



Stormwater Best Management Practices Plan

In accordance with KPDES Permit No. KY0082864

Cincinnati/ Northern Kentucky International Airport
CVG Airport Authority
Kenton County Airport Board
Hebron, Boone County, Kentucky
Date Revised: October 26, 2022

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1. Introduction

This Stormwater Best Management Practices Plan has been prepared for the Cincinnati/ Northern Kentucky International Airport (CVG Airport). This plan addresses the stormwater pollution prevention requirements of the Kentucky Pollution Discharge Elimination System (KPDES) permit #KY0082864, Section 3: Best Management Practices (BMP) Plan Requirements. This plan replaces any previous versions and has been revised to meet the current permit requirements.

The major objectives of this plan are to:

1. Identify sources of pollution potentially affecting the quality of stormwater discharges associated with industrial activities at the CVG Airport
2. Describe the practices used to minimize and control pollutants in stormwater discharges from these industrial activities
3. Provide guidance to assist the CVG Airport Authority (CVGAA) in complying with the terms and conditions in KPDES Permit #KY0082864

1.1 Applicability

Per CVGAA's KPDES permit #KY0082864 issued June 1, 2016 by the Kentucky Division of Water, CVGAA shall develop and implement a Stormwater Best Management Practices (BMP) Plan consistent with 401 KAR 5:056, Section 2(4). These conditions apply to all permittees who use, manufacture, store, handle, or discharge any pollutant listed as:

1. toxic under Section 307(a)(1) of the Clean Water Act;
2. oil, as defined in Section 311(a)(1) of the Act;
3. any pollutant listed as hazardous under Section 311 of the Act; or is defined as a pollutant pursuant to KRS 224.1-010(35) and who have operations which could result in the release of a hazardous substance, pollutant, or contaminant, or an environmental emergency, as defined in KRS224.1-400. These operations include material storage areas, plant site runoff, in-plant transfer process, and material handling areas, loading and unloading operations, and sludge and waste disposal areas.

1.2 BMP Plan General Requirements

The Stormwater BMP Plan shall:

1. Be documented in narrative form, and shall include any necessary plot plans, drawings, or maps
2. Establish specific objectives for the control of toxic and hazardous pollutant
 - a. Each facility component or system shall be examined for its potential for causing a release of "BMP pollutants" due to equipment failure, improper operation, natural phenomena such as rain or snowfall, etc
 - b. Where experience indicates a reasonable potential for equipment failure (e.g., a tank overflow or leakage), natural condition (e.g., precipitation), or other circumstances which could result in a release of "BMP pollutants", the plan should include a prediction of the direction, rate of flow, and total quantity of the pollutants which could be released from the facility as result of each condition or circumstance.
3. Establish specific BMPs to meet the objectives identified under paragraph b of this section, addressing each component or system capable of causing a release of "BMP pollutants".

4. Include any special conditions established in part b of this section.
5. Be reviewed by engineering staff and the site manager.

The Stormwater BMP Plan shall be consistent with the general guidance contained in the publication entitled "NPDES Best Management Practices Guidance Document", and shall include the following baseline BMPs as a minimum:

1. BMP Committee
2. Reporting of BMP Incident
3. Risk Identification and Assessment
4. Employee Training
5. Inspections and Records
6. Preventive Maintenance
7. Good Housekeeping
8. Materials Compatibility
9. Security
10. Materials Inventory

1.3 BMP Plan Modification

CVGAA will review and evaluate this Stormwater BMP Plan when there are changes in facility design, construction, operation, or maintenance that materially increased the potential for release of "BMP pollutants." Amendments to the Stormwater BMP Plan will be documented on the BMP Plan Review Log in Appendix B. The Manager of Environmental Compliance is responsible for initiating and coordinating revisions to the Stormwater BMP Plan.

1.4 Certification

I, the undersigned, have personally reviewed the contents of this Stormwater Best Management Practices Plan and, to the best of my knowledge, find it to be accurate and representative of actual conditions of operation. I further attest that the plan has my approval and that in my current management capacity I have the commensurate authority to commit the necessary resources and manpower to implement and comply with the provisions of this Stormwater Best Management Practices Plan.

Name: Cole Musial

Title: Manager of Environmental Compliance

Signature: 

Date: October 26, 2022

2. BMP Plan Committee

This Stormwater BMP Plan will be administered by a BMP Plan Committee to be headed by the Manager of Environmental Compliance. The BMP Plan Committee will evaluate the effectiveness of the plan at least once annually and will update the plan document to reflect facility or operational changes accordingly. The Stormwater BMP Plan Committee will be comprised of the following members:

- Manager of Environmental Compliance (lead)
- Senior Project Manager-Environmental - Planning & Development
- Vice President (VP)-Planning and Development
- Senior Manager of Environmental Operations
- VP-Operations & Maintenance
- Chief Operations Officer

2.1 BMP Plan Distribution

The airport is manned 24 hours per day, seven days per week, 365 days per year. A copy of this Stormwater BMP Plan will be maintained with the Airport Operations Center (AOC) and on CVGAA's intranet site, KCABNet.

2.2 Employee Training

CVGAA Employees will be trained annually and when the plan is revised. Training records will be maintained electronically.

3. Facility Information

The CVGAA emergency contact list is included in Appendix C.

Name:	Cincinnati / Northern Kentucky International Airport (CVG Airport)
Address:	77 Comair Blvd, Erlanger, Boone County, Kentucky
Owner/ Operator:	CVG Airport Authority (CVGAA)
BMP Plan Committee Chair:	Manager of Environmental Compliance

3.1 Facility Description

The Cincinnati/Northern Kentucky International Airport (CVG) is a commercial airport operated by the Kenton County Airport Board), situated in Hebron, Kentucky that services the greater Cincinnati metropolitan area. CVG property encompasses over 7,700 acres of land and provides facilities for tenants engaged in passenger and air cargo transportation including a Main Terminal, two concourses, four runways, an airport operations area (AOA), and various support facilities. Industrial activities at the airport include aircraft and ground vehicle maintenance, fueling, washing, and deicing/anti-icing operations.

CVG utilizes an intricate drainage system to capture and convey spent aircraft deicing fluids (SADF) to an onsite treatment plant. Stormwater is processed at the treatment plant via aerobic sludge digestion before being discharged into the receiving waters.

3.2 Stormwater Drainage System

Storm drains are located throughout the AOA to capture stormwater runoff. The storm drains have dual purpose; the drains can be configured to collect SADF during deicing operations and configured to divert stormwater through the storm sewer drain lines when deicing is not occurring. Deicing and anti-icing agents are dispensed onto aircraft at deicing pads. The deicing pads are designated areas on the ramp that capture the bulk of deicing/anti-icing fluid. The stormwater drainage system is also designed to capture any fugitive loss of deicing fluid when aircraft are taxiing on and during takeoff. There are 19 deicing pads in operation throughout the CVG and DHL ramps. A map of the deicing pad locations can be found in Exhibits I and II.

When SADF is collected during deicing operations at the deice pads, it is diverted to collection tanks for holding before being processed at the treatment plant. The collection tanks consist of an above ground 2-million-gallon concrete tank located in the north drainage area, two semi-submerged 3-million-gallon concrete tanks located in the south drainage area, and a covered 6-million-gallon lined basin located at the north end of the treatment plant. The treatment plant then draws fluid from these tanks for processing. The treatment plant also receives flow from the stormwater pump stations.

3.3 Stormwater Treatment Plant

The stormwater treatment plant is located on the southwest side of the airport and is managed by the Environmental Operations team. The plant can process six million gallons of stormwater and 30,000 lbs of SADF a day. On average, 400 million gallons of water is treated at the plant each year.

The treatment plant operates via aerobic sludge digestion. The SADF acts as a food source for the bacteria that break down and absorb the organic compounds of the deicing agents from the stormwater as it is digested. Waste sludge that is generated through the process is removed from the water via centrifugation before it is discharged. After treatment, clean water from the plant is discharged at KPDES Compliance Monitoring location 002.

3.4 Detention Facilities

The airport manages three detention facilities for flood control and pollution prevention. Detention Basin #1 collects stormwater for the North Drainage Area, and Detention Basins #2 and #3 collect for the South Drainage Area of the airport. Each pond has a dam with automated sluice gate controls to control water levels in the pond and discharge rates into the streams.

During the winter season, the detention ponds are operated as wet ponds to increase the dissolved oxygen concentration in the water and improve water quality. Each pond is outfitted with surface aerators that are managed on a scheduled maintenance program. During the summer season, the ponds are drained so preventative maintenance on the dams can be performed.

The dams are inspected bi-weekly by the Environmental Operations team. The inspections include checking for grass and weed overgrowth, erosion issues, debris build up in the stilling basins, excess sedimentation, and odors or visible pollutants in the ponds. The dam gates and structures are also

inspected to ensure there are no mechanical or structural issues. Copies of all dam inspections are logged in the INFOR system.

Additionally, the detention ponds can provide an additional level of protection in the event of an oil or fuel spill. During a spill event, the sluice gates can be closed to prevent the spilled material from entering the waterways.

A map of the CVG's stormwater drainage system, including location of the detention facilities and KDPES compliance monitoring locations, can be found in Exhibit III.

3.5 Receiving Waters

The headwaters of Elijah's Creek and Gunpowder Creek are located on CVG property. Elijah's Creek drains the northern portion of the airport and flows approximately five miles in a northwest direction until its confluence with the Ohio River. The drainage area for Elijah's creek is approximately seven square miles. Gunpowder Creek drains the southern end of the airport and flows approximately 36 miles southwest until it meets the Ohio River. Gunpowder Creek Watershed is the largest watershed in the county, draining approximately 58.2 square miles. Both Elijah's Creek and Gunpowder Creek watersheds lie entirely within Boone County.

3.6 KPDES Compliance Monitoring Locations

KPDES permit #KY0082864 designates four Compliance Monitoring Locations (outfalls) to monitor pollutant discharge. Descriptions of the Compliance Monitoring Locations are as follows:

- 002- outfall of the storm water treatment plant (SWTP)
- 003- located on Elijah Creek preceding the culvert under interstate highway 275.
- 005 -located on Gunpowder Creek at the discharge of Detention Basin #2 in the South Drainage Area
- 006- located on Gunpowder Creek at the discharge of Detention Basin #3 in the South Drainage Area

A map of the Compliance Monitoring Locations can be found in Exhibit III.

3.7 KPDES Monitoring & Reporting Requirements

The KPDES permit #KY0082864 establishes specific effluent limitations and monitoring requirements for each of the four outfalls. Water samples and measurements are collected and analyzed for specific pollutant concentrations weekly or monthly, depending on the season. The permit indicates two sampling seasons: winter and summer. The winter season begins November 1st and ends April 30th. During winter season, all four compliance monitoring locations are sampled weekly. Summer season begins May 1st and ends October 31st. During summer season, Outfall 002 is sampled once a week and Outfalls 003, 005, and 006 are sampled once a month. Results from these sampling events are reported through the Network Discharge Monitoring Report (NetDMR) website every month.

The effluent limitations and monitoring requirements for each outfall are included below:

3.7.1 Effluent Limitations and Monitoring Requirements for Outfall 002

Effluent Limitations								Monitoring Requirements	
Effluent Characteristic	Unit	Loadings (lbs/day)		Concentrations				Frequency	Sample Type
		Monthly Average	Daily Maximum	Minimum	Monthly Average	Daily Maximum	Maximum		
Flow	MGD	Report	Report	N/A	N/A	N/A	N/A	1/Week*	Instantaneous
pH	SU	N/A	N/A	6	N/A	N/A	9	1/Week*	Grab
Total Suspended Solids (TSS)	mg/L	N/A	N/A	N/A	30	60	N/A	1/Week*	Grab
Oil & Grease	mg/L	N/A	N/A	N/A	10	15	N/A	1/Week*	Grab
Biological Oxygen Demand (BOD) ₅	mg/L	N/A	N/A	N/A	Report	Report	N/A	1/Week*	Grab
Dissolved Oxygen (DO)	mg/L	N/A	N/A	4.0 ¹	Report	Report	N/A	1/Week*	Grab
Total Organic Carbon (TOC)	mg/L	N/A	N/A	N/A	Report	Report	N/A	1/Week*	Grab
Total Recoverable Potassium	mg/L	N/A	N/A	N/A	Report	Report	N/A	1/Week*	Grab
Propylene Glycol	mg/L	N/A	N/A	N/A	Report	Report	N/A	1/Week*	Grab
<p>N/A means Not Applicable.</p> <p>*Samples shall be taken once per week during the period that the stormwater treatment plant is operational. During the period when the plant is shut down, NODI Code "C" – No Discharge shall be entered on the DMR.</p> <p>¹ Dissolved Oxygen shall be maintained at a minimum concentration of five and zero – tenths (5.0) mg/L daily average; instantaneous minimum shall not be less than four and zero-tenths (4.0) mg/L.</p>									

3.7.2 Effluent Limitations and Monitoring Requirements for Outfall 003

Effluent Limitations								Monitoring Requirements	
Effluent Characteristic	Unit	Loadings (lbs/day)		Concentrations				Frequency	Sample Type
		Monthly Average	Daily Maximum	Minimum	Monthly Average	Daily Maximum	Maximum		
Flow									
May 1 – October 31	MGD	Report	Report	N/A	N/A	N/A	N/A	1/Month	Instantaneous
November 1 – April 30	MGD	Report	Report	N/A	N/A	N/A	N/A	1/Week	Instantaneous
pH									
May 1 – October 31	SU	N/A	N/A	6	N/A	N/A	9	1/Month	Grab
November 1 – April 30	SU	N/A	N/A	6	N/A	N/A	9	1/Week	Grab
TSS									
May 1 – October 31	mg/L	N/A	N/A	N/A	30	60	N/A	1/Month	Grab
November 1 – April 30	mg/L	N/A	N/A	N/A	30	60	N/A	1/Week	Grab
Oil & Grease									
May 1 – October 31	mg/L	N/A	N/A	N/A	10	15	N/A	1/Month	Grab
November 1 – April 30	mg/L	N/A	N/A	N/A	10	15	N/A	1/Week	Grab
BOD₅									
May 1 – October 31	mg/L	N/A	N/A	N/A	70	70	N/A	1/Month	Grab
November 1 – April 30	mg/L	N/A	N/A	N/A	150	150	N/A	1/Week	Grab
DO									
May 1 – October 31	mg/L	N/A	N/A	4.0 ¹	Report	Report	N/A	1/Month	Grab
November 1 – April 30		N/A	N/A	4.0 ¹	Report	Report	N/A	1/Week	Grab
TOC									
May 1 – October 31	mg/L	N/A	N/A	N/A	Report	Report	N/A	1/Month	Grab
November 1 – April 30	mg/L	N/A	N/A	N/A	Report	Report	N/A	1/Week	Grab

Effluent Limitations								Monitoring Requirements	
Effluent Characteristic	Unit	Loadings (lbs/day)		Concentrations				Frequency	Sample Type
		Monthly Average	Daily Maximum	Minimum	Monthly Average	Daily Maximum	Maximum		
Total Recoverable Potassium									
May 1 – October 31	mg/L	N/A	N/A	N/A	Report	Report	N/A	1/Month	Grab
November 1 – April 30	mg/L	N/A	N/A	N/A	Report	Report	N/A	1/Week	Grab
Propylene Glycol									
May 1 – October 31	mg/L	N/A	N/A	N/A	Report	Report	N/A	1/Month	Grab
November 1 – April 30	mg/L	N/A	N/A	N/A	Report	Report	N/A	1/Week	Grab
N/A means Not Applicable.									
¹ Dissolved Oxygen shall be maintained at a minimum concentration of five and zero – tenths (5.0) mg/L daily average; instantaneous minimum shall not be less than four and zero-tenths (4.0) mg/L.									

3.7.3 Effluent Limitations and Monitoring Requirements for Outfall 005 & 006

Effluent Limitations								Monitoring Requirements	
Effluent Characteristic	Unit	Loadings (lbs/day)		Concentrations				Frequency	Sample Type
		Monthly Average	Daily Maximum	Minimum	Monthly Average	Daily Maximum	Maximum		
Flow									
May 1 – October 31	MGD	Report	Report	N/A	N/A	N/A	N/A	1/Month	Instantaneous
November 1 – April 30	MGD	Report	Report	N/A	N/A	N/A	N/A	1/Week	Instantaneous
pH									
May 1 – October 31	SU	N/A	N/A	6	N/A	N/A	9	1/Month	Grab
November 1 – April 30	SU	N/A	N/A	6	N/A	N/A	9	1/Week	Grab
TSS									
May 1 – October 31	mg/L	N/A	N/A	N/A	30	60	N/A	1/Month	Grab
November 1 – April 30	mg/L	N/A	N/A	N/A	30	60	N/A	1/Week	Grab
Oil & Grease									
May 1 – October 31	mg/L	N/A	N/A	N/A	10	15	N/A	1/Month	Grab
November 1 – April 30	mg/L	N/A	N/A	N/A	10	15	N/A	1/Week	Grab
BOD₅									
May 1 – October 31	mg/L	N/A	N/A	N/A	50	50	N/A	1/Month	Grab
November 1 – April 30	mg/L	N/A	N/A	N/A	85	85	N/A	1/Week	Grab
DO									
May 1 – October 31	mg/L	N/A	N/A	4.0 ¹	Report	Report	N/A	1/Month	Grab
November 1 – April 30		N/A	N/A	4.0 ¹	Report	Report	N/A	1/Week	Grab
TOC									
May 1 – October 31	mg/L	N/A	N/A	N/A	Report	Report	N/A	1/Month	Grab
November 1 – April 30	mg/L	N/A	N/A	N/A	Report	Report	N/A	1/Week	Grab

Effluent Limitations								Monitoring Requirements	
Effluent Characteristic	Unit	Loadings (lbs/day)		Concentrations				Frequency	Sample Type
		Monthly Average	Daily Maximum	Minimum	Monthly Average	Daily Maximum	Maximum		
Total Recoverable Potassium									
May 1 – October 31	mg/L	N/A	N/A	N/A	Report	Report	N/A	1/Month	Grab
November 1 – April 30	mg/L	N/A	N/A	N/A	Report	Report	N/A	1/Week	Grab
Propylene Glycol									
May 1 – October 31	mg/L	N/A	N/A	N/A	Report	Report	N/A	1/Month	Grab
November 1 – April 30	mg/L	N/A	N/A	N/A	Report	Report	N/A	1/Week	Grab
N/A means Not Applicable. 1 Dissolved Oxygen shall be maintained at a minimum concentration of five and zero – tenths (5.0) mg/L daily average; instantaneous minimum shall not be less than four and zero-tenths (4.0) mg/L.									

3.8 Sanitary Drainage

The airport also manages wastewater discharge to the sanitary sewer system Sanitation District No. 1 (SD1). Sanitary discharge is permitted through Industrial Wastewater Discharge Permit IND-00051. The airport is considered a significant industrial user and must comply the Dry Creek Wastewater Treatment Plan effluent limitations, which can be found in the permit. Wastewater discharge is periodically sampled and analyzed for pollutant parameters by SD1 personnel at two discharge locations:

- The Airport Terminal Pump Station (discharges to Dry Creek Waste Water Treatment Facility)
- The Airport Tower Pump Station (discharges to Dry Creek Waste Water Treatment Facility)

A map of the sanitary drain system can be found in Exhibit IV.

4. Industrial Activities

Stormwater discharges associated with industrial activities at CVG Airport are permitted under KPDES permit #KY0082864. Industrial activities include those associated with CVGAA facilities and tenant operations. A list of Industrial activities at CVG Airport are listed below. Specific BMPs for each industrial activity are included in Section 5.

- Aircraft De-icing and Anti-icing
- Aircraft Lavatory Waste Servicing
- Aircraft, Vehicle, and Equipment Maintenance and Cleaning
- Building and Grounds Maintenance
- Chemical Handling and Storage
- Erosion and Sediment Control
- Fire Suppression and Aqueous Film Forming Foam (AFFF) Discharge
- Fuel Delivery, Storage, and Dispensing
- Garbage Handling, Storage, and Disposal
- Roadway, Ramp, and Runway Maintenance and Cleaning
- Vehicle, Equipment, and Pavement Painting

4.1 Materials Inventory

Many CVGAA and tenant operations use similar materials. The types of materials used at the airport have been summarized into the following categories:

Table 1. Material Categories Used at CVG

Material	Use, Storage, and Pollutant Description
Aircraft deicing and anti-icing agents (propylene glycol)	Propylene glycol based deicing and anti-icing agents are used to prevent and remove snow and ice from aircraft surfaces. Solutions are stored in aboveground storage tanks (ASTs) and applied at designated deicing pads on the AOA.
Antifreeze	Antifreeze is handled and stored at fleet maintenance facilities. Waste antifreeze is disposed of by a third-party waste contractor.

Aqueous Film-Forming Foam (AFFF)	AFFF is stored in foam suppression systems in aircraft hangars and in tanks on ARFF response vehicles. AFFF is only expended during live emergency events.
Diesel/ Gasoline	Diesel and gasoline fuels are used in vehicles and equipment. Fuel is stored in USTs, ASTs, and portable tote containers. Waste fuel is disposed of by a third-party waste contractor.
Ground De-icing agents	Potassium acetate and potassium formate based solutions are used to prevent and remove snow and ice from runways and taxiways on the AOA. Solutions are stored in ASTs and applied by trucks. Road salt is used to prevent and remove snow and ice from vehicle roadways.
Jet Fuel	Jet fuel is used in aircraft on the AOA. Jet fuel is stored tanks at an onsite fuel farm and transferred by a hydrant system for dispensing.
Lavatory Chemicals	Lavatory waste is collected from aircraft via vacuum truck and disposed of via the airport triturator. Soaps and cleaners are used to clean the lavatory between flights.
Oil and Grease	Oil and grease is used in vehicles and equipment. Oil and grease is stored in small plastic containers, drums, and portable tote containers. Waste oil and grease is disposed of by a third-party waste contractor.
Paint	Water-based and latex-based paints are used for various painting activities including roadway and runway marking, vehicle and equipment painting, and facility maintenance. Waste paint is collected and disposed of by a third-party waste contractor.
Pesticides and Fertilizers	Pesticides and fertilizers are used for landscaping across campus. Pesticides and fertilizers are stored in locked storage room at the Central Warehouse.
Sediment and Erosion from construction activities	Erosion, dust, and the discharge of sediment can occur during construction activities. Erosion and sediment is controlled and maintained through individual, site specific BMP plans.
Solid Waste, Litter, and Debris	Solid waste is collected in dumpsters and curbside trash bins. Solid waste containers are emptied on a daily or weekly basis. Airside Operations Agents conduct FOD walks on the airfield weekly to mitigate litter and debris.
Universal Waste (batteries, lamps, etc)	Universal waste is generated in the form of batteries, lamps, paint, and empty aerosol cans. Universal waste is collected and stored at the Glycol Recycling Facility before being disposed by a third-party waste contractor.

4.2 Safety Data Sheet Management

Safety Data Sheets (SDS) for any hazardous material that is used by CVGAA staff is inventoried using an online manager. Before a new hazardous material is purchased, the SDS is reviewed and approved by the Manager of Environmental Compliance. The SDS inventory can be accessed at:

<https://cvgairport.kha.com/>

4.3 Spills & Leaks

In the event of a release to the waters of the Commonwealth of Kentucky, CVGAA has measures in place to take immediate action to control and contain the release. A summary of these measures includes:

- **Airport Rescue & Firefighting (ARFF)**- available for immediate response available 24 hours per day, seven days per week
- **Third Party Response Contractors** – available for immediate response 24 hours per day, seven days per week
- **Oil/water separators (OWS)**- located throughout the airport to collect and separate oil from stormwater
- **Detention Basins**- located in the northwest and southwest corners of the property and are outfitted with dams
- **Spill cleanup kits**- include absorbent material, booms, and other portable barriers located throughout the airport
- **Concrete dikes**- installed around large aboveground storage tanks (ASTs)
- **Leak Detection Systems**- installed on all Underground storage tanks (USTs)

Detailed spill response and reporting procedures are included in CVG's Spill Prevention, Control, and Countermeasures (SPCC) Plan.

All spills and releases on CVG Airport property are reported to the Manager of Environmental Compliance. If a release to the waters of the Commonwealth occurs, the Manager of Environmental Compliance will report necessary information to the Kentucky Department of Environmental Protection and/or the US Environmental Protection Agency (EPA). A log of all spills and releases is maintained and updated regularly.

Tenants and/or lessees of CVGAA property are considered separate facilities under 40 CFR 112.2. All tenants/lessees that have an aggregate aboveground oil storage capacity of 1,320 gallons or more (containers 55-gallons or greater) are required to develop and implement their own SPCC Plan. Tenant SPCC plans are provided to CVGAA and copies are maintained within CVGAA's SPCC plan for reference.

5. Tenant Responsibilities

This BMP Plan, and the associated pollution prevention requirements of KPDES permit #KY0082864, is required to be implemented by CVGAA tenants, contractors and any other personnel who engages in any operations at the airport. A copy of this BMP Plan will be provided to all tenants, and a copy maintained with CVGAA's Customer Experience team. If a tenant experiences a change in operation subject to this Stormwater BMP plan, the Manager of Environmental Compliance shall be notified so the change can be documented in the plan. A list of current tenants and a log of operations currently conducted by tenants can be found in Appendix D.

5.1 Tenant Notification

CVGAA will hold meetings as needed to provide tenants with the necessary information to be in conformance with the plan. These meetings will also provide tenants the opportunity to update CVGAA on changes in operation that may have not been already shared and changes in contact information of the tenant's designated person in charge of plan conformance. The goal of these meetings is to assist tenants to meet the goals of the plan and BMP implementation.

5.2 Tenant Training

Tenants are responsible for providing annual training to their employees. Employees who work in areas where industrial materials or activities are exposed to stormwater or are responsible for implementing activities identified in this BMP Plan should participate in the training. CVGAA staff may request to review training materials and records from tenants as needed.

5.3 Inspections of Tenant Facilities

CVGAA staff will intermittently conduct comprehensive site inspections of tenant facilities to determine the tenant's compliance with the BMP plan requirements on an as needed basis. Inspections may include a review of areas where industrial materials or activities may be exposed to stormwater, a review of where spills and leaks have occurred, and/or an observation of operational activities outlined in this plan. A copy of CVGAA's Environmental Compliance Inspection Checklist can be found in Appendix E.

6. Construction Stormwater Management

- In addition to the terms outlined in this plan and KPDES permit #KY0082864, construction activities may be subject to additional regulations administered by the Kentucky Division of Water and Sanitation District 1 (SD1.) Specifically, the contractor may need to obtain a KPDES Stormwater Construction General Permit #KYR100000 and/or an SD1 General Land Disturbance Permit. Both permits are required when an area greater than one (1) acre or more is disturbed. It is the responsibility of the contractor to acquire appropriate permits as necessary for their projects.

6.1 Stormwater Pollution Prevention Plans (SWPPP) for Construction Activities

If the project requires a KPDES Stormwater Construction General Permit #KYR100000 or an SD1 General Land Disturbance Permit, a Stormwater Pollution Prevention Plan (SWPPP) will need to be implemented. A SWPPP plan is a preconstruction submittal that describes how the contractor will implement source control BMPs, erosion and sediment control BMPs, dewatering procedures, and overall management of hazardous materials for their individual construction project. The SWPPP must be provided to CVGAA personnel for review before construction activities can begin. The contractor is responsible for maintaining the SWPPP plan, and CVGAA may request copies of inspection reports, or complete site inspections as necessary.

General erosion and sediment control BMPs are included in Section 7 for reference.

7. Best Management Practices

A stormwater BMP is defined as any program, method, device, or action that is effective in preventing, controlling, or reducing pollution in stormwater runoff. Appropriate BMPs should be selected and implemented for specific industrial processes. Areas of actual or potential pollution are evaluated, and applicable BMPs are implemented to eliminate or limit stormwater pollution. BMPs for specific industrial activities include the following:

BMP 1. Aircraft De-icing and Anti-icing

BMP 2. Aircraft Lavatory Waste Servicing

BMP 3. Aircraft, Vehicle, and Equipment Maintenance and Cleaning

BMP 4. Building and Grounds Maintenance

BMP 5. Chemical Handling and Storage

BMP 6. Erosion and Sediment Control

BMP 7. Fire Suppression and Aqueous Film Forming Foam (AFFF) Discharge

BMP 8. Fuel Delivery, Storage, and Dispensing

BMP 9. Garbage Handling, Storage, and Disposal

BMP 10. Roadway, Ramp, and Runway Maintenance and Cleaning

BMP 11. Vehicle, Equipment, and Pavement Painting

BMP 1. Aircraft De-icing and Anti-icing

CVG Airport Stormwater Best Management Practices Plan	
Aircraft De-icing and Anti-icing	
Purpose	
To prevent the discharge of pollutants to stormwater during aircraft de-icing and anti-icing activities	
Targeted Activities	Targeted Pollutants
<ul style="list-style-type: none"> Aircraft de-icing and anti-icing Apron wash down 	<ul style="list-style-type: none"> Propylene glycol
Minimize Exposure of Pollutants to Stormwater	
<ul style="list-style-type: none"> Only perform de-icing and anti-icing activities on designated deicing pads while pads are in glycol mode. Wait to dispense de-icing and anti-icing agents until the wig-wag lighting system is activated, indicating that the deicing pad is open. Notify the AOC at 859-767-3123, if wig-wag lighting system is not activated. Do not allow de-icing and anti-icing agents to be discharged to surface water or groundwater Transport and store snow contaminated with deicing agents in areas where snow melt will discharge into the glycol collection system Maintain adequate capacity in tanks and secondary containment for de-icing and anti-icing chemicals Flush deice pads during rain events by leaving pads in deicing mode until deicing fluid flows into trench drains 	
Preventative Maintenance	
<ul style="list-style-type: none"> Deicing pad diversion valves are exercised by actuating the valves on a frequent basis by CVGAA personnel. Maintenance is performed if needed to fix any issues preventing the actuation of the valves. Annual Preventative Maintenance is conducted in late summer. All pump stations and collection tanks are equipped with high level alarms connected to a computer monitoring system for 24-hr surveillance All deicing pads are visible via the security camera system 	
Good Housekeeping	
<ul style="list-style-type: none"> Perform de-icing and anti-icing activities only in designated areas Apply only required amounts of fluid Keep equipment and chemical storage areas clean and orderly Maintain proper care of chemical storage tanks for de-icing and anti-icing agents 	
Reporting of BMP Incident	
<ul style="list-style-type: none"> Any release of de-icing or anti-icing agents to a sanitary drain or groundwater should be notified to the AOC immediately at 859-767-3123 	
Spill Response	
<ul style="list-style-type: none"> Follow CVGAA's SPCC Plan in the event of a spill Use absorbent materials and spill control equipment for temporary and immediate control of spills and leaks of liquid materials 	

<ul style="list-style-type: none"> • Collect and remove absorbent materials from area soon after use and dispose of properly • Do not hose down the area unless the valves to the glycol collection system are open
Inspections and Recordkeeping
<ul style="list-style-type: none"> • Deicing pads, glycol pump stations, and diversion valves are regularly inspected by CVGAA personnel • Inspect de-icing and anti-icing chemicals tanks, containers, secondary containment, and deicing trucks to ensure proper function • Monthly logs of the activation and deactivation of the diversion valves can be provided
Training
<ul style="list-style-type: none"> • All airport employees, tenants, or contractors that participate in de-icing and anti-icing activities are required to attend an annual deicing meeting prior to the start of every de-icing season. • New Environmental Operations employees are trained within their six-month probation period

BMP 2. Aircraft Lavatory Waste Servicing

CVG Airport Stormwater Best Management Practices Plan	
Aircraft Lavatory Waste Servicing	
Purpose	
<ul style="list-style-type: none"> To prevent the discharge of pollutants to stormwater during servicing of aircraft lavatory facilities 	
Targeted Activities	Targeted Pollutants
<ul style="list-style-type: none"> Aircraft lavatory service Lavatory truck cleanout and transportation of waste Triturator facilities 	<ul style="list-style-type: none"> Lavatory waste Biohazardous waste Lavatory chemicals
Minimize Exposure of Pollutants to Stormwater	
<ul style="list-style-type: none"> Only discharge lavatory waste to the sanitary sewer system Properly secure all hoses, valves, and equipment when transporting waste to eliminate leakage and spills Drain the aircraft connecting hose as completely as possible into the storage tank after servicing an aircraft Do not discharge lavatory waste or clean lavatory trucks anywhere other than the approved location 	
Preventative Maintenance	
<ul style="list-style-type: none"> Perform regular inspections of hoses and fittings used for transferring lavatory waste Keep equipment in good working order Replace worn equipment before leaks develop Carry absorbent and other containment equipment on the lavatory service equipment 	
Good Housekeeping	
<ul style="list-style-type: none"> Keep equipment and storage areas clean and orderly 	
Reporting of BMP Incident	
<ul style="list-style-type: none"> Any release of aircraft lavatory waste to stormwater during servicing should be notified to the AOC immediately at 859-767-3123 	
Spill Response	
<ul style="list-style-type: none"> Follow CVGAA's SPCC Plan in the event of a spill A third-party biohazard remediation team should be deployed to assist with cleanup if necessary Use absorbent materials and spill control equipment for temporary and immediate control of spills and leaks of liquid materials Collect and remove absorbent materials from area soon after use and dispose of in an appropriate manner 	

<ul style="list-style-type: none"> Do not hose down the area unless storm drains are blocked, and drainage is collected and disposed of through a permitted connection to the sanitary sewer
Inspections and Recordkeeping
<ul style="list-style-type: none"> Inspect lavatory waste sanitary sewer discharge area for proper function and signs of spills
Training
<ul style="list-style-type: none"> New employees are trained within their six-month probation period

BMP 3. Aircraft, Vehicle, and Equipment Maintenance and Cleaning

CVG Airport Stormwater Best Management Practices Plan	
Aircraft, Vehicle, and Equipment Maintenance and Cleaning	
Purpose	
<ul style="list-style-type: none"> To prevent the discharge of pollutants to stormwater during aircraft, vehicle, and equipment maintenance, cleaning, and painting activities 	
Targeted Activities	Targeted Pollutants
<ul style="list-style-type: none"> Aircraft, vehicle, and equipment maintenance Aircraft, vehicle, and equipment painting and stripping Aircraft, vehicle, and equipment cleaning Apron and floor wash down 	<ul style="list-style-type: none"> Oil and grease Fuel Other vehicle fluids Solvents and cleaning chemicals Battery acid
Minimize Exposure of Pollutants to Stormwater	
<ul style="list-style-type: none"> Conduct maintenance activities indoors when possible to prevent exposure of pollutants to stormwater Perform outdoor maintenance in areas with proper catchment for accidental releases Use drip pans under vehicles or equipment that may leak during maintenance. Empty drip pans regularly to prevent overflow and dispose of drip pans properly Wash vehicles at the designated location outside the Triturator Collect and properly dispose of any fluids 	
Preventative Maintenance	
<ul style="list-style-type: none"> Only conduct maintenance in designated areas Keep vehicles and equipment in good working order Replace worn equipment before leaks develop Keep absorbent and other containment equipment at maintenance locations and on hand during maintenance activities Regularly inspect and clean oil/water separators Maintain nozzles, hoses, and valves to prevent leaks 	
Good Housekeeping	
<ul style="list-style-type: none"> Keep work areas clean and free of debris Sweep dry areas to keep pavement or ground clean Contain the use of solvents Dispose of all waste generated properly. All oil and fuel waste must be disposed of by a third-party contractor 	
Reporting of BMP Incident	
<ul style="list-style-type: none"> Any release of oil, fuel, or other hazardous chemicals to stormwater should be notified to the AOC immediately at 859-767-3123 	
Spill Response	

<ul style="list-style-type: none"> • Follow CVGAA's SPCC Plan in the event of a spill • A third-party hazard response/remediation team should be deployed to assist with cleanup if necessary • Use absorbent materials and spill control equipment for temporary and immediate control of spills and leaks of liquid materials • Collect and remove absorbent materials from area soon after use and dispose of properly • Do not hose down the area unless storm drains are blocked
Inspections and Recordkeeping
<ul style="list-style-type: none"> • Follow industry appropriate inspection and record retention schedules
Training
<ul style="list-style-type: none"> • CVGAA Fleet Department personnel receive training on policy 8416 Oil Transfer Procedures annually • CVGAA personnel receive training on policy 8403 Spill Prevention, Control, and Countermeasures (SPCC) Plan annually

BMP 4. Building and Grounds Maintenance

CVG Airport Stormwater Best Management Practices Plan	
Landscaping Activities	
Purpose	
To prevent the discharge of pollutants to stormwater from building and grounds maintenance activities	
Targeted Activities	Targeted Pollutants
<ul style="list-style-type: none"> • Grounds maintenance • Landscaping and pesticide/ fertilizer use 	<ul style="list-style-type: none"> • Pesticides, herbicides, and fertilizers • Landscape waste • Sediment • Building maintenance materials such as painting, roofing, etc
Minimize Exposure of Pollutants to Stormwater	
<ul style="list-style-type: none"> • Minimize the use of pesticides, herbicides, and fertilizers. Apply according to manufacturer directions and state and federal regulations • Review SDS for chemicals and follow guidelines for safety, storage, and disposal methods • Store pesticides, herbicides, and fertilizers and associated equipment in enclosed areas on impervious surfaces with containment. Do not hose down areas to a storm drain • Avoid spraying pesticides, herbicides, and fertilizers during rain or immediately before a rain event • Use biodegradable products and materials with fewer hazardous components when possible • Spray or wet down soil to control dust 	
Preventative Maintenance	
<ul style="list-style-type: none"> • Follow native ecological and vegetation management protocols for landscaped areas • Incorporate landscape areas into project design to minimize runoff • Select vegetation that is native or requires less maintenance and pest control • Regularly inspect storm water control devices and clean out catch basins during construction • regularly inspect and clean oil/water separators • Properly collect and dispose of waste 	
Good Housekeeping	
<ul style="list-style-type: none"> • Keep paved surfaces cleaned and swept 	
Reporting of BMP Incident	
<ul style="list-style-type: none"> • Any release of oil, fuel, or other hazardous chemicals to stormwater should be notified to the AOC immediately at 859-767-3123 	
Spill Response	
<ul style="list-style-type: none"> • Follow CVGAA's SPCC Plan in the event of a spill • A third-party hazard response/remediation team should be deployed to assist with cleanup if necessary • Use absorbent materials and spill control equipment for temporary and immediate control of spills and leaks of liquid materials 	

<ul style="list-style-type: none"> • Collect and remove absorbent materials from area soon after use and dispose of properly • Do not hose down the area unless storm drains are blocked
Inspections and Recordkeeping
<ul style="list-style-type: none"> • Record keeping for pesticide training is maintained by the Airfield Maintenance Department
Training
<ul style="list-style-type: none"> • All KCAB personnel that apply pesticides maintain Pesticide licenses issued by the Kentucky Department of Agriculture

BMP 5. Chemical Handling and Storage

CVG Airport Stormwater Best Management Practices Plan	
Chemical Handling and Storage	
Purpose	
To prevent the discharge of pollutants to stormwater from handling and storage of chemical materials	
Targeted Activities	Targeted Pollutants
<ul style="list-style-type: none"> • Chemical use • Application of herbicides, pesticides, and fertilizers • Chemical waste generation 	<ul style="list-style-type: none"> • De-icing and anti-icing agents • Batteries • Urea Ammonium Nitrate (UAN) • Phosphoric acid • Fuel, oil, and grease products • Paint • Herbicides, pesticides, and fertilizers • Soap and cleaning chemicals • Solvents • Other
Minimize Exposure of Pollutants to Stormwater	
<ul style="list-style-type: none"> • Store chemicals under cover, avoiding sloped areas or locations near drains, water ways, or public use areas • Use secondary containment with chemical storage when appropriate • Load and unload chemicals under covered loading docks when possible • Use biodegradable products or less hazardous substitutes when possible • Transfer materials in paved areas away from storm drains • Only use or apply the necessary amount of chemicals • Label, store, and dispose of chemical products according to SDS guidelines and local and state regulation • Collect and recycle all batteries, lamps, aerosol cans and other universal wastes • Drain oil filters, paint containers, and other chemical containers before recycling or disposal 	
Preventative Maintenance	
<ul style="list-style-type: none"> • Inspect chemical storage areas often for leaky or compromised containers • Maintain readily accessible spill kits near chemical storage locations 	
Good Housekeeping	
<ul style="list-style-type: none"> • Designate central storage locations for chemical materials to be contained • Post signs at chemical storage locations to note materials stored, emergency contacts, and spill cleanup procedures • Store all materials in their original containers or approved containers with secure lids • Clearly label all containers according to SDS guidelines 	
Reporting of BMP Incident	
<ul style="list-style-type: none"> • Any release of a hazardous chemical to stormwater should be notified to the AOC immediately 859-767-3123 	

Spill Response
<ul style="list-style-type: none"> • Follow CVGAA's SPCC Plan in the event of a spill • A third-party hazard response/remediation team should be deployed to assist with cleanup if necessary • Use absorbent materials and spill control equipment for temporary and immediate control of spills and leaks of liquid materials • Collect and remove absorbent materials from area soon after use and dispose of properly • Do not hose down the area unless storm drains are blocked
Inspections and Recordkeeping
<ul style="list-style-type: none"> • Chemical storage areas are inspected regularly to identify expired or unknown products for disposal
Training
<ul style="list-style-type: none"> • KCAB personnel receive training on policy 8412 Regulated Waste Handling, Storage, and Disposal Plan annually

BMP 6. Erosion and Sediment Control

CVG Airport Stormwater Best Management Practices Plan	
Erosion and Sediment Control	
Purpose	
To prevent erosion, dust, and the discharge of sediment pollution to stormwater during construction activities	
Targeted Activities	Targeted Pollutants
<ul style="list-style-type: none"> • Sediment runoff • Dust control • Erosion prevention 	<ul style="list-style-type: none"> • Sediment • Dust
Minimize Exposure of Pollutants to Stormwater	
<p><u>Pre-Construction Requirements:</u></p> <ul style="list-style-type: none"> • Erosion and sediment controls should be site specific and selected prior to construction begins • Controls should prevent sediment runoff, slow down runoff across a site, and/or remove sediment from runoff before it leaves a site • If the construction project is one acre or larger, acquire a stormwater discharge permit from the Kentucky Division of Water • Develop a written Erosion and Sediment Control Plan that shows the drainage pattern and slopes, areas of disturbance, location of erosion and sediment controls, location of surface waters and wetlands, and the location of stormwater drainage control points <p><u>Construction Operation Controls:</u></p> <ul style="list-style-type: none"> • Install clean water diversions, sediment traps or basins, and stabilize drainage channels with grass, liners, and silt check dams before excavation, fill, or grading work begins • Excavate or place fill material at the site in stages to avoid exposing large areas of bare soil • If work will proceed for several weeks or months, apply temporary seeding or mulch until final grade is complete. Seeding or mulching is required for all bare soil areas that are not being worked after 21 consecutive days • Excavating and grading work should be done during dry weather if possible • Prepare for rainy weather forecasts by making sure sediment controls are in place and that mulch or grass is on bare areas that are final grade • Use construction entrances and keep paved roads free of dirt • Use sock filters or sediment filter bags on discharge pipes and discharge muddy water into silt fence enclosures installed in vegetated areas away from waterways or into de-silting basins • Do not discharge muddy water pumped from collection basins or other areas into storm sewers, streams, lakes, ponds, or wetlands unless sediment is removed prior. Any discharges to storm sewers or waters of Kentucky must be covered by a Kentucky Pollution Discharge Elimination System (KPDES) permit issued by the Division of Water • Remove accumulated sediment from behind silt fences, pipe or curb inlet ponding dams, silt check dams in ditches and sediment traps or basins regularly • Dispose of collected sediment in areas where it will not wash into waterways 	

Construction Close Out Requirements:

- No site is considered closed out properly until vegetation is established on all bare soil areas and ditches are stable
- Temporary controls must be removed and permanently stabilized when the project is complete
- Check seeded areas and reseed areas where vegetation is thin or absent
- Remove all silt fencing and stakes
- Culvert inlets should be stabilized, vegetated, and showing no visible gullies. Debris that could clog inlets should be removed
- Ditches and channels should be checked to confirm they are well vegetated
- Cut away and remove all loose or exposed erosion control blankets especially in areas where walking or mowing will occur
- Replace rock washouts near culvert and channel outlets. Fill, grade, and seed eroded areas around inlets and outlets.
- Remove temporary stream crossings and grade, seed, or reseed vegetation removed during cross installation
- If the project is covered under a KPDES stormwater permit, submit a Notice of Termination to the Kentucky Division of Water
- Failure to fill, grade, and seed temporary sediment traps, remove silt fences, remove check dams, or other controls can result in legal liabilities and KPDES storm water permit violations

Preventative Maintenance

- Erosion and Sediment Control Plans must be updated as conditions change at the site
- Subcontractors should sign a form assuring compliance with the Erosion and Sediment Control Plan if the work is covered under the stormwater permit
- All erosion and sediment controls need to be inspected and maintained according to stormwater permit requirements
- Maintain vehicles and equipment away from the site if possible. Complete vehicle maintenance at an appropriate offsite location if possible
- Any sediment or erosion control structure that has been dislodged or damaged should be repaired immediately

Good Housekeeping

- Determine site specific erosion and sediment controls prior to beginning construction activities
- Ensure updated plans are distributed to appropriate parties
- Maintain clean and orderly construction sites. Waste material, building material, and supplies should be properly tied down and contained. Chemicals, paints, and hazardous materials should be stored in a trailer or other structure to avoid spills and runoff
- Keep erosion and sediment controls in good working order until the project is completed
- Erosion and Sediment Control Plans are required to be kept onsite and available for inspection

Reporting of BMP Incident

- Any release of oil, fuel, or other hazardous chemical to stormwater should be notified to the AOC immediately at **859-767-3123**

Spill Response

<ul style="list-style-type: none"> • Follow CVGAA's SPCC Plan in the event of a spill • Use absorbent materials and spill control equipment for temporary and immediate control of spills and leaks of liquid materials
Inspections and Recordkeeping
<ul style="list-style-type: none"> • It is required that sediment and erosion controls be inspected, repaired, and/or replaced every 7 days and after each rainfall of ½ inch or more (0.1 inch for KYTC projects) for all sites one acre or larger • Inspection reports should include the date, observations, and corrective actions taken • Inspection reports must be kept on file at the site • All inspection reports must be provided to the KCAB project manager for review • Conduct a final inspection when the project is finished of all work areas, vegetation, storm water flow structures, and downstream receiving waters to make sure no visible sediment movement is evident
Training
<ul style="list-style-type: none"> • Designated CVGAA personnel receive training on policy 8401 Storm Water Best Management Practices

BMP 7. Fire Suppression and Aqueous Film Forming Foam (AFFF) Discharge

CVG Airport Stormwater Best Management Practices Plan	
Fire Suppression and Aqueous Film Forming Foam (AFFF) Discharge	
Purpose	
To prevent the discharge of AFFF to stormwater during testing or release events	
Targeted Activities	Target Pollutants
<ul style="list-style-type: none"> • Firefighting equipment testing • Accidental release of foam suppression systems • Application during actual emergency events 	<ul style="list-style-type: none"> • Aqueous film-forming foam (AFFF)
Minimize Exposure of Pollutants to Stormwater	
<ul style="list-style-type: none"> • Contact Manager of Environmental Compliance prior to any testing activities • Perform AFFF testing operations only in areas away from storm drains, drainage facilities, or water bodies • Use berms to contain AFFF and prevent runoff during testing activities • Notify Sanitation District No. 1 before any activities that may result in AFFF being expensed to a sanitary drain • Keep defoaming chemicals on hand and use to suppress foam that has collected on the ground 	
Preventative Maintenance	
<ul style="list-style-type: none"> • Regularly clean and maintain AFFF testing equipment • Regularly inspect and perform maintenance on foam suppression systems • Do not wash down any areas following an AFFF release event unless storm drains are blocked 	
Good Housekeeping	
<ul style="list-style-type: none"> • Leaks, compromised containers, and other issues should be addressed immediately • 	
Reporting of BMP Incident	
<ul style="list-style-type: none"> • Any release of AFFF to stormwater should be notified to the AOC immediately at 859-767-3123 • If AFFF is discharged to the sanitary sewer, Sanitation District No. 1 must be notified • If AFFF is discharged to the stormwater system, Kentucky Emergency Response Team must be notified 	
Spill Response	
<ul style="list-style-type: none"> • Follow CVGAA's SPCC Plan in the event of a spill • AFFF may be washed down a sanitary drain with prior notification to SD1 • Do not wash AFFF into storm drains or open water ways • A third-party hazard response/remediation team should be deployed to assist with cleanup if necessary 	
Inspections and Recordkeeping	

- Inspections on trucks are completed annually by a third party. Records are maintained at the firehouse.

Training

- Not applicable

BMP 8. Fuel Delivery, Storage, and Dispensing

CVG Airport Stormwater Best Management Practices Plan	
Fuel Delivery, Storage, and Dispensing	
Purpose	
To prevent the discharge of fuel and oil to stormwater from fuel delivery, storage, and dispensing activities	
Targeted Activities	Targeted Pollutants
<ul style="list-style-type: none"> • Aircraft, vehicle, and mobile equipment fueling • Aircraft hydrant fueling • Fuel storage • Stationary fuel pump stations 	<ul style="list-style-type: none"> • Jet fuel • Diesel fuel • Gasoline • Other petroleum-based products
Minimize Exposure of Pollutants to Stormwater	
<ul style="list-style-type: none"> • Fuel dispensing equipment should be equipped with breakaway hose connections for emergency shut-off of flow • If mobile fueling is needed, use drip pans and absorbent pads to prevent drips or spills from reaching the pavement 	
Preventative Maintenance	
<ul style="list-style-type: none"> • Maintain spill kits at fueling locations and restock spill kit supplies following use • Maintain and replace fueling equipment and fueling vehicles • Regularly inspect and clean oil/water separators 	
Good Housekeeping	
<ul style="list-style-type: none"> • Signs should be posted at vehicle fuel pump stations to note “Not Topping off” to prevent overflow • Leaks, compromised containers, and other issues should be addressed immediately • Hose down fueling areas into oil/water separators 	
Reporting of BMP Incident	
<ul style="list-style-type: none"> • Any release of oil, fuel, or other hazardous chemicals to stormwater should be notified to the AOC immediately at 859-767-7777 • A discharge of 25 gallons of petroleum product, 75 gallons or more of a diesel fuel product, or any amount that creates a visible sheen on surface waters requires a notification to the Kentucky Emergency Response Branch and the National Response Center 	
Spill Response	
<ul style="list-style-type: none"> • Follow CVGAA’s SPCC Plan in the event of a spill • A third-party hazard response/remediation team should be deployed to assist with cleanup if necessary • Use absorbent materials and spill control equipment for temporary and immediate control of spills and leaks of liquid materials • Collect and remove absorbent materials from area soon after use and dispose of properly • Do not hose down the area until it has been confirmed that the nearest drain is connected to an oil/water separator 	

Inspections and Recordkeeping	
<ul style="list-style-type: none"> • USTs, fuel pumps, and fueling vehicles are inspected on a monthly basis per CVGAA's SPCC plan • UST leak detection systems are tested annually per Kentucky UST Branch regulations 	
Training	
<ul style="list-style-type: none"> • CVGAA Fleet Department personnel receive training on policy 8416 Oil Transfer Procedures annually • CVGAA personnel receive training on policy 8403 Spill Prevention, Control, and Countermeasures (SPCC) Plan annually 	

BMP 9. Garbage Handling, Storage, and Disposal

CVG Airport Stormwater Best Management Practices Plan	
Garbage Handling, Storage, and Disposal	
Purpose	
To prevent and reduce discharge of pollutants to stormwater from general garbage solid waste	
Targeted Activities	Targeted Pollutants
<ul style="list-style-type: none"> Garbage and solid waste management Food service, terminal service, and air service Recycling 	<ul style="list-style-type: none"> Dumpster waste Trash compactor fluids Foreign object debris (FOD) Recycling waste
Minimize Exposure of Pollutants to Stormwater	
<ul style="list-style-type: none"> Keep garbage dumpsters covered Use dumpsters with plugged drain holes to prevent discharge of leachate of fluids Leachate collected from compactors should be disposed of in a sanitary sewer Choose locations that are not sloped or near a storm drain for garbage storage 	
Preventative Maintenance	
<ul style="list-style-type: none"> Regularly inspect and clean waste storage areas for debris and messes Replace covers on dumpsters when they are left open 	
Good Housekeeping	
<ul style="list-style-type: none"> Designate central locations for garbage and trash containers Completely drain liquid waste containers prior to disposal in garbage cans and dumpsters Schedule trash pickups frequently to minimize storage time and avoid overloaded containers Dumpsters are pressure washed in the spring and fall 	
Reporting of BMP Incident	
<ul style="list-style-type: none"> Any issue related to garbage handling, storage, or disposal should be notified to the AOC 859-767-3123 	
Spill Response	
<ul style="list-style-type: none"> Follow CVGAA's SPCC Plan in the event of a spill 	
Inspections and Recordkeeping	
<ul style="list-style-type: none"> Dumpsters are inspected regularly to ensure there is no overflow and that recycling compactors are operating appropriately 	
Training	
<ul style="list-style-type: none"> CVGAA personnel receive training on policy 8412 Regulated Waste Handling, Storage, and Disposal Plan annually 	

BMP 10. Roadway, Ramp, and Runway Maintenance and Cleaning

CVG Airport Stormwater Best Management Practices Plan	
Roadway, Ramp, and Runway Maintenance and Cleaning	
Purpose	
To prevent and reduce the discharge of pollutants to stormwater from maintenance and cleaning of roads, ramps, and runways	
Targeted Activities	Targeted Pollutants
<ul style="list-style-type: none"> Snow and ice removal Road, ramp, and runway cleaning Road, ramp, and runway maintenance Pavement washdown Outdoor power washing 	<ul style="list-style-type: none"> De-icing and anti-icing agents Roadway de-icing agents such as potassium acetate and potassium formate based solutions Runway rubber removing agents Fuel, oil, and grease Aqueous film-forming foam (AFFF) Solvents and cleaning solutions Sediments Foreign Object Debris (FOD)
Minimize Exposure of Pollutants to Stormwater	
<ul style="list-style-type: none"> Use approved de-icing and anti-icing agents on the AOA. Apply appropriate amounts according to manufacturer and SDS guidelines Use chemical rubber removal to clean rubber build up on runways Use street sweepers to keep paved areas clean 	
Preventative Maintenance	
<ul style="list-style-type: none"> Inspect pavement cleaning equipment regularly Regularly inspect and clean oil/water separators 	
Good Housekeeping	
<ul style="list-style-type: none"> Sweep pavement areas and frequently Conduct FOD inspections on the AOA regularly 	
Reporting of BMP Incident	
<ul style="list-style-type: none"> Any release of a hazardous chemical to stormwater should be notified to the AOC immediately at 859-767-3123 	
Spill Response	
<ul style="list-style-type: none"> Follow CVGAA's SPCC Plan in the event of a spill 	
Inspections and Recordkeeping	
<ul style="list-style-type: none"> Airport Operations completes two inspections daily of all runway assets. 	
Training	

- All airport employees that participate in roadway, ramp, and runway Maintenance and Cleaning are trained to operate the associate equipment.

BMP 11. Vehicle, Equipment, and Pavement Painting

CVG Airport Stormwater Best Management Practices Plan	
Vehicle, Equipment, and Pavement Painting	
Purpose	
To prevent the discharge of pollutants to storm water from vehicle, equipment, and pavement painting activities	
Targeted Activities	Targeted Pollutants
<ul style="list-style-type: none"> • Vehicle painting • Equipment painting • Pavement painting 	<ul style="list-style-type: none"> • Paint • Metals • Solvents
Minimize Exposure of Pollutants to Stormwater	
<ul style="list-style-type: none"> • Use a storm drain cover or runoff control device to capture dust, grit, wash water, or other pollutants • Collect contaminated runoff and properly dispose of wastes • Do not hose down work areas near storm drains unless drains are blocked • Recycle paint, paint thinner, solvents, pressure wash water, and other materials • Painting materials stored outside should be stored with secondary containment under cover, if possible • Paint containers should be stored with a secure lid and proper SDS label 	
Preventative Maintenance	
<ul style="list-style-type: none"> • Maintain painting equipment to ensure proper function • Dispose of paint products that have compromised containers or have expired 	
Good Housekeeping	
<ul style="list-style-type: none"> • Use ground or drop cloths underneath outdoor painting, scraping, and sandblasting work • Properly clean and store debris during painting activities • Clean brushes and tools used with non-water-based paints in a manner that allows for collection of used solvents. • Properly collect and dispose of paint waste • Label, store, and dispose of chemical products according to SDS guidelines and local and state regulation 	
Reporting of BMP Incident	
<ul style="list-style-type: none"> • Any release of paint, solvents, or other hazardous chemicals to stormwater should be notified to the AOC immediately at 859-767-3123 	
Spill Response	
<ul style="list-style-type: none"> • Follow CVGAA's SPCC Plan in the event of a spill 	
Inspections and Recordkeeping	
<ul style="list-style-type: none"> • Not applicable 	
Training	

- All airport employees that participate in painting activities are trained to operate the associated equipment
- Marking specialists attend Airfield Marking training

Appendix A. Acronyms and Abbreviations

AOA	Airport Operations Area
AOC	Airport Operations Center
AFFF	Aqueous film-forming foam
ARFF	Airport Rescue and Fire Fighting
AST	Aboveground Storage Tank
BMP	Best Management Practices
BOD	Biological Oxygen Demand
CFR	Code of Federal Regulations
CVG	Cincinnati/ Northern Kentucky International Airport
CWA	Clean Water Act
DO	Dissolved Oxygen
EPA	Environmental Protection Agency
FOD	Foreign Object Debris
GRV	Glycol Recovery Vehicles
KCAB	Kenton County Airport Board
KPDES	Kentucky Pollution Discharge Elimination System
Lbs/day	Pounds per Day
MGD	Million Gallons per Day
mg/L	Milligram per Liter
N/A	Not Applicable
NetDMR	Network Discharge Monitoring Report
OWS	Oil/water Separator
SADF	Spent Aircraft Deicing Fluid
SDS	Safety Data Sheets
SD1	Sanitation District No. 1
SPCC	Spill Prevention Control and Countermeasure Plan
SU	Standard Units

SWBMPP	Stormwater Best Management Practices Plan
SWPPP	Stormwater Pollution Prevention Plan
SWTP	Stormwater Treatment Plant
TOC	Total Organic Carbon
TSS	Total Suspended Solids
UAN	Urea Ammonium Nitrate
UST	Underground Storage Tank
VP	Vice President

Appendix B. Stormwater BMP Plan Review Log

Any scheduled reviews or amendments to this plan will be recorded in the table below.

Date	By	Type	Summary of Changes Made
October 2022	Maggie Pryatel, Manager of Environmental Compliance	Annual Review	Full plan review & update

Appendix C. Emergency Contact List

In the event of a spill or hazardous material incident, contact the Airport Operations Center (AOC) – (859) 767-7777 to initiate Airport Rescue and Firefighting (ARFF).

Facility Emergency Response Team	
Airport Rescue and Firefighting (ARFF)	(859) 767-7777
Facility Designated Person (Primary SPCC Contact)	
Manager of Environmental Compliance	(859) 734-1453
National Emergency Response	
National Response Center (NRC)	(800) 424-8802
State Emergency Response	
Kentucky Emergency Response Team (KERT)	(800) 928-2380
Kentucky Emergency Response Commission (KERC)	(800) 255-2587
Sanitary Treatment	
Sanitary District 1 (SD1)	(859) 547-1673
Environmental Emergency Remediation and Response Contractor	
Environmental Restoration	(888) 814- 7477

Appendix D. Tenant Operations List

Tenant	Aircraft De-icing and Anti-icing	Aircraft Lavatory Waste Servicing	Aircraft, Vehicle, and Equipment Maintenance and Cleaning	Building and Grounds Maintenance	Chemical Handling and Storage	Erosion and Sediment Control	Fire Suppression and Aqueous Foam (AFFF) Discharge	Fuel Delivery, Storage, and Dispensing	Garbage Handling, Storage, and Disposal	Roadway, Ramp, and Runway Maintenance and Cleaning	Vehicle, Equipment, and Pavement Painting
ABM				X	X				X		
Aerterm ¹											
Aircraft Service International Group (Menzie's)			X					X			
Airport Terminal Services (ATS) ²											
Alaska Airlines	X	X	X		X			X	X		
Allegiant Air	X	X	X		X			X	X		
Amazon Air Network Control Center	X	X	X	X	X	X	X	X	X	X	X
American Airlines	X	X	X		X			X	X		
Ameriflight LLC			X								
Atatlian Global Services				X	X						
Avis Rent-A-Car			X		X			X	X		
Budget Rent-A-Car			X		X			X	X		
Cincinnati Bell ²											
Community Cab Company, Inc. ²											
Customs & Border Protection (CBP) ²											
Delta Air Lines, Inc.	X	X	X	X	X		X	X	X		
Delta Information Technology ²											
Delta Private Jets	X	X	X		X			X	X		
Departure Media ²											
Derringer Food Service ²											
DHL Express	X	X	X	X	X	X		X	X	X	
Dollar Rent-A-Car			X		X			X	X		
Doubletree Hotel				X	X				X		
EAN (National/Alamo Rental Cars)			X		X			X	X		
Endeavor Air			X								
Enterprise Rent-A-Car			X		X			X	X		
Envoy Air	X	X	X					X	X		
Executive Transportation Services ¹											
FAA CVG SSC ¹											
FEAM			X		X						
Federal Express	X		X	X	X			X	X		
Flight Safety International				X	X				X		
Frontier Airlines	X	X						X			
Gate Gourmet, Inc. ¹											
Hertz Rent-A-Car			X		X			X	X		
Integrated Deicing Services, LLC	X				X						

Tenant	Aircraft De-icing and Anti-icing	Aircraft Lavatory Waste Servicing	Aircraft, Vehicle, and Equipment Maintenance and Cleaning	Building and Grounds Maintenance	Chemical Handling and Storage	Erosion and Sediment Control	Fire Suppression and Aqueous Foam (AFFF) Discharge	Fuel Delivery, Storage, and Dispensing	Garbage Handling, Storage, and Disposal	Roadway, Ramp, and Runway Maintenance and Cleaning	Vehicle, Equipment, and Pavement Painting
King & George LLC					X						
Kone, Inc					X						
LGSTX					X						
Matheson Flight Extenders								X			
Menzies			X					X			
Meyer Tool					X						
Otis Elevator					X						
Primeflight		X	X								
Prospect Services ²											
PSA/ American Eagle	X	X	X	X	X		X				
SmarteCarte, Inc ²											
Southwest Airlines	X	X									
SP Plus Corporation			X	X				X	X		
Sunwing Airlines	X	X	X		X			X	X		
Thrifty Car Rental			X		X			X	X		
Transportation Security Administration (TSA) ²											
Trego-Dugan ²											
TSA PreCheck ²											
United Airlines	X	X	X		X			X	X		
U.S Postal Service ²											
Valupark Service Desk				X							
Weather One Services, LLC ²											
Wheels Up	X	X	X	X	X		X	X	X		

Notes:

X - Self reported regulated activity

X - Assigned regulated activity based on institutional knowledge

1 - No reported activities

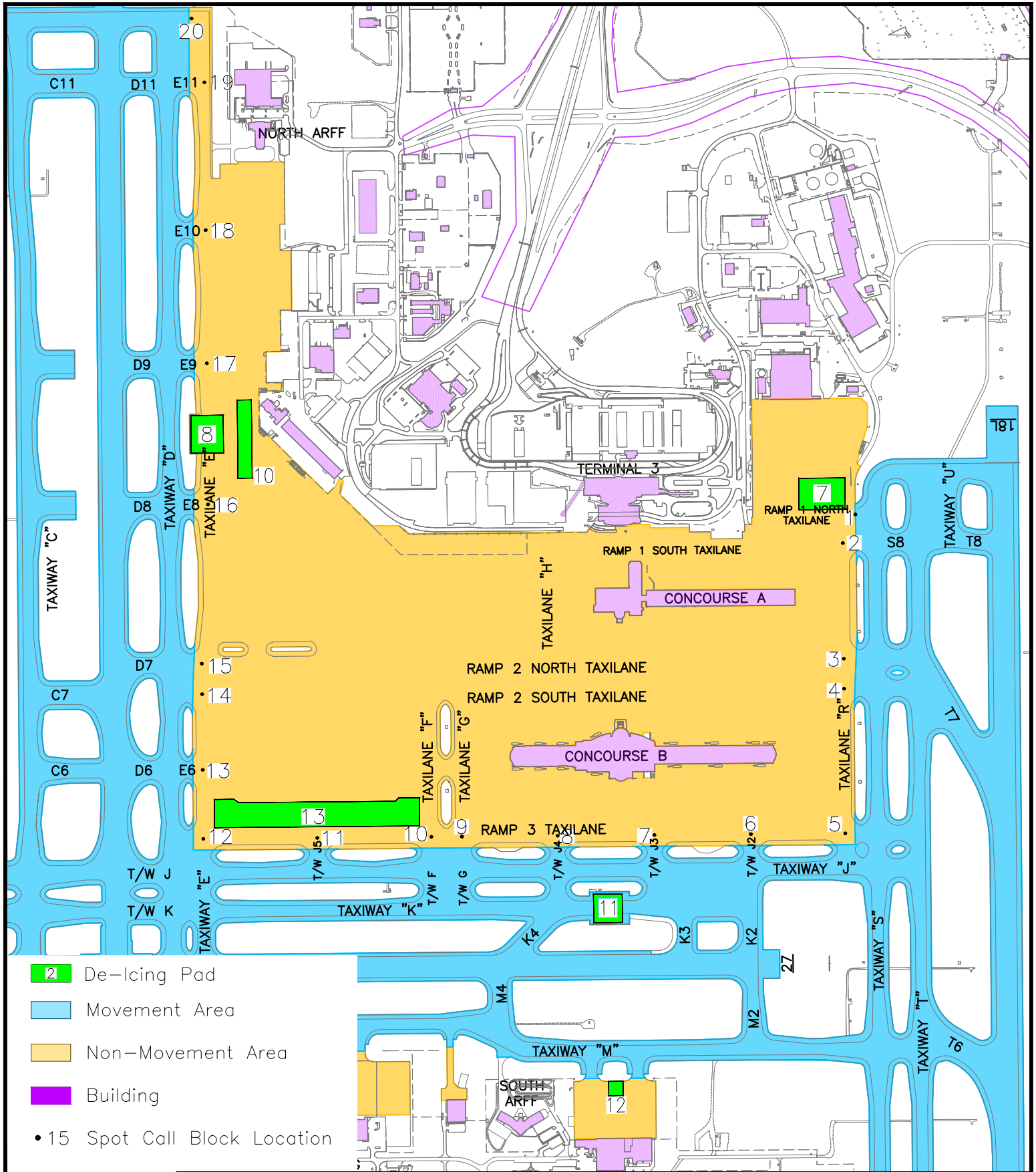
2 - No assigned regulated activities

Appendix E. CVGAA Environmental Compliance Inspection Checklist

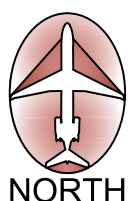
Environmental Program	Yes	No	Comments
Air Emissions Permitting and Registrations			
Does the facility have an active air permit?			
Does the facility have potential emission sources? (Boilers, spray coating, welding, generators, water heaters, conveyors, natural gas or diesel air compressors, blowers, or parts washers)			
EPCRA 311-312			
-Does a Safety Data Sheet Exist for all chemicals stored on site?			
-Are chemicals stored and labeled appropriately? (Eg. Flammables cabinet, containment)			
-Are any chemicals stored on site greater than 10,000 pounds?			
-Are any chemicals stored on are list EHS chemicals?			
EPCRA 313			
-Are TRI-reportable chemicals used on-site?			
Above Ground Storage Tanks			
-Are ASTs in good shape with secondary containment? (if applicable)			
Underground Storage Tanks			
-Are tank registrations still valid?			
-Are training records available and updated?			
-Is there a leak detection system in place?			
Spill Prevention, Control and Countermeasre Plan (SPCC)			
-When was the SPCC last updated? Is it more than 5 years?			
-Is secondary containment adequate (10% freeboard) and in good condition?			
-Are inspection records complete and plan available?			
-Are Spill Kits in good condition and accessible?			
Stormwater			
-Are there any de-icing operations?			
-Does stormwater go offsite?			

Environmental Program	Yes	No	Comments
Wastewater			
-No new industrial process that would warrant an industrial wastewater permit?			
Sanitary Sewer			
-Sanitary sewer or septic system, if septic, are inspection records complete?			
Water Supply and Wells			
-Is facility is still on city water, and no wells have been installed?			
-Are there active or inactive wells on the property?			
Waste Management			
-Is used oil stored and labeled appropriatly? (Drums and waste stored away from doors and floor drains)			
-Universal waste stored and labeled appropriatly (used batteries, aerosol cans, shop rags)?			
-Is any hazardous waste stored onsite?			
PCBs			
-Are transformers located on the airport?			
-Are Transformers labeled "non-PCB"?			

Exhibit I. CVGAA Aircraft Deicing Locations



- 2 De-Icing Pad
- Movement Area
- Non-Movement Area
- Building
- 15 Spot Call Block Location



KENTON COUNTY AIRPORT BOARD

CVG

CINCINNATI/NORTHERN KENTUCKY
INTERNATIONAL AIRPORT

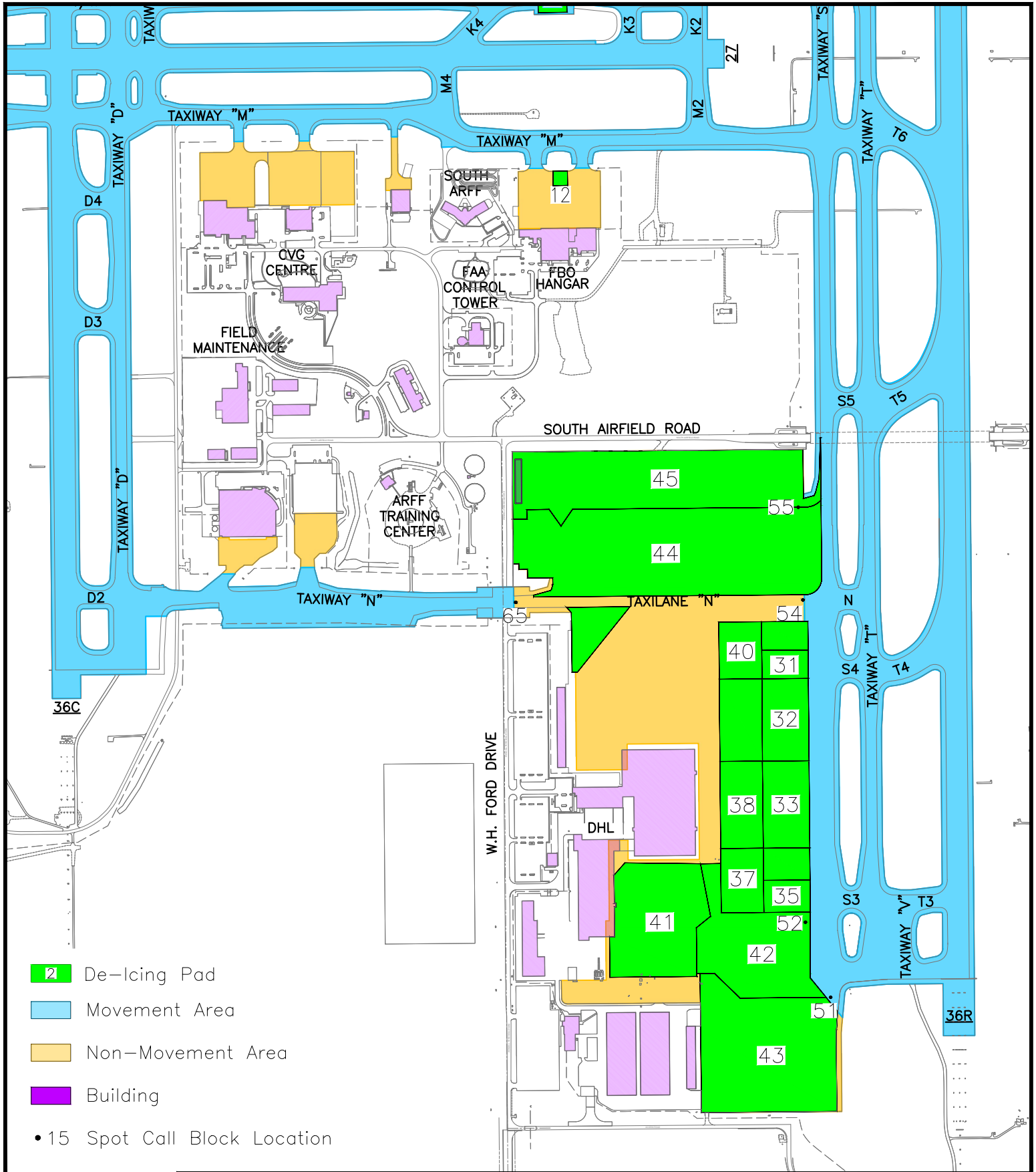
SNOW AND ICE CONTROL PLAN

AIRCRAFT DE-ICING LOCATIONS

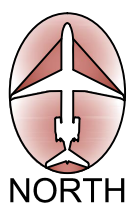
PROJECT NO: KCAB	CHECKED BY: S.R.O.
DATE: 9/28/2020	APPROVED BY: S.R.O.
DRAWN BY: D.F.T.	SCALE: 1" = 900'
CAD NO: ACM Exh 4 Snow & Ice Control Plan.dwg	

EXH 4
APP 6

Exhibit II. DHL Facility Aircraft Deicing Locations



- 1 De-icing Pad
- Movement Area
- Non-Movement Area
- Building
- 15 Spot Call Block Location



KENTON COUNTY AIRPORT BOARD

CVG

CINCINNATI/NORTHERN KENTUCKY
INTERNATIONAL AIRPORT

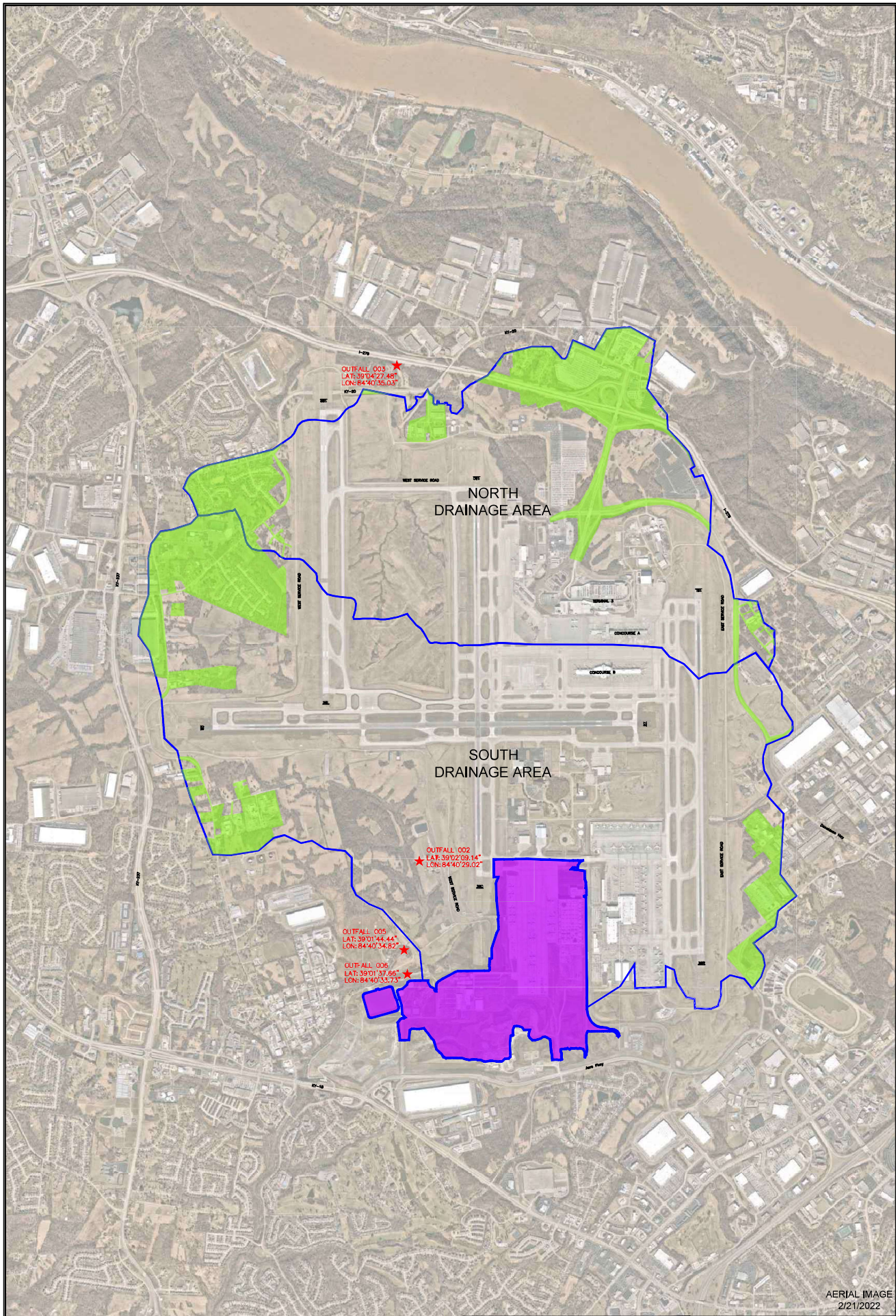
SNOW AND ICE CONTROL PLAN

**AIRCRAFT DE-ICING LOCATIONS
DHL FACILITY**

PROJECT NO: KCAB	CHECKED BY: S.R.O.
DATE: 9/28/2020	APPROVED BY: S.R.O.
DRAWN BY: D.F.T.	SCALE: 1" = 900'
CAD NO: ACM Exh 4 Snow & Ice Control Plan.dwg	

**EXH 4
APP 6A**

Exhibit III. CVGAA Stormwater Drainage System



AERIAL IMAGE
2/21/2022

LEGEND

- DRAINAGE AREA BOUNDARY
- ★ OUTFALL POINT
- NON KCAB OWNED PROPERTY

 AMAZON CVG AIR CARGO HUB (AI:160423)
KPDES PERMIT NO. KY0113018



KENTON COUNTY AIRPORT BOARD



CINCINNATI/NORTHERN KENTUCKY
INTERNATIONAL AIRPORT

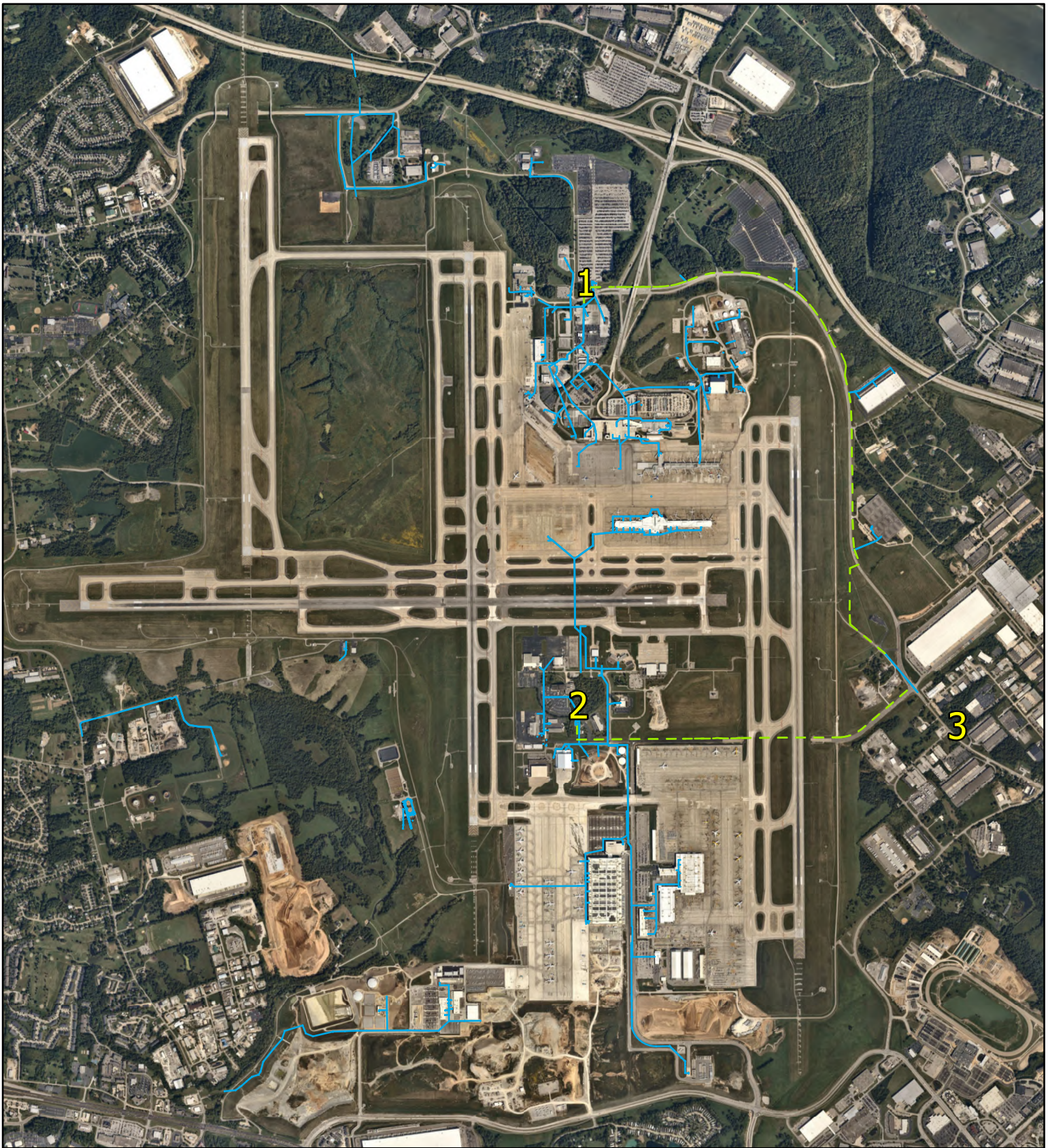
KENTUCKY POLLUTION DISCHARGE ELIMINATION SYSTEM (2018)

KPDES FORM I III. FACILITY LOCATION

PROJECT:	CHLOR-BL
DATE:	5/18/22
DRAWN BY:	WOM
CAD NO:	KPDES PERMIT Form 1.dwg
APPROVED BY:	
SCALE:	1"=2400'

SHEET NO:
1 OF 1

Exhibit IV. CVGAA Sanitary Drainage System



Created: 10/26/2022 by C.A.S

IMAGE: Nearmap, September 2022

CVG Sanitary Sewer Lines

0 0.130.25 0.5 Miles



- 1 Airport Terminal Pump Station
- 2 Airport Tower Pump Station
- 3 Gravity Flow to Sanitation District No. 1 Dry Creek Treatment Plant

Sanitary Line
Line Type
--- Force Main
--- Gravity Main