



ENVIRONMENTAL MANAGEMENT PLAN

EDMONTON INTERNATIONAL AIRPORT

May 2019

Foreword

Welcome to the 2019 Environmental Management Plan for Edmonton International Airport (EIA). This document represents an update to the 2017 plan and provides the results of an external strategic review of environmental management based on the 2019-2023 Corporate Strategic Plan.

To enhance this version of the plan, the update timing and finalization of the plan was adjusted to include consideration for the 2019-2023 Corporate Strategic Plan and 2019 Business Plan. Therefore the plan title has been advanced to reflect the upcoming year versus the past year (2018 plan versus 2019 plan). Enhanced internal stakeholder consultation was conducted during the update to this plan, which included staff members from the various internal groups to add different perspectives to the aspect prioritization exercise. And the external stakeholder inventory continued to grow, due to the increase and diversity of EIA tenants.

The previous plan identified a number of environmental program areas for improvement that have contributed to successes in environmental management which include:

- Develop programs for Hazardous Building Materials and Tenants
- Analyze the iron issue for the storm water system
- Establishing an energy management policy and program for EIA
- Actively pursuing federal and provincial grant funding for projects to improve energy efficiency and greenhouse gas emission reductions
- Recertify at Airport Carbon Accreditation Level 1 and evaluate requirements for achieving Level 2
- Implement spent deicing fluid shipping to recycling facility
- Improved recycling capabilities for maintenance waste streams
- Enhanced environmental communication to internal leaders and stakeholders, tenants, and contractors

Looking forward in the updated plan, the following planned activities will continue to add value and move us beyond compliance in environmental management through:

- Conducting a strategic analysis of aircraft deicing at EIA
- Updating and verifying the EIA greenhouse gas emissions inventory
- Implementing the cogeneration project
- Conducting a risk assessment and prioritizing the information required for hazardous building materials inventories
- Preparation for an operational transition of the EIA storm water treatment system
- Exploring organics and glass recycling with airline partners
- Considering a review of the previous N70 community impact model
- Revision of internal procedures to reflect changes to the Canadian Impact Assessment Act (proposed in Bill C-69)
- Implementing the ECO Plan framework for construction projects

We are proud of our efforts to improve our environmental stewardship and reduce airport impacts on our community, as we fulfil our corporate mission and vision.

Steve Maybee,

Vice President, Operations and Infrastructure

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1.0 Introduction

In the interests of the region we serve, Edmonton Airports (EA) considers sustainability across social, economic and environmental aspects of our operations. This means managing the community's airport assets responsibly, supporting environmental stewardship and contributing to the region's social well-being and quality of life. Sustainability is not a postscript to our operations. It is part of the way we do business, and the foundation on which we rely for current and future success.

EA offers many services, manages airport lands and co-ordinates the many components of aviation at Edmonton International Airport (EIA). We seek to reduce EIA's environmental impact while offering the safest and highest quality service. Successful service delivery and airport management depends on conscientiously using land, air, water and energy, which requires the responsible management of our resources.

This Environmental Management Plan (EMP) supports environmentally sound and responsible management of EIA operations. It updates and replaces previous Environmental Management Plans. The first part of the plan provides background information on EA and EIA. The environmental management systems, environmental policy and programs are outlined in the second section. Plan details, performance and accountabilities are discussed in the final sections.

1.1 BACKGROUND

Since EIA's 1960 beginnings, EIA has evolved into the fifth-busiest airport in Canada by passenger traffic. Under a lease agreement in 1992, EIA was transferred from Transport Canada to the Edmonton Regional Airports Authority (ERAA). The corporation is not-for-profit, and all income and surpluses must be applied to the promotion of our purpose. By law, the ERAA does not have equity shareholders and does not have to provide any external body with an equity interest in our organization.

EA is led by an independent Board of Directors made up of up to 15 appointees, and can include two Directors at Large. Six Directors are appointed by the City of Edmonton, two by the Government of Canada, and one each by Leduc County, the City of Leduc, Parkland County, Strathcona County and Sturgeon County. The Board includes respected business and community leaders who bring a broad range of expertise and diverse backgrounds that make an invaluable contribution to fulfilling EA's regional mandate.

The Regional Airports Authorities Act of 1989 governs airport authorities in Alberta. The Edmonton Regional Airports Authority (widely known as Edmonton Airports) was established under the act in 1990. Transport Canada officially handed the management of EIA to EA on August 1, 1992. EA leases the EIA lands from Transport Canada. EA also owns Villeneuve Airport, a smaller, general aviation airport. The Airport Authority is legally and financially independent. No government or other body has control over the assets of the Authority, nor are they liable for the debts of the Authority.

1.2 CORPORATE FOUNDATION

New in the 2019-2023 Strategic Plan is the inclusion of an overarching Noble Cause – “Uniting people for a world of new possibilities”. This was developed after a review of the guiding principles of the organization and reflecting on the current corporate Vision, Mission, Goals, and Core Values. The growth of air service and its positive economic impact on the community is central to our business decision-making, as Edmonton International Airport connects the Edmonton Metro Region with the world, and the noble cause identified highlights that potential.

The mission of EA is to drive our region’s economic prosperity through aviation and commercial development. Our vision is simple: More Flights to More Places. In efforts to achieve our corporate vision and mission at Edmonton Airports we aim to remain true to our five core values – Safety and Security First, Invested in Our Talent, Doing the Right Things Right, Owning the Outcome and Dedicated to Sustainability.

We continue to focus on our long-term financial sustainability and, starting in 2019, are placing a heavier emphasis on the organization’s financial performance in our corporate objective weightings.

The five key strategies to deliver our Noble Cause, Mission, and Vision are unchanged from the last plan update. By implementing the strategies, we can achieve our strategic objectives and goals.

1. Retain and Grow Passenger Market Demand

EIA’s market development teams are dedicated to providing more flights to more places to deliver value our community, which also acts internally as the primary revenue driver improving our financial sustainability. While executing on the above strategies, we track our revenue, EBITDA margin, passenger number and airline cost per enplanement to measure achievement of our objectives.

EIA grows and defends air service through two integrated methods: delivering value to our airline partners (supply) and earning passengers and cargo sales development (demand). Balancing both strategies, EIA team members co-plan their activities in close collaboration with all our airline partners.

To drive this strategy forward, the focus areas for projects and tactics include regional hub, international inbound, cargo, and ultra-low cost carriers.

2. Grow Non-aeronautical Revenue

Our airport is an important regional economic driver. The growth of the investments on our property support Alberta’s and the Edmonton Metropolitan Regions’ image in Canada and internationally.

Non-aeronautical initiatives (including parking and ground transportation, concessions and real estate) play a key role in our success and fulfilling our strategic objective of financial sustainability. Our strategy to grow non-aeronautical revenue and its contribution to total revenue enhances the passenger experience by offering desirable product and service offerings, which supports and, in some situations, drives passenger and cargo demand development.

To drive this strategy forward, the focus areas for projects and tactics include real estate, concessions, parking and ground transportation, and specialized airport advisory services.

3. Create Exceptional Customer Experiences

To move 10 million passengers per year through EIA by 2025 requires a leading-edge core business. We developed this strategy to fulfill the strategic objectives of enhancing passenger experience and enhancing airline productivity, thereby focusing on the needs and interests of our two primary customers: passengers and airlines. Operational excellence is essential to all elements of our business and services, from infrastructure design and operational procedures to technological advancements that better serve our customers. Supporting airline partners with efficient core operations is a key part of our strategy. And by optimizing the functionality of our existing terminal, we will provide increased service levels using existing infrastructure and delaying the construction of new assets until demand exceeds capacity.

To drive this strategy forward, the focus areas for projects and tactics include passenger satisfaction and airline productivity.

4. Positive Impact through Sustainability

Edmonton Airports endeavors to drive positive impact on our stakeholders: the community, airlines, government, passengers, business partners, employees, the general-public and the environment. Particularly as we grow, we must remain committed to sustainability and our interest in communally beneficial growth that aligns with and reflects the interests of our stakeholders. Long-term collaborative growth will maintain and increase our social licence to operate and expand.

To drive this strategy forward, the focus areas for projects and tactics include transparency, awareness, and engagement efforts with partners and stakeholders.

5. Employee Success

Our employees are essential to our success. Our workforce of skilled, committed professionals is the key to delivering our brand promise: we'll move you. Our overall people objective is simple – engage employees to perform at their best to fulfill our corporate mission. Our human resources approach and strategies are designed to continually increase employee engagement, further advance our high-performing culture, and to inspire employee innovation.

To drive this strategy forward, the focus areas for projects and tactics include employee experiences, leadership training, health, safety & wellness, and increasing talent agility.

1.3 AIRPORT SETTING

EIA serves as a gateway between the Edmonton Metro Region to western and northern Canada and the world. The facilities and services reflect the vitality and sophistication of Alberta's capital city. The airport operates 24 hours per day, 365 days per year and serves 60 non-stop destinations. EIA has two runways which are used to efficiently and effectively move people and goods in and out of the region.

The Edmonton Metro Region includes 35 census subdivisions. In addition to Edmonton, there are four additional cities, one specialized municipality, three municipal districts, ten towns, four villages, eight summer villages, and four First Nations reservations. The Edmonton Metro Region is the largest Census Metropolitan Area (CMA) in Canada by area at 9,426.73 square km and the fifth largest CMA by population.



EIA is positioned within the south central area of the Metro Region, and is located within Leduc County. Leduc County is a rural, northern prairie locale, which serves as the host municipality for the airport. The County is a dynamic municipality providing the opportunity for diverse lifestyles, including acreage living, industry, and a variety of farm operations.

1.4 SURROUNDING LAND USE

Land use and the distribution of population around the airport are important elements when considering potential impacts of aviation activities on the surrounding communities. We consider the different interests of our neighbouring stakeholders who are not only business and government partners, but also passengers and community residents. A provincial planning regulation is in place (the Airport Vicinity Protection Area Regulation) to provide land use compatibility, which allows the airport to grow while protecting land owners from aviation noise impacts.

EIA is located 30 km south of downtown Edmonton and after the recent annexation of lands by the City of Edmonton, it now falls along the southern edge of Edmonton's City limits, placing a majority of the region's population immediately north of the airport property. Edmonton's land uses within the southern areas of the city include residential, commercial and industrial.

To the immediate south, bordering on airport lands, is the city of Leduc with more than 31,130 residents. Leduc's land uses encompass residential and commercial, with industrial uses being concentrated in the northeastern area of the city.

The town of Devon is located approximately seven km west, with a population of over 6,500 residents. Land between Edmonton International Airport and Devon are used for agriculture, and Devon's land uses are primarily residential and commercial, with recently annexed lands planned for industrial development.

Approximately thirteen km southwest, separated from the airport by agricultural lands, is the town of Calmar, with a population of over 2,200 residents.

Located immediately to the east is Nisku Industrial Business Park, which accommodates over 400 diverse businesses. Approximately eight km northeast of EIA is the town of Beaumont, with a population of over 18,800 residents. The land between Nisku and Beaumont is agricultural and country residential.

Major transportation corridors border the northern (Highway 19) and eastern (Highway 2) property boundaries, and another corridor (Highway 39) is just south of airport property.

1.5 ENVIRONMENTALLY SENSITIVE FEATURES

A tributary of Whitemud Creek, which traverses the west side of the airport property, is one of the most sensitive environmental features at EIA. Much of the collected airport storm water is discharged into the tributary, and portions of the tributary have rare, undisturbed riparian areas. Any development along the western side of the property must consider and accommodate the water body, which will include involvement of regulatory and licensing authorities. Water discharges off the eastern part of airport property eventually flow into Blackmud Creek, which, while less sensitive than Whitemud Creek, must still be given due consideration in the regional context.

Regarding off-airport property, water bodies such as Telford Lake and Saunders Lake are located two km southeast and five km east respectively, and can influence bird activity in the region. Also, the Leduc and District Regional Sanitary Landfill has been in close proximity to both lakes and the airport for the past 25 years.



1.6 CURRENT STRATEGIC OBJECTIVES

Within Edmonton Airports' 2019–2023 Strategic Plan, EA uses a balanced scorecard as a comprehensive framework to translate the company's vision and strategy into a coherent set of performance measures. This tool views the organization from a holistic range of perspectives and articulates desired outcomes and the drivers of those outcomes. EA's scorecard is organized across five key categories:

- Financial: Improve Financial Sustainability
- Passenger: Enhance Passenger Experience
- Community: Improve Social, Environmental and Economic Impact
- Operations: Enhance Airline Productivity and Internal Effectiveness
- Learning & Growth: Improve Employee Engagement, Performance, and Well-being

Within these categories, targets are set to drive the achievement of the strategic objectives. Those targets are used to inform this plan to establish the key focus areas that could be considered of greatest corporate interest over the strategic plan horizon.

1. Financial: Improve Financial Sustainability

- Grow Free Cash Flow for Investment
- Optimize Returns on Investment Projects
- Attract Airlines

2. Passenger: Enhance Passenger Experience

- Grow Air Service
- Improve Customer Experience
- Improve Security Screening Experience

3. Community: Improve Social, Environmental and Economic Impacts

- Manage Airport Carbon Emissions
- Play an Active Role in Supporting Our Communities
- Drive Regional Economic Growth

4. Operations: Enhance Airline Productivity

- Optimize Use of Airport Facilities
- Improve Operational Processes

5. Learning & Growth: Improve Employee Engagement, Performance and Well-Being

- Increase Employee Effectiveness
- Promote a Culture of Health and Safety

Within the plan, particular attention will be paid to these areas, to understand how they create risk of impact to the environment, and how the risks can be managed through our programs.

1.7 CURRENT EXTERNAL STRATEGIC INFLUENCES

While the current strategic plan includes considerations for external influences on our corporate strategies, specific influences on our environmental plan should also be understood and reflected in our identification of aspects and their strategic significance.

1.7.1 Airport Council International – North America (ACI-NA) Environmental Goals

EIA is an active member of ACI-NA. In 2015, ACI-NA updated their aspirational environmental goals with specific suggested actions that can be taken to help achieve the goals. The goal areas include:

- Greenhouse Gas Emission Reductions
- Noise Management
- Compatible Land Use
- Management of Deicers
- Local Air Quality
- Energy Conservation
- Water Use Efficiency
- Solid Waste Reduction
- Environmental Management Systems

These goal areas were considered in the identification of environmental aspects in Section 4.1.

1.7.2 Airport Council International Airport Carbon Accreditation

The Airport Carbon Accreditation (ACA) program is a voluntary global carbon management standard specifically designed for airports. The program was developed to encourage and enable airports to implement best practices in carbon management and reduce their carbon dioxide emissions. The program is comprised of four progressive levels of accreditation towards the ultimate goal of carbon neutrality. The four levels are described below.

- **Level 1 Mapping** – Establishing a policy commitment to reduce emissions and completing a carbon footprint, which includes an inventory of the airport’s scope 1 and 2 emissions (emissions from sources owned and/or controlled by the airport).
- **Level 2 Reduction** – Setting carbon reduction targets and the development of a carbon management plan to achieve the targets. Demonstration of a reduction of scope 1 and 2 emissions over a three year period.
- **Level 3 Optimization** – Expand the carbon footprint to include scope 3 emissions (indirect emissions which are a consequence of the activities at the airport from sources not owned or controlled by the airport) and develop a stakeholder engagement plan.
- **Level 4 Neutrality** – Offset residual emissions under the airport’s control to become carbon neutral for scope 1 and 2 emissions.

EIA maintained ACA Level 1 certification, which demonstrates EIA’s ongoing commitment to reducing emissions. Continued participation in the program encourages moving through the certification levels as an airport improves their energy usage and reduces their carbon emissions.



2.0 Environmental Policy

2.1 OVERVIEW

Through our corporate core value of sustainability, EA is committed to being a responsible steward of the environment. We at EA understand that protecting the environment is in the best interests of our employees, customers, stakeholders and community.

2.2 PURPOSE

This Environmental Policy encourages continuous improvement of the corporation’s effective environmental performance while balancing financial and social considerations with environmental efforts. The policy fully supports EA’s Vision, Mission and Core Values.

2.3 POLICY STATEMENT

To successfully and sustainably implement this policy, EA shall:

- Comply with all applicable environmental laws and regulations
- Minimize risk and contribute to improved economic performance through the implementation of environmental plans and programs that are appropriate to the nature and scale of EA's airports
- Set environmental goals and report our performance publicly
- Plan and grow our properties and facilities in a sustainable fashion, by ensuring environmental considerations are included in every development decision
- Actively pursue carbon management and energy efficiency, pollution prevention and waste reduction programs, where appropriate, to reduce our impact on the environment and maximize operational cost effectiveness
- Encourage and support prudent environmental principles and practices within our supply chains
- Communicate with employees, regulatory agencies, customers and community regarding our environmental activities

EA's current environmental policy establishes our commitment and approach to environmental matters, which informs the environmental plan.

The commitment is relevant to the environmental aspects, in that consideration for aspects must extend beyond areas related to compliance. There are specific references to areas that are not influenced by regulations, which therefore require a broader consideration of risks and impacts.

The approach can be summarized as balancing environmental risks and impacts against social impacts and cost. Regulatory compliance is required as a minimum: however, the reduction of impacts should be considered as an investment in environmental performance.



2.4 COMPLIANCE OBLIGATIONS

Since aviation is federally regulated and EIA is located on federal property, federal acts and regulations must be satisfied. Federal guidelines must also be considered within the environmental aspects, in the interest of due diligence for EA.

In the absence of federal regulations associated with our environmental aspects, provincial regulations will be utilized to attain environmental due diligence and guide performance, and will be explicitly referenced in the associated program.

EA expects tenants at EIA to abide by all applicable environmental acts, regulations and standards, which are supported in the lease agreements. Airport tenants are expected to understand their environmental responsibilities and adhere to their leases.

2.4.1 Beyond Compliance

While compliance with environmental regulatory obligations is essential, it is not the limit of our efforts in environmental stewardship. There are strategic benefits to being 'Beyond Compliance', as definitive value can be added by applying additional effort in select areas of environmental management. Therefore to support EA's strategies, environmental programs can contain efforts that exceed regulatory compliance to better manage risks, drive performance and be prepared for changing or new regulatory requirements.

2.5 STAKEHOLDER INTERACTION AND SENSITIVITIES

EA consults extensively with stakeholders at the corporate level in a number of different areas associated with our business activities.

In the context of this plan, stakeholders fall into four general categories: internal, external, industry, and regulators. Internal stakeholder interaction focuses on the relationships between the various strategic business units (SBUs) within EA, to consider how their efforts can create environmental risks and impacts. External stakeholders focus on those groups within the region that are influenced and impacted by our activities (e.g. communities, neighbouring municipalities, etc.). Industry stakeholders are differentiated from external to ensure that aviation specific interests are understood (e.g. airlines, aviation service providers, NAV CANADA, etc.). Regulatory stakeholders are essentially the regulatory authority having jurisdiction for the particular area in question (e.g. Transport Canada, Environment Canada, etc.); some regulators encourage efforts beyond compliance, often through voluntary programs to enhance performance and due diligence.

We engage internal stakeholders for each plan update to maintain an inventory of external, industry and regulator stakeholders in relation to the commitments in our policy, relevant aspects, and the key focus areas from our current



corporate targets. Internal engagement is conducted to ensure a broad view of EIA's business interests are properly reflected in the stakeholder inventory, as well as to learn about employee perceptions of EIA's most significant environmental impacts and issues.

The internal stakeholder group has continued to expand over the yearly updates, including the 2018 plan, to accommodate internal structural changes made to reflect corporate strategic priorities. The external and industry stakeholder inventory was reviewed by the internal stakeholders, and new stakeholders were added to the current inventory to reflect their relevance under the current strategic priorities.

As well, additional EA staff were included in the internal engagement efforts to inform and educate participants, and to solicit different perspectives on the aspects and improvement initiatives.

2.6 STAKEHOLDER CONSULTATION WITH EXTERNAL PARTIES

No external stakeholder consultation was conducted as part of the 2018 plan update. Efforts will continue to be made to increase our communication with external stakeholders and explore opportunities for collaboration on mutually important environmental aspects.



3.0 Environmental Management System

EA has an established Environmental Management System (EMS) to ensure operations and activities at EIA are conducted in an environmentally responsible manner and to ensure EIA's environmental policy is achieved. The basic framework of the EA EMS is compatible with the requirements of the ISO 14001 international Environmental Management System standard. The EMS assists in achieving continuous improvement in environmental performance and to ensure EIA consistently meets environmental, regulatory, community and employee obligations.

3.1 COMPONENTS OF THE ENVIRONMENTAL MANAGEMENT SYSTEM

The EMS components include, but are not limited to, the following:

- 3.1.1 Environmental Policy
- 3.1.2 Environmental Management Plan
- 3.1.3 Programs and Standard Operating Procedures
- 3.1.4 Reporting
- 3.1.5 Auditing
- 3.1.6 Communication
- 3.1.7 Training
- 3.1.8 Industry Involvement



3.1.1 Environmental Policy

The EA Environmental Policy is the cornerstone of our EMS. It establishes our public commitments to environmental stewardship, pollution prevention and continuous improvement. The policy is signed by the President and CEO to reflect the corporate commitment to and responsibility for our environmental pillar of sustainability.

3.1.2 Environmental Management Plan (EMP)

Within the context of the EMS, the EMP is the foundation for our EMS. It translates the commitments made in the Environmental Policy into actions delivered by the Programs and Standard Operating Procedures. This translation occurs by considering all the regulatory risks and strategic influences on the airport, understanding stakeholder sensitivities, and consequently identifying the environmental aspects of our business that should be treated to a level appropriate to the risk or opportunity that drives benefit for our stakeholders.

3.1.3 Programs and Standard Operating Procedures (SOP)

From the aspects identified in the EMP, programs are created to address risks and opportunities, which include how performance through continuous improvement can be delivered.

These programs are managed by the Environment and Operational Compliance Department and may be implemented and/or administered in conjunction with other EA departments. Performance metrics are aligned with corporate objectives, and feed into corporate reporting mechanisms.

Current programs at EIA are described in Appendix A.

3.1.4 Reporting

Performance driven by our programs is reported through the Sustainability Report, which follows the Global Reporting Initiative (GRI) framework. The GRI framework has established a set of performance metrics that tie into stakeholder expectations and provide transparency for our efforts to manage our environmental risks and opportunities. With the annual production of the Sustainability Report, the public will be able to track our performance over time.

3.1.5 Auditing

EA regularly audits our EMS to ensure all components are effective, regulatory compliance is being delivered by the appropriate programs and opportunities for system improvements are identified for consideration and implementation.

EMS audits are completed on a three-year cycle, using an independent external consultant. Audit findings are reported to EA Executive Management, who monitor and confirm the completion of corrective actions to address findings.

Transport Canada audits EA's environmental performance, as part of their oversight of compliance with the requirements of the EIA Ground Lease. Feedback from the audit process can be used to improve our system performance.

3.1.6 Communication

EA consults with the surrounding communities on appropriate environmental aspects, and is always available for consultation with external stakeholders on possible environmental issues that may impact EIA or be related to EIA activities. Specific consultation requirements are expressed within the program associated with the aspect in question.

3.1.7 Training

To ensure program elements are adequately understood, regular training occurs for EA staff, as well as targeted training for employees or tenants. EA also promotes regulator-offered environmental training opportunities within the airport community.

3.1.8 Industry Involvement

EA actively participates in the Canadian Airports Council Environment Committee and the Airport Council International–North America Environmental Affairs Committee to track regulatory developments and industry best practices for consideration as environmental aspects and opportunities for improvement of our programs.



4.0 Plan Details

4.1 DEFINITION OF ASPECTS

An environmental aspect is defined as an element of a facility's activities, products or services that can or does interact with the environment. These interactions and their effects may be continuous in nature, periodic or associated only with events such as emergencies. An environmental impact is defined as any change to the environment, whether adverse or beneficial, resulting from an organization's activities, products or services. A significant environmental aspect is one that may produce a significant environmental impact or require substantial efforts to manage.

4.2 IDENTIFICATION OF ASPECTS

Possible environmental aspects are identified through a review of organizational activities and specific operations that can carry risks and create impacts, consider the current airport environment and surroundings, and reflect on the airport's current strategic objectives. Aspects that are deemed to have a significant potential for impact and register as a high priority area for our stakeholders (internal and external) become the basis for environmental programs to manage the area in question.

Two distinct areas are reviewed for relevant aspects – areas of regulatory compliance and areas that present threats and opportunities to the achievement of our strategic business goals. The results of the review and an explanation of each aspect are provided in the table below.

In this plan update, Water Quality was changed to Surface & Groundwater Quality to more specifically reflect the nature of the upcoming challenges associated with airport growth and emerging contaminants in the industry (Poly- and Per-Fluoro Alkylated Substances). As well, the definition of Air Quality was expanded to include odors emanating from airport property due to airport and tenant facilities.

REGULATORY	THREATS & OPPORTUNITIES
 <p>ENVIRONMENTAL IMPACT ASSESSMENT Mitigate impacts during the planning, design, construction and operation of projects on airport lands.</p>	 <p>AIRCRAFT NOISE Noise from aircraft may be disruptive to residents within the vicinity of the airport.</p>
 <p>HAZARDOUS MATERIALS SPILL RESPONSE When hazardous materials are spilled, response measures are key to reduce potential environmental impacts as a result of the spill.</p>	 <p>AIRCRAFT DEICING Chemicals used to de-ice aircraft are managed to reduce impacts to storm water and other potential receptors.</p>
 <p>FUEL STORAGE SYSTEMS Storage tank systems containing various types of fuel are installed and operated to reduce the potential for environmental impacts.</p>	 <p>SUPPLY CHAIN Supply chain considers the environmental impacts of purchasing goods from suppliers and the impacts contractors may have on the environment.</p>
 <p>SURFACE & GROUNDWATER QUALITY Storm water runoff at the airport is managed to ensure that the water quality in the receiving waters is not impacted.</p>	 <p>ENERGY AND CARBON MANAGEMENT Responsible use of energy also results in reducing greenhouse gas emissions.</p>
 <p>OZONE DEPLETING SUBSTANCES Ozone depleting substances are managed to reduce environmental impacts.</p>	 <p>SOLID WASTE Efficient handling of waste streams from airport operations.</p>
 <p>IMPACTED SITES Impacted sites are managed to reduce contamination and environmental impacts.</p>	 <p>WATER USE Conserving potable water used at the airport.</p>
 <p>SPECIES AT RISK As part of the wildlife management plan, species at risk are protected on airport land.</p>	 <p>AIR QUALITY Management of air emissions that may impact the air quality of airport users, tenants, and the surrounding communities.</p>
 <p>HAZARDOUS BUILDING MATERIALS Management of building materials that may have environmental impacts upon disposal.</p>	 <p>LAND USE Planning so that land development is compatible with an airport situation and does not increase noise or environmental impacts.</p>
	 <p>GREEN BUILDING CONSTRUCTION AND OPERATION Construction and operation of buildings with enhanced features and requirements to reduce construction impacts and increase building performance.</p>
	 <p>TENANTS Monitoring of tenant environmental performance.</p>

4.3 SIGNIFICANCE OF ASPECTS

To identify the significance of the possible aspects, it is necessary to gather relevant feedback from internal EIA groups and external stakeholders to determine the aspects that can be deemed to have significant impact. Aspects that have significant impact are selected for the development of environmental programs to manage the aspect.

Significance of aspects is established by using a set of criteria for the evaluation of each aspect, which allows for a consistent comparison of the results. The criteria used cover a wide variety of considerations that include obligations (regulatory and contractual), possibility of increasing impact over time, ability to reduce impacts, our ability to directly control, amount of resources consumed, importance to internal and external stakeholders and relevance under the current strategic plan.

In 2017 EIA improved the evaluation criteria to determine the significance of the aspects. Two items were added to the list of criteria: the potential of environmental impacts to multiple receptors and the potential economic/monetary impacts or liability associated with the aspect. Consideration of these additional items in the ranking of each aspect provide a better understanding of the potential impacts, which is reflected in the significance of each aspect.

The results of the evaluation of significance are provided in Table 4-1. The table contains the rating for significance, (from highest of eleven, to lowest of five) the type of aspect and identification of emphasis areas identified by internal and external stakeholders through the consultation processes.

Table 4-1 – Significance of Aspects including stakeholder feedback

		Regulatory	Threat & Opportunity Aspect
TENANTS EXTERNAL STAKEHOLDERS: n/a INTERNAL STAKEHOLDERS: AS&CD RATING: 11 	HAZARDOUS BUILDING MATERIALS EXTERNAL STAKEHOLDERS: Regulatory INTERNAL STAKEHOLDERS: O&I, AS&CD, FIN RATING: 10 	SOLID WASTE EXTERNAL STAKEHOLDERS: External, Industry INTERNAL STAKEHOLDERS: O&I, FIN RATING: 10 	AIRCRAFT DEICING EXTERNAL STAKEHOLDERS: External, Industry INTERNAL STAKEHOLDERS: O&I, AS&CD RATING: 9 
LAND USE EXTERNAL STAKEHOLDERS: External INTERNAL STAKEHOLDERS: O&I, CC, AS&CD RATING: 9 	SURFACE & GROUND WATER QUALITY EXTERNAL STAKEHOLDERS: Industry, Regulatory, External INTERNAL STAKEHOLDERS: O&I, CC RATING: 9 	ENERGY AND CARBON MANAGEMENT EXTERNAL STAKEHOLDERS: External, Industry INTERNAL STAKEHOLDERS: O&I, CC, AS&CD, FIN RATING: 8 	FUEL STORAGE SYSTEMS EXTERNAL STAKEHOLDERS: Regulatory, External INTERNAL STAKEHOLDERS: O&I, AS&CD RATING: 8 
IMPACTED SITES EXTERNAL STAKEHOLDERS: Regulatory INTERNAL STAKEHOLDERS: O&I, AS&CD RATING: 8 	SUPPLY CHAIN EXTERNAL STAKEHOLDERS: n/a INTERNAL STAKEHOLDERS: FIN RATING: 8 	AIRCRAFT NOISE EXTERNAL STAKEHOLDERS: External, Industry INTERNAL STAKEHOLDERS: CC RATING: 6 	ENVIRONMENTAL IMPACT ASSESSMENT EXTERNAL STAKEHOLDERS: Regulatory INTERNAL STAKEHOLDERS: O&I RATING: 6 
GREEN BUILDING CONSTRUCTION & OPERATION EXTERNAL STAKEHOLDERS: Industry, External INTERNAL STAKEHOLDERS: O&I, AS&CD RATING: 6 	HAZARDOUS MATERIALS SPILL RESPONSE EXTERNAL STAKEHOLDERS: Industry, Regulatory, External INTERNAL STAKEHOLDERS: AS&CD RATING: 6 	SPECIES AT RISK EXTERNAL STAKEHOLDERS: Regulatory INTERNAL STAKEHOLDERS: n/a RATING: 6 	AIR QUALITY EXTERNAL STAKEHOLDERS: Regulatory, External INTERNAL STAKEHOLDERS: n/a RATING: 5 
OZONE DEPLETING SUBSTANCES EXTERNAL STAKEHOLDERS: Regulatory, External INTERNAL STAKEHOLDERS: O&I RATING: 5 	WATER USE EXTERNAL STAKEHOLDERS: n/a INTERNAL STAKEHOLDERS: n/a RATING: 5 		

*O&I = Operations and Maintenance; AS&CD = Air Service and Commercial Development; CC = Corporate Communications; FIN = Finance

4.4 ADDRESSING SIGNIFICANT ASPECTS

Significant aspects require programs to manage the risks, threats and opportunities created by the aspect. Aspects of regulatory significance must meet the minimum requirements of the regulations, and also provide opportunities for enhancing our efforts to better manage risks and reduce impacts. These programs managed by the Environment and Operational Compliance (E+OC) group, under the Infrastructure and Energy SBU, and may be implemented and/or administered in conjunction with other EA departments and SBUs.

Aspects of significance that relate to areas of threat and opportunity should have programs established to enhance our efforts against the risks, to either manage the development of the threat or capitalize on the opportunity presented. These programs may be managed, implemented and/or administered by the various internal groups, given the cross-functional and collaborative nature of the various areas.

The evaluation of program needs for the significant aspects are indicated in Table 4-2. Most of the aspects have programs to manage the aspects, and some of the cross-functional programs may need to be improved over time to address changes in future strategic plans.

Table 4-2 – Program Evaluation

 Program Existing	 Existing Program to Be Enhanced	 Future Consideration	 Program Being Developed
 TENANTS	 HAZARDOUS BUILDING MATERIALS	 SOLID WASTE	 AIRCRAFT DEICING
 LAND USE	 SURFACE & GROUND WATER QUALITY	 ENERGY AND CARBON MANAGEMENT	 FUEL STORAGE SYSTEMS
 IMPACTED SITES	 SUPPLY CHAIN	 AIRCRAFT NOISE	 ENVIRONMENTAL IMPACT ASSESSMENT
 GREEN BUILDING CONSTRUCTION & OPERATION	 HAZARDOUS MATERIALS SPILL RESPONSE	 SPECIES AT RISK	 AIR QUALITY
 OZONE DEPLETING SUBSTANCES	 WATER USE		

Descriptions of the basis for the various programs to address the significant aspects are provided in Appendix A.

4.5 PROGRAM AREAS FOR IMPROVEMENT

For programs needing enhancement, Table 4-3 shows the possible initiatives associated with the aspect focus areas to be considered to address the current strategic influences, collected from both internal and external stakeholder feedback.

For this plan update, possible activities and initiatives have been identified across the various stakeholder groups, including E+OC, internal stakeholder departments and the external stakeholders consulted with in 2018. This information was collected during the internal and external stakeholder consultations, to fully reflect the upcoming efforts planned against the aspects by all groups within EA.

Table 4-3 – 2019 Program Activities and Initiatives

<p>SURFACE & GROUND WATER QUALITY</p> <p>E+OC DEPARTMENT: Prepare for system operational transition; Explore storm water utilization and improvement opportunity; Initial identification of options for addressing iron in the EIA storm water system</p> <p>INTERNAL FOCUS AREAS: n/a</p> <p>EXTERNAL STAKEHOLDER FOCUS AREAS: n/a</p>	<p>HAZARDOUS BUILDING MATERIALS</p> <p>E+OC DEPARTMENT: Risk assessment and prioritization for building inventory</p> <p>INTERNAL FOCUS AREAS: Researching alternative assessment options</p> <p>EXTERNAL STAKEHOLDER FOCUS AREAS: n/a</p>
<p>AIRCRAFT DEICING</p> <p>E+OC DEPARTMENT: Improve spent fluid recovery;</p> <p>INTERNAL FOCUS AREAS: Strategic assessment for future needs</p> <p>EXTERNAL STAKEHOLDER FOCUS AREAS: n/a</p>	<p>SOLID WASTE</p> <p>E+OC DEPARTMENT: n/a</p> <p>INTERNAL FOCUS AREAS: Improve recycling capabilities for maintenance waste streams; Explore organics and glass recycling with airline partners; Explore options for used grease</p> <p>EXTERNAL STAKEHOLDER FOCUS AREAS: Improve recycling programs and reduce waste</p>
<p>TENANTS</p> <p>E+OC DEPARTMENT: Implement program to monitor tenant environmental performance</p> <p>INTERNAL FOCUS AREAS: Initiate environmental specific communication</p> <p>EXTERNAL STAKEHOLDER FOCUS AREAS: Explore opportunities for collaboration on environmental programs</p>	<p>FUEL STORAGE SYSTEMS</p> <p>E+OC DEPARTMENT: n/a</p> <p>INTERNAL FOCUS AREAS: n/a</p> <p>EXTERNAL STAKEHOLDER FOCUS AREAS: n/a</p>
<p>IMPACTED SITES</p> <p>E+OC DEPARTMENT: Initiate PFAS assessment for site; Establish protocol and criteria for returning properties;</p> <p>INTERNAL FOCUS AREAS: n/a</p> <p>EXTERNAL STAKEHOLDER FOCUS AREAS: Weed management program; Road salt management program</p>	<p>SUPPLY CHAIN</p> <p>E+OC DEPARTMENT: n/a</p> <p>INTERNAL FOCUS AREAS: Environmental conditions added to supply chain contracts; Paper reduction initiative; Electronic bid submission</p> <p>EXTERNAL STAKEHOLDER FOCUS AREAS: n/a</p>
<p>ENERGY AND CARBON MANAGEMENT</p> <p>E+OC DEPARTMENT: Update and verify GHG emissions inventory;</p> <p>INTERNAL FOCUS AREAS: Implement energy management plan; Explore policy for 'electric vehicles only' in the bag rooms; Monitor federal and provincial programs for funding availability; Expand transit use; Explore GPS trackers for buses and electric charging stations</p> <p>EXTERNAL STAKEHOLDER FOCUS AREAS: Develop greenhouse gas emissions action plan; Increase flight efficiency through technology and procedural enhancements; Energy efficient appliance and equipment purchasing program</p>	<p>HAZARDOUS MATERIALS SPILL RESPONSE</p> <p>E+OC DEPARTMENT: n/a</p> <p>INTERNAL FOCUS AREAS: n/a</p> <p>EXTERNAL STAKEHOLDER FOCUS AREAS: n/a</p>

<p>SPECIES AT RISK</p> <p>E+OC DEPARTMENT: n/a</p> <p>INTERNAL FOCUS AREAS: n/a</p> <p>EXTERNAL STAKEHOLDER FOCUS AREAS: n/a</p>	<p>AIRCRAFT NOISE</p> <p>E+OC DEPARTMENT: Review N70 model for potential update</p> <p>INTERNAL FOCUS AREAS: n/a</p> <p>EXTERNAL STAKEHOLDER FOCUS AREAS: n/a</p>	<p>LAND USE</p> <p>E+OC DEPARTMENT: n/a</p> <p>INTERNAL FOCUS AREAS: n/a</p> <p>EXTERNAL STAKEHOLDER FOCUS AREAS: Conserve environmentally significant lands.</p>	<p>ENVIRONMENTAL IMPACT ASSESSMENT</p> <p>E+OC DEPARTMENT: Revise program to meet new regulatory requirements; Implement revised assessment process</p> <p>INTERNAL FOCUS AREAS: ECO Plans for construction projects</p> <p>EXTERNAL STAKEHOLDER FOCUS AREAS: n/a</p>
<p>OZONE DEPLETING SUBSTANCES</p> <p>E+OC DEPARTMENT: n/a</p> <p>INTERNAL FOCUS AREAS: n/a</p> <p>EXTERNAL STAKEHOLDER FOCUS AREAS: n/a</p>	<p>POTABLE WATER USE</p> <p>E+OC DEPARTMENT: n/a</p> <p>INTERNAL FOCUS AREAS: n/a</p> <p>EXTERNAL STAKEHOLDER FOCUS AREAS: n/a</p>		
<p>AIR QUALITY</p> <p>E+OC DEPARTMENT: n/a</p> <p>INTERNAL FOCUS AREAS: n/a</p> <p>EXTERNAL STAKEHOLDER FOCUS AREAS: Air quality monitoring; Managing the community air shed.</p>	<p>GREEN BUILDING CONSTRUCTION AND OPERATIONS</p> <p>E+OC DEPARTMENT: n/a</p> <p>INTERNAL FOCUS AREAS: n/a</p> <p>EXTERNAL STAKEHOLDER FOCUS AREAS: n/a</p>		

5.0 Performance

Corporate performance is driven by the corporate strategic plan. EA has a systematic process to establish, implement and measure corporate objectives and targets, which includes consideration for objectives and targets to improve environmental performance.

5.1 PLAN IMPROVEMENTS

Some new features have been added to this year's development process to evolve, improve, and enhance the plan results, which are described in greater detail in the associated previous sections. Some process improvements include:

- Adjustment of the plan title from the previous year (2018) to the current year (2019), due to the change in plan update timing to fall after corporate strategic plan updates and business planning
- Adjustment of the former Water Quality aspect, now called Surface and Groundwater Quality
- Addition of odors as a factor in the Air Quality aspect
- Expansion of the internal stakeholder departments consulted with during plan development, and the inclusion of department staff in the process to educate and inform, as well as gain new perspectives on the aspects
- Addition of more overall stakeholders to the current external stakeholder inventory
- Recognition of growing external stakeholder group composition that includes cargo support and non-aviation commercial business partners



5.2 CURRENT OBJECTIVES

A current corporate performance objective from the 2019–2023 Strategic Plan that tracks to a specific aspect is the 2023 target for carbon neutral growth for scope 1 and 2 greenhouse gas emissions between 2014 to 2023. This objective aligns with the significance identified for the Energy and Carbon Management aspect in the 2018 EMP.

Within the 2019 Business Plan, several targets have been set by the various EA Strategic Business Units that align with our top aspects of significance:

- **Energy and Carbon Management**
 - Air Service and Commercial Development – Increase public transit ridership
 - Operations and Infrastructure – Reduce Total Annual Air Terminal Complex Energy Intensity
- **Solid Waste**
 - Digital and Corporate Communications – Reduction in Printing

5.3 FUTURE OBJECTIVES AND TARGETS

Examining the indicators used in our Global Reporting Initiative (GRI) Sustainability Report provides many examples of areas for possible performance enhancement in environmental management. Where materiality for a reporting indicator has been established that aligns with a current management program and stakeholder feedback, the indicator should be considered in strategic plans for adoption to support performance efforts.

6.0 Accountabilities

- It is the responsibility of the President and CEO to ensure compliance with the environmental policy
- The Edmonton Airports Executive Management Committee are responsible for reviewing and approving this environmental management plan
- The Vice President, Operations and Infrastructure provides leadership, direction and management for the regulatory aspect areas identified in this plan
- The Vice Presidents of the other SBUs provide leadership, direction and management for Threat and Opportunity aspect area identified in the plan, as appropriate
- Environment and Operational Compliance group maintains the EMS and provides professional environment management knowledge and support to all departments
- All EA employees are responsible for, and expected to abide by EA's environmental policy
- Airport tenants are required to understand their environmental obligations and abide by all applicable environmental regulations (e.g. spill response)

6.1 UPDATE TIMING

The EMP is reviewed on a yearly basis and updated as necessary. The review has now been timed to occur after the yearly update of the current EIA Strategic Plan and Business Plan for the upcoming year, as the EMP is linked into the corporate strategic objectives.

7.0 Canadian Environmental Assessment Act Reporting

Edmonton Airports completed environmental evaluations on 216 projects in the Fiscal Year 2018. The determinations for the projects evaluated are as follows:

- Projects Not Likely To Result in Significant Adverse Environmental Effects – 216
- Projects Likely To Result in Significant Adverse Environmental Effects - 0

8.0 Closing

As a responsible member of the Edmonton Metro Region, EA is committed to fulfilling its environmental policy. EA welcomes comments or suggestions for improvements of this plan or our environmental practices.

Appendix

EXISTING PROGRAMS

Summarized below are descriptions of each program under the Environmental Management System.

REGULATORY

Environmental Impact Assessment

The purpose of this program is to ensure EIA meets the requirements of the Canadian Environmental Assessment Act (CEAA), 2012. Projects defined under Section 67 of CEAA environmental impacts are identified, avoided, or mitigated during the planning, design, construction and operation of all new projects. Environmental impacts are not limited to change of air, soil and water quality but also extend to impacts on personal safety, social well being, wildlife, habitat and aesthetics. The Environment and Operational Compliance department works with other departments at the project initiation stage to ensure sustainable development is achieved. EIA uses the Facility Alteration Permit process to review and monitor all new construction activities.

Related Aspects – Land Use, Species at Risk

Hazardous Materials Spill Response

The use of hazardous materials is necessary for the day-to-day operations of any airport. The more often they are handled and used, the greater the possibility for accidental release into the environment. Hazardous material spills can have severe impacts on the environment by contaminating the soil and making their way into the ground water or other water supplies. An effective and efficient hazardous material spill response plan is necessary to minimize any detrimental effects to the environment and human health. The purpose of this program is to ensure proper assessment, management, cleanup, and regulatory compliance of any hazardous materials spill occurring at EIA.

Related Aspects – Impacted Sites, Tenants

Storage Tank Systems

Various storage tanks at EIA are used to store diesel fuel or gasoline. Contamination of soil and water resources can occur through the leakage of storage tanks, or by spillage at refueling areas. The purpose of this program is to allow EIA to practice environmentally sound storage tank management, comply with regulatory obligations and prevent the release of substances to the environment. Applicable EIA and tenant fuel storage tanks are registered with the Environment Canada on their Storage Tank for Petroleum and Allied Petroleum Products program.

Related Aspects – Hazardous Materials Spill Response, Impacted Sites, Tenants

Water Quality

There is always a risk that substances commonly associated with airport operations can enter the stormwater system, sanitary system or groundwater as pollutants. To ensure compliance with water quality regulations, licenses, and guidelines, airport water systems are sampled and monitored on a regular basis. The purpose of this program is to provide background information and guidance on water quality issues, sampling procedures, regulatory requirements and sample analyses.

Related Aspects – Aircraft Deicing

Ozone Depleting Substances

Ozone Depleting Substances (ODS) are compounds which, upon decomposition, destructively interact with the earth's ozone layer, resulting in ozone depletion. Of particular concern for their ozone depletion capabilities are halons (bromofluorocarbons), chlorofluorocarbons (CFC), hydrochlorofluorocarbons (HCFC) and hydrofluorocarbons (HFC). Halons are used in fire extinguishing equipment, primarily for electrical fires and in portable extinguishers, while the other substances are used as refrigerants in air conditioners and cooling systems.

The purpose of this program is to ensure compliance with applicable federal regulations and to minimize the potential ozone depleting effects of ODS by recovering, containing and monitoring the use of ODS containing material/equipment.

Related Aspects – Energy and Carbon Management

Environmentally Impacted Sites

The purpose of this program is to allow EIA to manage contaminated sites at the airport in conjunction with Transport Canada and reduce any potential risks and long-term liabilities. Transport Canada is responsible for the contaminated sites that existed at the Edmonton International Airport prior to 1992 transfer. However, many of the properties across Canada are managed on a priority basis. EIA continues to work with Transport Canada to ensure that contaminated sites are managed in accordance with the Treasury Board's Federal Contaminated Sites Management Policy.

Related Aspects – Hazardous Materials Spill Response, Tenants

Species at Risk

Species at risk are managed through the airport's wildlife management program. Controls are put into place to discourage wildlife from frequenting the airport lands to reduce impacts to both wildlife and aircraft. A survey was completed at the airport and no species at risk were identified within the vicinity of the airport.

Related Aspects – Environmental Impact Assessment, Land Use

THREATS AND OPPORTUNITIES

Solid Waste

As EIA continues to expand, both in size and in passenger volumes, the generation of waste products will grow. Waste is not something that should be discarded or disposed of with no regard for future use, and it can be a valuable resource if addressed correctly, through policy and practice. With rational and consistent waste management practices there is an opportunity to reap a range of benefits, including economic, social, environmental impact and inter-generational equity. The purpose of the program is to understand the EIA waste streams and develop and deliver targeted efficiencies in handling and disposal of facility and aviation (domestic and international) wastes, which balance cost against benefits.

Related Aspects – Tenants, Supply Chain, Green Building Construction & Operations

Energy and Carbon Management

This topic is now well entrenched within the aviation industry, with significant work being done on all aspects of GHG emissions related to aviation activity. So, any GHG management program will be continually evolving to reflect global, national and regional interests. For example, economically based carbon management measures have yet to be firmly established in any jurisdiction, but the potential opportunities and threats that those measures will create cannot be fully understood and planned against at this time. The aviation industry expects all groups to participate in GHG emissions management, to the fullest extent possible, but stop short of establishing strict requirements in any area. The key to success in managing emissions is to instead look for energy efficiency opportunities across airport facilities, which translate to more tangible benefits like cost savings and reduction of infrastructure investment. The purpose of the program is to understand EIA carbon emissions sources for the purposes of developing and delivering usage and intensity reductions.

A greenhouse gas emissions inventory was completed in 2014 to understand the emissions created across EIA. In 2017, EIA achieved the international Airport Carbon Accreditation for mapping the airport's carbon footprint. Airport Carbon Accreditation is in line with the GHG Protocol and ISO 14064 principles, and sets the framework and management system to develop the carbon footprint and identify projects to reduce emissions. At the same time the program provides the opportunity for EIA to focus on emissions reductions and ultimately reach the goal to be carbon neutral.

Related Aspects – Tenants, Green Building Construction and Operation, Supply Chain

Aircraft Noise

EIA's noise management responsibilities are outlined in our ground lease with Transport Canada. Any initiatives undertaken are governed by the Aeronautics Act and the Canadian Aviation Regulations. EIA understands the need to balance regional expectations with continued growth for aviation travel while maintaining a safe, convenient, and efficient 24-hour international airport. EIA is involved in many noise management initiatives to proactively manage the impact of aircraft noise and our community concerns.

Noise concerns received from the public will be acknowledged and internally investigated as received. Details of noise concerns are correlated with the flight tracking system (ANOMS) and responses are provided to complainants.

The Noise Advisory Committee functions as a forum for information exchange between the airport and local communities, and as an education vehicle on airport operations and aircraft noise. The committee reviews noise concerns and determines when a noise abatement procedure could be recommended.

AVPA (Airport Vicinity Protection Area Regulation) is a provincial regulation that ensures only compatible land uses locate around the airport so that the use, enjoyment and security of the surrounding properties are not jeopardized by current and future airport operations. Compatible land uses are determined through the "Noise Exposure Forecast" tool created by Transport Canada, and the requirements of the AVPA are built into municipal planning processes.

Related Aspects: Land Use

Aircraft Deicing

A thin layer of ice on an aircraft can be a major safety hazard. Glycol is sprayed on aircraft as a de-icing agent and as a preventative measure to stop further formation of ice. The de-icing season at Edmonton International Airport typically starts in October and ends in May. Glycol application is performed by a contractor to the airlines.

The introduction of glycol into natural ecosystems can negatively impact water quality. Glycol exerts a high biochemical oxygen demand on a receiving water body, which means it could deplete the water's oxygen supply. This creates toxic conditions for aquatic life. The purpose of the management program is to ensure deicing activities are effectively managed, mitigated and monitored.

Related Aspects – Water Quality

Air Quality

Air quality concerns are focused on local air quality. The purpose of this program is to establish a basic understanding of the airport operations on local air quality, including the emission of odors from facilities on EIA property.

EIA has developed a baseline air emissions model and inventory for criteria air contaminants using 2008 data. The air quality contaminants considered were particulate matter with a diameter less than 2.5 microns, particulate matter with a diameter less than 10 microns, carbon monoxide, nitrogen oxides, sulphur oxides and volatile organic compounds. In 2013 ambient air quality monitoring was carried out on the airport to compare to the baseline model as well as provincial and federal air quality objectives.

Related Aspects – Energy and Carbon Management, Land Use

OTHER PROGRAMS

Currently there are no programs that directly address, land use, water use, supply chain, green building construction and operation, hazardous building materials, or tenants. The risk associated with these aspects is relatively low or the aspects have been recently identified; as such, there is no program for these aspects. However, some of the above programs do address elements of these aspects and new programs are being developed for the more significant aspects.

