Storm Water Pollution Prevention Plan

For:
Chautauqua County Airport/Dunkirk (DKK)
Dunkirk, New York
Chautauqua County, 3250 Middle Road, Dunkirk, NY

Contacts:

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December 2012

Prepared By:
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ATTACHMENTS

1 Certifications

1.1 SWPPP Certification

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

Name: _____ Title: _____

Signature: _____ Date: _____

1.2 Non-Stormwater Discharge Assessment Certification

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

Name: _____ Title: _____

Signature: _____ Date: _____

2 Facility Description and Contact Information

This document is the operational Stormwater Pollution Prevention Plan (SWPPP) for the Chautauqua County Airport/Dunkirk. It was compiled to facilitate compliance with requirements of the State Pollutant Discharge Elimination System (SPDES) program. This SWPPP will be used by Chautauqua County and its tenants to provide consistent and effective management of stormwater runoff quality. The SWPPP presents a description of the defined airport facility and a discussion of potential pollutant sources resulting from practices and activities at the airport. This SWPPP also identifies existing stormwater management controls and Best Management Practices (BMPs) at the facility and identifies additional BMPs to reduce or eliminate pollutants entering the stormwater drainage system.

2.1 Stormwater Pollution Prevention Team

Table 2.1
Pollution Prevention Team Contacts (December 2012)

Title: Director of Public Facilities **Telephone:** (716)661-8400
Responsibility: Signatory authority, responsible for airport operation.

Title: Airport Manager **Telephone:** (716)664-9715
Responsibility: Coordinates response to airport operational event, security.
Point of contact for SWPPP concerns.

2.2 Facility Information

The airport property encompasses approximately 430 acres. Chautauqua County owns and operates the airport.

The airport is located in the Town of Sheridan, Chautauqua County, New York, approximately three miles northeast of Dunkirk. The Chautauqua County Airport at Dunkirk is generally bounded by Cook Road, Middle Road, Newell Road, and Airport Road.

The airside facilities consist of two paved runways, Runway 6-24 and Runway 15-33, a parallel taxiway system, a general aviation terminal building, Fixed Base Operator (FBO) areas, one t-hangar building, several bulk hangars, aircraft parking aprons, navigational aids, and airfield lighting. The airport is designated by the Federal Aviation Administration as a Public Use Airport.

Facility Information

Name of Facility: Chautauqua County Airport/Dunkirk

Street: 3250 Middle Road

City: Dunkirk State: NY ZIP Code: 14048 County : Chautauqua

Permit Tracking Number: _____ (if covered under a previous permit)

Latitude: 42º 29 '36" N (degrees, minutes, seconds) Longitude: 79 º 16 ' 19" W (deg., min., seconds)

Method for determining latitude/longitude (check one):

☐ USGS topographic map (specify scale:_____) ☐ EPA Web site ☐ GPS

☒ Other (please specify):Federal Aviation Administration Airport Reference Point

Is the facility located in Indian Country? ☐ Yes ☒ No

If yes, name of Reservation, or if not part of a Reservation, indicate "not applicable." N/A

Is this facility considered a Federal Facility? ☐ Yes ☒ No; but Facility Subject to FAA regulation including activity limitations and constraints.

Estimated area of industrial activity at site exposed to stormwater: 430 acres

Discharge Information

Does this facility discharge stormwater into an MS4? ☐ Yes ☒ No

If yes, name of MS4 operator: N/A

Name(s) of water(s) that receive stormwater from your facility Beaver Creek, Scott Creek

Are any of your discharges directly into any segment of "impaired" water? ☒ Yes ☐ No

If Yes, identify name of the impaired water (and segment, if applicable): Scott Creek

Identify the pollutant(s) causing the impairment: Aquatic Toxicity

For pollutants identified, which do you have reason to believe will be present in your discharge?

N/A

For pollutants identified, which have a completed TMDL? N/A

Do you discharge into a receiving water designated as a Tier 2/Tier 2.5 water? ☐ Yes ☒ No

Are any of your stormwater discharges subject to effluent guidelines? ☒ Yes ☐ No

If Yes, which guidelines apply? NYSDEC SPDES Permit GP-0-12-001, Sector S-Air Transport

Primary SIC Code:
(refer to Appendix D of the 2008 MSGP) 4512-4581

Identify your applicable sector and subsector: S1

2.3 Land Use

Approximately ten percent (10%) of the airport property is covered by impervious surfaces, such as buildings, runways, taxiways, and parking lots. The pervious surfaces, consisting of grass and brush, account for approximately ninety (90%) percent of the facility's area. Neighboring parcels are of mixed use.

2.4 Airport Tenants

Based tenants are generally located on the western side of the airport. The Site Plan attached in Appendix A depicts the various buildings located on the airport property.

2.5 Tenant and Target Industrial Activities

A variety of aviation related activities with potential to affect the quality of stormwater runoff are identified at the airport. The following activities that occur at the airport pose a potential for stormwater quality impacts:

- Aircraft Fueling
- Aircraft Maintenance
- Chemical Storage
- Equipment/Vehicle Fueling
- Equipment/Vehicle Maintenance
- Equipment/Vehicle Storage
- Fuel Storage

A more specific discussion of operational activities and the potential pollution sources related to the activities is presented in Section 3.

2.6 General Location Map

USGS quadrangle maps showing the general location of the airport and the surrounding receiving waters for stormwater discharges are attached in Appendix A.

2.7 Site Map

Attached in Appendix A is a Site Plan showing the locations of activities related to potential pollutant sources exposed to rainfall and subsequent stormwater runoff. Site photos are included in Appendix B.

2.8 303(d) Impaired Waters

Scott Creek has been identified as an impaired waterbody due to aquatic toxicity from an unknown source. Beaver Creek is not an impaired waterbody.

3 Identification of Potential Pollution Sources

This section identifies and describes activities and potential sources of stormwater pollution at the airport. Specifically, potential stormwater pollutants, areas of potential pollutant contact with stormwater, activity-based non-stormwater discharges, potential hard-piped non-stormwater discharges, and historic spills and leaks were investigated.

3.1 **Non-Stormwater Discharges**

Identifying non-stormwater discharges can be difficult. Through site compliance evaluations and visual and analytical monitoring of the stormwater outlets, non-stormwater discharges can be detected and traced back to the source. Common sources for non-stormwater discharges are sanitary pipes flowing into stormwater pipes, coolants leaking from air-cooling units, and leaks/minor spills originating from tanks, barrels, or other storage containers holding hazardous materials.

Wash waters from vehicle maintenance and cleaning is also considered a non-stormwater discharge. Currently, the airport does not wash vehicles or equipment on airport property.

All outfalls and stormwater structures have been evaluated for the presence of non-stormwater discharges. Storm sewer inspection logs are included in Appendix D. A signed certificate can be found in Section 1.2, Non-Stormwater Discharge Assessment Certificate.

3.2 **Potential Pollution Sources and Pollutant of Concern**

Certain activities at the airport present the potential for stormwater pollutants to be discharged into the stormwater system. Airport operations and tenant activities are shown on the Site Plan, attached in Appendix A. Activities with the greatest potential to contribute to stormwater pollution and the contaminants of concern for each activity are listed below:

Aircraft, Vehicle, and Equipment Fueling
- Petroleum Hydrocarbons

Aircraft, Vehicle, and Equipment Maintenance
- Oil and Grease
- Petroleum Hydrocarbons

Building and Grounds Maintenance
- Pesticides
- Herbicides
- Oils and Grease
- Petroleum Hydrocarbons

Chemical Storage and Fuel Storage

- Jet Fuel (Petroleum Hydrocarbons)
- Lubricants
- Paints
- Solvents

Soil Erosion

- Silt
- Fine Soils

A brief description of these activities with the assumed potential to be discharged into the stormwater drainage system and areas in which they are performed is provided below.

3.3 Aircraft, Vehicle, and Equipment Fueling

Aircraft and vehicle fueling is performed outdoors at the fuel farm (see Site Plan in Appendix A for location). The greatest concern with aircraft and vehicle fueling is the potential for minor spills, which usually originate from topping-off or overfilling of aircraft and vehicles. The major constituents of aircraft and vehicle fuels are petroleum hydrocarbons. These spills can enter the stormwater drainage system.

3.4 Aircraft, Vehicle, Equipment Maintenance and Washing

Chemicals such as lubricating oils, hydraulic oils, fuels, degreasers, and other cleaning products are routinely used in airport maintenance activities. Small leaks and spills are not uncommon during maintenance activities; therefore, the potential for pollutant contact with stormwater is greatly increased when these activities are performed outdoors. This potential is further increased if these outdoor activities are performed in close proximity to stormwater drains. Generally, indoor areas only present a potential for pollutant contact with stormwater if floor drain discharges are connected to the stormwater drainage system.

Wash waters from vehicle cleaning are considered a non-stormwater discharge and therefore must not enter any open water or stormwater drainage system. Vehicle cleaning should be done indoors whenever possible but if outside, cleaning should be done on an impervious surface with no drains to the stormwater drainage system. Wash waters or rinse waters need to be discharged into a sanitary sewer, or a wastewater treatment plant.

Major aircraft maintenance (such as engine overhauls and aircraft structure repair) is not normally performed at the airport. Tenants may perform minor maintenance in their buildings. Most of this maintenance activity occurs in hangars and some light maintenance is conducted on the apron. The small spills of chemicals and petroleum hydrocarbons that occur during these limited aircraft maintenance operations are typically cleaned up per instructions set forth in the SPCCP, available at the airport upon request. There is a potential that residuals from small spills in these areas can become entrained in the overland flow of stormwater runoff and drained to catch basins.

3.5 **Fuel Storage**

The aviation fuel storage is located along the edge of the aircraft parking apron, as shown on the Site Plan, attached in Appendix A. This facility is owned and operated by the FBO.

In the event of a minor spill during aviation fuel transfers, the procedures outlined in the SPCCP, available at the airport upon request, are implemented and the spill is cleaned up as quickly as possible. Training of proper jet fuel transfer is conducted for airport employees so that the frequency of these minor spills is minimized.

3.6 **Chemical Storage**

Chemicals are stored indoors and any spills are contained and disposed of according to the procedures set forth in the SPCCP, available at the airport upon request.

In the event of a minor spill during material transfers into the tanks or vehicles, the procedures outlined in the SPCCP, available at the airport upon request, are implemented and the spill is cleaned up as quickly as possible. Training of proper material transfer is conducted for employees so that the frequency of these minor spills is minimized.

3.7 **Soil Erosion**

The principal potential source for soil erosion can occur during ground disturbance maintenance and construction activities. Construction projects of any size should be reviewed before the project begins to determine if adequate soil and erosion control procedures will be implemented, through the use of silt fence, rock check dams, and other NYSDEC approved soil erosion control measures. The guidelines set forth in the NYS Standards and Specifications for Erosion and Sediment Control (the 'Blue Book') will be followed strictly. All soil disturbance associated construction permits will be executed, including a Notice of Intent and any SPDES permits that apply. Erosion control for construction projects will be per Non-Structural BMP's found in Section 4.1.1 of this SWPPP.

During non-construction storm events, soil erosion caused by stormwater runoff is minimized through treatment by overland flow through grass and vegetation, slowing the runoff water down before entering a catch basin or drainage manhole, filtering the silt and fine solids contaminating the water.

Based on the USDA Web Soil Survey, the airport's soils consist mostly of Hydrological Soil Groups C and D. Soils in this group have moderately high runoff potential with low infiltration rates.

3.8 **Spills**

A spill event is considered an occurrence where chemicals come in contact with the ground/pavement and could potentially flow into a stormwater structure or one of the bodies of water adjacent to the airport. In the event of a spill, regardless of size, there are airport maintenance procedures for employees to follow to prevent and/or reduce the amount of chemical spilled from contaminating stormwater.

The airport has implemented a spill response protocol that is outlined in the SPCCP, available at the airport upon request. All spills on the airport should follow the same procedures.

4 Stormwater Control Measures

A stormwater BMP is defined as a program, technology, process, sitting criteria, operating method, measure or device that controls, removes, or reduces pollution. BMPs are implemented to address pollutants originating from industrial sources such as airports, based on regulatory compliance and operational characteristics of the airport. Areas of actual and/or potential pollutant contact are evaluated and applicable BMPs are recommended and implemented to eliminate or minimize the potential for discharge of stormwater pollutants. BMPs are classified into categories based on whether the intended stormwater control is structural, or non-structural. A structural BMP is a physical device installed to trap or filter pollutants out of the stormwater flow or control erosive velocities of runoff. Structural BMPs also include vegetative measures used to remove pollutants. Non-structural BMPs are operational practices to prevent, contain, and remove pollutants on an on-going basis. Examples of non-structural BMP's include good housekeeping inspections, maintenance, and similar activities.

4.1 Structural BMP's

4.1.1 Sediment and Erosion Control

The principal source for erosion at the airport occurs during construction activities. All construction projects involving soil disturbance of one or more acres, shall follow the SPDES Permit "Special Conditions – Best Management Practices", Item 4, Part B "Stormwater Pollution Prevention Plans (SWPPPs) Required for Discharges of Stormwater From Construction Activities to Surface Waters". Preparation and submittal of a Notice of Intent (NOI) and construction specific SWPPP is also required.

4.1.2 Management of Runoff

Existing water runoff is managed by both open and closed drainage systems.

The Site Plan, attached in Appendix A, shows the general drainage system with contours and labeled body waters.

4.2 Non-Structural BMP's

4.2.1 Good Housekeeping

Good housekeeping requires routine maintenance of equipment and chemical storage areas to reduce the likelihood of contaminating stormwater runoff. Basic operation and maintenance BMP's are incorporated into the airport's Good Housekeeping program, as listed below:

- Aircraft, Ground Vehicle and Equipment Maintenance Areas –
  All maintenance areas are kept clean, safe and operational. Cleaning supplies are kept in a known location. Minor maintenance on vehicles/aircraft is done in such a way to contain any maintenance materials that may run-off on the ground. Dry

clean-up methods (broom, rags) are used to clean-up small amounts of any contaminants on the ground.

- Aircraft, Ground Vehicle and Equipment Cleaning Areas –
  Very little cleaning is done inside the air operations area. There is no scheduled service for aircraft or vehicle cleaning; tenant's clean aircraft/vehicles when deemed necessary.

- Aircraft, Ground Vehicles and Equipment Storage Areas –
  Maintenance to fix a leaking vehicle prevents a frequent occurrence of oils/fluids leaking from the vehicle.

- Bulk Material/Fuel Storage Areas –
  Bulk materials/fuels are stored at the locations described on the Site Plan, attached in Appendix A. A spill response kit is located near the tank with instructions in clear view in order to clean up any leak/spill quickly. All storage tanks are in good condition, are maintained to prevent corrosion/rust, and are compliant with both NYSDEC and EPA Petroleum Bulk Storage regulations.

4.2.2 Preventative Maintenance

The current airport maintenance schedule includes inspection and maintenance of stormwater control structures as well as inspection and repairs to related equipment to avoid failures that would allow contaminated runoff to enter the surrounding receiving waters. Inspections are covered more thoroughly in Section 6: Inspections/Site Compliance Evaluations in this SWPPP.

4.2.3 Materials Handling and Storage

Airport employees and tenants are trained to properly handle hazardous material: where they are stored, and how they are labeled. A program is established to identify materials, promote waste reduction and recycling, establish designated storage areas, segregate waste, and communicate recycling requirements and instructions.

4.2.4 Spill Prevention and Response

Spills of all magnitude will be handled as outline in the SPCCP, available at the airport upon request. Storm and sewer drains should be covered or blocked to prevent the spill from infiltrating the closed drainage system. Once properly contained, the spill is cleaned up and disposed.

Tenants and contractors shall report any discharge of petroleum greater than 5 gallons to NYSDEC within 2 hours of discovery, and notify NYSDEC and/or the National Response Center for releases of a reportable quantity of a hazardous substance. A list of hazardous substances can be found in 6 NYCCR Part 597.

Tenants and contractors are required to follow the procedures set forth in the SPCCP, available at the airport upon request, in the case of any spill event. Tenants and contractors

shall complete a Spill Report Form and submit to airport operations within one business day identifying the event date/time, location, type of spill, response, gallons spilled, cause/reason for spill or leak, and recommended remedial action, as well as report the spill to the airport staff. The airport staff is not responsible for final clean up, but a contractor qualified in the cleanup and removal of spilled material shall be utilized and the bill for such work will be paid by the responsible party.

All petroleum spills shall be reported to the NYSDEC within two (2) hours of discovery. The only exceptions would be if:

- The spill volume is less than five (5) gallons; and
- The spill is properly contained and under control; and
- The spill has not/will not ever reach the receiving waters; and
- The spill is cleaned up within two (2) hours of discovery

Every reportable quantity spill report shall include a short description of the type of spill, a description of any actions and mitigation taken or proposed by the airport or tenant entity to limit environmental impact associated with the spill. The airport or tenant shall provide an estimate of the date when the corrective or mitigation action will be completed. A historical list of reportable quantity spills and leaks of toxic or hazardous pollutants that have occurred at areas within airport property exposed to precipitation or that otherwise drain to a stormwater conveyance at the airport are included in the airport spills records that are available upon request.

4.2.5 Employee Training

Stormwater pollution training at the airport is conducted on a yearly basis, typically occurring near the end of the calendar year. During this training session, all personnel involved in airport operations should be involved in discussing problems that arose during the past year, fixes to the problems, and possible ways to prevent problems from occurring next year. Participants should become fluent in the following aspects of stormwater pollution prevention:

- Good Housekeeping Practices; and
- Spill Prevention and Response; and
- Material Handling and Storage

4.3 Security and Site Access

Proper security measures are taken to prevent unauthorized access to secure areas at the airport. The airport trains security personnel to be aware of potential illicit discharges to state waters.

5 Stormwater Monitoring

Stormwater monitoring and sampling data provides information on the quality of stormwater runoff from the airport. The stormwater analytical data is used to identify the types and sources of pollutants and to provide a means for evaluating the environmental risk for stormwater runoff. The airport is not subject to the stormwater monitoring and sampling as required by the Multi-Sector General Permit 2012, Sector S – Air Transportation, referenced in Appendix C, as no deicing operations are currently being performed at the airport.

6 Inspections/Site Compliance Evaluations

At a minimum, site inspections will be conducted once a year. These inspections will consist of an overall assessment of the existing BMP's as well as an inventory of materials stored, including any changes in type of material, quantity, or location.

The inspection frequency should at least be once a month during heavy precipitation seasons. If a significant amount of chemical fluid is being released or spilled, or if other water quality impacts are noticed, the inspection frequency will be increased to weekly until the problem causing higher effluent levels is fixed.

Site compliance evaluations must be done by qualified personnel who are familiar with the industrial activities performed on site, the BMPs, the SWPPP, and must be capable of assessing conditions on site that could be possible of affecting the stormwater quality. A general outline of the fundamentals that should be investigated during the site compliance evaluation is as follows:

- Should be conducted at least once per year; and

- All areas where industrial materials are exposed to stormwater be inspected (Site Plan, attached in Appendix A, for locations of industrial activities); and

Inspector(s) should look for:

- Industrial materials, residue, and trash that could be washed away into receiving waters
- Leaks or spills from industrial equipment, drums, barrels, tanks…etc
- Unauthorized non-stormwater discharges
- Off-site tracking of industrial materials or silt/sediment
- Tracking or blowing of raw/waste materials from non-exposed to stormwater areas to exposed areas
- Any other evidence of potential pollutants entering the drainage through visual and analytical monitoring of outfalls, and inspection of existing BMPs

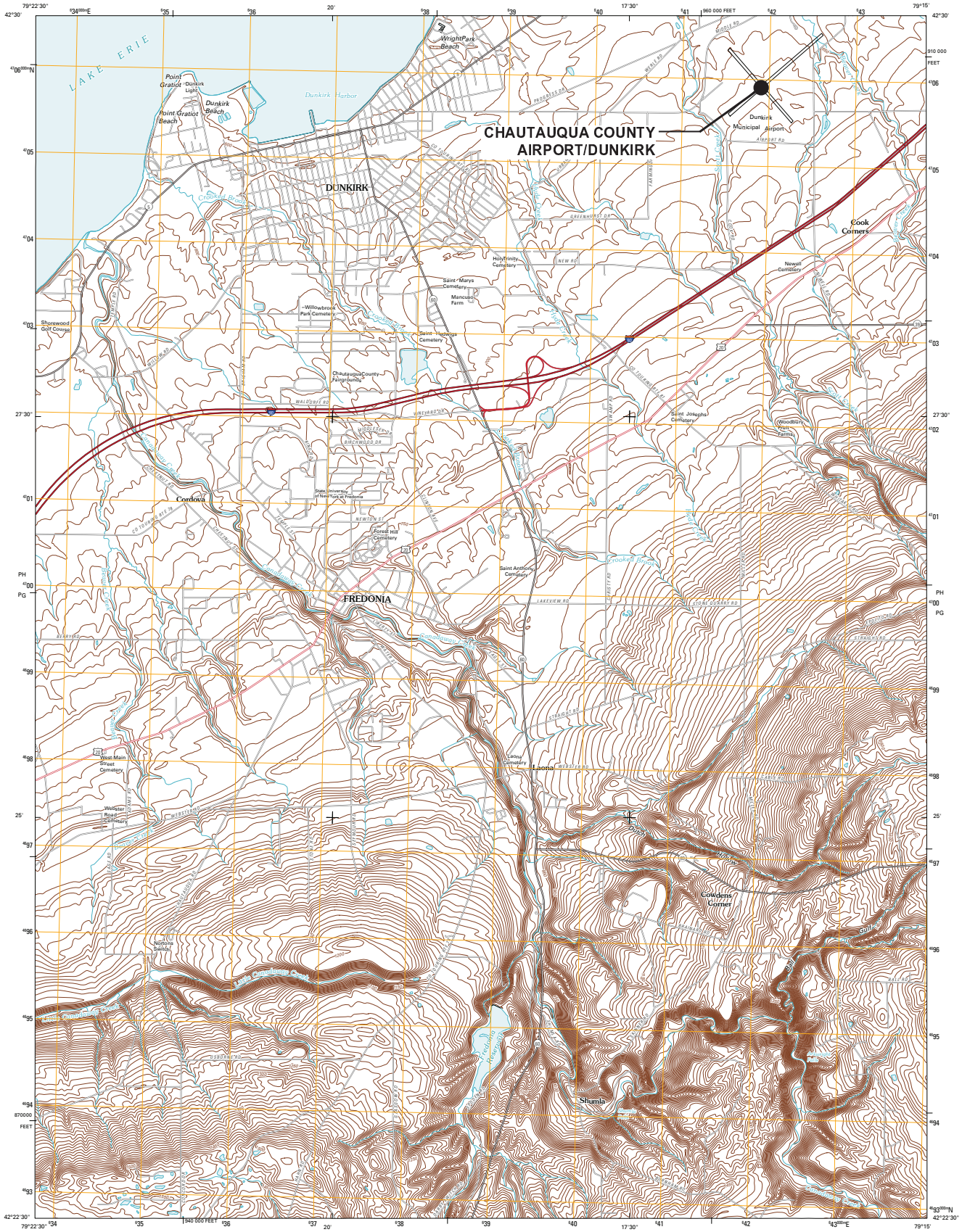
All events of non-compliance will be resolved in no later than 14 days following the site compliance evaluation. If non-compliance is observed that requires a longer amount of time to correct, more time will be allowed with the understanding that the issue needs to be solved as soon as practicable.

Inspection logs are attached in Appendix D.

Appendix A

Mapping

USGS Quadrangle Map
Site Plan



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid: Universal Transverse Mercator, Zone 17T
10 000-foot ticks: New York Coordinate System of 1983
(west zone)

Imagery.....NAIP, May 2008
Roads.....US Census Bureau TIGER data
with limited USGS updates, 2006
Names.....GNIS, 2008
Hydrography.....National Hydrography Dataset, 2008
Contours.....National Elevation Dataset, 1999

UTM GRID AND 2010 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000-m Square ID
PH
PG
Grid Zone Designation
17T

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET

This map was produced to conform with version 0.5.10 of the
draft USGS Standards for 7.5-Minute Quadrangle Maps.
A metadata file associated with this product is also draft version 0.5.10

NEW YORK

QUADRANGLE LOCATION

	North of Dunkirk	Silver Creek
Brocton	Dunkirk	Forestville
Hartfield	Cassadaga	Hamlet

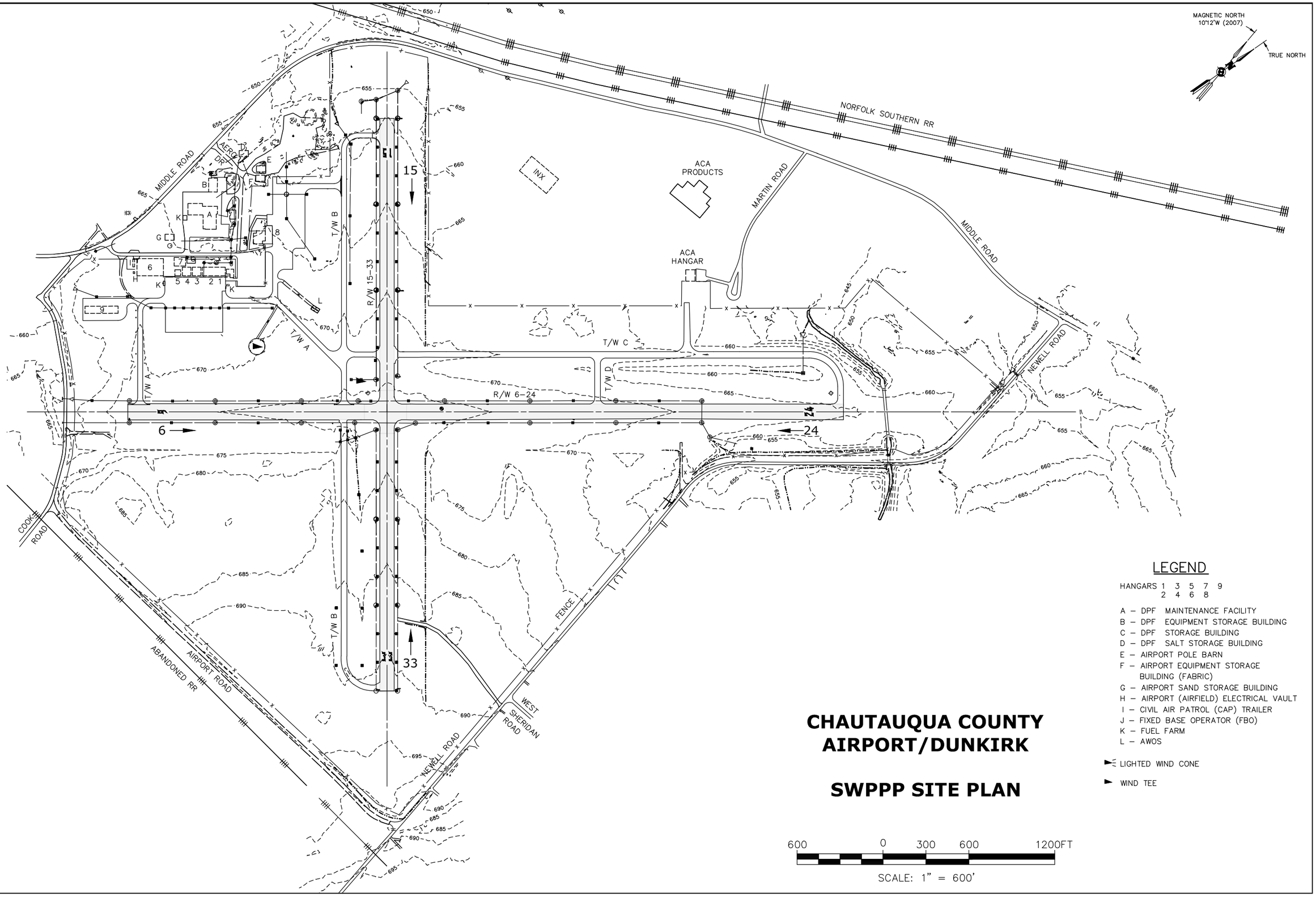
ADJOINING 7.5' QUADRANGLES

ROAD CLASSIFICATION

Interstate Route
US Route
Ramp
State Route
Local Road
4WD

Interstate Route | US Route | State Route

DUNKIRK, NY
2010



CHAUTAUQUA COUNTY AIRPORT/DUNKIRK

SWPPP SITE PLAN

LEGEND

HANGARS 1 3 5 7 9
2 4 6 8

A – DPF MAINTENANCE FACILITY
B – DPF EQUIPMENT STORAGE BUILDING
C – DPF STORAGE BUILDING
D – DPF SALT STORAGE BUILDING
E – AIRPORT POLE BARN
F – AIRPORT EQUIPMENT STORAGE BUILDING (FABRIC)
G – AIRPORT SAND STORAGE BUILDING
H – AIRPORT (AIRFIELD) ELECTRICAL VAULT
I – CIVIL AIR PATROL (CAP) TRAILER
J – FIXED BASE OPERATOR (FBO)
K – FUEL FARM
L – AWOS

LIGHTED WIND CONE

WIND TEE

600 0 300 600 1200FT

SCALE: 1" = 600'

Z:\1995\950119\950019.00\Tech Docs\Reports\9501927 SWPPP Site Plan.dwg, 1/3/2013 11:03:57 AM, alia

Appendix B

Site Photos

Beaver Creek Culvert under Runway 6-24

Extended Beaver Creek Culvert (Under Construction)

Outfall 4 Area

Outfall 4 Area

Appendix C

GP-0-12-001 Multi-Sector General Permit

A digital copy can be found at:

http://www.dec.ny.gov/docs/water_pdf/gp12001.pdf

Appendix D

Non-Stormwater Discharge Assessment

QUARTERLY STORMWATER SYSTEM INSPECTION LOG

CHAUTAUQUA COUNTY AIRPORT/DUNKIRK

Catch Basin Number	Inlet Condition	Pavement / Grass Condition	Sediment Depth in Sump	Evidence of Contaminants	Corrective Actions Required	Corrective Actions Taken
Outfall 1 (Southwest of RW 6; Cook Road)						
Outfall 2 (Northwest of RW 15)						
Outfall 3 (Northwest of RW 24; Beaver Creek)						
Outfall 4 (East of RW 24)						

Date _____ Inspector's Name _____