

THE CALGARY AIRPORT AUTHORITY

SPRINGBANK AIRPORT

ENVIRONMENTAL MANAGEMENT SYSTEMS MANUAL

The biggest challenge and opportunity for success is to change the way a company thinks about the environment. It must be seen as a business issue: what benefits does the environment bring the company and its customers? This is a change from reactive, command and control thinking. Since everything comes from the environment, this change in thinking leads to protection of the sources of business prosperity.
ISO 14000

PREPARED BY

THE ENVIRONMENTAL SERVICES DIVISION

FORWARD

Environmental Management at the Springbank Airport

The industrial nature of airport operations presents risk arising from a range of environmental pollutants. The Calgary Airport Authority is committed to environmental protection in all aspects of airport operations. Our goal is to provide quality service to our customers in ways that promote a quality environment and support the sustainable development of the airport and Springbank region.

The key to achieving environmental performance excellence is development and implementation of a comprehensive Environmental Management System (EMS). The Environmental Management Systems Manual is prepared by the Environmental Services Division to outline the Calgary Airport Authority's policies, procedures and management strategies designed to address environmental issues associated with operation of Springbank Airport. From this document an Annual Work Plan is prepared to outline the issues and goals of the upcoming year.

Implementing and Maintaining EMS

To maintain an effective EMS steps must be taken to maintain and evaluate existing programs designed to manage a range of potential impacts. The main focus of these programs is compliance, environmental protection and enhancement. The Annual Work Plan captures some of the key ongoing monitoring processes the EMS analyses to determine the status of compliance and due diligence.

It is the purpose of the Annual Work Plan to outline the issues and actions for the upcoming year. This plan identifies specific programs and lists specific objectives, targets and actions. The ongoing program activities are designed to ensure continued compliance to all applicable environmental regulations while the new initiatives focus on new proposed regulation and environmental enhancement.

Note: The strategies contained in this document should not be interpreted as a commitment on the part of the Authority to expand specific airport facilities and services at Springbank Airport. This plan serves as a management framework within which future proposals are to be scrutinised and will assist in the justification of future projects. Implementation of future projects however, will be subject to the realisation of projected demand, changes in federal and provincial legislation or municipal bylaws, and to the availability of funds.

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SECTION 1: ENVIRONMENTAL POLICY

Environmental Policy is developed by the Environment Group in consultation with the Board Standing Committee on Environmental Affairs and adopted by the Board of Directors. The Environmental Policy is reviewed on an annual basis by the Environmental Affairs Committee.

The Calgary Airport Authority Environmental Policy reads:

The Calgary Airport Authority (the Authority) is committed to protecting the environment and will operate the Calgary International Airport and Springbank Airport to serve the community in a safe, secure and efficient manner while protecting the quality of the environment.

The Authority will:

- Serve the Community's growing need for Aviation; while at the same time protect the environment
- Ensure, as a minimum, all practices and procedures conform to relevant federal, provincial and municipal law.
- Promote environmental awareness among Authority employees and tenants
- Provide appropriate environmental training for Authority staff
- Work co-operatively with all levels of government to implement responsible environmental programs.
- Maintain active communication with staff, users and the community regarding environmental issues
- Subject all new airport projects to internal environmental review.
- Maintain plans and procedures to deal with environmental emergencies and take immediate corrective action in the event of an incident.
- Promote sustainability in the application of the Environmental Policy through adaptive management and continuous improvement
- Conduct regular reviews to assess the environmental condition of the airport.
- Conduct regular audits to ensure ongoing corrective and preventative actions are in place.
- Strive to be a model of sound environmental management for airports.

SECTION 2: PLANNING

SPRINGBANK AIRPORT - ENVIRONMENTAL SETTING

Airport Management and Operations

The Springbank Airport has been managed and operated by the Calgary Airport Authority (the Authority) under a long term lease agreement with the federal government since 1997. The Authority is a not-for-profit corporation, incorporated under the Regional Airport Authorities Act (Alberta).

SPRINGBANK AIRPORT ROLE STATEMENT: *Springbank is the most significant General Aviation airport in the Calgary Region. It offers a wide range of services to its users, and acts as a base for private and commercial light aircraft operations in both the fixed wing and rotary wing categories. Next to Calgary International, Springbank is the only other certified aerodrome within the Calgary Region. As such, Springbank Airport plays an important role within the area's system of airports.*

The operation and development of Springbank Airport will be directed to supporting private and commercial flight activity and their support services, including flight training, recreational, corporate and air taxi operations

- The Springbank Airport was first proposed as a satellite airport of Calgary International to relieve congestion and the mix of low speed light aircraft with high speed commercial aircraft at the International Airport
- The initial phase of construction at the Springbank Airport was completed in 1969. In February 1970 the control tower became operational. The maintenance garage/firehall was completed on July 21, 1971 and in late 1973, both runways and taxiways A and B were resurfaced. Extensions to taxiways A and C were completed in 1977. In 1982 runway 07-25 was extended to 3,400 feet and widened to 100 feet. Taxiway C was also extended in 1982. Runway 07-25 was resurfaced in 1986 and runway 16-34 and taxiway B were resurfaced in 1988.
- In 2005/06 a major upgrade to Rwy. 16/34 extending it to 5000' established the future development of the airport as a General Aviation reliever for Calgary International.
- There is a total of 1 full time Authority staff and 1 part time contractor. There is a staffed Nav Canada control tower
- Springbank generally ranks in the top 10 airports in Canada for aircraft movements due primarily to the active flying schools located on the Airport.
- There has not been any major fuel spills recorded at the Springbank airport since its construction in 1969.

The Springbank Airport is situated approximately 10 kilometres west of the City of Calgary in a primarily agricultural and rural acreage setting. The Municipality of Rocky View is responsible for land use around the airport and uses a noise contour prepared by Transport Canada Aviation as a guide for compatible land use planning.

The airport facility encompasses a land area of 420 hectares (1040 acres), and houses a variety of aviation-related industries. The commercial/industrial nature of the facility means that

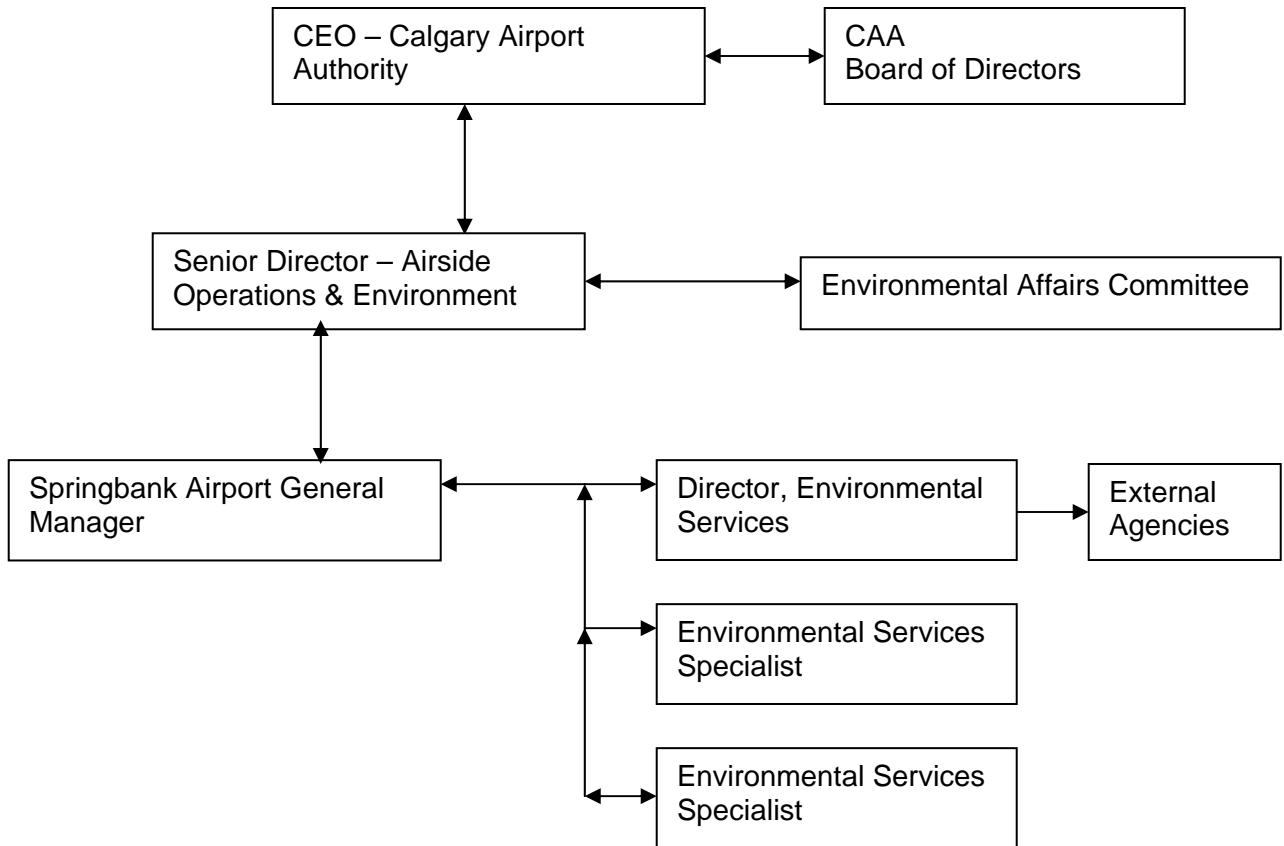
a range of potential environmental pollutants are present, in mostly small quantities. The Authority is responsible for ensuring that practices and procedures are in place so that substances are used safely. New developments are evaluated in regard to their potential environmental impacts and opportunities for appropriate design and mitigation.

Initially three Environmental Studies were undertaken in preparation of the Authority assuming operation and maintenance of Springbank Airport. Subsequently a number of other studies have help define the condition of the airport lands. All of these studies are referenced in the Springbank Airport section of the Site Management Plan.

- Kilborn – Springbank Airport Environmental Audit – May 1991
- Reid Crowther – Environmental Baseline Study – December 1995
- O'Connor Associates – Property Acquisition Report – March 1997
- EBA Engineering Consultants Ltd. – Springbank Airport Environmental Audit – January 2002
- Westhoff Engineering Resources Inc. – Springbank Airport Expansion Stormwater Management Options – January 2002
- HomePro Inspections Calgary Inc. – Home Inspection on the Property 205 Avro Lane – June 2, 2003
- PDK Airport Planning Inc. – Runway Extension Study Springbank Airport – October 10, 2003
- Scace Environmental Ltd. – Archaeology Study of the Proposed Springbank Airport Runway Extension and Burrow Area Final Report– August 15, 2004
- Scace Environmental Advisors Inc. – Springbank Airport Runway 16/34 Extension Project Environmental Assessment – November 2004

The issues and recommendations of these reports are addressed in this document.

A. Environmental Management Organization and Reporting Structure:



Roles and Responsibilities

The Airport General Manager reports directly to the Sr. Director, Airside Operations, of the Calgary Airport Authority. The Airport General Manager is responsible for all aspects of the airport operation; including establishing and maintaining Memorandums of Understanding (M.O.U.'s), contracts, leases and licenses as applicable with users/clients.

The primary role of the Environment Group is to develop an Environmental Management System (EMS) in consultation with the AGM for the Springbank Airport that will provide due diligence in the event of an environmental incident. This EMS Manual outlines the methods which are used to:

- assess environmental risk associated with airport operations
- develop policies, procedures and programs to address the environmental risk
- maintain compliance with applicable environmental regulation
- provide training on environmental compliance and best management practices
- provide audit tools to ensure ongoing compliance

Compliance to environmental regulation is the role of the AGM. The role of the Environment Group is to ensure the AGM is aware of the environmental regulatory requirements.

Specific roles and responsibilities are outlined under each aspect of the Environmental Management Plan.

Regional Geography

- The Springbank Airport is located approximately 10 km west of the City of Calgary on a low relief plane of gently undulating topography
- The surrounding land use is agricultural with a growing residential component
- The Airport property encompasses approximately 420 hectares (1040 acres) located within the legal land locations given in the table below:

Legal Land Description – Springbank Airport

Section	Township	Range	Meridian
4, 5, 8, 9	25	3	W5

- Topographic maps of the area indicate that the overall topography slopes from the southwest to northeast, with total relief of the plane in the order of six to ten meters.

B. Surficial Geology

- The surficial geology of the Springbank Airport is dominated by surface features resulting from the effects of the late Wisconsin glaciation of the Calgary area
- The Wisconsin was the most recent of four glacial periods and consisted of approximately nine ice advances and retreats
- As a result of the glaciation the surface materials in the immediate vicinity of the airport consist of a complex deposit of glacial till, glacio-fluvial and glacio lacustrine deposits
- These deposits have been modified by geologically recent natural erosion processes as well as the activities of man
- Alberta Research Council Bulletin #53, “*Surface Materials of the Calgary Urban Area*” and Bulletin #54, “*Soil Survey of the Calgary Urban Perimeter*”, indicated that the surficial geology within the airport boundaries consists of silts, clays and minor fine sand of the Calgary Formation
- This material is glacio-lacustrine in origin and was deposited as suspended-load and traction load-sediments
- The lacustrine sediments are underlain by the silty clay till of the Spy Hill Formation which is in turn underlain by bedrock of the Porcupine Hills Formation
- The total thickness of the surficial deposits is approximately 20 m

C. Bedrock Geology

- Bedrock underlying the Springbank Airport is of the Porcupine Hills Formation
- This formation is described as pale grey, thick bedded, cherty, calcareous sandstone and pale grey calcareous mudstone
- Alberta Research Council (ARC) Bulletin #53 indicates that the Springbank Airport is located on a local bedrock high

- North of the runways, the bedrock topography slopes from south to north towards the Bow River. South of the south airport boundary a bedrock channel which underlines Springbank Creek slopes from northwest to southeast
- This channel is a tributary to the Elbow River bedrock channel further to the south
- The bedrock surface elevation in the immediate airport area is approximately 1184 to 1190 m which is approximately 20 m below the ground surface elevation of 1200 m

D. Hydrology

- The Alberta Research Council hydrogeological map for the Calgary – Golden region indicated that groundwater in the airport area may be expected at approximately elevation 1090 m. The hydrogeology map also indicated that the area is a groundwater recharge zone. Local purchased water tables are expected in granular lenses or layers within the surficial lacustrine deposits
- Available water well records for the airport area were requested from Alberta Environment Technical Service Division. A total of 25 individual records were provided consisting of 16 water well drillers reports and 9 chemical analysis reports
- Three water wells intended for municipal use were drilled within the airport property in the SW ¼ of Section 4 and the SE 1/4 of Section 5 in 1977, 1978 and 1979. All these wells are noted as abandoned on the drillers log, probably due to low yields.
- The stratigraphy noted in the well completion records is generally consistent with that described in the previous sections. The thickness of the surficial materials ranged from 14 to 17 m below existing ground surface
- The wells were completed in the bedrock at depths ranging from 15m to 200m below ground surface. Static water level occurs within the bedrock at all well locations except for one well located in Section 4 which is believed to be the well located on the former farm yard that occupied the airport site
- Documented pumping rates ranged from 4 to 20 litres/min at the time of drilling. These pumping rates are based primarily on short term bail or pumping tests and indicate low yields within the bedrock aquifer
- One well remains in the pump house and is not in use

E. Surface Water Hydrology

- Springbank Airport is located on the crest of the surface water divide separating the Bow and Elbow river drainage basins. Due to this location as well as the relatively flat glacio-lacustrine plane surrounding the site, the surface drainage at the site is poorly defined
- The principal drainage of the Springbank Airport is provided by an unnamed drainage course located to the north of the airport sewage lagoons. The drainage course itself is an intermittent stream that flows during spring runoff and heavy storm flows only
- Storm drainage at the airport is provided by a series of ditches and culverts bordering the runways, taxiways and roads servicing the airport. No underground storm sewer system is in place and free discharge to a known water course is not conducted at the site

F. Archeological Overview

An archaeological study of the proposed Springbank Airport runway extension and borrow area was completed by Charles M. Ramsay, M.A. for Scace Environmental Advisors in 2004 as part of the environmental assessment of the project. The study "...recommended that the proposed runway and borrow area developments for the Springbank Airport proceed as planned with no concerns for historic period, archaeological resource or palaeontological issues."

G. Biophysical Assessment

Currently the University of Calgary is conducting a biophysical impact and risk assessment of airport lands in relation to the 10 year land development plan for Springbank Airport. The purpose of the study is to provide an inventory of the environmental features within the Springbank Airport area and identify the potential risk to aviation safety of the existing conditions and the impacts to the environment from development identified in the Springbank 10 Year Development Plan. The biophysical inventory will also provide a baseline wildlife inventory as a basis for the wildlife management plan.

The Legal Environment

Federal Laws and Regulations

The Authority follows all applicable federal, provincial and municipal legislation and bylaws. The most prominent of these standards is the *Canadian Environmental Protection Act 1999*, which regulates the use, storage, and disposal of toxic substances.

1. Crown Liability Act

This Act imposes liability on the Crown where in the past the Crown enjoyed special privilege or royal prerogative.

2. [Canadian Environmental Protection Act 1999](#) (CEPA 1999)

The Environmental Protection Act gives the federal government power to protect human health and the environment from risks associated with the use of chemicals and from exposure to toxic substances. Environment Canada and Health and Welfare Canada share responsibility for *CEPA*.

Springbank Airport has some chemicals on-site that are regulated by the Act, most notably the ozone depleting chemicals: chlorofluorocarbons (CFCs) and halon.

CEPA requires that all reasonable measures be taken to prevent or eliminate any danger to the environment or to human health from the release (or likely release) of a substance in contravention of the Act. This could include sewage disposal, fuel storage, spill response and reporting, and waste management.

3. [The Fisheries Act](#)

The *Fisheries Act* is administered by the Ministry of Fisheries and Oceans, and is the main federal water pollution control legislation. The purpose of the Act is to protect fish and fish habitat from the discharge of deleterious substances. The *Fisheries Act* may have a significant impact on airport operations, especially in relation to spills and ongoing discharges of stormwater.

Several environmentally harmful substances are regulated by the Act. In addition, substances not listed by the regulations (such as diesel fuel and sediments) have been considered by the courts to be environmentally harmful.

In the event of a spill or uncontrolled release, the person who owns the harmful substance, or has the charge, management or control of the substance, must report the incident to the appropriate authorities.

4. [Transportation of Dangerous Goods Act](#) (TDGA)

The purpose of the *TDGA* is to promote public safety by providing standardised safety requirements for international and inter-provincial transport of dangerous products by road, rail, sea or air. The Act applies from the original point where the goods were packaged for shipment to their final destination.

The *TDGA* has wide application, and applies to all handling, offering for transport, and transporting of dangerous goods by any means of transport, whether or not the goods originate from or are destined for any place or places in Canada. Additionally, the *TDGA* applies to transporting of goods by aircraft registered in Canada.

Through the *TDGA*, comprehensive duties are imposed on a wide variety of persons dealing with diverse goods and modes of transport. The Act requires the proper registration, classification, application of safety marks, packaging and documentation of dangerous goods. It also requires appropriate training of staff to report dangerous occurrences and take emergency measures.

The *International Civil Aviation Organisation's (ICAO) Technical Instructions* are referenced in the *TDGA* for regulations pertaining to shipment of dangerous goods on aircraft. The Authority provides training to all staff involved with the TDG.

5. [The Canadian Environmental Assessment Act](#) (CEAA) 1999

CEAA establishes a process to assess the environmental impact of projects requiring federal actions (i.e. permits) or decisions, and requires that the environmental effects of projects be considered early in their planning stages. The Act focuses on 4 primary regulations:

- *Exclusion List* - those projects requiring no environmental assessment
- *Inclusion List* - projects requiring assessment of specified activities.
- *Law List* - triggered when the federal government is asked to provide a licence, permit, certificate, or regulatory authorisation for a project.
- *Comprehensive Study List* - projects having the potential to cause adverse environmental effects and are of public concern.

The Authority conducts all assessments at the airport using the CEAA as a guide.

The Authority is working with CEAA in the development of an Airport Authority Regulation under the Act.

6. [Workplace Hazardous Materials Information System](#) (WHMIS)

The *Workplace Hazardous Materials Information System (WHMIS)* is legislated in both Federal and Provincial jurisdictions. The national *WHMIS* program is governed under the *Canada Labour Code* and the provincial program under the *Alberta Occupational Health and Safety Act*.

The purpose of *WHMIS* is to provide workers in Canada with information about hazardous materials in the workplace. The Authority provides training to all staff.

7. [The Aeronautics Act](#)

The Minister of Transport has created a policy that requires airports to establish wildlife control programs (Section 4.2 (b) (e) (o)).

The Aeronautics Act also gives power to the Minister of Transport to make regulations regarding wildlife management programs. *Canadian Aviation Regulation – Airport wildlife Planning and Management (CAR 302)* came into force on June 1, 2006.

The Aeronautics Act gives power to the Minister of Transport to make regulations regarding the noise emanating from aerodromes (Section 4.9(f)). The Act also states that other standards, procedures or specifications can be incorporated by reference - for example the ICAO Annex 16 Chapters 2 and Chapters 3 which specify noise certification standards for aircraft.

The Canadian Aviation Regulations (CARs)

Noise operating criteria outlined in **CAR 602.105 Noise Operating Criteria** prohibits operations except in accordance with noise abatement procedures and noise control requirements. Noise operating restrictions may be applied at aerodromes where there is an identified requirement. These include: preferential runways, minimum noise routes, restricted or prohibited hours of aircraft operation, arrival and departure procedures, duration of flights, prohibition or restriction of training flights, VFR or visual approaches, simulated approach procedures; and minimum altitude for aircraft operation in the vicinity of the aerodrome. At the Springbank Airport, these issues are reviewed locally in consultation with the Springbank Airport Community Noise Consultative Committee (SACNCC).

The *Aeronautical Information Publication (AIP)* contains a **checklist** (Rules of the Air and Air Traffic Services RAC 4.1.2) to ensure that proposed noise abatement procedures have received sufficient consideration of the issues, alternatives, costs and stakeholders' input and are approved by Transport Canada.

The Canada Flight Supplement (CFS) is a joint civil/military publication containing information on aerodromes and is used as a reference for planning and safe conduct of air operations. To

address noise issues at Springbank airport the CFS states. "Preferential rwy 16/34. Right hand circuits rwys 16 & 25. Fixed wing circuit alt. 5000'; acft. Climb rwy heading to 4500' before turning. Circuit training flights and maintenance engine run-ups prohibited btwn. 06:00 and 14:00 Zulu (23:00 and 07:00 local time).

The transition to Chapter 3 aircraft (often referred to as the phase-out of Chapter 2 aircraft) is outlined in **CAR 602.150-162 - Transition to Chapter 3 Aeroplanes**. These laws define Chapter 2 and Chapter 3 aircraft by referencing the ICAO standards and schedule a reduction of Chapter 2 aircraft in Canada. All aircraft over 34,000 kg GTOW must comply with Chapter 3 noise certification as of April 01, 2002. Aircraft operating in the North are exempt.

Some noise concerns are expressed over altitude of aircraft. While the applicable regulation was not enacted for noise reasons, **CAR 602.14 Minimum altitudes and Distances** prohibits low flying. The most applicable part of this regulation for Calgary is that aircraft cannot fly below 1000 ft AGL over built up areas. This does not apply to aircraft conducting a take-off, approach or landing or those having special permission (such as air photo flights, pipeline patrol flights and flights involving police, fire, ambulance and other provincial or federal agencies).

8. [Migratory Birds Convention Act](#)

Under the authority of Section 28 (1) of the *Migratory Birds Regulations* a *Federal Airport Kill Permit* allows airport personnel exemption from this Act to harass or kill migratory birds that are considered to be a danger to aircraft operating at the Airport. The permit is NOT VALID for the killing of endangered, threatened or rare species. See Table 1 in the Wildlife Management section of the Environmental Management Plan for further information regarding the permit.

9. [Federal Wetland Policy](#)

The focus of this policy is on no-net-loss of wetland function. In the event significant wetlands on federal property are eliminated there may be need for compensation by supplying or creating a new wetland area.

10. [National Fire Code](#)

This code identifies requirements for equipment used to store, handle and transfer flammable products.

11. [Species at Risk Act \(SARA\)](#)

Critical habitat is vital to the survival or recovery of wildlife species. It may be an identified breeding site, nursery area or feeding ground. For species at risk, such habitats are of the utmost importance. SARA makes it illegal to destroy the critical habitat of species at risk and may impose new restrictions on development and construction.

12. [Firearms Act](#)

Under this Act all airport personnel identified in the wildlife management program who use a firearm must possess a *Possession and Acquisition Licence* (PAL) along with the associated

firearm safety training. The airport must also register all the firearms under the *Business Firearms Licence*.

13. [Canada Wildlife Act](#)

The *Canada Wildlife Act*, as administered by the Federal Minister of the Environment, establishes statutes in regards to the wildlife within Canada and all provinces and territories located therein. The Act defines the powers, duties, and functions of the Minister, as well as all agreements made under the Act. Endangered wildlife and acquisition of land are also regulated. The *Canada Wildlife Act* stipulates that the government may take such measures as deemed necessary for the protection of any species of wildlife in danger of extinction.

Provincial Legislation

14. [The Alberta Environmental Protection and Enhancement Act](#) (AEPEA)

This Act was proclaimed in 1993 to support and promote the protection, enhancement and wise use of the environment. Specific regulations under the Act will be applicable to the airport environment. Some of these regulations are:

- Release reporting regulation
- Substance release - maximum levels of air emissions
- Hazardous recyclables
- Hazardous waste
- Pesticide sales, handling, use, and application
- Substance release (stormwater drainage and wastewater systems)

The *AEPEA* consolidated the following regulations, including the *Clean Water (General) Regulations*, *Clean Air (General) Regulations*, *Hazardous Waste Legislation*, *Agricultural Chemicals Act*, and the *Pesticide Applicator Licensing Regulation*.

A number of processes common to both federal and provincial governments are being reviewed by the Canadian Council of Ministers of the Environment (CCME). Harmonisation agreements on specific issues may reduce duplication in certain areas

A reporting arrangement between Alberta Environmental Protection, Environment Canada and the Authority identifies reporting requirements with respect to environmental spills at the airport. Release of Ozone Depleting Substances and Hazardous Substances as defined by Environment Canada and Alberta Environmental Protection are reported to 1-800-222-6514.

15. [Wildlife Act](#)

This Act applies to the wildlife management program whenever wildlife, such as mammals, are destroyed or removed from the airport requiring permits.

16. [Alberta Weed Act](#)

This Act defines the actions inspectors for the municipalities must take to control noxious, nuisance and restricted weeds. The Authority works closely with the Municipal District of Rockyview to identify and eliminate these weeds on an ongoing basis.

Airport Operations and Risk Assessment

Operational Risk Assessment and Program Development

The industrial nature of airport operations presents risk arising from a range of environmental pollutants. Initial risk assessment of the various operations at the airport has resulted in the development of programs focused on the protection of specific environmental components identified below. The goal of the Airport Authority's Environmental Management System is the development and continuous assessment of policies, programs, practices, and materials that avoid or minimize the creation of pollutants and waste, and reduce overall risk to the environment.

Pollution Prevention

Pollution prevention aims at reducing risks to human health and the environment by eliminating the causes of pollution rather than treating the symptoms, reflecting a major shift in emphasis from "control" to "prevent". Pollution prevention practices at the airport focus on areas such as:

- hazardous substances
- efficient use and conservation of natural resources
- reuse and recycling on-site
- materials substitution
- operating efficiencies
- training
- purchasing techniques
- process changes
- equipment modifications

The EMS seeks to integrate pollution prevention into all Authority environmental policies, procedures and programs as well as tenant policies and programs.

Sustainable Development

The key environmental component of sustainable development is a shift to preventive environmental care. The Authority's environmental protection strategies are driven by a vision of environmentally sustainable development based on a clean, healthy environment, and a strong economy. By preventing the creation of pollutants and waste, we help protect the environment from harm. By increasing efficiency, avoiding accidental releases, and reducing the non-productive costs of treatment and disposal, we make our operations more efficient and competitive. In these ways this manual focuses on a continuous effort to improve and innovation that is fundamental to achieving sustainable development.

Emergency Response Planning

In the course of the airport's day to day operations, a wide array of hydrocarbons, chemicals, and dangerous substances are used, many requiring special procedures to ensure that they are not released into the environment. The existence of a comprehensive Airport Emergency Response Plan which includes the Spills Response Plan serves to reduce the risk of injury and environmental damage in case of an accident.

The Airport Operations Manual was prepared in March 1998 as a condition of certification and complies with the standards contained within the 3rd edition of "Aerodrome Standards and Recommended Practices – TP312E". This manual contains a "HAZARDOUS MATERIAL HANDLING" Section 6, dealing with spills handling and reporting.

SECTION 3. IMPLEMENTATION AND OPERATION

SPRINGBANK AIRPORT ENVIRONMENTAL MANAGEMENT PLAN

Airport Land Use, Planning and Development

Objective: Effective land use, planning, and environmental assessment that minimizes environmental impact of development.

Applicable Legislation, Agreements and Policies

CEAA
CEPA
Fisheries Act
AEPEA

Planning and Environmental Assessment

In 2001, the Authority began work on the Springbank Airport 10 Year Land Development Plan. Airport expansion designed to meet anticipated growth was the fundamental feature of the plan. There were significant consultations with government agencies, general aviation and communities resulting in the acceptance of the plan by the Board of Directors on May 15, 2002.

Developments identified in the plan are subject to environmental assessment. The Calgary Airport Authority has worked with Transport Canada to develop an interim airport environmental assessment standard, compliant to CEAA, for the Canadian Airports Council to be used by all airport authorities prior to pending changes to the Act that will include airport authority projects under CEAA. This standard is completed and will be used to assess the environmental impacts associated with all new projects at Springbank until airports are included under the Act.

Risk Assessment (Risk = probability/occurrence and consequence/severity. An annual measurement of risk will be number of screenings/site assessments for occurrence and level of mitigation/contamination for severity which will appear in the current year's annual environmental report and the following year's environmental work plan)

Issue	Risk	Consequence	Mitigation
Project Assessment	Non-compliance to CEAA, unmitigated environmental damage from projects.	Potential fines, degradation of the environment	Establishment of a project registry (CIP), assessment process & effective mitigation.
Site Assessment	Potential spread of contamination & health risk. Loss of historic/cultural resources. Loss of	Potential fines, increased cost of clean-up/mitigation.	Establishment of a site management plan & commitment to site assessments, contamination

	critical habitat or endangered species		monitoring & mitigation.
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Implementing

Environmental Assessment

Not all projects proposed at Springbank Airport are currently required by law to undergo an environmental assessment. Under Authority policies however, all projects are assessed since it is realized that the best way to improve environmental performance is to assess a projects' impact on the environment. Mitigation measures or alternatives incorporated with project planning and design can also provide significant long-term cost savings.

In 2001 the Minister of Environment recommended the inclusion of Airport Authorities under the Canadian Environmental Assessment Act (CEAA). The new Bill (Bill C 9) would provide for the development of regulations requiring the assessment of projects carried out on federal lands leased or managed by a third party.

In 2002 the Authority adopted the Canadian Airports Council (CAC) Environmental Assessment Standard as an interim process and is currently working with the CAC and Environment Canada in the development of the Airport Authority regulations under the CEAA. Currently the environmental assessment of projects is triggered through the Construction Installation Permit (CIP) process used by the Airport Authority.

In addition The Alberta Municipal Act controls land use in the vicinity of the Airport. This provincial regulation links our land-use planning with that of surrounding jurisdictions.

Land Use and Site Assessment

Tenants entering into a land lease agreement with the Authority must adhere to a number of environmental responsibilities and obligations. The documents that outline tenant responsibilities are: The *Tenant Lease Agreement* and the *Calgary Airport Authority Tenant Policies and Guidelines*.

The Authority has a number of programs to promote awareness of environmental legislative requirements among tenants. Should any undesirable substances be discharged or escape from leased land, the tenant is responsible for the cost of cleanup. In addition, tenants are responsible for maintaining the landscaped and paved areas of their land, and must ensure that their premises are kept clean and free of debris at all times.

Much of the airfield and airfield reserve land are currently under lease to local farmers. The agricultural use of airport lands serves a number of purposes including vegetation and pest control.

Hay is a preferable crop because it is less attractive to birds.

Environmental site assessment in Canada employs methodologies and systematic procedures to evaluate the environmental impact of past and current activities on a site. This formal process may include environmental sampling and analytical techniques that generate scientific, engineering and management orientated data.

Environmental Site Assessment Process

Phase I assessments involve the gathering, evaluation and documentation of reasonably available data without the collection of any samples. (CSA Z768-01)

Phase II assessments are conducted using knowledge flowing from the Phase I assessment, adding investigations involving the systematic study of the subject property with the objective of collecting samples of known or suspected environmental contaminants. (CSA Z769-00)

Phase III assessments are designed to remediate a known contaminated site.

Environmental site assessments are used as a part of the Environmental Management System planning process for new developments or establishing new lease agreements.

Tenant Policies and Guidelines

Policies and guidelines are produced to guide activities of tenants with regards to environmental compliance and protection. These guidance documents are reviewed on an annual basis to align with current environmental regulation and best management practices. Current tenant guidance documents include:

- Contaminated Site Remediation Policy
- Aircraft Engine Run-up Policy
- Spills and Release Reporting Policy
- Tenant Site Visit/Audit Procedures

Site Management

A wide variety of hydrocarbon products are used at the airport including fuel storage tanks and waste oil tanks. Storage and disposal practices have improved over the years, but ground contamination is still possible. Accidental releases of fuel into the environment may occur, most often during fuelling and aircraft servicing.

The Authority has developed one document called the Site Management System, which contains information on petroleum storage facilities and site specific environmental studies for Springbank Airport.

Contractors' Roles and Responsibilities

In order for the environment to be protected during construction, it is critical that all parties to Airport contracts, agreements, permits and authorizations, be aware of the environmental impact of their construction activities and provide measures and due diligence to protect the environment.

Environmental statements in both the Springbank Airport Development Guidelines and the General Project Contract Documents outline appropriate environmental considerations for potential contractors. They identify appropriate federal, provincial and municipal environmental regulation as well as the requirement that all projects must undergo environmental

assessment. They also state that a Construction Installation Permit will not be issued until the environmental assessment has been completed and appropriate mitigation ascribed.

Construction Projects also require the proponent to develop an Environmental Construction Operations Plan (ECO Plan) which consists of guidelines and written procedures that address the environmental protection issues relevant to the specific project activities being performed. The Contractor must submit the ECO Plan to the Calgary Airport Authority prior to commencement of the work and in sufficient time to allow evaluation of the suitability of the proposed strategy.

Roles and Responsibilities

Issue	Regulation	Requirement	Responsibility
Project Environmental Assessment	Canadian Environmental Assessment Act	Identify all projects in CIP Ensure mitigation is implemented	Project Managers
		Complete EA	Environment Group
Site Management Plan	Lease agreement	Project and Study updates	Environment Group
Land use planning	Alberta Municipal Act	Review projects for compatible land use	Development Group and Environment Group
Site Assessment	Lease agreement	Phase I/II site assessment of development sites	Development Group

Training

CEAA project environmental assessment
City of Calgary Erosion and sediment control

Monitoring and Reporting

CEAA project assessments and registry
Project monitoring
Daily Site Inspection Program
Site Management Plan updates

Aircraft Noise

SPRINGBANK AIRPORT ROLE STATEMENT

Springbank is the most significant General Aviation airport in the Calgary Region. It offers a wide range of services to its users, and acts as a base for private and commercial light aircraft operations in both the fixed wing and rotary wing categories. Next to Calgary International, Springbank is the only other certified aerodrome within the Calgary Region. As such, Springbank Airport plays an important role within the areas system of airports. The operation and development of Springbank Airport will be directed to supporting private and commercial

flight activity and their support services, including flight training, recreational, corporate and air taxi operations.

Objective To minimize impacts of aircraft noise on surrounding communities (promote community well-being) while at the same time maintaining airport operations flexibility (provide quality airport services and promote economic development).

Applicable Legislation, Agreements and Policies

Lease agreement with the federal government
 Aeronautics Act and Canadian Aviation Regulations

Planning

Risk Assessment (Risk = probability/occurrence and consequence/severity. An annual measurement of risk will be number of noise concerns for occurrence and level of concern for severity)

Issue	Risk	Consequence	Mitigation
Effective Noise Management Program	Political action	Resulting in limits to airport growth and or operations	A focus on continuous improvement.
Effective Public Education and Awareness	Mistrust between community and stakeholders	Loss of reputation Resistance to growth	Effective public and stakeholder communication.
	Strained relations with the community	Reluctance to approve developments	Continued participation on SACNCC
Monitoring, assessing and reporting	Inability to monitor operations and noise	Previous case law shows that noise monitoring key evidence	Comprehensive monitoring and reporting
	Inability to describe noise impacts	Continued growth with no mitigation.	Reduce impacts of aircraft operations Land Use Planning that minimizes impact of aircraft operations.

Implementing

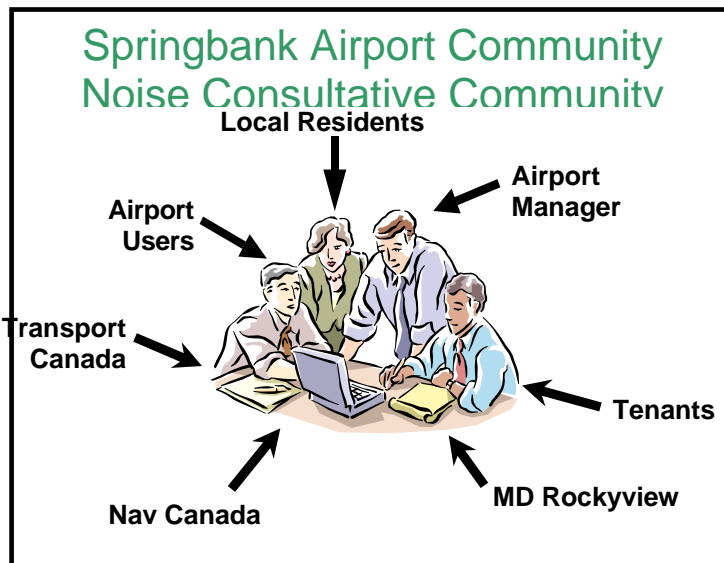
Public perception and knowledge

- Aircraft noise is an unwanted disturbance for some residents
- Public perception is important. What is “noise” is subjective and public perceptions affect the relationship between airports and their surrounding communities

Political and public pressure in response to aircraft noise has resulted in operational restrictions at airports, resulting in substantial costs to both aviation and surrounding communities.

- Public perception is also based on transparency of operations, information, and consultation on future issues, and past history
- Public support for airport growth and expansion needs to be generated proactively. To this end an Airport Noise Consultative Committee has been established, the terms of reference are in appendix B4 of the Airport Operations Manual.

Springbank Airport Noise Consultative Committee



The Committee objectives are:

- To develop a noise management program which strives to reduce the noise related impacts around Springbank Airport and recognizes the interests of all affected parties.
- To review the success of the noise management program and to recommend changes as appropriate.
- To provide a forum for dialogue and improved understanding between airport users and operators and parties affected by noise related to operations at the Springbank Airport.

Flight Tracking, Noise Monitoring and other systems

- The Aircraft Flight Tracking and Environmental Monitoring System as well as a portable noise monitor are used to help assess and track noise concerns at Springbank.
- This system is essential for tracking noise concerns and flight operations for investigation and planning purposes as well as reporting
- AFTEMS is capable of integrating other data such as weather and noise contour modelling.

Land Use Planning

Land use controls are considered to be the single most effective method of reducing the impact of aircraft noise. The Municipality of Rockyview regulates land use around the airport.

There is no official airport vicinity protection area regulation under the Alberta Municipal Affairs Act for Springbank Airport however there are *Noise Exposure Forecast (NEF)* contour identified by the Municipal District of Rockyview in their regional planning documents. The AA is working with the M.D. of Rockyview to address land use in the vicinity of the Springbank Airport.

Noise Concerns

The Springbank Noise Hotline was established for citizens concerned with aircraft noise associated with Springbank Airport. The phone number is 286-7703

To respond to the concern, the following information is essential:

- Name and contact info
- Date and time (of the aircraft operation)
- Concern description (aircraft type and description, what it was doing)

The type of investigation will depend upon the nature of the concern and the information available on the aircraft and its flight. If contact information is left, the call will be returned during business hours and the concern will be noted. In some cases, the concern may be forwarded to Transport Canada's Enforcement office.

Procedures and Guidelines

Canada Flight Supplement – Noise Sensitive Areas
International Civil Aviation Organization – noise certification standards
Noise Concern handling procedures

Roles and Responsibilities

Issue	Regulation	Requirement	Responsibility
Noise Concerns	Lease agreement	Monitor, log and respond	Airport Manager
Noise consultation	Lease agreement	Develop and maintain the SACNCC	Airport Manager
Tenant activities	Lease agreement	Develop tenant policies to minimize noise	Airport Manager/Environment Group

Training

Transport Canada - Airport Noise Management course
ACI Noise Symposium

Monitoring and Reporting

Flight Track Monitoring
SACNCC Meeting Reports
Monthly Board Reports

Water Quality Management

Objective: To minimize the environmental impact of airport operations on water quality.
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Applicable Legislation, Agreements and Policies

CEPA
Fisheries Act
AEPEA

Planning

Risk Assessment (Risk = probability/occurrence and consequence/severity. An annual measurement of risk will be number of regulatory/guideline exceedences for occurrence and level of regulatory compliance for severity which will appear in the current years annual environmental report and the following years environmental work plan)

Issue	Risk	Consequence	Mitigation
Airport Operations	Deleterious substances from airport activities entering storm water and groundwater systems.	Possible fines and negative public perceptions	Effective Glycol Mitigation Plan

Implementing

Storm Water and Sewage Treatment

The Springbank Airport is located at the headwaters of the Un-named Creek B1 sub-basin, which drains north to the Bow River, and the Springbank Creek sub-basin, which drains south to the Elbow River. The drainage divide between these two sub-basins approximately runs between the runway areas and the commercial areas of the airport. Under normal conditions storm water flows to two evaporation ponding areas. There are three off site areas, with a total area of 82.77 ha. That drain onto airport lands. These off site areas are made up of the quarter section immediately to the east of the airport, an 8.98 ha. strip of land south of Township Rd. 250, and a 6.97 ha. strip of land along the southwest edge of the airport property.

Table 1: Stormwater Monitoring Parameters

PARAMETER	GUIDELINE LEVEL	SOURCE
Biochemical Oxygen Demand (BOD)	20 mg/L	CEPA
Chemical Oxygen Demand (COD)	None	
Total Suspended Solids (TSS)	25 mg/L	CEPA
Oil and Grease	10 mg/L	AEPEA
pH	6.5 to 9.0	CCME
Glycol	100 mg/L	CEPA
Total Organic Carbon (TOC)	None	
Ammonia (NH ₃)	1.37-2.2 mg/L	CCME
Nitrates	concentrations that stimulate prolific growth should be avoided	CCME
Total Phosphates	1.0 mg/L	CEPA
Phenols	0.001 mg/L	CCME
Total Kjeldahl Nitrogen (TKN)	None	

Sewage Treatment and Disposal

All sewage at the airport is discharged into a sanitary sewage lagoon. The operation of the sewage lagoon requires the lagoon be pumped annually. Prior to discharge total coliform and fecal coliform concentrations are monitored for compliance to CCME guidelines.

Roles and Responsibilities

Issue	Regulation	Requirement	Responsibility
Storm water contamination	Federal, Provincial & Municipal Reg's	Compliance monitoring	Environment Group
Ground water contamination	CEPA	Compliance monitoring	Environment Group

Training

Water sampling procedure and chain of custody

Monitoring and Reporting

Daily Site Inspection Program
Monthly Potable water monitoring
Annual Water Quality Monitoring Program

Materials Management

Materials Management includes the purchasing, storage, transfer and disposal of non-hazardous and hazardous materials. The Airport Authority Green Purchasing Guidelines should be used prior to purchasing any chemicals.

Objective: To prevent harmful materials from entering the environment and to reduce the amount of material entering the waste stream.
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Applicable Legislation, Agreements and Policies

CEPA
Fisheries Act
TDGA
WHMIS
National Fire Code
AEPEA

Planning

Risk Assessment (Risk = probability/occurrence and consequence/severity. An annual measurement of risk will be number of spills for occurrence and number of reportable spills for

severity which will appear in the current years annual environmental report and the following year's environmental work plan)

Issue	Risk	Consequence	Mitigation
Hazardous Materials Management	Improper disposal Regulatory non-compliance	Loss of reputation, Fines, jail	Effective management program
Spills and Reporting	Regulatory non-compliance	Negative impacts on to the environment.	Effective spills prevention, management and response plans

Materials Management includes the purchasing, storage, transfer and disposal of hazardous materials or materials that may be harmful to the environment.

Implementing

Hazardous Materials Management

- environmental audits have confirmed that a variety of hazardous materials and wastes are generated and stored by the Authority and airport tenants.
- all tanks are registered with the Petroleum Tank Management Association of Alberta (PTMAA). The PTMAA also provides upgrading and replacement schedules
- Federal Storage Tank regulations are being developed under CEPA

The release of petroleum products from storage tanks potentially poses a serious threat to surface and ground water.

- 13 petroleum and allied petroleum storage tanks are currently operational on airport property
- 2 are underground storage tanks (UST's) at Springbank Aero Service
- annual review of secondary containment and products to facilitate materials transfer

Hazardous Materials Spills and Release Reporting

The effective initial response and timely reporting of spills and releases minimizes the risk to human health, property and/or the environment. While the first line of defense is preventing spills and releases through best management practices, spills and releases of materials harmful or potentially harmful to human health, property or the environment do occur.

Reporting requirements come from federal, provincial and municipal government jurisdictions and the following list is a sample of legislation referencing the reporting of spills/releases of harmful or potentially harmful substances into the environment:

- Canadian Environmental Protection Act
- Fisheries Act
- Alberta Environmental Protection and Enhancement Act

- Transportation of Dangerous Goods Act and Regulations (Clear Language)
- Federal Halocarbon Regulations

The spills reporting procedures apply to all airport tenants and contractors.

Roles and Responsibilities

Issue	Regulation	Requirement	Responsibility
Hazardous materials handling	WHMIS	Training MSDS	Airport Manager
Hazardous materials shipping	TDGR	Training	Airport Manager
Spills reporting	TDGR, Environment Canada, Alberta Environment	Spills reporting policy Initial spills report Follow-up report	Environment Group Person causing/observing spill Environment Group
Halocarbon regulation	CEPA	Compliance	Manager Mechanical Facilities/Tenants

Training

WHMIS
TDG

Monitoring and Reporting

The Hazardous Spill Reporting Form and Hazardous Material Reporting Procedure
Hazardous Waste Inventory Report
Weekly Environmental Inspection Program

Wildlife Management

Airport soils support farming. The airport property has been under development for many years, and has lost most of the natural wildlife which may have once inhabited the area. The airside property is fully fenced, barring access to most prairie wildlife with the exception of coyotes, badgers, gophers, rabbits, and other small rodents.

Objective: To reduce the risks of wildlife strikes and to provide effective wildlife control

Applicable Legislation, Agreements and Policies

Fisheries Act
Canadian Environmental Assessment Act
The Aeronautics Act
The Migratory Birds Convention Act

Species At Risk Act
 Firearms Act
 Canada Wildlife Act
 Federal Wetland Policy
 Provincial wildlife Act
 Alberta Municipal Act
 Alberta Environmental Protection and Enhancement Act

Table 1 Permits, Licenses and Permissions:

Jurisdiction	Permit, License, Permission	Renewal Frequency	From Whom	Contact Info
Federal	Airport Kill Permit	4 years	Environment Canada	Lorraine Tomkewich (306) 975-4087 Administrator, Wildlife Enforcement Division (File: G60.12)
	Special Permit to Possess Found Dead Wildlife (Migratory Birds)	As per specimen	Environment Canada	Larry Ottman (292-4103) Wildlife Enforcement Coordinator (File: G60.12)
	Business Firearms Licence	Annual	Chief Firearms Officer of Alberta	National Firearms Center Miramichi NB 1-800-0731-4000 Ext. 9064 (File: G60.12)
	Firearms Possession and Acquisition Licence (all personnel)	5 years	Chief Firearms Officer of Alberta	National Firearms Center Miramichi NB FAC Application File
Provincial	Damage Control Licence to trap and release birds of prey	Annual	Alberta Environmental Protection	Ed Pirogowicz Conservation Officer 297-7795 Fish and Wildlife (File: G60.12)
	Damage Control Licence for destroying Deer (No permit required for Coyotes, Badgers, Weasels or Rabbits)	Annual	Alberta Environmental Protection	Ed Pirogowicz Conservation Officer 297-7795 Fish and Wildlife (File:G60.12)
	Permit to Possess Found Dead Wildlife (Birds of Prey)	As per specimen	Alberta Environmental Protection	Ed Pirogowicz Conservation Officer 297-7795 Fish and Wildlife (File: G60.12)
	Authorization to Hunt Fur-Bearing Animals (Contracting out trapping services)	As per requirement	Alberta Environmental Protection	Ed pirogowicz Conservation Officer 297-7795 Fish and Wildlife (File: G60.12)
	Pesticide Service Registration	No expiry date	Alberta Environmental Protection	Jock McIntosh (780) 427-0031 Alberta Env Pesticide Mgt. (File: G60.12)

Municipal	Permission to discharge firearms within City limits	No expiry date	Calgary Police Service	Constable Glenn Murray Firearms Investigative Unit (File: G60.12)

Planning

Risk Assessment (Risk = probability/occurrence and consequence/severity. An annual measurement of risk will be number of strikes for occurrence and level of damage/operational interruption for severity which will appear in the current years annual environmental report and the following years environmental work plan)

Issue	Risk	Consequence	Mitigation
Bird Strike	Injury/damage	Liability for aircraft-strike incident	Effective Wildlife Control Program

Implementing

Wildlife and aircraft confrontations are a concern at Canadian airports. Bird strikes to aircraft during all phases of aircraft operations can account for significant damage to aircraft and in some circumstances create the conditions for a serious accident.

At Springbank Airport it is the responsibility of the Airport Manager and the Environment Group to co-ordinate and implement procedures which will reduce the potential for bird and wildlife/aircraft conflicts. These procedures must not only address bird and wildlife control from a safety and operational point of view, but the program must be sensitive to proper bird/wildlife management.

Bird and Wildlife Management Program (Under development 2006)

In 2005/06 the U of C is completing a biophysical assessment of the Springbank Airport lands which will serve as a baseline inventory for the wildlife management plan.

Wildlife Control and Habitat Management

Many techniques are available for bird/ wildlife control however, from experience the most effective controls are normally a combination of available techniques including pyrotechnics, scare tapes, elimination and habitat control.

The most effective control for birds and wildlife is habitat management. If ponds are eliminated, food sources removed and species discouraged from taking residence the airport will become less desirable for birds and wildlife thus reducing aircraft conflicts.

Monitoring (Daily Site Inspection)

The monitoring program determines what bird activity at different locations poses a significant potential hazard to aircraft operations.

Roles and Responsibilities

Issue	Regulation	Requirement	Responsibility
Wildlife Control Plan	Aeronautics Act, Lease Agreement	Plan Development Plan Implementation Attaining licences Training	Environment Group Airport Manager Environment Group Environment Group
Wildlife occurrence/incident		Daily observation Strike reports	Airport Manager Airport Manager

Training

Wildlife Control at Airports

Monitoring and Reporting

Daily Site Inspection
Bird Strike Reports

Air Quality Management

Objective: To minimize impacts of airport operations on air quality through facility design, operation and maintenance

Applicable Legislation, Agreements and Policies

Canadian Environmental Protection Act

- Federal Halocarbon Regulations, 2003
- NPRI reporting

Kyoto Protocol

Alberta Environmental Protection and Enhancement Act

Alberta Climate Change Act

Planning

Risk Assessment (Risk = probability/occurrence and consequence/severity. An annual measurement of risk will be number of release reports for occurrence and number of regulatory non conformances for severity which will appear in the current years annual environmental report and the following years environmental work plan)

Issue	Risk	Consequence	Mitigation
Federal Halocarbon release reporting	Non-compliance	Fines Loss of reputation	Efficient tracking and reporting

NPRI reporting	Non-compliance	Fines Loss of reputation	Efficient tracking and reporting
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Springbank Airport has many sources of air emissions ranging from aircraft exhaust to chemicals used in HVAC systems. Notable pollutants include carbon monoxide, nitric oxide, nitrogen dioxide, and suspended particulate matter. HVAC systems may use ozone-depleting substances (ODS) such as chlorofluorocarbons (CFCs) and halon. Ozone depleting substances such as chlorofluorocarbons (CFCs) and halon are regulated by the Canadian Environmental Protection Act (CEPA).

Implementing

- standards set by ICAO influence manufacturers in aircraft design to reduce source emissions
- emissions reduction can be obtained by improving aircraft and airport operational efficiencies
- emissions from ground vehicles used in airport operations or by tenants
- as air and surface traffic increase and airport activities expand, air pollution levels are expected to increase

Roles and Responsibilities

Issue	Regulation	Requirement	Responsibility
	Federal Halocarbon	Initial Release reporting	Manager Mechanical Facilities
	NPRI	Emissions reporting	Environment Group

Training

Federal Halocarbon regulation – information sessions
National Pollutant Release Inventory reporting – information sessions

Monitoring and Reporting

National Pollutant Release Inventory Report (NPRI)

Resource Use

Objective: To minimize energy and resource use

Applicable Legislation, Agreements and Policies

Ground Lease with Transport Canada

Planning

With the increasing costs of gas and electricity, efficient and conservative use of energy is economically vital and environmentally friendly. Long-term planning focuses on the development of energy alternatives. New energy conservation targets and objectives were discussed with department managers best suited to track performance.

Risk Assessment (Risk = probability/occurrence and consequence/severity. An annual measurement of risk will be developed)

Issue	Risk	Consequence	Mitigation
Resource conservation	Waste of non-renewable resources	Excessive operating cost, Unsustainable growth	Incorporate energy efficient facilities and operations.

Implementing

Energy conservation is an important component of facilities management. Significant cost savings can be realised by incorporating state-of-art, energy efficient mechanical and electrical systems into new projects or by life cycle management retrofits or replacements. The net benefit of energy efficiency to the environment is that the demand for non-renewable resources is reduced.

Roles and Responsibilities

Issue	Regulation	Requirement	Responsibility
Program development			Environment Group

SECTION 4: MONITORING AND DOCUMENTATION

EMS Legislation Review

- The Authority has a publicized law database (Environmental Law – Specialty Technical Publishers) that details all of the legislation and bylaws affecting airport operations. This document is updated quarterly to reflect changes in the law.
- Many federal regulatory issues are tracked on an ongoing basis through sub committees of the Canadian Airports Council, Environment Committee.
- Regulatory information from the Web is becoming more accessible and reliable.
- Constant communications with Transport Canada, Environment Canada, Alberta Environmental Protection and the M. D. of Rockyview is the best method of ensuring compatible operations and compliance.

EMS Awareness; Program, Policies and Procedures Review and Documentation

Awareness

An Employee Orientation information sheet has been developed to provide some of the necessary tools, for all employees, to create and maintain a safe work environment while understanding some of the more significant environmental issues we face at the airport. This information is part of the Authority's overall Employee Orientation Package and is designed to provide the employee with answers to general questions concerning the environment and the site-specific environmental issues and procedures that may be encountered at the airport. By understanding and promoting environmental knowledge it will enable employees to reduce risk, and minimize the airport's impact on the environment. Understanding the information and following the procedures will allow staff to work as a team to keep the airport environment healthy.

Tenant awareness of environmental roles and responsibilities comes through environmental clauses in their lease agreements, EMS and Compliance Audits, environmental policies and procedures developed by the Authority and through participation on the Springbank Airport Business and Pilots Association.

Review and Documentation

Environmental Programs, Policies and Procedures are reviewed by the Airport Manager and the Environmental Group on an annual basis prior to the development of the upcoming year's Annual Environmental Work Plan. This work plan identifies the goals and objectives of the Environmental Program and tracks progress throughout the year.

Annual Work Plan

In terms of ongoing management, the Annual Work Plan captures the key ongoing monitoring processes to determine the status of compliance and due diligence. The purpose of this Work Plan is to outline the issues and actions for the year. This plan identifies seven environmental aspects and lists specific objectives, targets and actions that will be addressed in the year and ties them to the appropriate Environmental Policy statement. The objectives and targets are reviewed and refined annually in an ongoing attempt to focus on environmental performance. The plan also identifies actions to ensure our EMS is maintained, documented and reported.

The actions identified in the Plan are separated into ongoing program activities and new initiatives. The ongoing program activities are designed to ensure continued compliance to all applicable environmental regulations while the new initiatives focus on new proposed regulations and environmental enhancement.

At the end of each calendar year the Environmental Group summarizes the achievements and challenges of the year in the Annual Environmental Report.

The Environmental Work Plan is one of a number of reporting processes designed to monitor environmental performance. One of the key forums for discussing issues is at the quarterly Environmental Affairs Committee meetings. The mandate of the Environmental Affairs Committee is to:

- Review Board and Management policies and associated due diligence procedures.
- Review Management plans, strategies and outcomes regarding significant environmental issues, environmental risks and liabilities, and the impact of changes in environmental legislation and regulations.
- Receive reports, including operational and environmental performance reports, from Management and exercise appropriate methods of inquiry and examination with respect to the information presented.
- In situations involving the hiring of third party to review the environmental practices and procedures of the Authority, the Committee will review the Terms of Reference and have an opportunity to receive reports directly from the third party.
- Make reports to the Board regarding the activities of the Committee and review the scope of Management's annual report to the Board regarding environmental due diligence matters.

On a monthly basis the Airport Manager develops a Springbank Airport Board Report which highlights and tracks any environmental issues or incidents. Also the Airport Manager completes a daily site inspection report, in part to identify any environmental issues.

Environmental Audits

Environmental audits are systematic, comprehensive and objective evaluations of the environmental state of a facility. In addition to determining whether a facility satisfies environmental legislation, an environmental audit can serve as an effective management tool.

A thorough evaluation of the state of the environment allows management to set priorities and direct future growth in an environmentally sensitive manner. Management Systems, Facility and Compliance reviews are undertaken regularly at the airport.

Internal Auditing:

Daily Site Inspection Program

The objective of the site inspection program is to:

- ensure safety and environmental protection of the airport
- provide historical records and follow up log systems
- ensure problems are identified and dealt with in a timely manner

Procedures and Reporting

The checklist, accompanied by a plan of the airport, identifies areas for inspection. Reporting of environmental problems will be on an exception basis. If a particular problem is identified as requiring further action, the problem statement will remain on the site inspection form until such time the action has been completed. To ensure follow up action, the Airport Manager will discuss the problem and action with the Airport Authority or the applicable tenant.

The Springbank Airport Operations Monthly Report to the Board of Directors also identifies and tracks Bird and Wildlife Incidents, Noise Items and any other issues of interest.

External Auditing:

Tenant Environmental Management Systems and Compliance Audits

The Authority conducts annual audits of one tenant to evaluate environmental management systems (EMS) and specific issue compliance. Although the audit is not designed to evaluate tenant processes, an understanding of the tenant operations will be required to enable the auditor to properly assess the impacts of the tenant operations on areas of the Authority's responsibility e.g. water quality.

Tenants with large quantities of hazardous materials or whose operations have the potential to impact the airport's environment are given priority when establishing tenant audit schedules. Sub-leases will fall under the primary tenant responsibility.

Best Management Practices

Where applicable, guidance on best management practices to some airport environmental issues can be accessed through Transport Canada's guidance documents. Such documents as:

- TP 12233 Airport Water Quality Manual
- TP 13549 Sharing the Skies
- TP 1247 Land Use in the Vicinity of Airports
- TP 9946 Airport Environmental Emergency Manual

Assist in the development of “due diligence” in programs where there is no direct regulatory requirement.

The Authority is a member of the Canadian Airports Council Environmental Committee. This committee is comprised of environmental managers from the Airport Authorities across Canada. The committee develops airport environmental guidelines in areas not covered by government guidelines or other industry standards.

The Authority also polls other industry environmental experts through the Environmental Affairs Committee to ensure the consideration of applicable best management practices.