



Storm Water Pollution Prevention Plan (SWPPP)

Final

Houston County Airport
Caledonia, MN

Report prepared by

**Mead
& Hunt**

December 2010

Storm Water Pollution Prevention Plan

Statement of Certification

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision, and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

Signature: *Karen L. Wieneri*

Date: *12/27/2010*

Type/Print Name: Karen L. Wieneri

Registration No.: 21122

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1. General Facility Information

Name of Facility: Houston County Airport
Facility Address: 17247 MN State Highway 76
Caledonia, MN 55921
Facility Contact: Tom Molling
Owner: Houston County
Operator: Houston County Department of Transportation
Receiving Waters: South Fork of Crooked Creek; Winnebago Creek
Emergency Contact: Tom Molling

2. Pollution Prevention Team

The Pollution Prevention Team (PPT) is the individual(s) responsible for managing, implementing, maintaining, modifying, and ensuring compliance with the facility's Storm Water Pollution Prevention Plan (SWPPP). These individuals are appropriately trained to perform all tasks required of the SWPPP. The team includes those that are trained to conduct facility inspections. The members of the team and their responsibilities are as follows:

Member:	Brian K. Pogodzinski	Phone:	507.725.3925
Title:	County Engineer	Trained date:	January 12, 2010

Responsibilities:

Provide oversight and supervision of the SWPPP and make any management decisions regarding revisions or additions to the SWPPP.

Member:	Tom Molling	Cell:	507.450.4167
Title:	Maintenance Supervisor	Trained date:	

Responsibilities:

Involved with day to day operations; knowledgeable of the SWPPP; reports to County Engineer any portion of the operation which will affect the SWPPP.

Member:	Jason Leahy	Phone:	507.725.3925
Title:	Maintenance Specialist	Trained date:	

Responsibilities:

Involved with day to day operations; knowledgeable of the SWPPP; reports to County Engineer and Maintenance Supervisor any portion of the operation which will affect the SWPPP.

Member:	Gary Bolstad	Phone:	507.725.3925
Title:	Engineer Supervisor	Trained date:	January 13, 2010

Responsibilities:

Involved with the monthly inspections; knowledgeable of the SWPPP.

3. Facility Description

The Houston County Airport (Airport) is a 52 acre general service airport. Of the 52 acres, 12 acres are involved in industrial activities. The Airport is generally unattended and serves general aviation for the City of Caledonia, Minnesota and the surrounding region.

A new runway, parallel to the current, is proposed to be built in 2012 or 2013. Along with this project, land is slated to be purchased. Once this project has been completed, the Airport will consist of an estimated 114 acres. Grading and design for the new expansion has not yet been finalized and will require an update to the SWPPP upon completion.

Mead & Hunt, Inc. (Mead & Hunt) previously prepared a SWPPP for the Airport in 2007. In accordance with the Minnesota Pollution Control Agency (MPCA) General Permit for Industrial Stormwater, Mead & Hunt has prepared an update to the 2007 SWPPP. The SWPPP acts as a living plan to be routinely updated as conditions change at the site. A SWPPP is required to contain or specify:

- A PPT with a designated leader.
- Major activities conducted at the site.
- Site drainage pattern maps, activities, and materials exposed to storm water.
- Best management practices (BMPs) to protect storm water from contamination.
- A summary of existing storm water data.
- All potential sources of storm water contamination.
- Sources of non-storm water discharges from on-site storm water outfalls.
- Source area and treatment BMPs to control storm water contamination.
- Monthly visual inspection requirements from annual, comprehensive inspections and chemical monitoring.
- Benchmark Monitoring Locations (BMLs).

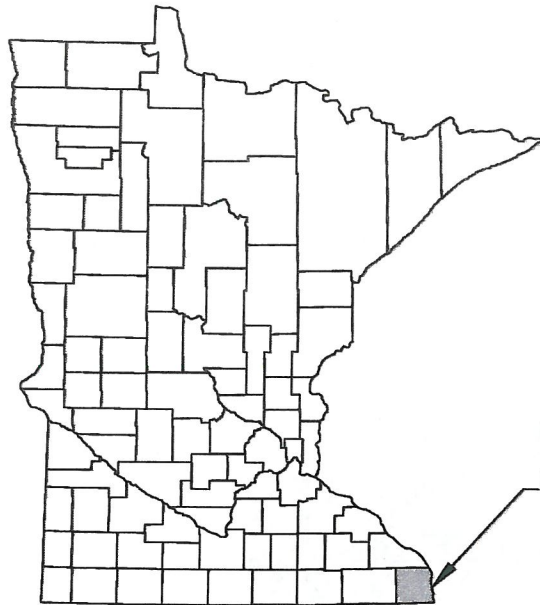
A. Activities at the Facility

Industrial activity at the Airport is limited to aircraft operations, including aircraft transportation, refueling, maintenance, and aircraft storage. Industrial activities consist of three rows of aircraft hangars leased to private operators and an Aircraft Fueling System. Industrial activities do not include the gravel auto parking, the restroom building, the Arrival/Departure (A/D) Building, or the paved entrance road. No aircraft or pavement deicing chemicals, agricultural chemicals, sand or salt are used at this facility.

4. Facility Map

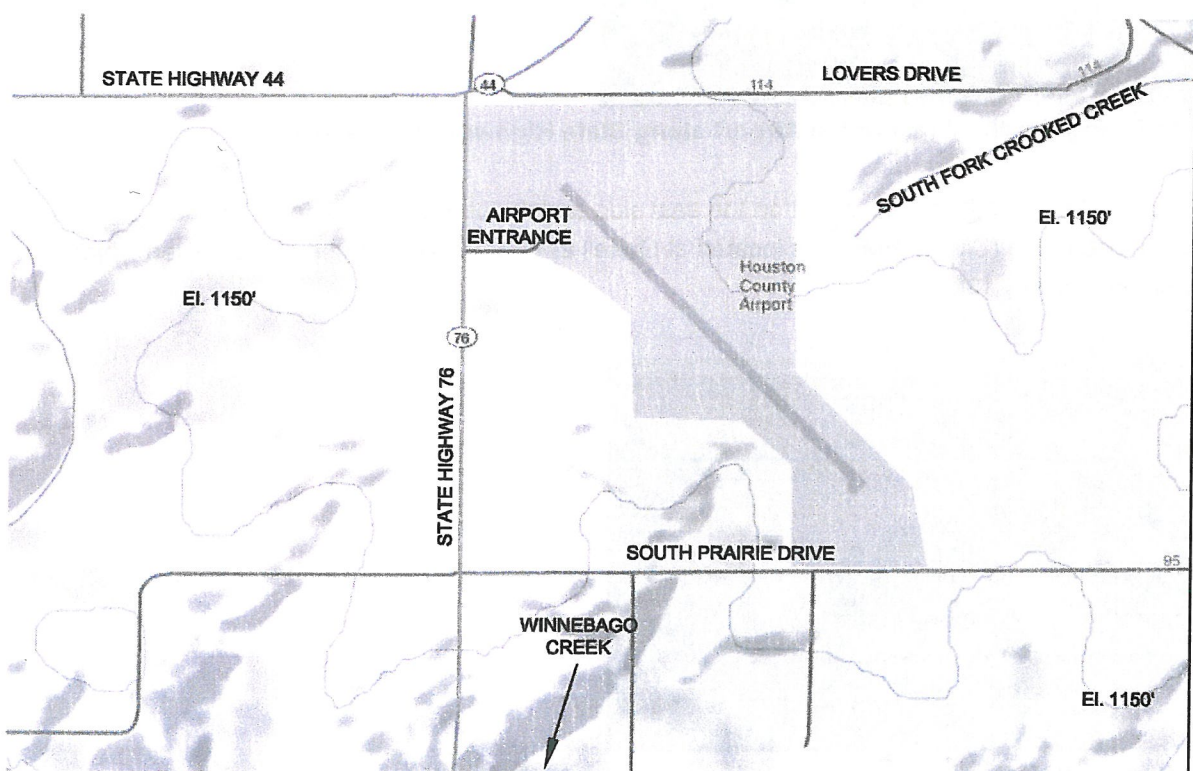
The Airport is located in the City of Caledonia, Minnesota. The west side of the Airport property is bounded by State Highway 76. Agricultural lands bound the Airport property to the north, east, and south, as shown on **Exhibit 1 – Vicinity Map**. Airport buildings are located along the west boundary of the Airport.

There are two creeks, the South Fork Crooked Creek to the northeast, and Winnebago Creek to the southwest, within the vicinity of the Airport that receives drainage water from the Airport. At the time of this SWPPP, neither creek is on the MPCA's Total Maximum Daily Loads (TMDLs) map.



HOUSTON COUNTY

STATE MAP



VICINITY MAP

HOUSTON COUNTY AIRPORT
 STORM WATER POLLUTION PREVENTION PLAN
 VICINITY MAP



EXHIBIT 1

10/02/2010 3:28:48 PM
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08214-10-10002
 OCTOBER 2010

A facility map is required as part of the SWPPP to provide and display information regarding site drainage patterns, surface and subsurface storm drainage systems, water bodies, locations of BMPs, and BMLs. **Exhibit 2** and **Exhibit 3** details the Facility Map for the Airport. Outfall locations for the site were verified and numbered during the site visit on August 10, 2010. BML locations are placed at the outfalls.

Outfall 1 drains the paved areas around the Airport buildings on the west side of the property into a ditch that flows along State Highway 76. BML01 is located at Outfall 1, located downstream of the culvert which crosses under the entrance road.

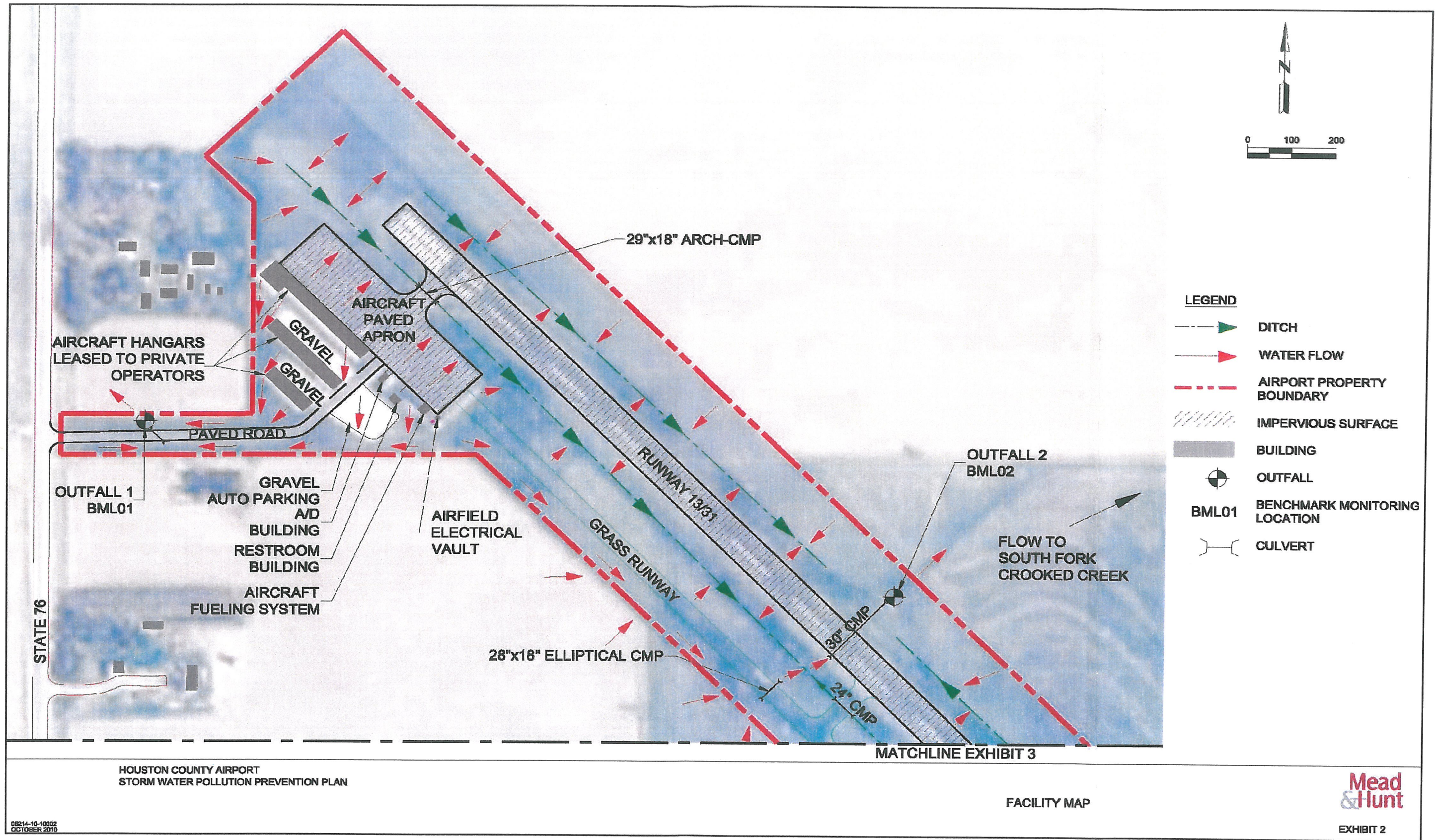


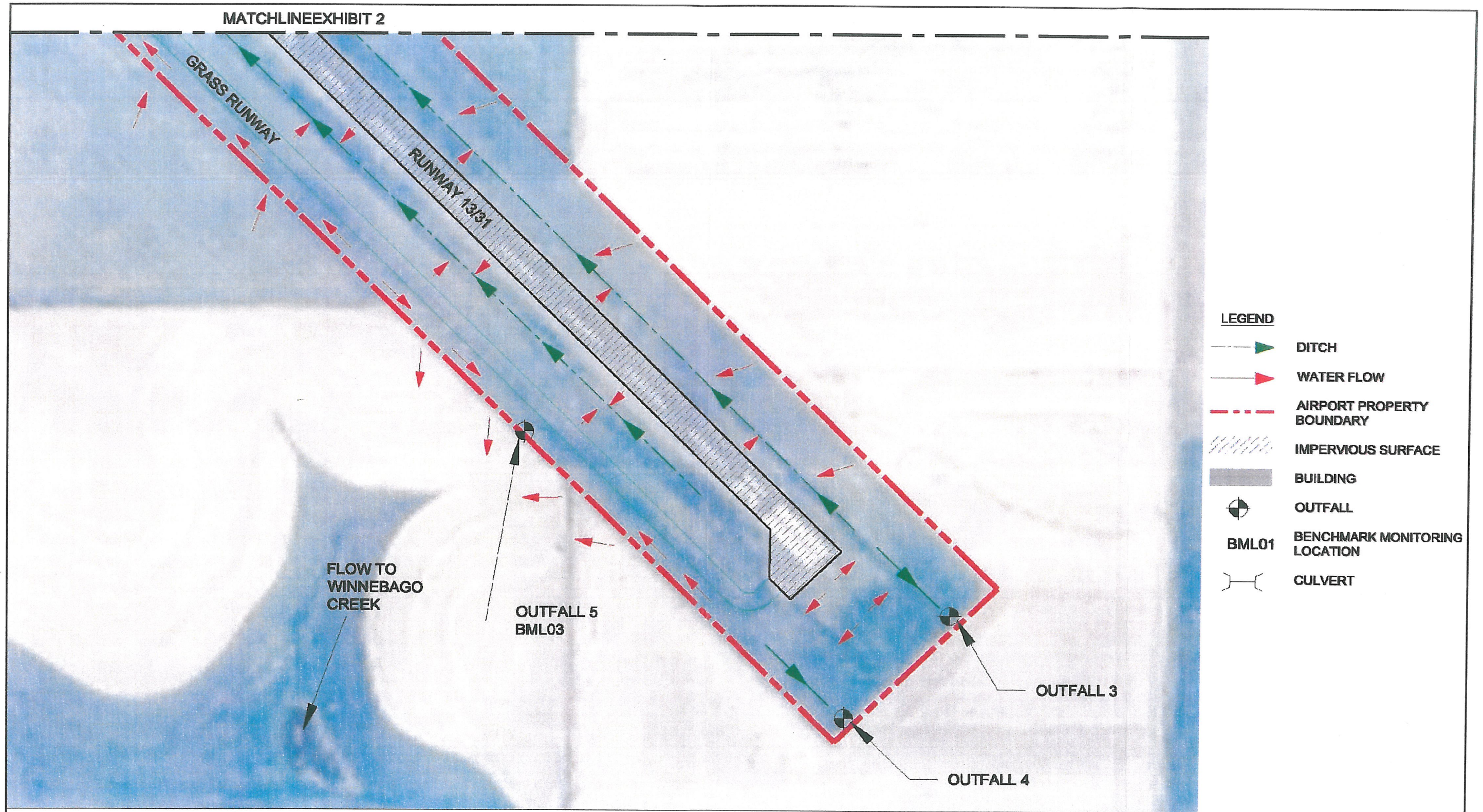
Outfall 1: Facing South – West of the Airport along State Highway 76 (BML01).

Outfall 2 drains the majority of the Airport on the east side and the central west side through a 30-inch Corrugated Metal Pipe (CMP). BML02 is located at Outfall 2, located downstream of the culvert which crosses under Runway 13/31.



Outfall 2: Facing West – East edge of the Airport property (BML02).





HOUSTON COUNTY AIRPORT
STORM WATER POLLUTION PREVENTION PLAN

FACILITY MAP

08214-16-10002
OCTOBER 2010

EXHIBIT 3

Outfalls 3 and 4 drain the southeastern tip of the Airport through ditches on either side of Runway 13/31 and the edge of the property boundary. Since neither outfall drains areas containing industrial activities, a BML is not necessary.



Outfall 4: Facing South – Swale at southwest corner of Airport.

Outfall 5 drains the southwestern side of the airport through a low area. BML03 is located at Outfall 5, which is on the west side of the grass taxiway.



Outfall 5: Facing North – Southwest edge of the Airport property boundary (BML03).

The agricultural field located to the west of the Airport drains onto the Airport through a low point along the west edge of the property boundary near the 28-inch by 18-inch elliptical CMP. The agricultural chemicals entering the Airport are a potential source of pollutant.

5. Assessment of Industrial Activities and Significant Materials

Potential sources of pollution at the Airport are primarily related to aircraft fueling. Spills during fuel transfer operations or leaks from storage tanks are historically significant sources of storm water and groundwater contamination. Improper handling of used aircraft fluids and cleaners used during maintenance can also be a major source of storm water contamination.

Areas of the Airport that are not used for building structures or Airport activities are farmed with row crops or are kept in grass cover.

A. Assessment of materials and associated pollutants

Table 1 - Significant Materials lists the materials with the potential to be exposed to storm water and the method of storage or disposal used as a Best Management Practice in storm water management.

Table 1 - Significant Materials

Significant Material	Area	Method of Exposure	Pollutant
100 Low Lead (LL) Gasoline	Portion to all of above ground tank near A/D Building and Restroom Building.	Leak or spill when transferring fuel into above ground double-walled tank, from tanks into aircraft.	Oil/ Gasoline
Jet A Fuel	Portion of above ground tank near A/D Building and Restroom Building. (being converted to 100LL)	Leak or spill when transferring fuel into above ground double-walled tank, from tanks into aircraft.	Oil/ Gasoline
Oil, Lubricants, Misc. Petroleum Products	Private hangers	Leak or spill when handling materials or from faulty equipment.	Oil, Lubricant
Solvents	Private hangers, locked cabinet in Restroom Building	Leak or spill when handling materials or from faulty equipment.	Solvents
Waste Oil	Private Hangers	Leak or spill when disposing of waste oil into above ground tank or emptying of tank.	Oil
Oily Rags	Private Hangers	Oily rags exposed to storm water.	Oil

There have not been any spills at the Airport in the past three years. Blank copies of the forms required for recording Significant Materials and List of Significant Spills are included in **Appendix A – Sample Forms**.

6. Storm Water Control Measures Implementation

Management plans are defined as procedures, plans, or systems that exist on the site to control the exposure of industrial activity to storm water. There is a Spill Prevention Control and Countermeasures Plan in effect at this facility. Best Management Practices have been developed and have been implemented to minimize potential pollution in storm water discharges.

The following storm water preventive measures have been implemented:

A. Good Housekeeping

Good housekeeping at the site includes maintaining a litter free facility to prevent contamination of storm water. The following Good Housekeeping Practices, listed in **Table 2 - Good Housekeeping**, are performed at the Airport:

Table 2 - Good Housekeeping

BMP	Implementation date	Area/Activity	Potential pollutants
Unload and store inside liquid materials (oil, paint, cleaners, pesticides), label and store away from high-traffic area	September 2007	Hangars and Restroom Building	Solvents
Keep solid waste covered or place indoors and empty as needed	September 2007	Buildings, Hangars	Contaminated storm water
Dispose of hazardous materials in approved containers	September 2007	Hangars	Oil, solvents, gasoline

B. Elimination and Reducing Exposure

Materials management practices are an integral part in reducing or eliminating inventories of exposed materials. Industrial activities and significant materials are located in areas not exposed to rain, snow, snowmelt, or runoff. Minimum amounts of materials are kept on site to reduce chance of exposure and contamination of storm water. **Table 3 - Elimination and Reducing Exposure** includes BMPs associated with eliminating and reducing exposure.

Table 3 - Elimination and Reducing Exposure

BMP	Implementation date	Area/Activity	Potential pollutants
Use drip pans under equipment	September 2007	Hangars	Oil, lubricants, misc. petroleum products
Dispose of used oily rags and used oil-dry in approved containers; Place in sealed bags in dumpster for disposal	September 2007	Hangars	Oil
Plow snow into smaller piles on grass areas away from storm drains	September 2007	Impervious Surface	Contaminated storm water

C. Salt Storage

There is no salt stored or used on-site.

D. Erosion Prevention and Sediment Control

To prevent the contamination of storm water runoff from soil erosion, the Airport maintains a well-established growth of vegetation. Grass buffer strips provide an excellent filtration for any solids washed from the parking areas. The site will be inspected at least once every two (2) months for any areas where vegetation is failing or soil erosion is occurring. Corrective actions will be taken to stop erosion and reestablish vegetation where it has failed.

Erosion prevention and sediment control BMPs are listed in **Table 4 - Erosion Prevention and Sediment Control**.

Table 4 - Erosion Prevention and Sediment Control

BMP	Implementation date	Area/Activity	Potential pollutants
Grass buffer strips along Runway.	2007	Airport perimeter	Storm water sedimentation



Grass buffer: On east side of Runway 13/31, view facing southeast

E. Management of Runoff

The Airport uses a storm drain system composed of culverts and grass ditches to remove water from the site.

The storm drain system is itemized in **Table 5 - Management of Runoff**.

Table 5 - Management of Runoff

BMP	Implementation date	Area/Activity	Potential pollutants
Grass ditches	2007	Between Runway 13/31 and Taxiway	Storm water sedimentation
Culverts	2007	Entrance road to Airport, grass taxiway, Aircraft Apron	Storm water sedimentation



South side of CMP at Outfall 1, near Highway 76 – view facing north

F. Inspections

The site will be inspected a minimum of one (1) time per calendar month. See Section 7 – Inspections, for further details regarding the inspections.

G. Preventive Maintenance

Preventive maintenance involves the regular inspection, testing, and cleaning of facility equipment and operational systems. These inspections will occur at least twice a year to help uncover conditions which might lead to a release of pollutants.

Maintenance equipment is not kept on site. Any work on maintenance equipment (i.e. tractor, snow plow) is done at the main County Highway Department office in the City of Caledonia, at 1124 E. Washington St., Caledonia, MN 55921. Hangars are used to store private airplanes which do not have floor drains.

The activities listed in **Table 6 - Preventative Maintenance** are included in the preventive maintenance program.

Table 6 - Preventive Maintenance

BMP	Implementation date	Area/Activity	Potential pollutants
Inspect for leaks, faulty equipment, and spills	October 1993	Maintenance Hangar, Hangars	Lubricants/fuel
Maintain Airport equipment at highway department office	October 1993	Highway Department	Oil, lubricants, misc. petroleum products

H. Spill Prevention and Response Procedure

Spills and leaks together are the largest industrial source of storm water pollution. Thus, this SWPPP specifies material handling procedures and storage requirements for significant materials. Equipment and procedures necessary for cleaning up spills and preventing the spilled materials from being discharged have also been identified. All employees have been made aware of the proper procedures. Significant spill notification reporting forms are included as **Appendix C**.

(1) Inside hangars

Spills will be promptly cleaned up with oil-dry or equivalent adsorbents. Used oil-dry will be disposed of in an approved container. No spills will be disposed of on the ground. Although it is not a formal part of the SWPPP, lease agreements with private tenants of the hangars state the requirement to follow the Good Housekeeping Practices identified in this SWPPP and to provide secondary containment for all hazardous materials.

(2) Fueling locations

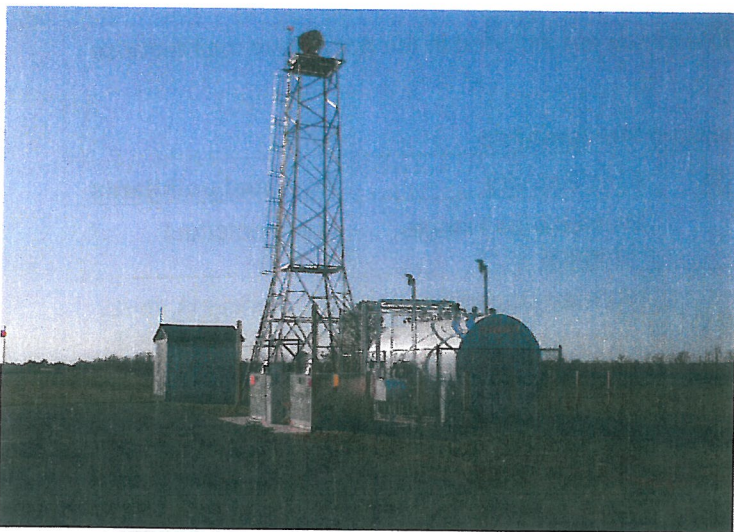
The Aircraft fueling system location at the Airport consists of a dual use (100 LL Gasoline and Jet A) above-ground self-service tank. **Table 7 – Spill Prevention and Response Procedure** lists the BMP's for the fueling systems.

The Airport is expecting to clean the Jet A fuel tank and convert it to a 100 LL gasoline tank in 2011. The tank is double lined for secondary containment with electronic spill detection devices. The valve connections are in a containment structure that collects any drippage during fuel

transfer. In the event of a spill, the spill is directed towards the parking slab in front of the facility. There is also an emergency shut off switch located at the front of the restroom building. A spill cleanup kit is available to clean up the spill with a dry cleanup procedure before the spill reaches the receiving waters.

Table 7 - Spill Prevention and Response Procedure

BMP	Implementation date	Area/Activity	Potential pollutants
Secondary containment at fueling location	September 2007	Fueling	Gasoline/Oil
Spill Clean-up kit	September 2007	Fueling	Gasoline/Oil
Emergency Shut Off Valve	September 2007	Fueling	Gasoline/Oil



Aircraft fueling system: view facing south



Restroom building with Emergency Shut-Off Switch (Right Photo): view facing west

I. Mercury Minimization Plan

There are no mercury sources exposed to storm water.

7. Inspections

All inspections will be recorded and conducted in accordance with Part III.F of the General Permit. At a minimum all inspection documents will be stored with the SWPPP and will include dates, times, weather conditions, inspector's name, inspection findings, a description of all necessary corrective actions, and a schedule for corrective action completion. The inspection schedule will include a minimum of one (1) facility inspection per calendar month. Additionally, two (2) of the required monthly inspections will occur during a runoff event, with at least one (1) being during a snowmelt.

(1) What to Inspect

A *Site Inspection Form* is presented in **Appendix B - Site Inspection Form**. All inspections will include the following:

- An evaluation of the facility to determine that the SWPPP accurately reflects site conditions. At a minimum, the Airport will inspect the aircraft fueling system.
- An evaluation of all structural and non-structural BMPs to determine effectiveness and proper function.
- An evaluation of the facility to determine whether new exposed significant materials or activities have been added to the site since completion of the SWPPP.
- During a runoff event, the inspection will be conducted within the first 30 minutes of discharge or as soon thereafter as practical. If it is not possible to perform an inspection within the first 30 minutes, the inspection will be made as soon as practical with documentation including an explanation why it was not possible to inspect within the first 30 minutes of the event. The inspections will include any observations of color, odor, turbidity, floating solids, foam, oil sheen, or other obvious indicators of storm water pollution. Information reported will include the inspection date, inspection personnel, visual quality of the storm water discharge, and probable sources of any observed storm water contamination an evaluation of the storm water runoff to determine if it is discolored or if other contaminants are visible in the runoff (e.g. oil and grease).

These inspections are both a state and a federal requirement of the storm water regulatory program, and are intended to serve two purposes: 1) to act as a reminder of storm water monitoring obligations and 2) to update the SWPPP. Under the rules of the permit, the Airport will maintain documentation of the inspection and keep them on file for a minimum of three years.

As the facility changes, it is intended that the SWPPP will also change to address the new potential for contamination from industrial activities. The SWPPP will be amended if the Airport has changed materials handling or storage resulting in any significant increase of the exposure of industrial activity and materials to storm water. The amendment will contain a description of the new activities; planned source area controls to control the activities' potential to pollute storm water; an estimate of the new pollutant loading resulting from the change; and, only when appropriate, a description of the effect of the change on existing storm water treatment practices. Changes to the facility may have altered drainage, so that flow patterns shown on the map may no longer represent actual flows on the property. These changes may cause more outfalls or a change in the drainage area to each outfall.

(2) Evaluating Results

The team leader will consider the results of the inspections in regards to storm water and determine if there will be a need for further BMPs and implementation of the BMPs.

(3) Submitting Results

The Airport will compile and maintain on site all inspection forms for a minimum of three years. These forms will be made available to the MPCA upon request.

8. BMP Maintenance

The Airport will make sure that all the BMPs that are treating storm water on the site are adequately maintained and functioning properly. In order to make sure the BMPs are functioning properly, periodic maintenance will be done. If maintenance occurs, all dates and descriptions of the maintenance will be documented in the BMP Maintenance Log found in Appendix A.

If it is identified that a BMP is not functioning properly, the Airport will replace, maintain, or repair the BMP(s) within seven (7) calendar days of the discovery. If replacement, maintenance, or repair cannot be completed within seven (7) calendar days, an effective backup BMP will be implemented until effectiveness of the original BMP can be restored. Justification for an extended replacement, maintenance, or repair schedule of the failed BMP(s) will be documented and stored with the SWPPP.

9. Benchmark Monitoring Requirements

A. Monitoring Locations

BMLs have been designated at three (3) locations, as labeled in the Facility Map and described in Section 4 - Facility Map.

B. Monitoring Schedule

Table 8 - Specific Benchmark Values

Subsector	Parameter	Benchmark Value
S2 Airports that use less than 100,000 gallons of glycol-based deicing/anti-icing chemicals and/or 100 tons or less of urea on an average basis.	Total Suspended Solids (TSS)	100 mg/l
	Chemical Oxygen Demand (COD)	120 mg/l
	5-day Carbonaceous, Biochemical Oxygen Demand (CBOD ₅)	25 mg/l
	Total Ammonia	2.8 mg/l

Official monitoring at each BML will begin no later and no earlier than 12 months after the date the Airport is authorized to discharge industrial storm water under this permit. Samples will be taken at each of the BMLs four (4) times a year at three (3) month intervals and will be collected during the first 30 minutes of a measurable runoff event to the extent feasible.

The results from the four samples will be analyzed and compared to the values in Table 8 - Specific Benchmark Values. Depending on these results, further action may be required.

(1) Second Year Monitoring

Monitoring will begin at the four (4) BML locations in approximately November of 2011. Samples will be taken according to the procedures listed in Section 9.C – Sampling Procedures. Further monitoring of the parameters in Table 8 will be conducted, as needed, based on whether the benchmark values are exceeded or not exceeded.

(a) Benchmark Values are not Exceeded

Further monitoring for the parameters listed in Table 8 is not required, unless during subsequent years of permit authorization a new impaired water has been listed, and the facility has a monitoring location from which the discharge flows to, and is within one mile of the impaired water. If this occurs, additional monitoring for the benchmark parameters will begin.

(b) Benchmark Values are Exceeded

If the average of the monitoring results exceeds the values in Table 8, the Airport will modify the SWPPP and implement any necessary corrective actions, including improvements to BMPs, during the third year of the permit. Any corrective actions implemented to meet the benchmark values during fourth year monitoring will be documented.

If benchmark values at BML02 are excessive, the Airport may test the run-on location from the agricultural field and analyze the difference. If it is found that the agricultural field is causing the excessive benchmark values, the Airport may apply for a Run-On Demonstration Waiver and discontinue monitoring of the substance that is in exceedance. The MPCA guidelines for A Run-On Demonstration Waiver are:

1. Sample the run-on prior to co-mingling with other storm water discharges, and analyze the run-on against the BML exceeded value.
2. Include with the SWPPP a run-on demonstration narrative that explains the nature of the run-on, a description of the neighboring property and activities, dates and lab results of the samples taken for comparison purposes, a statement that the Airport has assessed and assured the run-on is directly affecting the specific benchmark monitoring location for which a benchmark value has been exceeded, efforts taken by the Airport to divert/minimize run-on to the facility and other relevant information that supports the Airport's use of this waiver.
3. Complete the appropriate sections of a storm water Monitoring Report and submit it to the Agency
4. Address the use of this waiver in Annual Report submittals.

(2) Fourth Year Monitoring

Fourth year monitoring will occur only if the values in Table 8 are exceeded during second year monitoring. If fourth year monitoring is necessary, it will begin no later than 36 months after the date the Airport is authorized to discharge industrial storm water under the permit (or approximately August of 2013). Samples will be taken according to the procedures listed. Further monitoring will be conducted, as needed, based on whether the benchmark values are exceeded or not exceeded.

(a) Benchmark Values are not Exceeded

Further monitoring for those parameters is not required, unless during subsequent years of permit authorization, a new impaired water has been listed, and the facility has a monitoring location from which the discharge flows to, and is within one mile of the impaired water. If this occurs, additional monitoring for the benchmark parameters will begin.

(b) Benchmark Values are Exceeded

If the average of the monitoring results exceeds the values in Table 8 at the completion of the fourth year monitoring, the Airport will:

- Modify the SWPPP and document all corrective actions. This will include improvements to BMPs necessary to meet the benchmark values during fifth year monitoring. Modifications and upgrades of the SWPPP will be completed no later than 30 days past the discovery of the exceedance.
- Implement necessary non-structural BMPs no later than 60 days after discovery of the exceedance.
- Implement structural BMPs no later than 180 days after discovery of the exceedance. If the Airport is unable to complete implementation of the structural BMPs within 180 days, a plan will be submitted to the MPCA and will include justification as to why this requirement cannot be met, as well as a specific schedule for completion. The plan will be submitted no later than 180 days after discovery of the exceedance and will be submitted to the address listed in the Benchmark Monitoring Data Reporting section.
- Submit a Benchmark Exceedance Report to the address listed in the Benchmark Monitoring Data Reporting section, which describes the inability to meet the benchmark values. The report will describe the technical basis and reasons why the benchmark values cannot be met and will be submitted to the MPCA no later than 30 days after the fourth sampling interval of the monitoring year.
- Comply with monitoring requirements of Fifth Year Monitoring.

(3) Fifth Year Monitoring

Fifth year monitoring will occur only if the values in Table 8 are exceeded during fourth year monitoring. If fifth year monitoring is necessary, it will begin no later than 48 months after the date the Airport is authorized to discharge industrial storm water under the permit (or approximately August of 2014). Samples will be taken according to the procedures listed. Further monitoring will be conducted, as needed, based on whether the benchmark values are exceeded or not exceeded.

(a) Benchmark Values are not Exceeded

Further monitoring for those parameters is not required, unless during subsequent years of permit authorization, a new impaired water has been listed, and the facility has a monitoring location from which the discharge flows to, and is within one mile of the impaired water. If this occurs, additional monitoring for the benchmark parameters will begin.

(b) Benchmark Values are Exceeded

If the average of the monitoring results exceeds the values in Table 8 at the completion of the fifth year monitoring, the Airport will:

- Modify the SWPPP and document all corrective actions. This will include improvements to BMPs necessary to meet the benchmark values during fifth year monitoring.

Modifications and upgrades of the SWPPP will be completed no later than 30 days past the discovery of the exceedance.

- Implement necessary non-structural BMPs no later than 60 days after discovery of the exceedance.
- Implement structural BMPs no later than 180 days after discovery of the exceedance. If the Airport is unable to complete implementation of the structural BMPs within 180 days, a plan will be submitted to the MPCA and will include justification as to why this requirement cannot be met, as well as a specific schedule for completion. The plan will be submitted no later than 180 days after discovery of the exceedance and will be submitted to the address listed in the Benchmark Monitoring Data Reporting section.
- Submit a Benchmark Exceedance Report to the address listed in the Benchmark Monitoring Data Reporting section, which describes the inability to meet the benchmark values. The report will describe the technical basis and reasons why the benchmark values cannot be met and will be submitted to the MPCA no later than 30 days after the fourth sampling interval of the monitoring year.
- Continue benchmark monitoring of the benchmark parameter(s) exceeded during year 5.

C. Sampling Procedures

Four samples will be collected at each BML using a manual grab method, or by automated sampling. The samples will be submitted to a laboratory certified by the Minnesota Department of Health to conduct the analyses. The closest certified laboratory that tests all four (4) of the Specific Benchmark Values is:

Davy Laboratories
115 6th Street South
La Crosse, WI 54601
608.782.3130

The four (4) sets of samples will be collected on four separate events during the year with the concentrations for each BML averaged and compared to the Specific Benchmark Values in Table 8. For averaging purposes, a value of zero will be used for any individual parameter determined to be less than the method detection limit. If a sample value falls between the method detection level and the quantitation limit, a value halfway between zero and the quantitation limit will be used. Samples will be collected during the first 30 minutes of a measurable runoff event to the extent feasible. If it is not possible to collect the sample within the first 30 minutes of a measurable runoff event, the sample will be collected as soon as practicable after the first 30 minutes and documentation will be included in the Stormwater Monitoring Report to explain why this was not possible. For every interval the Airport conducts a sampling, a Stormwater Monitoring Report will be submitted to the MPCA (even if measurable runoff during a sampling interval is not sufficient to obtain a sample).

If a measurable runoff event does not occur during a sampling interval due to weather conditions and/or site soil characteristics, the Airport will collect a substitute sample during the next sampling interval. If this occurs, samples will be taken at least 72 hours apart. If the Airport is unable to obtain a minimum of four (4) samples throughout a sampling year, less than four samples will be used to determine the average

benchmark parameter concentrations for the year. For each interval that samples cannot be obtained, the appropriate sections of the Stormwater Monitoring Report will be completed.

Fourth year monitoring will be conducted if the Airport is unable to obtain at least one sample during second year sampling.

D. Benchmark Monitoring Data Reporting

The Airport will submit the results of the benchmark monitoring on a Stormwater Monitoring Report form provided by the MPCA. At the time of this SWPPP completion, the MPCA is still in the process of developing the Stormwater Monitoring Report Form. It is expected to be available through their website in time for the benchmark monitoring schedule. The link to their Stormwater Program is: <http://www.pca.state.mn.us/index.php/water/water-types-and-programs/stormwater/industrial-stormwater/industrial-stormwater.html?menuid=&missing=0&redirect=1>. The Airport will submit the Stormwater Monitoring Report form to the MPCA electronically or postmarked by the 21st day of the month following the sampling interval to:

MPCA
Attn: WQ Submittals Center
520 Lafayette Road North
St. Paul, MN 55155-4194

10. Non-Stormwater Discharge Certification

Certain types of discharges are allowed by the MPCA, either in general or by special permit. General discharges allowed are those occurring from water line flushing; landscape and lawn irrigation; diverted stream flow; uncontaminated pumped groundwater or groundwater infiltration; discharges from potable water sources; foundation drains; air conditioning condensate; residential car washing; and street wash water. The MPCA requires a permit to discharge contact or noncontact cooling water; process wastewater; spills or leaks; remedial action discharges; or discharges of hazardous materials.

To eliminate all unauthorized storm water discharges from the facility, the Airport will assess each discharge location and monitoring location for the presence of non-stormwater discharges. All findings will be documented as part of the monthly site inspection found in Appendix C. Copies of all findings will be kept in Appendix B. If a non-stormwater flow is observed, its source will be identified and a plan to terminate the discharge will be developed and carried out.

On Wednesday, October 6, 2010, Mead & Hunt visually inspected the Airport and each of the outfalls and BML locations. Non-storm water discharge was not found on the site.

11. Spill Prevention and Response Procedure

The possible spill location is at the aircraft fueling system, as shown on the Facility Map. The aircraft fueling system has one above ground split tank, with capacities of 3,000 gallons in each side, that have the potential to reach the Winnebago Creek in the event of a spill. Possible spill scenarios are leaks

developing in the fueling pump, overtopping of tank, or spills during fueling. At the fueling pump, the following procedures are in place to prevent spills:

- Operator will never leave the area when fueling operations are underway.
- Prevent topping off fuel tanks which can create small spills by overfilling.
- Provide absorbent materials and rags for cleaning up small spills and train operators on proper operation.
- Use dry cleanup methods for fuel area.
- Fueling station is inspected on a daily basis for possible leaks.

The fueling pump has two signs posted at the fuel pump. One sign is for emergency and spill response contacts. The second sign is for spill reporting requirements.

In the event of a spill, per Minn. Stat. 115.061, the Airport will immediately notify the Minnesota Department of Public Safety Duty Officer at 800.422.0798 and fill out a Spill Notification Form which can be found in **Appendix D-Spill Notification Form**.

12. Mercury Minimization Plan

The Airport does not have any mercury sources exposed to storm water.

13. Employee Training Program

Training on storm water pollution prevention is critical to the success of the SWPPP. All new employees will be introduced to the SWPPP and get training in storm water pollution prevention techniques. Topics to be covered include but are not limited to:

- Importance of good housekeeping and maintenance
- Material storage and management
- BMP operation and maintenance
- Monitoring
- Pollution Prevention Team – roles and responsibilities

Training on the above listed topics will be given at least annually or whenever there is a change in the SWPPP or Pollution Prevention Team. If it is necessary, training will occur more frequently, and will be noted in the training schedule in the SWPPP.

Records of all training documents will be inserted in **Appendix E – Training Records** and include the trainer, trainer's organization, date of training, training topics, and employees in attendance.

14. Impaired Waters/ Total Maximum Daily Load (TMDLs)

Storm water from the Airport eventually discharges into two creeks; the South Fork Crooked Creek located approximately half a mile to the northeast of the Airport and the Winnebago Creek located approximately half a mile to the southwest of the Airport. Neither creek is on the TMDLs map by the MPCA.

15. SWPPP Modifications

The SWPPP will be reviewed on an annual basis to make sure everything is current and updated, and modify it if necessary. Any modification will be represented in the SWPPP. Modifications include but are not limited to change in design, operation, and maintenance, newly listed TMDLs and through inspections and BMP deficiencies.

Modifications to the SWPPP may also affect monitoring data. If the number or location of benchmark monitoring locations has been changed, these will be denoted in the SWPPP and be represented in both the Annual Report and Stormwater Monitoring Report. This may also include all waivers removing the Airport from monitoring responsibility or adjusting benchmark values.

If the Airport adds other industrial activities, which are represented by sectors other than the ones originally designated on the facility's application, the SWPPP will be modified to show these changes and monitoring for any additional parameters will be implemented.

16. SWPPP Reporting and Submittals

The Airport will submit an Annual Report to the MPCA by March 31st of each year it is authorized to discharge industrial storm water under this permit. The Annual Report will be submitted to the MPCA on the form provided by the MPCA and will include, at a minimum, the following information:

- A summary of inspection dates, findings, and any BMP maintenance conducted during the course of the reporting year.
- The results of any inspection that identified any visible sheens or films that indicated the presence of oil or grease in the runoff discharge.
- A confirmation that the SWPPP accurately reflects facility conditions.
- A confirmation that newly-exposed significant materials, if any, have been identified and the SWPPP has been modified accordingly.
- A confirmation that the Airport has conducted a review of impaired waters and the SWPPP has been modified to address applicable permit requirements of Part V.
- A confirmation that the Airport has conducted a review of USEPA-approved TMDLs that may apply to the facility.
- A description of any SWPPP modification.
- A list of all spills and leaks that occurred at the site during the reporting year.

Appendix A. Sample Forms

Appendix B. Site Inspection Form

Site Inspection Form

**NPDES/SDS Industrial Storm Water Multi-Sector
General Permit, MNR05000**

Instructions: This inspection form is intended to meet the requirements listed in Part III.F of MNR050000. Unless otherwise authorized, inspections shall be conducted by the Springfield Municipal Airport once per calendar month for a total of 12 inspections per year. A minimum of two of the 12 inspections should occur during a runoff event, one of them being a snowmelt event.

Facility Information

Facility Name: Houston County Airport		Date:
Facility Address: 17247 MN State Highway 76		
City: Caledonia	State: MN	Zip Code: 55921
Site Contact Name:	Inspector Name:	
SIC Category:	Runoff Event: Yes No	
Facility ID# (if applicable):	Weather:	
Narrative activity and/or SIC Code(s):		

Inspector Information

Date (MM/DD/YY): _____ Inspection Number: _____

Name: _____ Trained for these duties: Yes No

Describe duties being performed:

Have the following areas been inspected at your facility?

a. Fueling Pump Yes No

Describe findings:

Actions Needed:

Areas described in a. above should be inspected in every inspection

BMP Evaluation (Storm Water Control Measures)

Evaluate all structural and non-structural Best Management Practices (BMPs) to determine whether they are properly functioning.

BMP type	Function	Description of condition
Grass Buffer Strip	Sedimentation Control	

New Materials and Activities

Describe below any newly exposed materials and activities since the last inspection. Be sure that these materials are accurately noted in the Storm Water Pollution Prevention Plan (SWPPP).

Materials and activities	Date exposed

Runoff Event Inspection

Was the runoff inspection conducted during a storm event? Yes No
 Was the inspection conducted during a snowmelt event? Yes No

For the inspection conducted during a runoff event, it is important to visually inspect discharges (runoff) for contaminants (sheen, rusty color, milky or translucent, sediment (muddy), etc.). Describe below the discharges that you observed.

Discharges observed (Y/N)	Describe discharges (color, transparency,
Yes No	
Yes No	
Yes No	
Yes No	
Yes No	

What changes should be taken to help clean up these discharges:

Storm Water Pollution Prevention Plan (SWPPP) Updates

Does your SWPPP accurately describe site conditions? Yes No

NON-STORM WATER INSPECTION

Last Rainfall: _____

Description of type of inspection (check those that apply):

- visual observation dye tests smoke tests TV line survey
analysis of accurate schematics sampling/monitoring

Observations/Results: _____

Are there any non-storm water discharges? yes no

If yes:

Is the discharge authorized under this permit? yes no

Are significant structural changes required to eliminate the discharge? yes no

Appendix C. Spill Notification Form

Houston County Airport Spill Notification Form

INCIDENT DATE: _____ INCIDENT TIME: _____
 REPORT DATE: _____ DISCOVERY TIME: _____
 FACILITY NAME, TOWN and COUNTY: Houston County Airport, Caledonia , Houston County
 SPILL LOCATION: _____
 PERSON REPORTING: _____ PHONE: _____

SPILLED PRODUCT INFORMATION:

Product: _____ Pollutant: _____
 Container Capacity: _____ Spill Volume: _____
 Size of Area Affected by Release: _____
 Duration of Release: _____

	Yes	No
Spill contained on premises?		
If not, did the spill enter pipes or ditches?		
If not, did the spill enter a body of water?		

DESCRIPTION: (check one)

- | | | |
|------------------------------|--|---------------------|
| leaking drums/containers | overfill, vehicle unattended | equipment failure |
| leaking refueler, TPU or pod | drive off, hose in vehicle | other (human error) |
| overfill, during fuel drop | other (than storage device or equipment failure, or human error) | |

Did you use a spill kit? Yes No

If yes, check one: Unit Spill Kit Range Control Kit Fire Dept Other

Amount of spill kit supplies used/to be re-stocked:

Type, quantity and location of material generated:

Material: _____ (soil, pads, liquids, etc.)
 Amount: _____ (# of bags, dms., cu. yd., etc.)
 Location: _____ (at spill site or Area 11 CONEX)

Material: _____ (soil, pads, liquids, etc.)
Amount: _____ (# of bags, dms., cu. yd., etc.)
Location: _____ (at spill site or Area 11 CONEX)

Material: _____ (soil, pads, liquids, etc.)
Amount: _____ (# of bags, dms., cu. yd., etc.)
Location: _____ (at spill site or Area 11 CONEX)

Measures taken to prevent recurring incidents:

Additional pertinent information:

SIGNATURE:

Appendix D. Training Records

Employee Training Log

Date of Session: _____ Time: _____

Trainer: _____
(printed) (Signature)

Trainer's Organization: _____

Attendees (names, printed):

Signature:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Topics Covered: _____
