ENVIRONMENTAL MANAGEMENT PLAN
EDMONTON INTERNATIONAL AIRPORT
August 2015
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1.0 Introduction

In the interests of the region we serve, Edmonton Airports consider sustainability across social, financial 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.

Edmonton Airports offers many services, manages airport lands and coordinates the many components of aviation at 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) ensures EIA operates and develops the airport in an environmentally sound and responsible manner. 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 Authority does not have equity shareholders or to provide any external body with an equity interest in our organization.

Edmonton Airports is led by an independent Board of Directors made up of 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 the Edmonton International Airport to Edmonton Airports 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 a call on the assets of the Authority, nor are they liable for the debts of the Authority.

1.2 CORPORATE FOUNDATION

The mission of Edmonton Airports 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.

Edmonton Airports has five key strategies to deliver our vision of more flights to more places over the next six years (2015 to 2020). By implementing the following strategies, we can achieve our strategic objectives and goals.

1. Increase Passenger Market Demand
   EIA will continue to grow Edmonton’s global profile, to the benefit of both its citizens and business communities.

2. Grow Non-aeronautical Revenue and Development
   Non-aeronautical initiatives support passenger market development by providing a superior passenger experience through desirable product and service offerings and help attract new air service with appealing amenities and brands.
3. **Create Exceptional Customer Experiences**
   To target and move 12 million passengers through EIA by 2020, the core business of operating an airport must be leading edge. This is achieved through operational excellence. Operational excellence captures each element of our business and services, from infrastructure design and operational procedures to technological advancements to better serve our customers.

4. **Positive Community Impact through Sustainability**
   Through the use of our assets, strategic and open communication with employees and our dedication to sustainability, EIA’s economic, environmental and social profile continues to evolve.

5. **Engage People**
   EIA’s employees are essential to our success in actively delivering our promise, we’ll move you. By maximizing our employees’ opportunity to contribute to the success of both EIA and their own careers, we respect our core value of investing in our talent and position ourselves to deliver our overall strategy successfully.

1.3 **AIRPORT SETTING**
   Edmonton International Airport (EIA) serves as the gateway to western and northern Canada, linking this region to the world. The facilities and services reflect the vitality and sophistication of Alberta’s provincial capital. The airport operates 24 hours per day, 365 days per year on two runways, allowing the airport the efficiently and effectively move people and goods in and out of the region, serving 60 non-stop destinations.

1.4 **SURROUNDING LAND USE**
   EIA is located within Leduc County, a rural, northern prairie locale, and is approximately 34 km south of the City of Edmonton’s downtown core and only 6 km from the southern edge of Edmonton. Major highways border the northern (Highway 19) and eastern (Highway 2) property boundaries. Located immediately to the east is Nisku Industrial Business Park that accommodates over 400 diverse businesses. Immediately southeast is the thriving city of Leduc with more than 28,500 residents.

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 regulator and licensing authorities.
   Water discharges off the eastern part of airport property eventually flow into Blackmud Creek, which, while less sensitive than Whitemud Creek, is 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 kilometers southeast and five kilometers 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 the Edmonton Airports 2015 – 2020 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. EIA’s scorecard is organized across five key perspectives:

- Financial: Voice of the Business
- Passenger: Voice of the Passenger
- Community: Voice of the Community
- Operations: Voice of the Process
- Learning & Growth: Voice of the Employee

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

1. Financial: Voice of the Business
   - Revenue
   - Operating expense per enplaned passenger
   - Passenger count

2. Passenger: Voice of the Passenger
   - Airport Service Quality

3. Community: Voice of the Community
   - Carbon neutral growth

4. Operations: Voice of the Process
   - Airline on-time performance

5. Learning & Growth: Voice of the Employee
   - Employee engagement

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

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

Purpose
This Environmental Management Plan encourages continuous improvement of the corporation’s effective environmental performance while balancing financial and social considerations against environmental efforts, and fully supports EA’s Vision, Mission and Core Values.

Policy Statement
To successfully and sustainability 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 pollution prevention, energy efficiency 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.

Edmonton Airports’ 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 now 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.

2.1 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 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 the environmental requirements of their leases.
2.1.1 Beyond Compliance

While compliance with environmental regulatory obligations is unavoidable, that is also not the limit of our efforts in environmental stewardship. There can be 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.

2.2 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, neighboring 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.

An inventory of external, industry and regulator stakeholders against the commitments in our policy, relevant aspects, and the key focus areas from our current corporate targets was created through engagement with internal stakeholders. This initial internal engagement was done to ensure a broad view of EIA’s business interests were properly reflected in the stakeholder inventory, as well as to learn about employee perceptions of EIA’s most significant environmental impacts and issues.

2.3 STAKEHOLDER CONSULTATION WITH EXTERNAL PARTIES

Following the creation of the inventory, internal stakeholders selected eight external, industry and regulatory stakeholders to be consulted for consideration within this EMP, based on both the potential ways that EIA could impact these stakeholders as well as their ability to influence EIA’s efforts to improve environmental performance.

Stakeholders were asked to provide feedback on five questions:

- What stakeholder group do you represent, and how would you describe your relationship with EIA?
- What are the three top environmental issues or impacts you consider EIA should be concerned about and acting on?
- When you look at the list that EIA has come up with (aspect list was provided in advance), do you still feel the three ones you had previously selected are the top three or is there any changes you would do?
- How does EIA communicate to [your stakeholder group] their actions/ priorities to reduce or mitigate environmental impacts? Do you have any suggestions or areas of opportunity to improve this?
- How can EIA work better with [your stakeholder group] to reduce or mitigate environmental impacts?

2.3.1 Response Highlights

- Overall, stakeholders welcomed being contacted to gather their feedback and being asked to share their opinions
- They considered the list of environmental aspects as being appropriate and comprehensive, and includes their areas of interest
- All stakeholders indicated that the communication modes and methods used to interact with them are working well. Many reflected an appreciation for EA’s efforts to consult with them on various aspects of mutual interest.
- Many of their top priority aspects were reflected in our internal review results, with some specific suggestions to improve our interactions on areas of mutual environmental concern (e.g. water quality, solid waste, air quality). These suggestions have been incorporated in the plan presented below.
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 EA’s environmental policy is satisfied. The basic framework of the EIA EMS is compatible with the requirements of the ISO 14001 Environmental Management System standard. The EMS assists in achieving continuous improvement in environmental performance and to ensure EA consistently meets environmental, regulatory, community and employee obligations.

3.1 COMPONENTS OF THE ENVIRONMENTAL MANAGEMENT SYSTEM

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

- 3.1.1 Environmental Policy
- 3.1.2 Environmental Management Plan
- 3.1.3 Programs & 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, and 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 & 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 Engineering, Planning 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 working as expected, regulatory compliance is being delivered by the appropriate programs and opportunities for system improvements are identified for consideration and implementation.

External audits are completed on a three-year cycle, while internal audits are completed every year. Internal audits use in-house resources; external audits use an independent external consultant. Audit findings are reported to EIA 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 a facility’s activities, products or services. A significant environmental aspect is one that may produce a significant environmental impact.

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 the environmental programs to manage the area in question.

Two distinct areas were 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 are as follows:

<table>
<thead>
<tr>
<th>REGULATORY</th>
<th>THREATS &amp; OPPORTUNITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVIRONMENTAL IMPACT ASSESSMENT</td>
<td>AIRCRAFT NOISE</td>
</tr>
<tr>
<td>HAZARDOUS MATERIALS SPILL RESPONSE</td>
<td>AIRCRAFT DEICING</td>
</tr>
<tr>
<td>FUEL STORAGE SYSTEMS</td>
<td>PURCHASING</td>
</tr>
<tr>
<td>WATER QUALITY</td>
<td>ENERGY AND CARBON MANAGEMENT</td>
</tr>
<tr>
<td>OZONE DEPLETING SUBSTANCES</td>
<td>SOLID WASTE</td>
</tr>
<tr>
<td>IMPACTED SITES</td>
<td>WATER USE</td>
</tr>
<tr>
<td>SPECIES AT RISK</td>
<td>AIR QUALITY</td>
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<tr>
<td></td>
<td>LAND USE</td>
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<td></td>
<td>GREEN BUILDING</td>
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</tbody>
</table>
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 become the basis for 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.

The results of the evaluation of significance are provided in Table 4-1. The table contains the rating for significance, 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 include all feedback

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Stakeholder Emphasis</th>
<th>Internal Emphasis</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOLID WASTE</td>
<td>External, Industry</td>
<td>Yes</td>
<td>8</td>
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<td>WATER QUALITY</td>
<td>External, Industry</td>
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<td>External, Industry</td>
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<td>7</td>
</tr>
<tr>
<td>AIRCRAFT NOISE</td>
<td>External, Industry</td>
<td>Yes</td>
<td>6</td>
</tr>
<tr>
<td>AIRCRAFT DEICING</td>
<td>External, Industry</td>
<td>Yes</td>
<td>6</td>
</tr>
<tr>
<td>IMPACTED SITES</td>
<td>Regulatory</td>
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<td>6</td>
</tr>
<tr>
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<tr>
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<tr>
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<tr>
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<td>n/a</td>
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</tr>
<tr>
<td>LAND USE</td>
<td>Regulatory</td>
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<tr>
<td>GREEN BUILDING</td>
<td>n/a</td>
<td>n/a</td>
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</table>
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 Engineering, Planning, and Operational Compliance (EP+OC) group, under the Infrastructure Strategic Business Unit (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.

From Table 4-1, it appears that there is a logical break point that establishes the need for programs against the aspects of significance, which are aspects that rank as high or higher than the lowest ranked regulatory aspect. While it certainly is possible to develop programs for the aspects that occur below that threshold, the development of new programs to concentrate effort for maximum benefit and impact minimization should be limited to those areas at this time.

The evaluation of program needs for the significant aspects are indicated in Table 4-2.

Table 4-2 – Program Evaluation

<table>
<thead>
<tr>
<th>Program Existing</th>
<th>Existing Program To Be Enhanced</th>
<th>Program To Be Developed</th>
<th>Future Consideration</th>
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</thead>
<tbody>
<tr>
<td>SOLID WASTE</td>
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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 new programs or programs needing enhancement, Table 4-3 shows the following focus areas to be considered to accommodate their strategic influences, from both internal and external stakeholder feedback.

**Table 4-3 – Program Focus Areas**

- **SOLID WASTE**
  - STAKEHOLDER FOCUS AREAS: Explore organics and glass recycling with external and industry groups; enhance existing recycling efforts
  - INTERNAL FOCUS AREAS: Documented, coordinated efforts; focus on waste diversion of key streams

- **AIRCRAFT NOISE**
  - STAKEHOLDER FOCUS AREAS: n/a
  - INTERNAL FOCUS AREAS: Conclude AVPA update discussions

- **AIRCRAFT DEICING**
  - STAKEHOLDER FOCUS AREAS: n/a
  - INTERNAL FOCUS AREAS: Explore application usage reductions and upstream controls

- **IMPACTED SITES**
  - STAKEHOLDER FOCUS AREAS: n/a
  - INTERNAL FOCUS AREAS: Set standard for receiving properties

- **WATER QUALITY**
  - STAKEHOLDER FOCUS AREAS: Participate in regional planning; understand regional watershed impacts
  - INTERNAL FOCUS AREAS: New requirements of storm license; enhance monitoring to provide better data for tracking change

- **SPECIES AT RISK**
  - STAKEHOLDER FOCUS AREAS: n/a
  - INTERNAL FOCUS AREAS: Monitor for change

- **FUEL STORAGE SYSTEMS**
  - STAKEHOLDER FOCUS AREAS: n/a
  - INTERNAL FOCUS AREAS: Complete inventory of all systems

- **ENVIRONMENTAL IMPACT ASSESSMENT**
  - STAKEHOLDER FOCUS AREAS: n/a
  - INTERNAL FOCUS AREAS: Monitor for change

- **ENERGY AND CARBON MANAGEMENT**
  - STAKEHOLDER FOCUS AREAS: n/a
  - INTERNAL FOCUS AREAS: New airport footprint; support corporate target for carbon neutral growth between 2014 - 2020 for scope 1 and 2 emissions

- **HAZARDOUS MATERIALS SPILL RESPONSE**
  - STAKEHOLDER FOCUS AREAS: n/a
  - INTERNAL FOCUS AREAS: Monitor for change

- **OZONE DEPLETING SUBSTANCES**
  - STAKEHOLDER FOCUS AREAS: n/a
  - INTERNAL FOCUS AREAS: Regular auditing

- **LAND USE**
  - STAKEHOLDER FOCUS AREAS: n/a
  - INTERNAL FOCUS AREAS: Monitor for change

- **PURCHASING**
  - STAKEHOLDER FOCUS AREAS: n/a
  - INTERNAL FOCUS AREAS: Monitor for change

- **WATER USE**
  - STAKEHOLDER FOCUS AREAS: n/a
  - INTERNAL FOCUS AREAS: Acquire approvals for use of cisterns

- **AIR QUALITY**
  - STAKEHOLDER FOCUS AREAS: Share airport information with external groups
  - INTERNAL FOCUS AREAS: Monitor for change

- **GREEN BUILDING**
  - STAKEHOLDER FOCUS AREAS: n/a
  - INTERNAL FOCUS AREAS: Monitor for change
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 CURRENT OBJECTIVES

The current corporate performance objective from the 2015 – 2020 Strategic Plan is to establish a baseline energy consumption measure which will be used to evaluate performance of energy efficiency measures in the future. This objective supports the energy and carbon management aspect, identified as an aspect of significance by industry and external stakeholders.

5.2 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 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
- Engineering, Planning, 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 (i.e. spill response)

6.1 UPDATE TIMING

The EMP is reviewed on a yearly basis and updated as necessary. The review can be optimally timed along with the yearly update of the current EIA Strategic Plan, as the EMP is linked into the corporate strategic objectives.

The Engineering, Planning and Operational Compliance Department is responsible for updating the plan, and the Executive Management Committee is responsible for approving the updated plans.

7.0 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

PREVIOUS 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 Engineering, Planning 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.

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 emergency 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 the Edmonton International Airport.

Storage Tank Systems
Various storage tanks at the Edmonton International Airport 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 Environment Canada on their Storage Tank website for Petroleum and Allied Petroleum Products.

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.

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) and CFCs (chlorofluorocarbons). Halons are used in fire extinguishing equipment, primarily for electrical fires and in portable extinguishers, while CFCs 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 CFCs by recovering, containing and monitoring the use of CFC containing material/equipment.
Environmentally Impacted Sites
The purpose of this program is to allow EIA to manage contaminated sites at the Edmonton International 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.

THREATS AND OPPORTUNITIES

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.

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 the 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.

Air Quality
Air quality concerns can be broken into two areas: local air quality and greenhouse gas emissions. The purpose of this program is to establish a basic understanding of both emissions types as the regional interest in emissions from the airport develops over time.

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.

A greenhouse gas emissions inventory was completed for 2008 operations which established a baseline to accurately assess current operational practices. After the conclusion of Expansion 2012, a new GHG emissions inventory could be conducted to understand the emissions now created across EIA from the facilities added under the E12 project. As well, to provide greater optics for carbon management, this element of the program could be removed in favor of creating a new program focused on energy and carbon emissions.
PROGRAMS FOR DEVELOPMENT

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 should be 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.

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 should be to understand EIA carbon emissions sources, which will lead to developing and delivering usage reductions.