

Sustainability Strategy 2022 – 2026 and beyond

CRAZ AGM

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Calgary Airport Authority

- 1992 Calgary Airport Authority assumes the operation of the Calgary International Airport (YYC)
- 1997 Calgary Airport Authority assumes the operation of Springbank Airport (YBW)
- Prior to the Airport Authority both airports were operated by the federal government
- The Authority is a not-for-profit non-share corporation

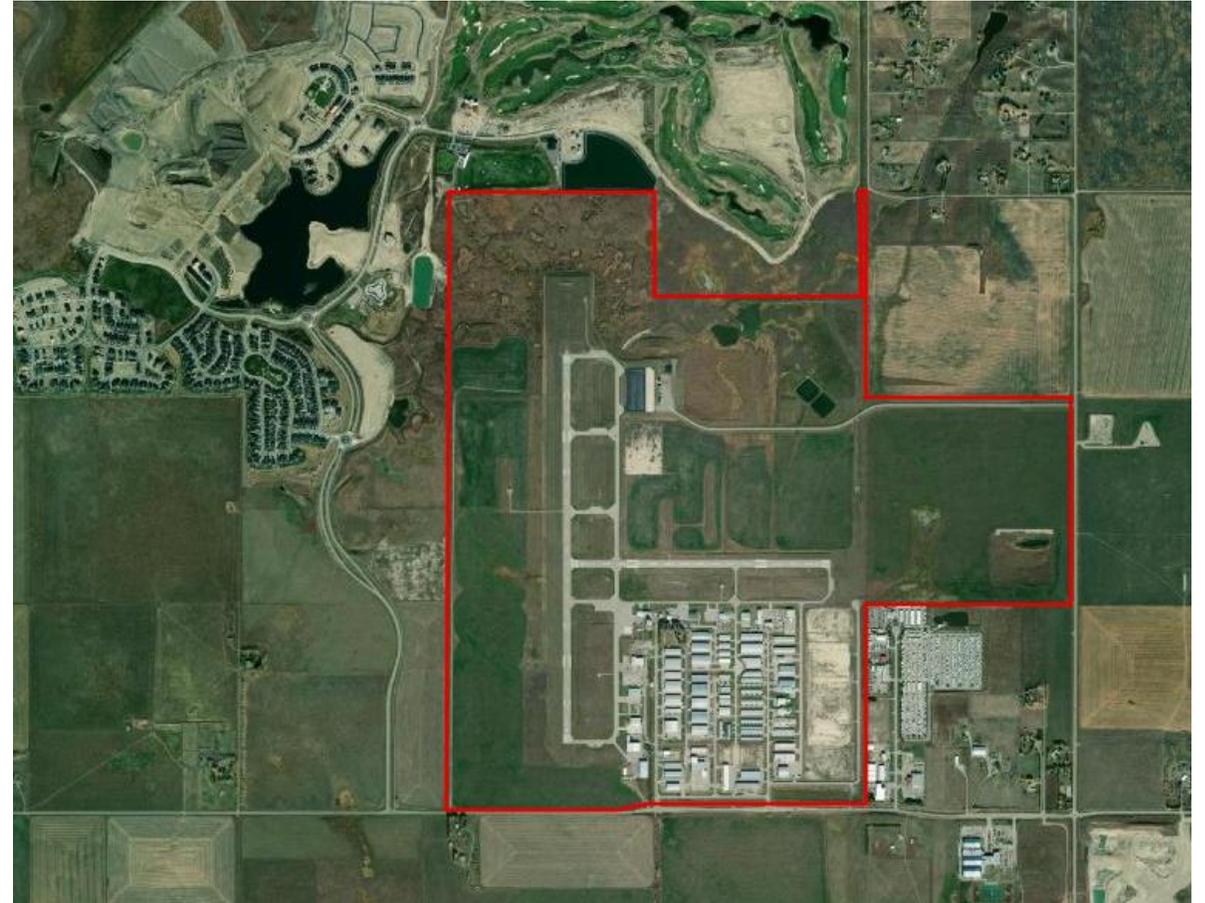
YYC Facts

- 2022 saw 14.5 million passengers use the airport
- The airport is on 5,144 acres (20.82 sq km)
- 4 main runways ranging from 1,890 m to 4,267 m



YBW Facts

- Opened in 1969
- The airport is on 1,100 acres
- Private and recreational flying
- Pilot training –fixed wing and rotary
- Air Tanker Fire Suppression Base
- Consistently in the top 10 for busiest airports in Canada





\$8B

**IS GENERATED BY YYC
TOWARD THE CITY AND
REGIONS' GDP**



LARGE

**TAXPAYER TO
THE CITY OF
CALGARY**



50K

**JOBS IN THE CALGARY
REGION ARE TIED
TO YYC**



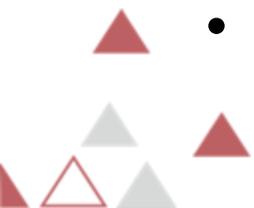
24K+

**PEOPLE ARE
EMPLOYED ON
YYC CAMPUS**

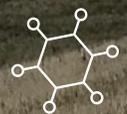


What does the Environment crew do at an Airport?

- Stormwater monitoring
- Groundwater monitoring
- Contaminated Sites
- Noise monitoring
- Spill response
- Tenant Audit Program
- Wildlife Management – Reduce Bird Strikes
- Implement the YYC Sustainability Strategy



SUSTAINABILITY STRATEGY



FOCUS AREAS

1 Climate Action



2 Materials & Resource Management



GOALS

1.1

Reduce Emissions & Energy

KPI Net-zero scope 1 & 2 GHG emissions by 2050

30% reduction over 2018 baseline scope 1 and 2 emissions by 2026

1.2

Build Climate Resilience

2.1

Investments & Supply Chain

2.2

Safe Material Handling

2.3

Waste

KPI Zero waste by 2050

58% reduction in landfill waste over 2018 by 2026

TACTICS

1.1.1 Operating Standards & procedures

1.1.2 Emissions monitoring, analysis and reporting

1.1.3 Electricity supply

1.1.4 Energy conservation & facility retrofits

1.1.5 Low-carbon fleet and fuels

1.2.1 Infrastructure resilience to climate change

1.2.2 Operational & corporate climate resiliency

2.1.1 Low-footprint & circular economy supply chain decisions

2.1.2 Sustainability criteria incorporated into planning documents

2.2.1 Development of site-wide hazardous material management standards

2.2.2 Substitution of hazardous materials with non-hazardous products

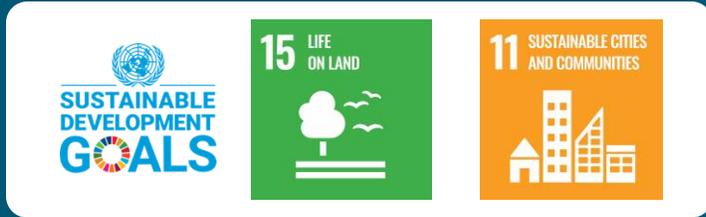
2.2.3 Modernization of hazardous materials systems

2.3.1 Circular waste management systems

2.3.2 Engagement & accessibility to waste diversion systems

FOCUS AREAS

3 Land & Ecosystem Management



4 Healthy People & Communities



GOALS

**3.1
Wildlife & Biodiversity**

**3.2
Land & Soil**

**4.1
Aviation Impacts**

**4.2
Health & Wellbeing**

TACTICS

3.1.1
Biophysical monitoring, reporting & goal-setting

3.1.2
Maintain & implement aerodrome wildlife management plans & procedures

3.1.3
Habitat management & biodiversity improvements

3.2.1
Strengthening nature-based land management & natural assets

3.2.2
Ongoing monitoring, assessment & remediation of contaminated sites

4.1.1
Noise abatement

4.1.2
Acoustic monitoring & reporting

4.1.3
Addressing noise concerns

4.2.1
Employee wellness

4.2.2
Community engagement & contributions

FOCUS AREAS

5 Protect Our Water



6 Supporting Actions



GOALS

5.1

Water Use

30% reduction over 2018 by 2050

10% reduction over 2018 by 2026

KPI

5.2

Water Quality

TACTICS

5.1.1

Water demand reduction

5.1.2

Water reuse

5.2.1

Stormwater maintenance & restoration

5.2.2

Environmentally sound deicing

5.2.3

Water quality & flow monitoring, analysis & reporting

6.1

Project Assessment

6.2

Incident Management

6.3

Stakeholder Engagement

6.4

Reporting

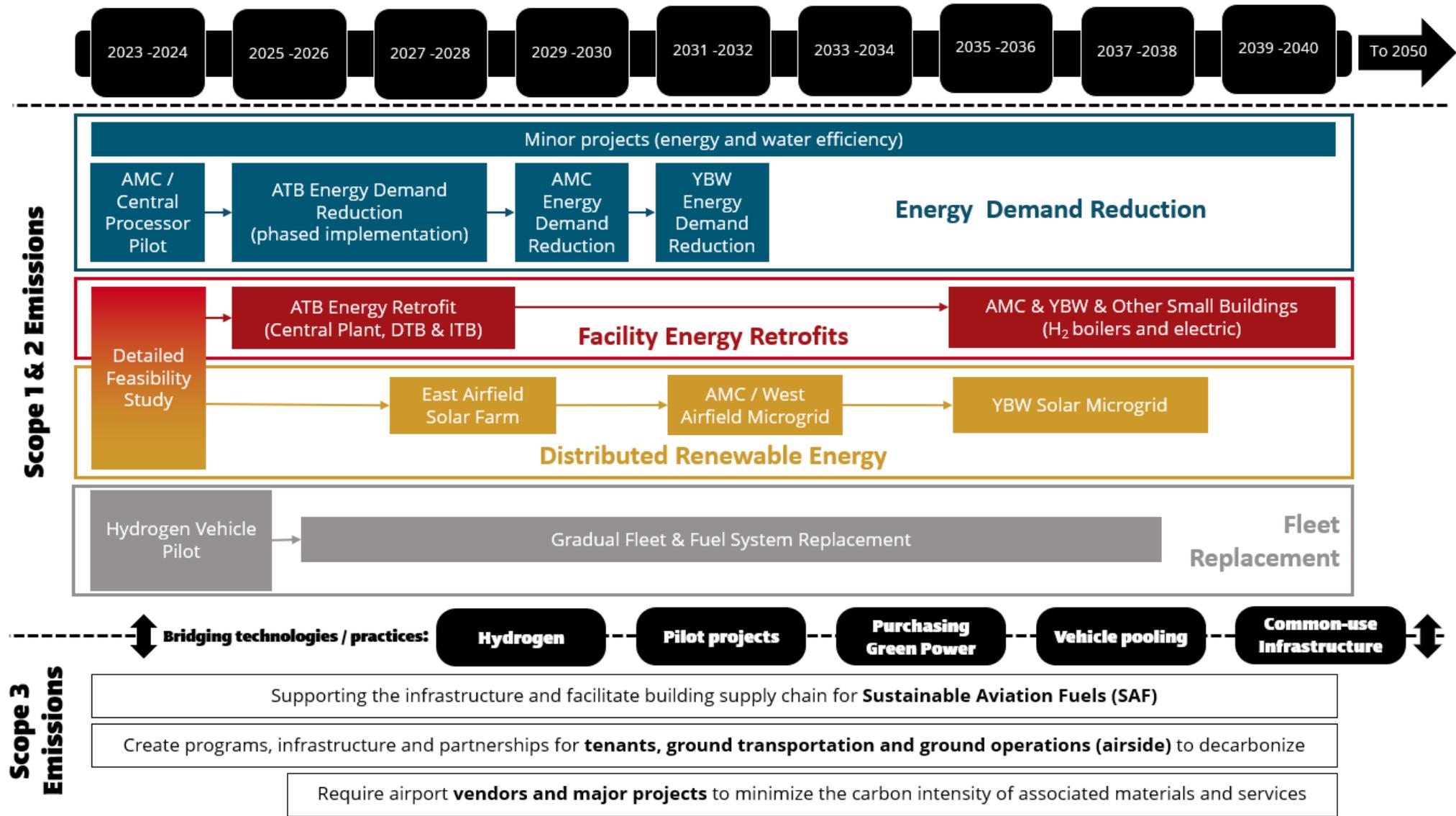
6.6

Governance & Culture



CLIMATE ACTION

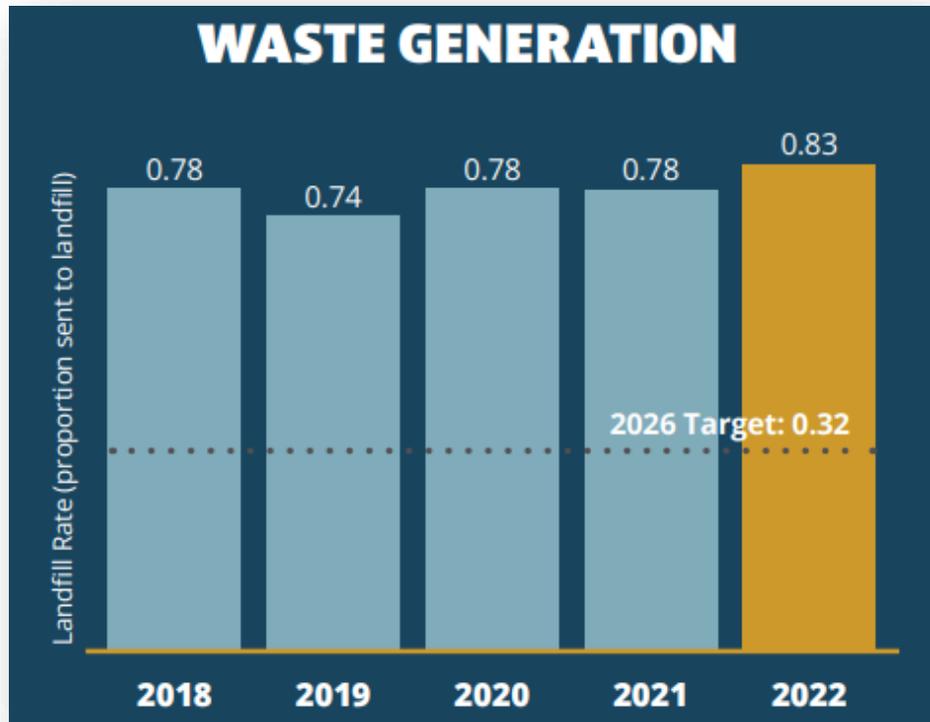
Net-Zero Emissions Roadmap





MATERIAL & RESOURCE MANAGEMENT

Waste Reduction



- In 2022, the airport had a landfill ratio of 83% compared to our 2026 target of 32%
- 2022 waste audit showed that we could significantly improve waste diversion with a few simple steps:
 1. Improving signage
 2. Optimizing organics recycling program
 3. Training and educating
- Recently, the airport transitioned from two to four distinct waste streams in all public areas with refreshed signage to help reach our goals.

Zero Waste Strategy

5 Focus Areas

- Governance
- Circular Economy
- Communication & Stakeholder Engagement
- Planning, Monitoring and Reporting
- Continuous Improvement



HAZARDOUS MATERIAL MANAGEMENT

Corporate Hazardous Material Management Standard (HMMS)



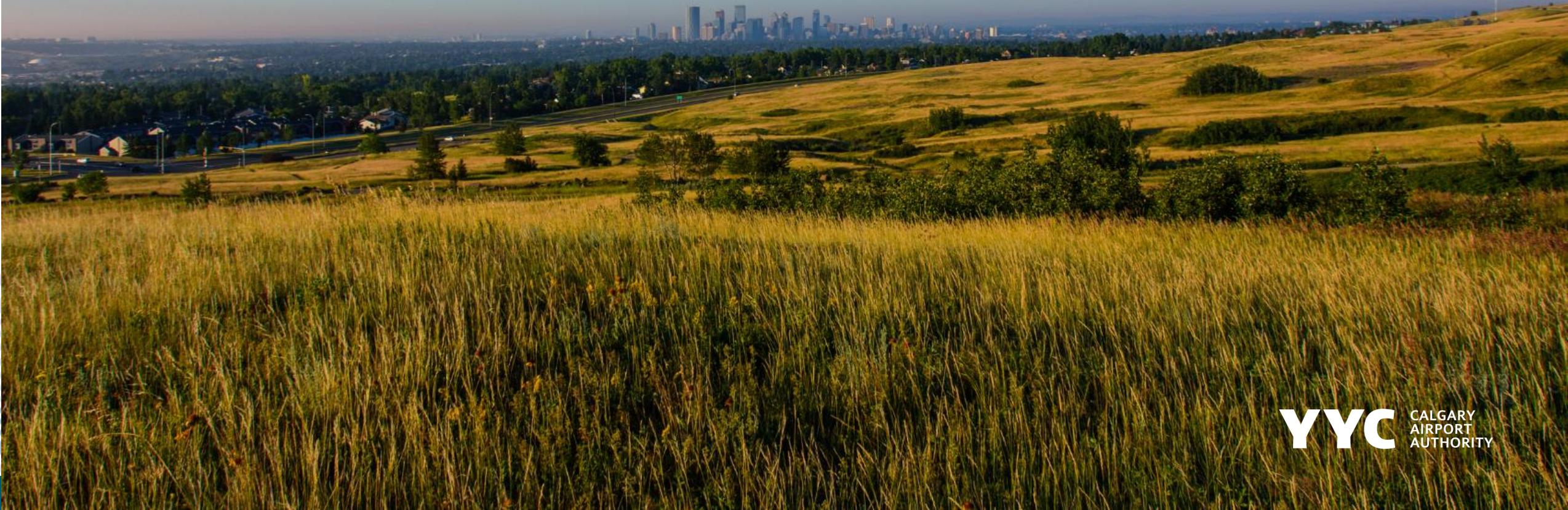
- Site-wide requirements for hazardous material transportation, storage and handling. Scheduled for release in Q3.

Fluorine-Free Firefighting Foam Transition



- Requires cleaning trucks and decommissioning current foam storage and dispensing. Scheduled for June 5.

LAND & ECOSYSTEM MANAGEMENT



Wildlife & Biodiversity

YYC aims to reduce threats to biodiversity and support local species while minimizing aviation hazards posed by wildlife, the following actions were taken:

- Onboarded Falcon Environmental to help us with improving biodiversity by tracking changes in species and identifying nature-based land-use solutions.
- Research and internal planning to determine the best ways of supporting terrestrial and aquatic biodiversity in the Nose Creek watershed.



Land & Soil

YYC tactics are focused in two areas:

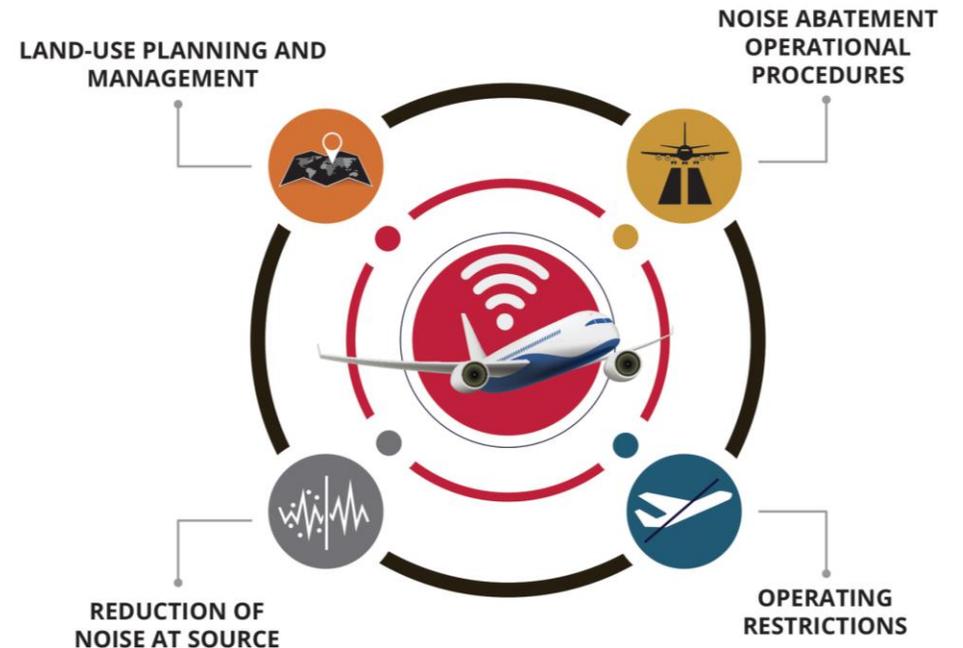
- Increasing the extent and quality of nature-based solutions in new land developments
 - In 2023 our team supported a SAIT integrated water management student with a capstone project that looked at water use and irrigation techniques of our tenants.
- Ongoing monitoring, assessment and remediation of contaminated sites
 - Proactively work with Transport Canada and tenants to identify, study and remediate PFAS contamination.

HEALTHY PEOPLE & COMMUNITITES



Noise Management

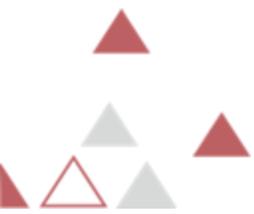
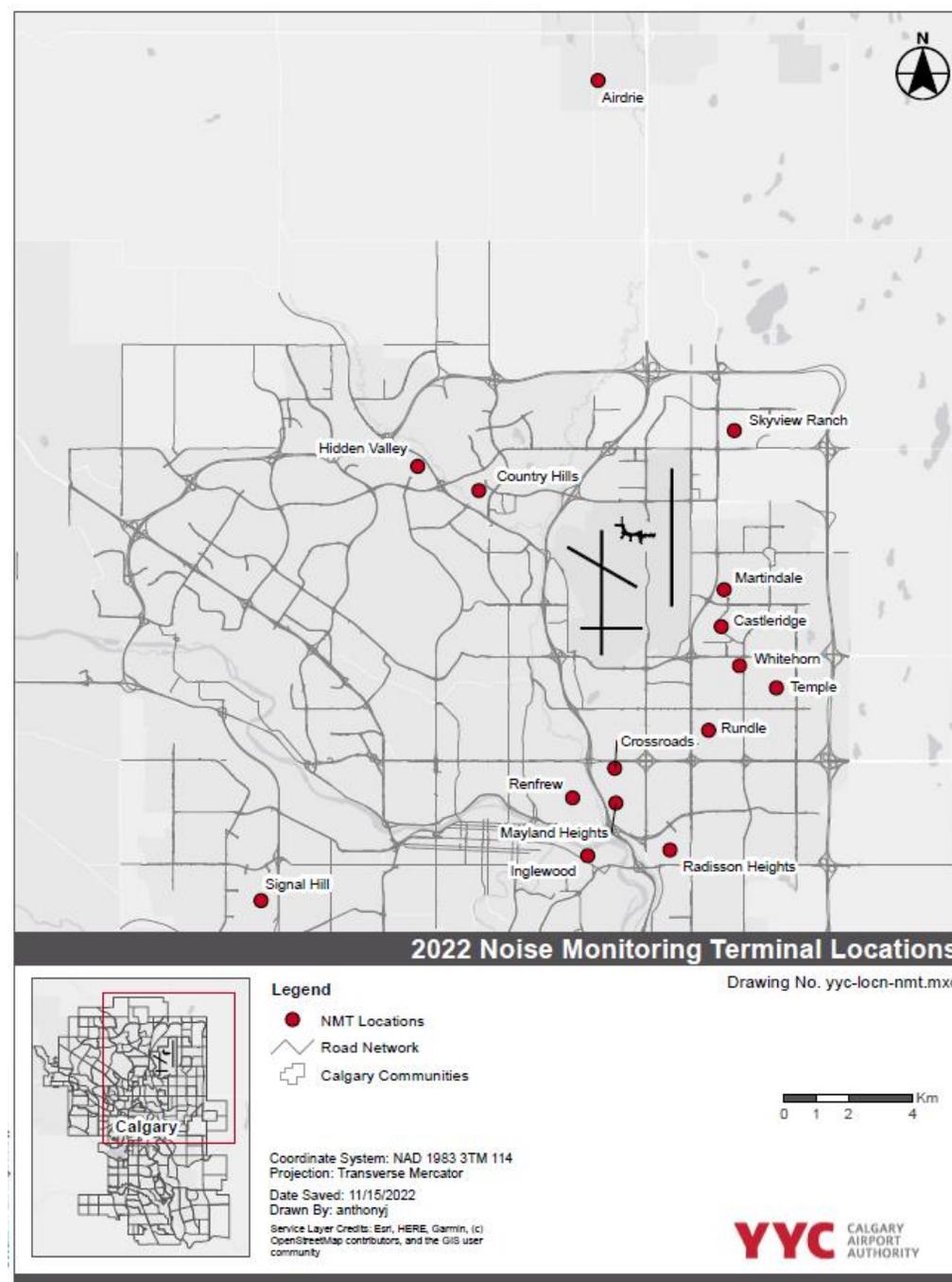
- Noise Abatement Procedures
 - RNAV
 - Airport Vicinity Protection Area (AVPA)
- Acoustic Monitoring
 - 16 permanent noise monitoring terminals
 - 1 mobile noise monitoring terminal
- Addressing Noise Concerns
 - Airport Community Consultative Committee
 - Community Noise Hotline



ICAO BALANCED APPROACH

FOCUSED ON REDUCING AVIATION NOISE

Noise Monitoring locations



AIR TRAFFIC DASHBOARD

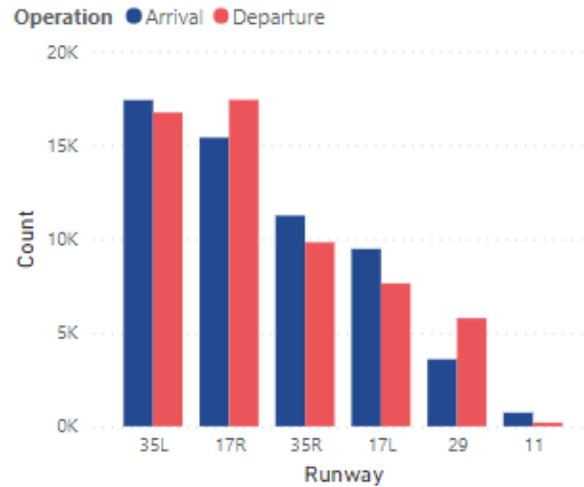
- Year
- 2018
 - 2019
 - 2020
 - 2021
 - 2022

- Month
- 01 Jan
 - 02 Feb
 - 03 Mar
 - 04 Apr
 - 05 May
 - 06 Jun
 - 07 Jul
 - 08 Aug
 - 09 Sep
 - 10 Oct
 - 11 Nov
 - 12 Dec

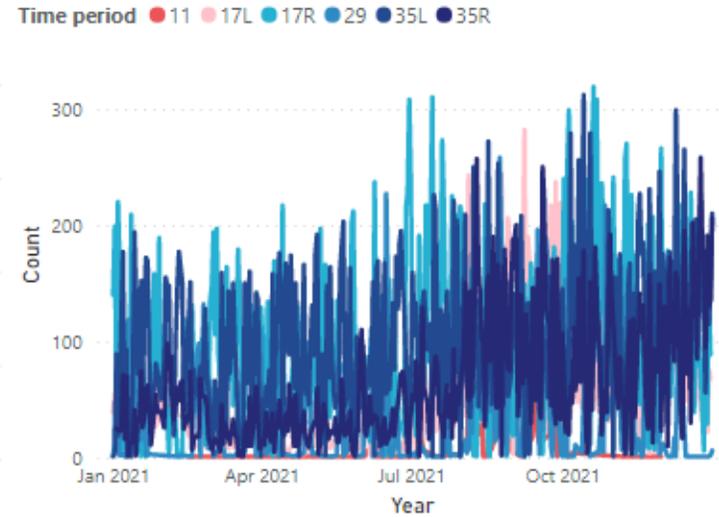
View Tabular Data

VRF Traffic and Aircraft Type

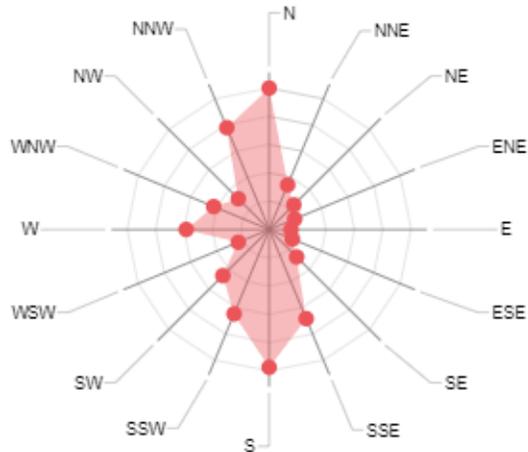
Breakdown by Runway for Selected Timeframes



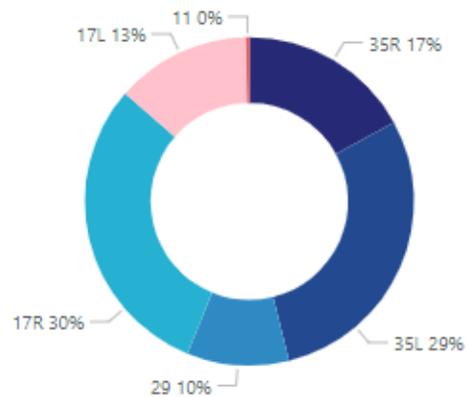
Breakdown Over Time for Selected Timeframes



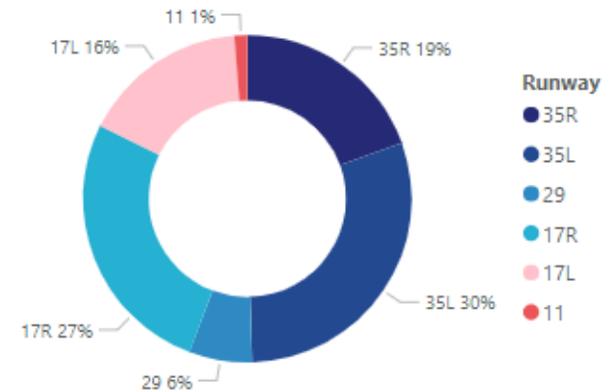
Wind Rose (3-Hourly Observations @ 10m)



Departures



Arrivals

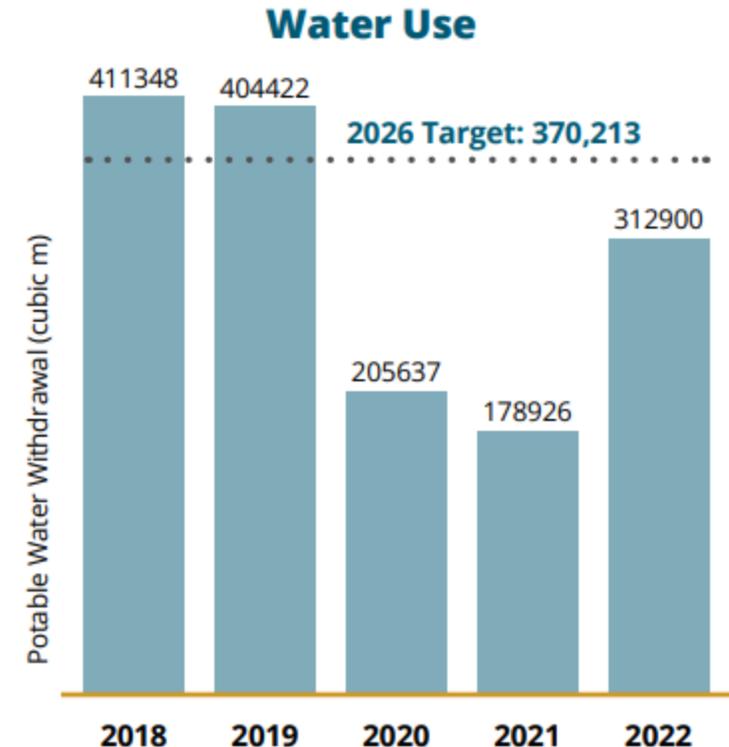


PROTECT OUR WATER



Reduce Water Use

- Installed over 500 low-flow faucet aerators across the terminal (early 2023)
- Evaluating the recommissioning of rainwater capture
 - continue feasibility studies and seek opportunities to reallocate water use, potentially for irrigation or toilets.





Promote Healthy Water Quality

- Moved to centralized de-icing operations
 - In 2022, we recycled 1.32 million litres of ethylene glycol
- Improvements to the management of large retention ponds and implementation of an aggressive stormwater maintenance program
- Real-time water quality and flow monitoring system
- As part of the Nose Creek Watershed Partnership study, we started taking water quality samples near 96 Ave N.W. and Deerfoot Trail and installed a permanent water quality monitor in the creek



Aircraft Deicing



Ongoing Initiatives

- Solid waste sorting and diversion
- Geothermal for the Domestic terminal
- Solar power
- Rainwater Harvesting for reuse
- Low carbon fleet and fuels
- LED Lighting and Building management system optimizations
- Glycol capture and recycling
- Switch from PFAS to a fluorine free product



THANK YOU!

YYC CALGARY
AIRPORT
AUTHORITY