keep accurate logs of spill response actions that document types and volumes of spills, actions taken, how the waste was disposed and what was done to prevent future spills.
- Establish procedures to complete logs and file them in the central office.

Aircraft Deicing Operations

SBA BMP 5

Description

Discharges that occur during aircraft deicing can contribute nutrients to stormwater runoff, and help transport metals, oil and grease, and organics to storm drains. Implementing the following management practices can help prevent impacts associated with deicing.

Approach

Reduce potential for pollutant discharge through source control pollution prevention and BMP implementation. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

Target Constituents

- Nutrients
- Metals
- Oil and grease
- Organics

Best Management Practices

Good housekeeping

- Inspect outdoor ramp and storage areas monthly where maintenance, deicing, washing or fueling is performed, and where supplies and wastes are stored, to determine housekeeping needs. Any identified debris, waste, spills, tracked materials shall be cleaned and disposed of properly.
- Prevent excessive deicing fluid discharges to the ramp by applying only enough fluid to deice the aircraft.
- Remove all deicing liquids discharged to the ramp using dry cleanup methods (vacuum, absorbent) immediately following the deicing event. If absorbent is used to remove deicing liquid, absorbent must be immediately removed after cleanup.
- Spot clean leaks and drips routinely, including removal of absorbent
- Avoid overfilling, drips and spills when transferring deicing fluid to deicing equipment.
- Designate a deicing zone that is away from all stormwater inlets
- Store deicing fluid inventory under cover and on secondary containment
- Install barriers to prevent deicing fluid from entering to a stormwater inlet, if necessary.
- Cover and contain all stored wastes to reduce adverse impacts to stormwater quality
- Maintain existing drainage systems and patterns to minimize contact and between industrial stormwater and stormwater from non-industrial sources (non-industrial areas and authorized non-stormwater discharge sources).
- Do not pour wash/rinse water or industrial materials down storm drain

Preventative Maintenance

- Identify outdoor equipment and systems that may spill or leak pollutants, and establish a maintenance schedule
- Establish a schedule and regularly inspect equipment and systems for leaks and conditions that may lead to leaks. Document inspections.
- Establish procedures for prompt repair of equipment and systems where leaks are found or conditions are found that may lead to leaks.
- Inspect deicing equipment, transfer pumps and hoses for leaks weekly between November 1 and April 1, and repair leaking equipment immediately. During the remainder of the year inspect all deicing equipment monthly.
- Keep equipment clean; don't allow excess build-up of oil, grease or deicing fluids.
- Perform deicing equipment maintenance and repairs indoors.
- Inspect outdoor ramp and storage areas monthly where deicing is performed and where equipment, supplies and wastes are stored, to determine housekeeping needs. Any identified debris, waste, spills, tracked materials shall be cleaned and disposed of properly.
- All industrial activities must take place on a paved surface to minimize dust generation.
- Sweep ramp areas quarterly to minimize dust generation and the possibility of material tracking.

Spill and Leak Prevention and Response

- Keep spill prevention and control plan up to date
- Maintain an adequate inventory of spill response supplies and equipment on fuel trucks, carts, fuel farms and at locations where it will be readily accessible.
 - Basic spill supplies may include:
 - Absorbent pads or mats
 - Dry absorbent (kitty litter)
 - Booms
 - Broom
 - Shovel
 - Waste container
- Respond to spills and use dry clean-up methods to address spills
 - Basic spill response, if safe to do so:
 - Protect self, coworkers and public, summon help if necessary
 - Stop spill source
 - Contain spill to prevent discharge to stormwater collection system
 - Collect and remove spilled material & dispose properly
 - Log spill and response effort/Report
- Response to small spills

- Use dry clean-up methods (rags or absorbent) for leaks, drips, and other spills
- Remove absorbent material promptly and dispose of properly
- Identify individual to lead spill response at your facility. Train designated spill and leak response staff.
- Contain leaks during deicing fluid transfer
- Post signage warning staff against “topping off” deicing equipment
- All discharges of deicing fluid to a stormwater inlet must be reported to the Airport Operations Center.

Material Handling and Waste Management

- Do not refill deicing equipment during storm events.
- Contain waste and stored non-industrial materials to prevent them from being transported or dispersed by wind or rainfall.
- Cover waste disposal and industrial material containers when not in use, if possible.
- Minimize stormwater run-on by diverting stormwater flow away from storage areas (structure, berm, sandbags, elevate, etc)
- Provide secondary containment for liquid material and waste stored in containers greater than 5 gallons. Contain the materials in such a manner that if the storage container leaks or spills, the contents will not discharge, flow or be washed into the storm drain system or surface waters.
- Locate storage areas away from concentrated flows of storm water, drainage courses and inlets. Store indoors if feasible.
- Catch leaking or dripping fluids in drip pans or containers. Fluids are easier to recycle if kept separate. Prevent the drip pan or container from becoming FOD.
- Spot clean leaks and drips that occur during material handling and waste management, including removal of absorbent.
- Observe and clean all outdoor material and waste handling equipment or containers where contamination with industrial materials or waste could impact stormwater quality.
- Keep storage areas clean and dry (sweep or vacuum), do not hose down the area to a storm drain or conveyance ditch.
- Do not pour liquid wastes into floor drains, sinks, outdoor storm drain inlets or other storm drains or sewer connections.
- Promptly transfer used fluids to the proper waste or recycling drums. Do not leave drip pans or other open containers lying around.
- Provide bollards or an enclosure for deicing fluid stock to protect containers from being damaged by ramp equipment which could lead to a spill.
- Store deicing equipment away from stormwater inlets.

Erosion and Sediment Controls

- All industrial activities must take place on a paved surface to prevent erosion and sediment transport.
- Sweep ramp areas quarterly to minimize dust generation and the possibility of material tracking.

Employee Training Program

- Establish a stormwater training plan that identifies staff to be trained, their responsibilities and the schedule for training.
- Educate employees about facility wide pollution prevention measures and goals using SBA BMP fact sheets and other materials specific to your operation.
- Make sure all employees understand stormwater discharge prohibitions, wastewater discharge requirements and these best management practices.
- Conduct training to ensure that employees are familiar with your spill control plan and/or proper spill cleanup procedures. Employees should have the tools and knowledge to immediately begin cleaning up a spill should one occur.
- Provide training on proper cleanup of deicing fluid and management of waste.
- Log training and record: training topic, trainer, attendees, frequency, comments and date completed.

Quality Assurance and Record Keeping

- Keep accurate logs that document completion of minimum BMP activities.
- Keep accurate training logs.
- Keep accurate logs of spill response actions that document types and volumes of spills, actions taken, how the waste was disposed and what was done to prevent future spills.
- Establish procedures to complete logs and file them in the central office.

Outdoor Equipment Operation and Storage

SBA BMP 6

Description

Outside equipment operations and maintenance can contaminate stormwater runoff. Equipment used and stored outdoors may leak oil, hydraulic fluid, grease, battery acid, antifreeze or lavatory waste and may produce stormwater contaminants like brake dust or may transport other contaminants by tracking them from the source. These contaminants impact water quality when they contact stormwater runoff. Implementation of the following activities must be done where applicable to prevent or reduce the discharge of pollutants to stormwater from equipment operation and storage.

Approach

Reduce potential for pollutant discharge through source control pollution prevention and BMP implementation. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

Target Constituents

- Sediment
- Nutrients
- Metals
- Oil and grease
- Organics

Best Management Practices

Good housekeeping

- Inspect outdoor ramp and storage areas monthly where maintenance, deicing, washing or fueling is performed, and where supplies and wastes are stored, to determine housekeeping needs. Any identified debris, waste, spills, tracked materials shall be cleaned and disposed of properly.
- Sweep ramp areas where aircraft and equipment is stored on a quarterly basis to minimize dust generation and the possibility of material tracking.
- Sealed batteries are required in all ground equipment that is stored outdoors.
- Inspect aircraft and equipment regularly for leaks. Repair leaking aircraft and equipment as soon as possible.
- Spot clean leaks and drips routinely, including removal of absorbent, using dry cleanup methods.
- All industrial activities must take place on a paved surface to minimize dust generation.
- Cover and contain all stored wastes to reduce adverse impacts to stormwater quality

- Maintain existing drainage systems and patterns to minimize contact and between industrial stormwater and stormwater from non-industrial sources (non-industrial areas and authorized non-stormwater discharge sources).
- Do not pour wash/rinse water or industrial materials down storm drain

Preventative Maintenance

- Identify outdoor equipment and systems that may spill or leak pollutants, and establish a maintenance schedule
- Establish a schedule and regularly inspect equipment and systems for leaks and conditions that may lead to leaks. Document inspections.
- Establish procedures for prompt repair of equipment and systems where leaks are found or conditions are found that may lead to leaks.
- Outdoor ground equipment charging stations will be inspected on a quarterly basis to make sure stations are in good working order and shutting down after charge cycle is complete
- Maintain ground equipment batteries properly:
 - Use only sealed batteries in equipment that is stored outdoors.
 - Inspect batteries regularly for leaks or signs of failure
- To minimize stormwater contact and iron staining on the ramp, repaint portions of ground equipment annually where acid has damaged a painted surface or removed paint to a point where bare metal or rust is visible.
- Keep equipment clean; don't allow excess build-up of oil and grease.
- Mark storm drain inlets with No Dumping – Drains to Ocean signage to help prevent non-stormwater discharges.

Spill and Leak Prevention and Response

- Keep spill prevention and control plan up to date or have an emergency spill cleanup plan readily available, as applicable.
- Maintain an adequate inventory of spill response supplies and equipment on fuel trucks, carts, fuel farms and at locations where it will be readily accessible.
 - Basic spill supplies may include:
 - Absorbent pads or mats
 - Dry absorbent (kitty litter)
 - Booms
 - Broom
 - Shovel
 - Waste container
- Respond to spills and use dry clean-up methods to address spills
 - Basic spill response, if safe to do so:
 - Protect self, coworkers and public, summon help if necessary

- Stop spill source
 - Contain spill to prevent discharge to stormwater collection system
 - Collect and remove spilled material & dispose properly
 - Log spill and response effort/Report
- Response to small spills
 - Use dry clean-up methods (rags or absorbent) for leaks, drips, and other spills
 - Remove absorbent material promptly and dispose of properly
- Identify individual to lead spill response at your facility. Train designated spill and leak response staff.
- Contain leaks during transfer and storage
- If a battery acid spill or overflow occurs, responders:
 - Protect themselves with appropriate PPEs,
 - Neutralize spilled battery acid by applying a mixture containing 2 parts baking soda and one part water to the spill,
 - Use dry clean-up methods to pick up neutralized acid and baking soda,
 - Clean-up contaminants and store waste in hazardous waste storage area.

Material Handling and Waste Management

- Spot clean leaks and drips routinely to prevent runoff of spillage
- Do not pour liquid wastes into floor drains, sinks, outdoor storm drain inlets , or other storm drains or sewer connections.
- Collect leaking or dripping fluids in drip pans or containers. Fluids are easier to recycle if kept separate.
- Use lav cart dump station connected to sanitary sewer to dispose of all aircraft lavatory waste.

Erosion and Sediment Controls

- All industrial activities must take place on a paved surface to prevent erosion and sediment transport.
- Sweep ramp areas quarterly to minimize dust generation and the possibility of material tracking.

Employee Training Program

- Establish a stormwater training plan that identifies staff to be trained, their responsibilities and the schedule for training.
- Educate employees about facility wide pollution prevention measures and goals using SBA BMP fact sheets and other materials specific to your operation.
- Make sure all employees understand stormwater discharge prohibitions, wastewater discharge requirements and these best management practices.

- Conduct training to ensure that employees are familiar with your spill control plan and/or proper spill cleanup procedures. Employees should have the tools and knowledge to immediately begin cleaning up a spill should one occur.
- Provide training on proper response to leaking aircraft or equipment.
- Log training and record: training topic, trainer, attendees, frequency, comments and date completed.

Quality Assurance and Record Keeping

- Keep accurate logs that document completion of minimum BMP activities.
- Keep accurate training logs.
- Keep accurate logs of spill response actions that document types and volumes of spills, actions taken, how the waste was disposed and what was done to prevent future spills.
- Establish procedures to complete logs and file them in the central office.

Aircraft and Equipment Washing

SBA BMP 7

Description

Wash water from vehicle, aircraft or equipment cleaning activities performed outdoors or in areas where wash water flows onto the ground can contribute toxic hydrocarbons and other organic compounds, oil and greases, nutrients, phosphates, heavy metals, and suspended solids to stormwater runoff. Use of the procedures outlined below can prevent or reduce the discharge of pollutants to stormwater during aircraft, vehicle and equipment cleaning.

Approach

Reduce potential for pollutant discharge through source control pollution prevention and BMP implementation. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

Target Constituents

- Sediment
- Nutrients
- Metals
- Oil and Grease
- Organics

Best Management Practices

Good housekeeping

- Inspect wash racks monthly to determine housekeeping needs. Any identified debris, waste, spills, tracked materials shall be cleaned and disposed of properly.
- Report leaking aircraft/vehicles to owner and leaseholder.
- Automobiles and equipment licensed for highway use must be washed off-site. Use commercial carwash facilities that contain and recycle wash and rinse water.
- Aircraft and equipment wash racks are provided for Airport users. Wash rack facilities are graded to collect wash water and are connected to the sanitary sewer.
- The following requirements apply for washing equipment and aircraft at the Airport:
 - Aircraft and equipment may be washed using a dry wash methods, or
 - Wash aircraft and equipment on a designated, paved wash racks provided by the Airport, or
 - Aircraft or equipment washed on the ramp with water must be on an impervious surface away from a stormwater inlet and:
 - A vacuum boom or other method to entirely contain and remove wash water and rinse water must be deployed.
 - Wash water must be removed and all surfaces that wash water contacted shall be rinsed and the rinse water contained and removed.

- Measures put in place to prevent wash water and rinse water from entering any stormwater inlet or conveyance.
 - Collected wash water and rinse water shall be disposed to the sanitary sewer.
- Wash racks will be marked clearly as a wash area by:
 - Posting signs stating that only washing is allowed in wash area
 - Provide information on how washing is done.
- Maintain existing drainage systems and patterns to minimize contact and between industrial stormwater and stormwater from non-industrial sources (non-industrial areas and authorized non-stormwater discharge sources).
- Provide trash containers in wash rack area.
- Do not pour wash/rinse water or industrial materials down storm drain

Preventative Maintenance

- Identify outdoor equipment and systems that may spill or leak pollutants, and establish a maintenance schedule
- Establish a schedule and regularly inspect equipment and systems for leaks and conditions that may lead to leaks. Document inspections.
- Establish procedures for prompt repair of equipment and systems where leaks are found or conditions are found that may lead to leaks.
- If equipped to perform washing on the ramp, contractor should perform routine inspection and maintenance of boom vacuum equipment and liquid tanks and piping to ensure that the equipment is in proper working order
- Perform routine inspections and repairs of wash racks, including washwater collection system and associated sanitary sewer conveyance/treatment systems (baffles/sumps), water supply and trash receptacles.
- Mark “at risk” storm drain inlets with No Dumping – Drains to Ocean signage to help prevent non-stormwater discharges.
- Water sources for aircraft and equipment wash water should be equipped with a nozzle that automatically turns off when not in use.

Spill and Leak Prevention and Response

- Have an emergency plan and trained personnel ready at all times to deal immediately with spills.
- Respond to spills and use dry clean-up methods to address spills
 - Basic spill response, if safe to do so:
 - Protect self, coworkers and public, summon help if necessary
 - Stop spill source
 - Contain spill to prevent discharge to stormwater collection system
 - Collect and remove spilled material & dispose properly

- Log spill and response effort/Report
- Response to small spills
 - Use dry clean-up methods (rags or absorbent) for leaks, drips, and other spills
 - Remove absorbent material promptly and dispose of properly
- Identify individual to lead spill response at your facility. Train designated spill and leak response staff.

Material Handling and Waste Management

- Collect all wash and rinse water from aircraft equipment cleaning operations that take place on the ramp. Discharge collected water to sanitary sewer.

Erosion and Sediment Controls

- All industrial activities, including washing, must take place on a paved surface to prevent erosion and sediment transport.

Employee Training Program

- Establish a stormwater training plan that identifies staff to be trained, their responsibilities and the schedule for training.
- Educate employees about facility wide pollution prevention measures and goals using SBA BMP fact sheets and other materials specific to your operation.
- Make sure all employees understand stormwater discharge prohibitions, wastewater discharge requirements and these best management practices.
- Conduct training to ensure that employees are familiar with your spill control plan and/or proper spill cleanup procedures. Employees should have the tools and knowledge to immediately begin cleaning up a spill should one occur.
- Log training and record: training topic, trainer, attendees, frequency, comments and date completed.

Quality Assurance and Record Keeping

- Keep accurate maintenance/inspection logs that document inspection of wash water recovery equipment.
- Keep accurate logs of spill response actions that document what was spilled, how it was cleaned up and how the waste was disposed.
- Airport shall document maintenance and inspection efforts of wash rack facilities.
- Maintain accurate records of efforts to sweep ramps, including date, time, how the waste was disposed and individual/company performing the work.
- Establish procedures to complete logs and file them in the central office

Dry Materials - Outdoor Delivery, Loading and Storage (Inventory and Waste)

SBA BMP 8

Description

Stockpiles of raw materials, by-products and finished products exposed to rain and/or runoff can pollute stormwater. Stormwater can become contaminated when materials wash off or dissolve into water due to improper storage and containment. To prevent or reduce the discharge of pollutants to stormwater from raw material delivery and storage, pollution prevention and source control measures must be implemented, such as minimizing the storage of hazardous materials on-site, enclosing or covering materials on-site, enclosing or covering materials, storing materials in a designated area, installing secondary containment, conducting regular inspections, preventing stormwater run-on and runoff, and training employees and subcontractors. This fact sheet focuses on source control BMPs for stockpiles of solid materials; if the raw material, by product or product is a liquid, see the outdoor liquid storage BMP fact sheet.

Approach

Reduce potential for pollutant discharge through source control pollution prevention and BMP implementation. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

Target Constituents

- Sediment
- Nutrients
- Metals
- Oil and Grease
- Organics

Best Management Practices

Good housekeeping

- Inspect outdoor ramp and storage areas monthly where supplies and wastes are stored, to determine housekeeping needs. Any identified debris, waste, spills, tracked materials shall be cleaned and disposed of properly.
- Sweep outdoor storage areas quarterly to minimize dust generation and the possibility of material tracking.
- All industrial activities must take place on a paved surface to minimize dust generation.
- Store materials that can be readily mobilized by contact with stormwater inside or under permanent cover. If this is not feasible, then outside storage areas should be covered and bermed or enclosed to prevent stormwater contact
 - If raw materials (stockpiles) that can be readily mobilized by contact with stormwater cannot all be stored inside or under permanent cover, prevent exposure to direct precipitation and stormwater run-on and dispersal by wind by installing berms and a storm-resistant waterproof covering like polyethylene over

all materials stored outside. The covers must be in place at all times when work with the stockpiles is not occurring.

- Stockpiles of raw materials that can be readily mobilized by contact with stormwater or easily dispersed or transported by wind (e.g. particulates, powders, shredded paper, etc.) that are too large to cover may not be stored without approval of the Airport Director.
- Maintain existing drainage systems and patterns to minimize contact between industrial stormwater and stormwater from non-industrial sources (non-industrial areas and authorized non-stormwater discharge sources).
- Conduct loading and unloading in dry weather if possible
- Have employees load and unload all materials and equipment in covered areas such as building overhangs at loading docks if feasible
- Pave loading areas with concrete instead of asphalt.
- Minimize the inventory of raw materials kept outside
- Do not store materials on top of or directly adjacent to storm drain inlets
- Keep storage areas clean and dry
- Keep waste dumpsters closed at all times, except when adding trash.
- Do not pour wash/rinse water or industrial materials down storm drain

Preventative Maintenance

- Identify outdoor equipment and systems that may spill or leak pollutants, and establish a maintenance schedule
- Establish a schedule and regularly inspect equipment and systems for leaks and conditions that may lead to leaks. Document inspections.
- Establish procedures for prompt repair of equipment and systems where leaks are found or conditions are found that may lead to leaks.
- Maintain outdoor storage containers in good condition. Replace leaky or otherwise inadequate containers as necessary.
- Maintain outdoor waterproof covers (e.g. tarps) in good condition and properly secure them to be storm resistant and to avoid them becoming FOD. Replace tarps damaged by UV exposure or wear and tear on a regular basis.
- Use dry cleanup methods to clean the work area regularly. Do not wash outdoor material storage areas with water.
- Conduct regular inspections of storage areas so that leaks and spills are detected as soon as possible.
- Inspect berms, curbing, containment, and sediment controls quarterly for proper function and repair as necessary.

Spill and Leak Prevention and Response

- Keep spill prevention and control plan up to date or have an emergency spill cleanup plan readily available, as applicable.
- Contain leaks and spills during transfer
- Store and maintain appropriate spill cleanup materials (e.g. brooms, shovels, waste containers) in a location that is readily accessible and known to all employees.
- Identify individual to lead spill response at your facility and ensure that employees are familiar with the site's spill control plan and proper spill cleanup procedures
- Respond to spills and use dry clean-up methods to address spills
 - Basic spill response, if safe to do so:
 - Protect self, coworkers and public, summon help if necessary
 - Stop spill source
 - Contain spill to prevent discharge to stormwater collection system
 - Collect and remove spilled material & dispose properly
 - Log spill and response effort/Report
- Response to small spills
 - Use dry clean-up methods (rags or absorbent) for leaks, drips, and other spills
 - Remove absorbent material promptly and dispose of properly

Material Handling and Waste Management

- Minimize material handling during storm events.
- Have employees trained in spill containment and cleanup present during loading and unloading.
- Contain waste and stored non-industrial materials to prevent them from being transported or dispersed by wind or rainfall.
- Cover waste disposal and industrial material containers when not in use, if possible.
- Minimize stormwater run-on by diverting stormwater flow away from storage areas (structure, berm, sandbags, elevate, etc)
- Locate storage areas away from concentrated flows of storm water, drainage courses and inlets. Store indoors if feasible.
- Spot clean leaks and spills that occur during material handling and waste management, including removal of absorbent.
- Observe and clean all outdoor material and waste handling equipment or containers where contamination with industrial materials or waste could impact stormwater quality.
- Keep storage areas clean and dry (sweep or vacuum), do not hose down the area to a storm drain or conveyance ditch.
- Do not pour liquid wastes into floor drains, sinks, outdoor storm drain inlets or other storm drains or sewer connections.

Erosion and Sediment Controls

- Keep materials covered to prevent erosion of stockpiles. This may not be feasible for large stockpiles.
- Install sediment controls such as fiber rolls or silt fences around the perimeter of stockpiles to prevent transport of raw materials to the storm drain.
- Install drain inlet protection around inlets down stream from outdoor stockpiles that are not completely covered or bermed to prevent stormwater run-on.
- All industrial activities must take place on a paved surface to prevent erosion and sediment transport.
- Sweep storage areas quarterly to minimize dust generation and the possibility of material tracking.

Employee Training Program

- Establish a stormwater training plan that identifies staff to be trained, their responsibilities and the schedule for training.
- Educate employees about facility wide pollution prevention measures and goals using SBA BMP fact sheets and other materials specific to your operation.
- Make sure all employees understand stormwater discharge prohibitions, wastewater discharge requirements and these best management practices.
- Conduct training to ensure that employees are familiar with your spill control plan and/or proper spill cleanup procedures. Employees should have the tools and knowledge to immediately begin cleaning up a spill should one occur.
- Log training and record: training topic, trainer, attendees, frequency, comments and date completed.

Quality Assurance and Record Keeping

- Keep accurate logs that document completion of minimum BMP activities.
- Keep accurate training logs.
- Keep accurate logs of spill response actions that document types and volumes of spills, actions taken, how the waste was disposed and what was done to prevent future spills.
- Establish procedures to complete logs and file them in the central office.

Liquid Materials-Outdoor Delivery, Loading and Storage (Inventory and Waste)

SBA BMP 9

Overview

Many Airport industrial dischargers receive, store and load liquids used in maintenance and repair of aircraft and ground equipment. These best management practices apply to liquids received, stored or loaded outdoors in containers that are 55 gallons or less.

Description

Accidental releases of materials from above ground liquid storage tanks, drums, and dumpsters present the potential for contaminating stormwater with many different pollutants. Tanks may store many potential stormwater pollutants, such as gasoline, aviation gas, diesel, kerosene, oils, greases, lubricants and other distilled, blended and refined products derived from crude petroleum. Materials spilled, leaked, or lost from storage tanks may accumulate in soils or on other surfaces and be carried away by rainfall runoff. These source controls apply to containers located outside of a building used to temporarily store liquid materials and include installing safeguards against accidental releases, installing secondary containment, conducting regular inspections, and training employees in standard operating procedures and spill cleanup techniques.

Approach

- Minimize inventory of materials stored outdoors.
- Protect materials stored outside from rainfall and wind dispersal to prevent storm water contamination and sediment loading. Containers must be stored under cover to prevent contact with rain, if possible.
- Containers over 5 gallons must be stored on secondary containment with sufficient capacity to hold the contents of the largest container plus 10%.
- Provide spill response supplies and equipment
- Conduct regular inspections of outdoor storage areas for conditions where storm water discharge contamination or sediment loading could occur. Remedy deficiencies found.
- Educate employees about best management practices

Target Constituents

- Nutrients
- Metals
- Oil and Grease
- Organics

Best Management Practices

Good housekeeping

- Inspect outdoor ramp and storage areas monthly where supplies and wastes are stored, to determine housekeeping needs. Any identified debris, waste, spills, tracked materials shall be cleaned and disposed of properly.

- Sweep ramp areas quarterly to minimize dust generation and the possibility of material tracking.
- All industrial activities must take place on a paved surface to minimize dust generation.
- Minimize inventory of materials stored outdoors.
- Protect materials stored outside from rainfall and wind dispersal to prevent storm water contamination and sediment loading. Containers must be stored under cover to prevent contact with rain, if possible.
- Containers over 5 gallon must be stored on secondary containment with sufficient capacity to hold the contents of the largest container plus 10%.
- Maintain existing drainage systems and patterns to minimize contact and between industrial stormwater and stormwater from non-industrial sources (non-industrial areas and authorized non-stormwater discharge sources).
- Locate storage areas away from concentrated flows of storm water, drainage courses and inlets. Store indoors if feasible.
- Cover and contain all stored wastes to reduce adverse impacts to stormwater quality
- Provide spill response supplies and equipment
- Keep storage areas clean and dry (sweep or vacuum), do not hose down the area to a storm drain or conveyance ditch.
- Maintain containers in good condition with tight fitting lids
- Conduct loading and unloading in dry weather, if possible
- Have employees trained in spill containment and cleanup present during loading and unloading.
- Have employees load and unload all materials and equipment in covered areas such as building overhangs at loading docks if feasible
- Pave loading areas with concrete instead of asphalt.
- Try to keep chemicals in their original containers and keep them well labeled.
- Provide secure storage to prevent vandalism-caused contamination
- Do not pour wash/rinse water or industrial materials down storm drain

Preventative Maintenance

- Identify outdoor equipment and systems that may spill or leak pollutants, and establish a maintenance schedule
- Establish a schedule and regularly inspect equipment and systems for leaks and conditions that may lead to leaks. Document inspections.
- Establish procedures for prompt repair of equipment and systems where leaks are found or conditions are found that may lead to leaks.
- Conduct and document regular inspections of outdoor storage areas for conditions where stormwater discharge contamination or sediment loading could occur. Remedy deficiencies found.
- Conduct and document routine inspections and check for external corrosion of material containers. Also check for structural failure, leaks, spills and overfills.

- Replace containers that are leaking, corroded, or otherwise deteriorating with ones in good condition. If the liquid chemicals are corrosive, containers made of compatible materials must be used, instead of metal drums.

Spill and Leak Prevention and Response

- Keep spill prevention and control plan up to date or have an emergency spill cleanup plan readily available, as applicable.
- Maintain an adequate inventory of spill response supplies and equipment on fuel trucks, carts, fuel farms and at locations where it will be readily accessible.
 - Basic spill supplies may include:
 - Absorbent pads or mats
 - Dry absorbent (kitty litter)
 - Booms
 - Broom
 - Shovel
 - Waste container
- Respond to spills and use dry clean-up methods to address spills
 - Basic spill response, if safe to do so:
 - Protect self, coworkers and public, summon help if necessary
 - Stop spill source
 - Contain spill to prevent discharge to stormwater collection system
 - Collect and remove spilled material & dispose properly
 - Log spill and response effort/Report
- Response to small spills
 - Use dry clean-up methods (rags or absorbent) for leaks, drips, and other spills
 - Remove absorbent material promptly and dispose of properly
- Identify individual to lead spill response at your facility. Train designated spill and leak response staff.
- Contain all leaks that occur during transfer and storage

Material Handling and Waste Management

- Minimize material handling activities during storm events.
- Contain waste and stored non-industrial materials to prevent them from being transported or dispersed by wind or rainfall.
- Cover waste disposal and industrial material containers when not in use, if possible.
- Minimize stormwater run-on by diverting stormwater flow away from storage areas (structure, berm, sand bags, elevate, etc)
- Provide secondary containment for liquid material and waste stored in containers greater than 5 gallons. Contain the materials in such a manner that if the storage container leaks or spills, the contents will not discharge, flow or be washed into the storm drain system or surface waters.

- Locate storage areas away from concentrated flows of storm water, drainage courses and inlets. Store indoors if feasible.
- Catch leaking or dripping fluids in drip pans or containers. Fluids are easier to recycle if kept separate. Prevent the drip pan or container from becoming FOD.
- Spot clean leaks and drips that occur during material handling and waste management, including removal of absorbent.
- Observe and clean all outdoor material and waste handling equipment or containers where contamination with industrial materials or waste could impact stormwater quality.
- Keep storage areas clean and dry (sweep or vacuum), do not hose down the area to a storm drain or conveyance ditch.
- Do not pour liquid wastes into floor drains, sinks, outdoor storm drain inlets or other storm drains or sewer connections.
- Promptly transfer used fluids to the proper waste or recycling drums. Do not leave drip pans or other open containers lying around.

Erosion and Sediment Controls

- All industrial activities must take place on a paved surface to prevent erosion and sediment transport.
- Sweep storage areas quarterly to minimize dust generation and the possibility of material tracking.

Employee Training Program

- Establish a stormwater training plan that identifies staff to be trained, their responsibilities and the schedule for training.
- Educate employees about facility wide pollution prevention measures and goals using SBA BMP fact sheets and other materials specific to your operation.
- Make sure all employees understand stormwater discharge prohibitions, wastewater discharge requirements and these best management practices.
- Conduct training to ensure that employees are familiar with your spill control plan and/or proper spill cleanup procedures. Employees should have the tools and knowledge to immediately begin cleaning up a spill should one occur.
- Log training and record: training topic, trainer, attendees, frequency, comments and date completed.

Quality Assurance and Record Keeping

- Keep accurate maintenance/inspection logs that document minimum BMP activities performed for liquid container storage and improvement actions.
- Keep accurate logs of spill response actions that document what was spilled, how it was cleaned up, and how the waste was disposed.
- Maintain a log of employee training
- Establish procedures to complete logs and file them in the central office

Appendix H: BMP Implementation Log

Table H.1 BMP Implementation Log

Industrial Activity/Material and Location	BMP Description	Implementation Frequency	Implementation Description or Fact Sheet Reference	Person Responsible for Implementing BMP

Appendix I: BMP Observation Forms

MONTHLY BMP INSPECTION REPORT

Date and Time of Inspection:		Date Report Written:	
Part I. General Information			
Site Information			
Facility Name: Santa Barbara Airport			
Facility Address: 601 Firestone Road, Santa Barbara, CA 93117			
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs:
Weather			
Estimate storm beginning: (date and time)		Estimate storm duration: (hours)	
Estimate time since last runoff from any drainage area: (days or hours)		Rain gauge reading and location: (in)	
Is a "Qualifying Storm Event" predicted or did one occur (i.e., discharge from site preceded by 48-hrs without discharge)? (Y/N) If yes, summarize forecast:			
Exception Documentation (explanation required if inspection could not be conducted).			
General Inspection/Condition Notes			
Inspector Information			
Inspector Name:		Inspector Title:	
Signature:		Date:	

Part II. BMP Observations. Describe deficiencies in Part III.			
Industrial Source BMP Observations Refer to applicable BMP Fact Sheets – Observe outdoor operations and note deficiencies	Failures or other Deficiencies (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Above All Aviation			
Airport Maintenance			
Alaska Airlines			
American Airlines			
Atlantic Aviation			
Attention to Detail			
Avionics & Maintenance West			

Part II. BMP Observations Continued. Describe deficiencies in Part III.

Industrial Source BMP Observations Refer to applicable BMP Fact Sheets – Observe outdoor operations and note deficiencies	Failures or other Deficiencies (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Coastal Aviation/Accurate Aviation			
Empire Airlines			
Delta Air Lines			
Powerwash			
Signature Flight Support			
Southwest Airlines			

Part III. Descriptions of BMP Deficiencies

Deficiency	Repairs Implemented: Note - Repairs must be completed as soon as possible.	
	Repaired (Y/N)	Corrective Action Implemented
1.		
2.		
3.		
4.		
5.		

Part IV. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Identify BMPs that need more frequent inspection. Note if SWPPP change is required.

Required Actions	Implementation Date

Part V. Outdoor Facility Operations. Inspect sample points and ramps for non-stormwater discharges and spills or leaks

Location	Location Description	Observations
Ramps	GA and Commercial Ramps	
Sample A	South Maintenance Yard	
Sample B	Hangar 1 slot drain at TXY C and RWY 7-25 RSA	
Sample C	Building 312 Ramp	
Sample D	Southwest Above All Aviation Ramp	
Sample E	Signature Ramp/ Helicopter pads	

Sample F	Terminal Ramp	
Sample G	Southfield Ramp	
Sample H	Atlantic Fuel Farm Oil/Water Separator outfall	
Sample I	Signature Fuel Farm Oil/Water Separator	
Sample J	495 S. Fairview Northwest Ramp	
Sample K	495 S. Fairview Southeast Ramp	

Part VI. Non-Stormwater Discharge Observations – Observe both industrial and non-industrial outfalls			
Outfall Number	Tributary Area	Description of Outfall	Observations*
1	Drainage area north of runway 7/25 and from Forest Service Ramp, Hangar 1 and Cook Place.	30” duckbill outfall pipe to Carneros Creek. North of Runway 7	
2	Discharge from the maintenance yard, except for the northeastern portion of the yard.	12” outfall pipe with duckbill to Carneros Creek. south of Maintenance Yard	
3	Drainage area south of Firestone Road from Cass Place and areas surrounding FAA control tower to Building 304.	16” outfall pipe to Carneros Creek.	
4	Building 114 & Goleta Water District well.	18” outfall pipe to San Pedro Creek	
5	Discharge from FBOs, helicopter pads, runway 7/25, and some commercial/industrial north of Hollister Ave.	30” duckbill outfall N.E. of Runway 25, at San Pedro Creek.	
6	Discharge airfield, AOA, service road and commercial apron/Terminal area.	30” duckbill outfall S.E. of Runway 25, at San Pedro Creek.	
7	Drainage area from airline terminal parking lot.	18” outfall culvert to wetlands south of the Long Term Parking Lot at Fowler Road.	
8	Discharge from car rental area and parking lots.	Two 12” outfall pipes to wetlands east of the Short Term Parking Lot at Moffett Place.	

9a, 9b and 9c	9a, drains south end of Moffett Pl and the Atlantic parking lot; 9b, drains the Atlantic aircraft ramp area; and 9c drains infield between runway 15L/33R and taxiway B.	9a. 18" concrete outfall to Goleta Slough south of Taxiway B. 9b. and 9c. (2) 30" duckbill outfall pipes to Goleta Slough, south of Taxiway B.	
10	Discharge primarily from aircraft ramps, FBOs, runway and taxiways.	36" duckbill concrete outlet to Goleta Slough, south of Taxiway A, west of Taxiway F.	
11	Discharge primarily from runways 15R/33L.	24" CMP duckbill outlet to the Goleta Slough, west of Runway 33L, north of Taxiway E. (SE of windsock).	
12	Drainage area south of runway 7/25.	24" CMP duckbill outlet to the Goleta Slough south of Taxiway A, east of Taxiway F.	
13	Drainage area south of runway 7/25.	24" CMP duckbill outlet to the Goleta Slough south of Taxiway, west of Taxiway F and Outlet No. 10.	
14	Discharge from northeastern portion of maintenance yard.	18" steel pipe outlet to Carneros Creek, south of Firestone Road.	
15	North of Hollister- Airport and Goleta commercial/industrial areas.	Double box culvert from Firestone swale to Carneros Creek south of Firestone Road.	
16	Drainage area from airline terminal parking lot area.	Two (2) conc. 18" outlet pipe to wetlands south of Fowler Vista parking lot exit.	
17a and 17b	Drainage area near FAA ASR Radar.	24" conc. duckbill pipes to Goleta Slough south of Radar Site, west of Rwy 15R.	

18	Drainage area from open field space near FAA localizer.	18" CMP to East Side of San Pedro Creek, west of Fairview Ave., east of Rwy 7 end.	
19	Discharge from hangars 248 & 249.	18" PVC at Boneyard to west side of San Pedro Creek.	
20	Drainage from runway 7/25	30" conc. duckbill pipe west of Twy. D to west side of San Pedro Creek.	
21	Downstream of maintenance yard and north of runway.	10" steel pipe south of Troup Road to north side of Carneros Creek.	
22	Goleta and Airport commercial/industrial properties south of railroad track.	18" concrete pipe discharges on east side of Hayward to San Pedro Creek.	
23	Downstream of maintenance yard and north of runway. Commercial/industrial areas north of Hollister. Airport open space south of Hollister, west of Troup Road.	36" CMP duckbill to Carneros Creek west of Troup Road and north of the west end of Runway 7.	
24	Safety Area on west end of the airfield.	18" RCP duckbill SW of bunker to north side Tecolotito Creek.	
25	Safety Area on west end of the airfield.	24" RCP duckbill south of FAA MALSR building to north side of Tecolotito Creek.	
26	Safety Area on west end of the airfield.	24" RCP duckbill south of western most end of airfield service road to north side of Tecolotito Creek.	
27	Local drainage of the safety area west end of the airfield, serves one inlet.	10" Corrugated plastic pipe to south side of confluence of Carneros and Tecolotito Creeks.	

28	Local drainage of the safety area west end of the airfield, serves one inlet.	12" Corrugated plastic pipe SW of FAA Hollister RTR facility to south side of Carneros Creek.	
29	Local drainage of the safety area west end of the airfield, serves one inlet.	10" Corrugated plastic pipe south of FAA Hollister RTR facility to south side of Carneros Creek.	
30	Hollister Avenue at Tecolotito Creek.	8" PVC to west side of Tecolotito Creek at south side of bridge on Hollister Ave.	

Inspection observations should document discoloration, stains, odors, floating materials and the source of any unauthorized discharge.

Notes:

Appendix J: Industrial General Permit
