GTAA's Development of a Zero Waste Roadmap

Steven Thomas

Associate Director, Climate Change & Environment

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GTAA

Toronto Pearson
International Airport | Aéroport International

The Property
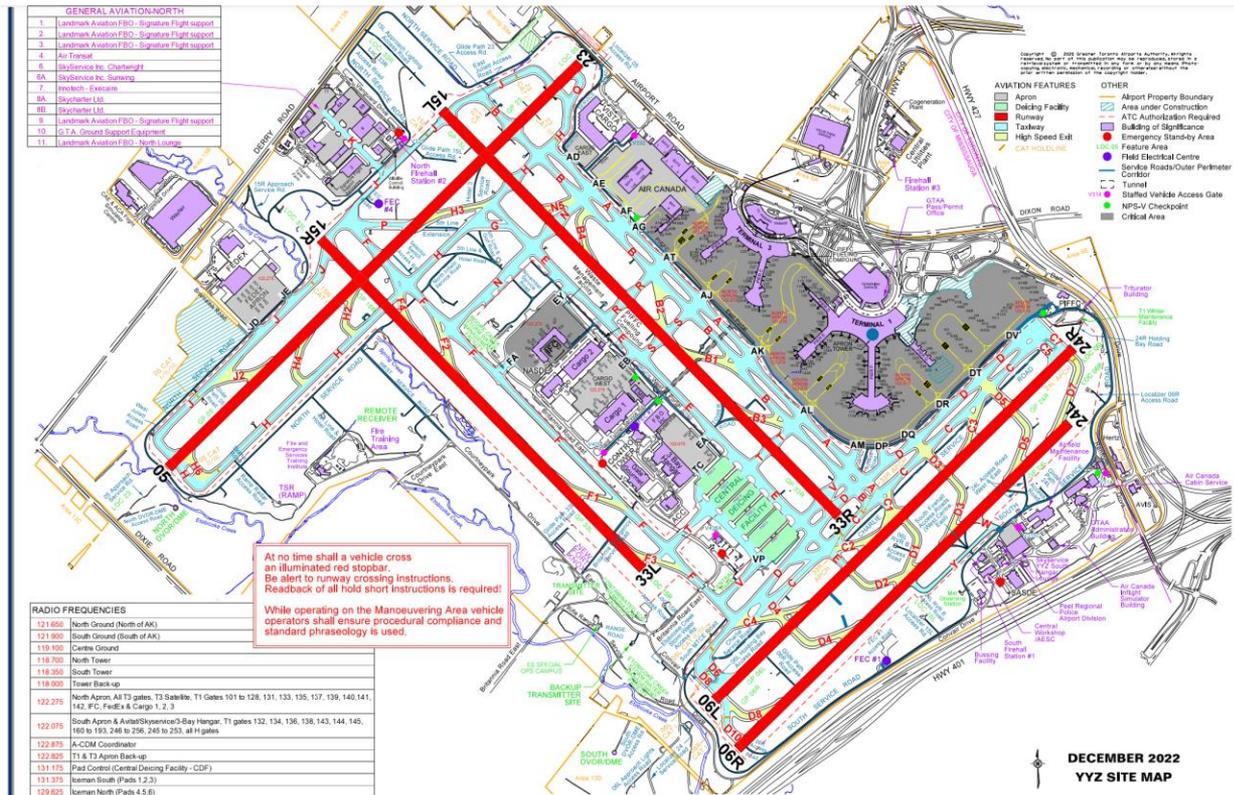
YYZ SITE MAP
DECEMBER 2022

Background

GTAA Environmental Policy

The Greater Toronto Airports Authority (GTAA) strives to be a leader in environmental management and recognizes the impacts of airport operations and development on the environment. The GTAA embraces our corporate responsibility as a steward of the environment and will manage environmental issues effectively by: ensuring regulatory compliance, employing best management practices, and being innovative in reducing our environmental impact. The GTAA will shape an environmentally responsible future through our commitment to, and achievement of, the GTAA Environmental Strategy as outlined below.

The GTAA's Environmental Strategy focuses on:

- Mitigating our environmental impact through identification and continuous improvement of seven focus areas and their associated significant environmental aspects;

  1) Climate Change Resiliency: Taking the appropriate steps to be resilient to the risks of climate change, by assessing how climate change will create new, or alter current, climate-related risks; and mitigating those risks.

  2) Carbon Neutrality and Emissions: reducing our emissions footprint, by improvement in operational efficiency and investment in projects for the direct reduction and/or offset of energy consumption and GHG emissions to achieve net zero GHG by 2050.

  3) Strategic Energy Use: ensuring the responsible use of energy throughout our business via energy conservation, improving energy efficiency, and giving preference to renewable over non-renewable energy sources.

  4) Water Management: managing our water resources through water conservation efforts, water quality management, and addressing flood risk issues thereby protecting the region's water supplies.

  5) Natural Environment: minimizing our impact on the natural resources around us by balancing the protection of plants and wildlife with aviation safety, and supporting partnerships with the community to restore greenspaces

  6) Waste Management: by reducing or eliminating the use and generation of non-recyclable, or non-compostable, materials that are generated across operations and construction by implementing programs to achieve a Zero Waste certification by 2050.

  7) Noise Management: reducing operational impacts on surrounding communities through a best in class Noise Management Program; focusing on the reduction of noise at source, land use planning and management, noise abatement operational procedures and operating restrictions

- Being an environmentally responsible neighbour in the communities where we operate, through
    - Engagement with our employees, regulators, customers, suppliers, communities and other interested stakeholders
    - Transparency in external reporting and in dialogue with stakeholders
    - Expanding partnerships and continued collaboration with industry stakeholders

Deborah Flint
President and CEO

Greater Toronto Airports Authority, 2021

Approach to Environmental Programs

Aligned to International Standards and Science
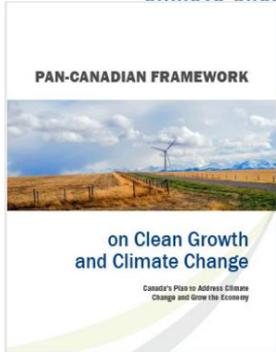
Benchmarking

Stakeholder Feedback

Proposed Long-Term Goals and Direction

GHG & Emissions : Net zero GhG airport by 2050

- Mitigating the Corporation's contribution to greenhouse gas and other air emissions.

Energy : 100 % Clean Energy by 2050

- Minimizing energy consumption and associated costs

Climate Change Resilience : Full integration of all aspects of climate resilience into operations and asset development processes by 2025.

- Ensuring that the Corporation's infrastructure is resilient to effects of climate change

Waste : Airport-wide zero waste certification by 2050.

- Diversion of waste from landfills and minimizing waste produced.

Long term water conservation target based on water consumption baseline & audits.

- Management of water quality and conservation of water resources.

Natural Resources : Preservation of the creek valley green space, management of invasive species, and continuation of the honeybee apiary.

- Protection of the Corporation's green spaces & wildlife; rehabilitate green spaces in the community

Waste Management Masterplan Objectives

- The Waste Management Masterplan supports:
- Building a strong platform of Social License via aggressive waste reduction targets.
- Financial sustainability; through waste disposal reductions, supporting cost reductions and other benefits such as O&M savings.
- This will be accomplished by:
  - Maximizing the waste diverted by our facilities and operations and,
  - Minimizing the amount of waste products brought in to GTAA operational areas (reduction at source)

Key Success Factors

- Prioritize highest benefit, lowest lifecycle cost solutions.

- Pursue innovative business models to fund initiatives.

- Embed circular economic principles in projects and operations.

- Engage stakeholders to:
  - help tell our story,
  - receive feedback and;
  - help drive continuous improvement.

Environmental Master Planning – Waste Managment

Project Goals & Expected Outcomes

- Baseline data gathering & Gap Analysis
  Where are you?
- Visioning: Goals, Objectives & Evaluation Criteria Development
  Where do you want to go?
- Environmental Strategy Development
  What are your opportunities?
- Performance Targets & Monitoring
- Environmental Focus Area Plan Draft & Finalization
  How do you get there?
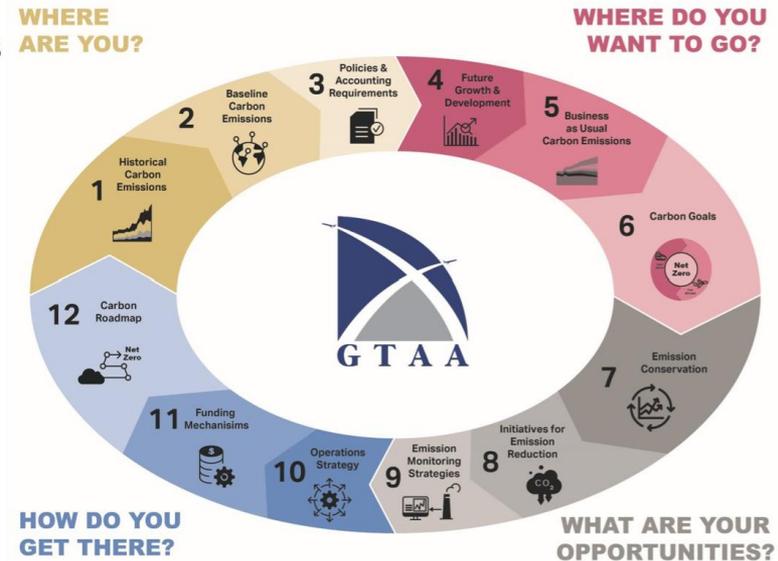
Where We Are Today

- Currently achieving:

- 73% diversion from T1, T3, Administration Building & AMF.
  - These buildings account for ~ 95% of the waste generated.

- 53% diversion from auxiliary buildings and parking garages
  - These buildings account for ~ 5% of waste generated

- 95% + diversion from construction waste (by weight)

Opportunities for Improvement

Facility	Areas for improvement
Terminal 1	Reduce food and beverage packaging waste (as much as 37% of total waste generated)
*Terminal 3	Introduce organics recycling to all tenants and lounges
Administration Building	Reduce and reuse materials (i.e. cardboard, newsprint, fine paper and plastic bottles)
Equipment Building	Reduce materials from going into general debris stream (40% of all waste generated)
Fire Hall	Reduce food and beverage packaging from going into general debris stream Reduce and reuse beverage containers (25% of waste is plastic bottles and cans)
Workshop	Reduce materials from going into general debris stream (33% of all waste generated) Increase capture rate of multiple recyclable materials (Cans, paper, glass, plastic bottles)
Cargo 3	Increase capture rate of multiple recyclable materials (Newsprint, fine paper, metal, wood)
FESTI	Reduce and reuse materials (i.e. fine paper, newsprint, and plastic bottles) Introduce organics recycling Capture wood and metal into recycling streams
T1 Parking	Reduce food and beverage packaging from going into general debris stream Increase capture rate of multiple recyclable materials (Newsprint, glass, beverage containers)
*T3 Parking	n/a
*6B Parking	n/a

*Waste audit data not used for analysis purposes

Each facility has different areas where it can improve.

Short Term Wins

Expanding organics diversion at T3

- Only 40% of restaurant tenants have recycling (100% at T1)

- None of the lounges have recycling (90% at T1)

- No recycling at staff cafeteria

- Waste audit shows only 165 kg of organic waste being disposed, which may be unlikely.

- Logistical challenge to expand service to tenants due to loading system and facility constraints. Needs to be explored with Carillion.

Focus on expanding organics program to all tenants

Short Term Wins

Reduction in waste from Terminal 1
- Resulting from Food and Beverage teams partnerships with tenants to remove single use plastics from supply chain, and removal of Styrofoam packaging in Terminals

Short Term Wins

New Technology Trials

Continued Challenges

- Furniture
- Baggage Belts
- Upstream Diversion
- Security Concerns (Pre-security Waste)

Questions?

Discussion / Q&A

"To leave the world better than you found it, sometimes you have to pick up other people's trash." —Bill Nye