# 2025 - 2027 Environmental Sustainability Plan





## MESSAGE FROM TAMARA VROOMAN

**President & CEO, Vancouver International Airport** 

Vancouver International Airport has a long history of innovation and sustainability. We are proud to be at the forefront of creating a greener, more resilient future for our airport, the aviation industry, our community, and the economy that supports it.

Our airport is located on Sea Island, the unceded traditional territory of the Musqueam people. Sea Island has a profound and ancient connection for the Musqueam people. We recognize our opportunity and responsibility to work with Musqueam as we create value for the region.

We recently launched YVR's 2025-2027 Strategy which details our areas of focus for the next three years and is built around a vision that drives us to continue delivering upon our operational resilience and customer excellence while keeping an eye to the long-term to better understand and be prepared for the needs of our community in the future by focusing on digital transformation, designing an energy roadmap for YVR, becoming an intermodal hub and enabling and attracting talent.

Our values guide our behaviour and decision-making. They have shaped who we are and remain important to us as we deliver upon our 2025-2027 Strategy: Safety, Teamwork, Accountability and Innovation. In addition, we apply five lenses to assess the work we are doing to align with our purpose. We use these five lenses to stay focused and not lose sight of what is most important to us – climate, digital, reconciliation, financial sustainability and the customer.

#### Our 2025-2027 Environmental

Sustainability Plan outlines the environmental priorities that support YVR's 2025-2027 Strategy. It details the strategic priorities we will pursue over the next three years to address climate change, protect archaeological and cultural resources, and minimize the amount of waste we create. It also details the comprehensive environmental, noise and archeological programs overseen by the Airport Authority to ensure that we meet, or exceed, regulatory compliance, address and meet the needs our community, and protect our natural environment.

YVR is a platform through which our community connects and thrives. We open B.C. to the world by connecting the flow of ideas, experiences, investment, people and goods. As we work to deliver on our purpose, we are looking ahead with a heightened sense of responsibility to reduce the impact of our operations on the environment and take a leadership role in shaping a greener and more resilient future.

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TAMARA VROOMAN President & CEO Vancouver International Airport





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# 01 Introduction



# 01 Introduction

Vancouver International Airport (YVR) is Canada's second largest airport and a diverse global hub that provides critical and strategic links between Vancouver and global markets. YVR occupies approximately 1,340 hectares of federal property on Sea Island in Richmond—15 kilometres from downtown Vancouver on lands traditionally occupied by Musqueam First Nations. Our historic, 30-year Friendship and Sustainability Agreement with the Musqueam Indian Band is enabling us to work together to build a sustainable and mutually beneficial future for the airport and our communities.

Our purpose is to serve the community and economy that supports it.

In 2024, we welcomed 26.2 million passengers, with 54 airlines serving 112 destinations. We moved 339,000 metric tonnes of cargo ranging from prized B.C. fruit and seafood to essential medicine, medical equipment, high-tech products, apparel, and more.

In 2025, YVR was named Best Airport in North America by the Skytrax World Airport Awards – a designation it has received 14 times over the past 16 years. Skytrax is recognized as the world's premier international airport awards, with honours assessed according to votes cast by more than 13-million passengers worldwide.

The Airport Authority is a private, non-share capital corporation. Our unique operating model eliminates the need for shareholders and allows us to reinvest all profits towards improving YVR and the community. The Airport Authority is accountable to the region through a Board of Directors appointed from the community whose focus is to ensure that YVR serves the best interests of the public and sets the vision for the future of the airport. YVR is a major entry point to North America from Asia and is a hub for domestic, transborder (U.S.), and international air travel. It provides a platform that enables the community to thrive by connecting people and places, cargo and markets from BC to the world, supporting human connectivity and enabling the flow of ideas, experiences, knowledge, goods and investment. YVR is also a major creator of jobs in the region and directly contributes to the provincial gross domestic product. The operations at the airport facilitate activity in other economic sectors, which further contribute to the provincial economy.

YVR is surrounded by the Fraser River and the Salish Sea, significant ecosystems that are subject to rapid residential growth and home to environmentally sensitive fish and bird habitat. We strive to be a leader in environmental management and maintain policies and procedures that comply, and go beyond, our regulatory obligations and align with our values. We identify, address, and report issues and hazards, fostering a culture of accountability. We continuously seek to improve our performance in environmental management as evidence through our continued Salmon-Safe certification, carbon neutral operations since 2020, and Airport Carbon Accreditation Level 4+ Certification and our commitment to achieve net zero emissions by 2030.

We report on our environmental progress and on our climate-related risk including through the Global Reporting Initiative (GRI) and Task Force on Climate-related Financial Disclosures (TCDF).



# 02 Strategic Priorities

# Climate change remains a significant challenge to our industry, demanding bold action and leadership.

We remain committed to reaching Net Zero carbon emissions by 2030 for our own operations and helping advance ways to decarbonize our industry by 2050 - a challenge we are taking on with urgency and resolve.

Energy is also of the of the key strategic shifts of YVR's 2025-2027 Strategy. We will continue to seek investments that transition YVR to a low carbon energy system, improve our efficiency and strengthen our resilience; all with an eye to stable energy use now and into the future.

The actions we will take over the next three years will be embedded across the organization - touching on land development, aviation emissions and inter-modal transportation planning – and will inform the prioritization of capital investment. Together, these plans and investments will bolster a broader comprehensive climate program at YVR that will not only mitigate our impact on the climate system but also prepare YVR for the inevitable impacts of climate change that will be experienced this century. Robust adaptation measures are essential for enhancing our resilience against escalating extreme weather events and rising sea levels.

Our commitment to taking action to address climate change also helps mitigate risk: financial risks, as banks assess climate strategies before approving loans; worker safety, given the challenges posed by rising temperatures; and aviation's social license, affecting public support for operational expansion and development plans. Protecting our planet is not only the right thing to do; it is also a smart business strategy.

# CLIMATE | VISION

Achieve net zero emissions by 2030 or earlier for the Airport Authority's own operational emissions and support the aviation industry's net zero goal by 2050 while enhancing YVR's resilience through sustainable development and climate adaptation strategies.

OUTCOMES	2025-2027 INITIATIVES	
MITIGATION		
<ul> <li>NET ZERO OPERATIONS FOR AIRPORT AUTHORITY BY 2030 INCLUDING:</li> <li>At least a 90% reduction in greenhouse gas emissions below a 2012 baseline with remaining emissions offset through carbon removals</li> <li>A net zero emissions fleet</li> <li>Energy-efficient and net zero building operations</li> </ul>	<ul> <li>Produce a zero-emissions fleet plan and investment plan and optimize existing Airport Authority-owned EV charging infrastructure and expand it in key locations.</li> <li>Deliver on projects identified in the Roadmap to Net Zero multi-year investment plan including design and initial construction of the geo-exchange plant, continuation of HVAC efficiency and control upgrade projects and design of the two remaining low carbon hot water loops.</li> <li>Complete the YVR Electrical Plan to inform the requirements and distribution of electrical supply for airport operations. Commence delivery of the initial investments identified within the Electrical Plan.</li> <li>Seek out partnerships (BC Hydro, FortisBC, Provincial/Federal) where possible to support capital investments.</li> <li>Make initial investments in carbon removals by 2027.</li> <li>Expand the reporting of Scope 3 emissions starting in 2025 in line with the GHG Protocol and the Airport Carbon Accreditation program.</li> </ul>	
<ul> <li>SUSTAINABLE, LOW CARBON, RESILIENT, ENERGY SUPPLY (ELECTRICITY AND FUELS) INCLUDING:</li> <li>Sufficient sustainable, redundant electrical supply and infrastructure to meet the needs of YVR and its business partners in future development and as they transition to low carbon buildings and vehicle fleets</li> <li>Fueling infrastructure and supply (electricity, Sustainable Aviation Fuel (SAF), hydrogen) to support transition to low carbon (GHG) aviation technologies</li> </ul>	<ul> <li>Work in partnership with BC Hydro and Metro Vancouver to develop a Sea Island Area Feasibility Study and Integrated Area Plan to secure sufficient redundant electrical supply to Sea Island for YVR and Airport Authority tenants.</li> <li>Develop a YVR Energy Strategy with the Energy Advisory Council to prioritize planning and investment decisions and timelines for low carbon energy supply on Sea Island.</li> <li>Optimize existing eGSE charging infrastructure, expand EV charging in key locations, approve building tenant charging projects where feasible, and develop plans for DC Fast Charging Hub on Sea Island.</li> <li>Complete renewable energy feasibility studies including YVR hydrogen infrastructure study and on-site renewable energy generation study for Sea Island.</li> <li>Work with local partners and innovative companies to test and prove on-site renewable and energy storage technology applications at YVR.</li> <li>Implement the YVR SAF strategy to increase the uplift of low carbon jet fuel at YVR as part of efforts to decarbonize aircraft operations.</li> </ul>	



OUTCOMES	2025-2027 INITIATIVES
INTEGRATION OF SUSTAINABLE DEVELOPMENT PRACTICES AND NET ZERO BUILDING OPERATIONS.	<ul> <li>Evaluate and adopt 'net zero carbon' and climate resilient principles while designing developments on Sea Island based on National Energy Code and other industry-established green building standards. If sufficient grid electricity is not available and self-generation is not technically/financially feasible, developments will incorporate 'net zero carbon ready' features to accommodate a transition to zero carbon energy by 2050.</li> <li>Explore opportunities to repurpose and reuse heritage buildings to save embodied carbon and maintain protect heritage value.</li> </ul>
OPTIMIZED MOVEMENT OF PEOPLE AND GOODS TO MINIMIZE GHG EMISSIONS AS WELL AS FUEL-EFFICIENT AIRCRAFT OPERATIONS ON APRONS.	<ul> <li>Evaluate GHG reduction opportunities as the Airport Authority begins inter-modal planning, including opportunities for zero emissions last mile trips on sea island (e.g., shared bikes/scooters) and improvements to active transportation infrastructure (e.g., multi-use paths, separated cycling lanes, and end-of-trip facilities).</li> <li>Evaluate GHG reduction opportunities as part traffic management planning associated with new cargo development on Sea Island.</li> <li>Design and implement an Auxiliary Power Unit (APU) shut down procedure monitoring program which includes trialing of automated/digital solutions.</li> <li>Use the digital twin to evaluate GHG impacts of flight scheduling and apron management decisions.</li> </ul>
IMPROVED ACCOUNTING AND MINIMIZATION OF EMBODIED CARBON IN CAPITAL PROJECTS AND PURCHASES.	<ul> <li>Begin estimating and reporting embodied carbon under Scope 3 emissions reporting .</li> <li>Establish a target and formalize a process for evaluating different low carbon options/approaches for major projects and the procurement of high-impact goods based on the full carbon lifecycle (embodied carbon).</li> </ul>





OUTCOMES	2025-2027 INITIATIVES
ADAPTION	
<ul> <li>THROUGH ONGOING RISK ASSESSMENTS, THE VANCOUVER AIRPORT AUTHORITY WILL DEFINE OPERATIONAL INTERVENTIONS, DESIGN SOLUTIONS AND NECESSARY INVESTMENTS REQUIRED TO ADAPT TO CLIMATE CHANGE AND BUILD THE INFRASTRUCTURE NECESSARY TO ENSURE RESILIENCE AGAINST PROJECTED CLIMATE IMPACTS OUT TO 2100. THESE MEASURES WILL AIM TO:</li> <li>Protect the health and safety of employees and passengers during extreme weather events</li> <li>Protect assets and land vulnerable to sea level rise, storm surges, and extreme weather events</li> <li>Support business continuity - anticipate, manage and minimize operational disruption during extreme weather events</li> <li>Ensure that the natural environment on Sea Island is resilient to the changing climatic conditions</li> </ul>	<ul> <li>Continue to monitor, evaluate and manage climate change risks through the Climate Adaptation Working Group.</li> <li>Complete a bio-inventory of Sea Island and identify species and habitats that affected positively or negatively by climate change to inform management/ succession plans and ongoing development.</li> </ul>



## 2.2 ARCHAEOLOGY & HERITAGE

YVR recognizes the deep cultural and historical significance of Sea Island to the Musqueam people, who have stewarded these lands since time immemorial. Preserving archaeological resources, respecting Musqueam's cultural heritage, and ensuring responsible land use are essential to honoring this connection. These efforts align with our strategic priorities by advancing reconciliation through incorporating Musqueam knowledge into airport operations, promoting sustainability, and advancing respectful land stewardship.

As development progresses at YVR, there is an ongoing need for protection of archaeological and heritage sites. While a robust archaeological program is in place, evolving best practices, regulatory requirements, and Musqueam's priorities call for enhanced cultural competency, proactive site monitoring, and strengthened heritage protection measures.

Over the next three years, we will deepen YVR staff's understanding of Musqueam history through expanded cultural competency training, strengthen heritage protection with updated monitoring, technology, and archaeological review processes, and establish standardized guidelines in collaboration with Musqueam. We will also support joint research, share findings with the YVR community, and create mentorship and hiring opportunities for Musqueam in archaeological projects. Our goal is to take a proactive, collaborative approach to preserving cultural heritage while supporting sustainable development.



# ARCHAEOLOGY & HERITAGE | VISION

Recognize the heritage values of Sea Island and realize the Musqueam Indian Band – YVR Airport Sustainability and Friendship Agreement by honouring Musqueam's cultural heritage and ancestral lands by preserving sacred sites and personal connections to the land for future generations.

# 2.2 ARCHAEOLOGY & HERITAGE

OUTCOMES	2025-2027 INITIATIVES
ENHANCE THE CULTURAL COMPETENCY OF THE YVR COMMUNITY TO UNDERSTAND MUSQUEAM HISTORY AND PERSONAL CONNECTION TO THE LAND.	<ul> <li>Develop and promote training programs for airport staff, focusing on Musqueam history, the cultural significance of Sea Island, and responsible engagement with archaeological sites.</li> <li>Share what we learned in collaboration with Musqueam including best practices, and updated methodologies as it arises.</li> <li>Explore opportunities to develop, in collaboration with Musqueam, a public facing display with educational interpretive information on archaeology, history and heritage.</li> <li>Implement and continually update monitoring practices that protect and preserve areas of cultural significance including archaeological sites.</li> <li>Integrate technology and innovative methodologies for efficient tracking of key sites and regions in collaboration with Musqueam.</li> </ul>
CONDUCT ARCHAEOLOGICAL REVIEWS FOR PROJECTS ON SEA ISLAND WHERE SIGNIFICANT GROUND DISTURBANCE IS ANTICIPATED, SAFEGUARDING CULTURAL HERITAGE AND ADHERING TO REGULATORY REQUIREMENTS.	<ul> <li>Establish an Archaeological Plan for Sea Island and develop guidelines to protect cultural heritage in collaboration with Musqueam.</li> <li>Update the archaeological procedures to ensure clear, standardized procedures for conducting archaeological assessments for projects on Sea Island, with a consistent approach to identifying, documenting, and managing discoveries while promoting best practices.</li> <li>Partner with Musqueam and others to conduct research that enhances understanding of Sea Island's historical significance.</li> <li>Share research findings with YVR operating community and partners as appropriate.</li> <li>Create pathways through capacity funding agreement for Musqueam individuals to participate in archaeological projects by implementing hiring and mentoring programs that strengthen local expertise.</li> </ul>
BETTER UNDERSTAND THE HISTORICAL SIGNIFICANCE OF SEA ISLAND AS IT RELATES TO THE EARLY SETTLEMENT OF BRITISH COLUMBIA, THE DEVELOPMENT OF COMMERCIAL FISHERIES AND THE DEVELOPMENT OF THE AVIATION INDUSTRY ON THE WEST COAST.	<ul> <li>Establish a Heritage Plan for Sea Island with guidelines on how to protect heritage resources.</li> <li>Identify and assess heritage resources and opportunities to preserve or protect significant heritage materials .</li> <li>Work with special interest groups to better understand the historical significance of Sea Island.</li> </ul>



### 2.3 WASTE

With over 26 million passengers traveling through YVR in 2024, waste represents one of the most visible and immediate forms of environmental impact. Reducing waste demonstrates a commitment to sustainability and aligns with our commitment to operational resilience and customer excellence. Being a leader in waste reduction and waste diversion and moving towards a circular economy aligns with our vision that decarbonization of our industry is not only the right thing to do, but also a viable, sustainable, and smart business strategy.

Substantial effort and investment are required to ensure we design, build and operate the right environment for effective waste management at YVR and to bring our business partners and customers on this journey with us. Achieving this will be no small feat as it will require a paradigm shift in how we conduct business while meeting the needs of our community and the economy that supports it.

Waste diversion from landfill has been a long-standing pillar of our environmental goals and will continue to be as we navigate waste management going forward.

# To highlight our progress to date, our waste diversion has increased from 38% in 2012 to 53% in 2024 while at the same time garbage per passenger decreased by 24%.

While these are positive results, we know we can do better. We are setting the goal of achieving Zero Waste for the Main Terminal by 2040 and will be exploring ways to expedite that time frame.

Through our work on decarbonization and energy, we understand how important it is to build from a strong foundation to achieve success. Which is why over the next three years, we will develop a detailed action plan to achieve Zero Waste by 2040, or sooner, that will integrate into the 2025-2027 Strategy. At the same time, we will continue our work to improve our ongoing waste reduction and diversion initiatives including achieving 60% diversion from the Main Terminal by 2027, while adopting the principles of Zero Waste and operating in a circular economy at every opportunity.



### WASTE | VISION

Achieve zero waste for the Main Terminal by 2040, while pursuing efforts to decrease that timeline, adopting zero waste principles and advancing the circular economy on Sea Island.

# 2.3 WASTE

OUTCOMES	2025-2027 INITIATIVES	
ZERO WASTE OPERATIONS FOR THE MAIN TERMINAL BY 2040 INCLUDING AT LEAST 90% OF TOTAL WASTE GENERATED DIVERTED FROM LANDFILL.	<ul> <li>Produce a zero waste 2040 action plan by end of 2027 including a capital investment plan outlining specific initiatives, implementation timelines, cost, savings, potential carbon impacts, and accelerated timeline options.</li> <li>Conduct ongoing waste audits to clarify opportunity areas for improved waste reduction and diversion.</li> <li>Conduct a feasibility study of an anaerobic digester implementation program to expand organic material dehydration throughout the Main Terminal.</li> <li>Conduct a reusable food service ware feasibility study.</li> </ul>	
<ul> <li>IMPROVE WASTE REDUCTION AND DIVERSION INCLUDING:</li> <li>20% reduction in total waste generated per passenger (g/PAX) from a 2012 baseline by 2027</li> <li>40% reduction in garbage generated per passenger (g/PAX) from a 2012 baseline by 2027</li> <li>60% diversion from landfill in Main Terminal by 2027</li> <li>100% compliance with YVR's Single-Use Plastics Reduction Plan</li> </ul>	<ul> <li>Revise the Airport Authority's Sustainable Purchasing Policy and Supplier Code of Conduct to clarify our procurement and supplier expectations and requirements focused on minimizing waste generation.</li> <li>Trial modification of existing waste &amp; recycling infrastructure to accommodate improved recycling (e.g., organic recycling stream in 3-way public bin or single stream recyclables).</li> <li>Implement paper towel recycling in all washrooms and office kitchen/ lunchroom areas and explore the use of hand dryers where possible.</li> <li>Expand existing liquid diversion program to all food courts and explore expanding to other areas of the Main Terminal.</li> <li>Revise all waste and recycling signage to reflect current waste composition and to ensure consistency.</li> <li>Continue to foster and explore a terminal-wide food recovery program for commercial business partners.</li> <li>Update the Single-Use Plastics Reduction Plan for commercial business partners, as well as explore the implementation of a terminal-wide soft plastic recycling program.</li> </ul>	





# 2.3 WASTE

OUTCOMES	2025-2027 INITIATIVES
INTEGRATION OF CIRCULARITY ON SEA ISLAND WITH THE ESTABLISHMENT OF CLOSED-LOOP SYSTEMS.	<ul> <li>Collaborate with commercial business partners to better understand their supply chains and process flows of their goods and services arriving on Sea Island.</li> </ul>
	<ul> <li>Establish partnerships with local donation or charitable organizations for old/unused items that can be reused/repurposed.</li> </ul>
	<ul> <li>Identify local start-up businesses or other organizations/institutions (e.g., universities, not-for-profits, etc.) focused on salvaging, reusing and upcycling materials and pilot collaborative opportunities.</li> </ul>
	<ul> <li>Explore incentive programs for commercial business partners to promote circularity behaviours.</li> </ul>





# 03 Environmental Management Programs

# 03 Environmental Management Programs

YVR is surrounded by the Fraser River and the Salish Sea, both significant ecosystems that are affected by rapid regional growth and home to environmentally sensitive fish and bird habitat. We strive to be a leader in environmental management by maintaining robust programs aligned with regulatory obligations and supported by appropriate policies and procedures.

We actively identify, seek out and report issues and hazards, promoting a culture of accountability. And we always seek to improve our performance because we care about our environment and our place in it.

We are also doing our part to support the United Nations Sustainable Development Goals. Our most significant contributions are in the following eight areas:



#### ENVIRONMENTAL MANAGEMENT PROGRAMS





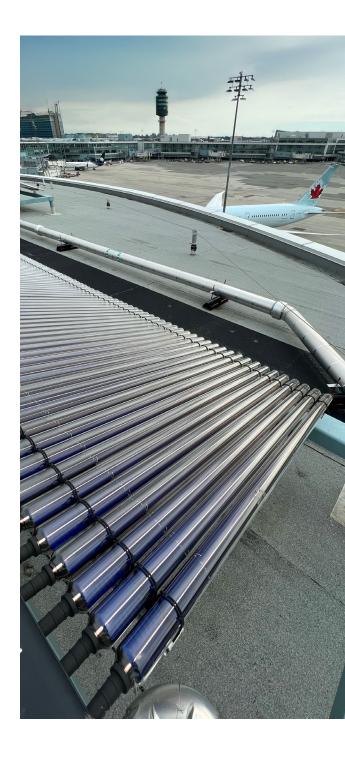
#### CARBON MEASUREMENT & CARBON NEUTRALITY

YVR has been a carbon neutral airport since 2020. We achieve carbon neutrality annually by measuring our emissions from operations (Scope 1 and 2) and corporate travel (Scope 3), reducing emissions where we can, and then by purchasing high quality BC-based carbon offsets.

YVR is one of only three airports in North America and the only airport in Canada to achieve the Level 4+ Carbon Accreditation from the Airports Council International Airport Carbon Accreditation (ACA) Program, recognizing our leadership in reducing carbon emissions.

Emissions are measured according to an international standard, the Greenhouse Gas Protocol and additional airport-specific guidance provided by the ACA Program. Scope 1 and 2 emissions are reported annually in our Annual and Sustainability Report and undergo third-party limited assurance audit. Scope 3 emissions which include aircraftrelated emissions, non-Airport Authority buildings on Sea Island, non-Airport Authority airside vehicles, and road traffic on Sea Island are also reported annually in our Annual and Sustainability Report. Additional categories including emissions from goods and services purchased by the airport authority, embodied carbon from major buildings and projects, waste generation, lifecycle fuel emissions, and fuel uplifts at YVR will be added to our Scope 3 emissions reporting in 2025. All emissions reporting, including scope 3, undergo a thirdparty review under the ACA program.





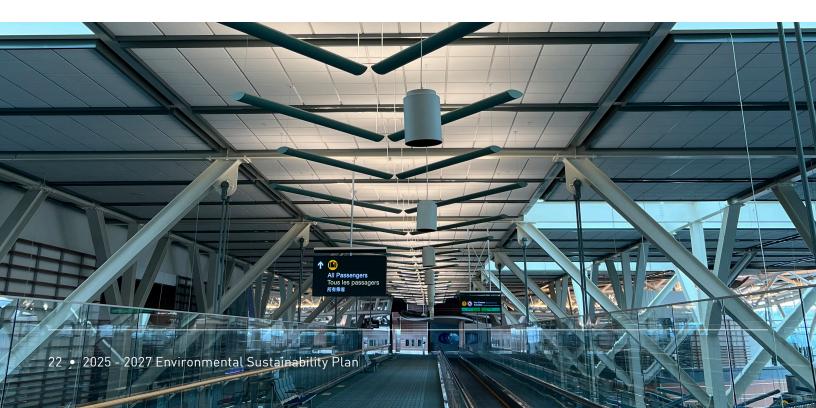


#### **NET ZERO CARBON BY 2030**

The Airport Authority is committed to achieving Net Zero Carbon by 2030 and has a detailed plan to reduce the airport's operational emissions that will guide us through to 2030 to ensure we achieve our target. The plan outlines four decarbonization pathways:

- Energy conservation and electrification in our buildings: meeting operational requirements more efficiently and using less energy for heating/cooling, cooking, lighting and other electrical loads. Switching from natural gas to renewable electricity where possible.
- **Greening our fleets**: investing in electric and hydrogen vehicles while also right sizing the fleet to match operational requirements and switching to renewable fuels for heavier equipment.
- **Replacing fossil fuels with renewable alternatives:** investing in 100% green electricity and on-site solar, securing renewable natural gas for heating/cooking, and purchasing renewable diesel for generators.
- **Closing the gap:** investing in high quality carbon removals for the emissions that remain. This could include investments in technology like direct air capture or bio-sequestration projects.

Since the roadmap was announced in 2021, the Airport Authority has made significant capital investments to improve efficiency and reduce emissions from heating, ventilation, and air conditioning systems as well as lighting in the Main terminal. We are also in the process of converting hot water systems to high efficiency electrically driven heat pumps. Our biggest investment by 2030 will be the completion of one of Canada's largest geoexchange systems which will enable YVR to harness the earth's own heating and cooling properties, backed by high-efficiency boilers using renewable natural gas. When complete in 2030, it will save over 4,800 tonnes of carbon emissions every year. We are also gradually increasing our investment in renewable fuels – both renewable diesel and renewable natural gas – to maintain a declining emissions trend year-over-year until 2030. The Airport Authority is also investing in plug-in hybrid, electric, and hydrogen fuel cell fleets as gasoline vehicles reach end of life.





#### STRATEGIC ENERGY MANAGEMENT

Strategic Energy Management is the process of monitoring energy use, making operational and technological changes to reduce energy consumption without compromising functionality - and is integral to achieving net zero carbon by 2030. The Airport Authority has been participating in a BC Hydro-funded Strategic Energy Manager Program for more than two decades. As part of this program, the Airport Authority:

- Identifies, supports, and reports on energy-saving opportunities at Airport Authority-operated facilities on an ongoing basis, guided by a Strategic Energy Management Plan (SEMP).
- Identifies and implement actions to minimize the greenhouse gas emissions from natural gas, electricity and generator use in Airport Authorityoperated facilities and Airport Authority-owned fleet vehicles.

To achieve its goals, the Airport Authority is focusing on efficiency improvement and switching to low-carbon alternatives, such as electricity and renewable natural gas.



#### DECARBONIZING AVIATION

While we do not have direct control over emissions from outside of our operations—those of our airlines and the airport community—we are committed to supporting all partners in reducing their emissions. This collective effort will drive performance and sustainability across our supply chain, which ultimately benefits our industry as well as our community and the surrounding environment. While we aim to achieve net zero emissions by 2030 for our direct emissions (Scope 1 and Scope 2) our next step is to address Scope 3 emissions from the wider airport community and support the aviation industry goal of net zero emissions by 2050. This includes the transition to sustainable aviation fuel (SAF) as well as the addition of hybrid-electric, electric, and hydrogen-powered aircraft to airline fleets.

Some of the initiatives that are underway include:

- Collaborating with the Province of BC and industry leaders to explore a supply chain for made-in-British Columbia Sustainable Aviation Fuel (SAF).
- Offering a Low Carbon Jet Fuel Incentive Program to provide incentives to airlines who use SAF at YVR.
- Strengthening regional collaboration between BC and Cascadia airports including supporting the creation of a net zero airports action plan for the BC airport network with and collaborating with Seattle (SEA) and Portland (PDX) airports on aviation decarbonization and SAF development.
- Studying the feasibility of hydrogen infrastructure at airports in Canada in collaboration with hydrogen aircraft industry leaders (Airbus and ZeroAvia).
- Providing ground power units to enable crews to shut down aircraft engines and plug into BC's clean electricity while aircraft are at the gate and investing in airside charging stations to support electric ground support equipment and vehicles.



#### YVR ENERGY STRATEGY

Energy is at the core of everything we do, and as we look ahead, we recognize that our customers are also electrifying key parts of their operations. As the industry moves toward decarbonization, collective energy demands are rising, and the risk of being able to secure a sufficient, reliable and sustainable energy supply is becoming a real concern. To guide us with this work, in 2024 we established an Energy Advisory Council and together, we will spend the next three years planning and designing an energy roadmap for YVR.



Energy Advisory Council Left to Right: Frans Tjallingii, Bob Elton, Tamara Vrooman, Claudia Salem, Wal van Lierop, Christoph Frei, Brad Griffin (not pictured)





#### GREEN TRANSIT & CYCLING ON SEA ISLAND

To support low-carbon travel, the Airport Authority was key investor in the construction of the Canada Line rapid transit rail connecting YVR to downtown Vancouver and Richmond. YVR now has the highest percentage of transit-connected passengers out of any airport in North America and continues to promote this form of travel to its passengers. We also provide fully subsidized transit passes to its employees and offers monthly subsidies for other forms of green commuting including cycling, walking, and carpooling.

We also invest in electric vehicle charging infrastructure on Sea Island to support electric ride-hailing, taxi, and rental fleets as well as charging for employees and passenger vehicles. We are also making continued investments in cycling and multi-use infrastructure on Sea Island, not only for commuting and passenger travel, but also recognizing that Sea Island is an attractive destination for recreational cycling. Separated multi-use paths and dedicated bike lanes are planned and constructed as roadways/bridges are being upgraded or land is being redeveloped.



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#### **CLIMATE CHANGE ADAPTATION**

In addition to our climate mitigation efforts outlined in our Roadmap to Net Zero Carbon by 2030, we must also ensure that we are prepared for the impacts of climate change, and are able to adapt, now and in the future. As part of our capital and asset management program, we continue to invest in measures to increase our climate resilience. This includes updating our dike and drainage systems, enabling us to adapt to more frequent and intense rainfall events; improving our heating, ventilation and cooling systems (HVAC) to help ensure we are ready for more extreme temperatures; and making investments to support the low visibility capability of our airside, ensuring we remain resilient and operational in the event of fog and increased forest fires. Investments to maintain, manage and safeguard our infrastructure are key components of our commitment to operational resilience and customer excellence. In addition to this, we continue to closely monitor the current impacts of climate change including extreme snow and cold events, increased precipitation and warmer-than-average temperatures and wildfires, to better inform us and prepare for such events in the future. Risks are identified and mitigating actions are detailed in our annual Climate Change Resilience Report.



## 3.3 AIR QUALITY MONITORING

We are committed to reducing air pollution and track air quality through continuous ambient air quality monitoring. We voluntarily participate in the Lower Fraser Valley Air Quality Monitoring Network. As part of this network, Metro Vancouver operates an air quality monitoring station located at YVR near the South Runway. Metro Vancouver analyzes this data each year to demonstrate trends and performance against annual, hourly, and 24-hour objectives. Data is compared with Metro Vancouver's current ambient air quality objectives and released in May of each year in YVR's Sustainability Report. We also report data to the National Pollutant Release Inventory (NPRI) on an annual basis.





# 3.4 WASTE REDUCTION

Our waste and recycling program is a comprehensive initiative aimed at reducing waste and increasing diversion. The core streams of our waste management program consist of organics, mixed containers, paper, and garbage alongside a number of other streams, such as kitchen grease, liquids, light bulbs, electronics and batteries. Key waste reduction and diversion initiatives include reducing single-use plastics, utilizing waste sortation stations in food courts, operating on-site composters, piloting new and advanced technologies to manage waste, and collaborating with our business partners to minimize materials showing up at the airport in the first place. In addition, a significant component of this program is focused on education and engagement. Developing and implementing educational resources, such as signage and guides, as well as engagement activities, such as Waste Wars to promote positive behavioural changes make up our Waste Management Program.



# 3.5 WATER CONSERVATION

We remain committed to water conservation through a series of initiatives aimed at reducing potable water usage and promoting efficient water management practices. As an important part of our commitment as a Salmon-Safe organization, we embed water conservation in how we build and operate our assets. Between 2012 and 2024 YVR reduced the amount of potable water consumed per passenger by nearly 50% from 69 litres per passenger PAX to 36 litres per passenger. Initiatives include the installation of low-flow fixtures, the use of drought-resistant landscaping, and the implementation of non-potable water systems where appropriate. By continuously monitoring water consumption and engaging with tenants and stakeholders, we strive to minimize its potable water footprint and contribute to the sustainability of the airport environment.

# 3.6 ARCHAEOLOGY & HERITAGE

YVR is committed to respecting and safeguarding Musqueam's cultural heritage through responsible land stewardship. Our archaeology procedures ensure that all ground-disturbing activities undergo archaeological reviews by qualified professionals in collaboration with the Musqueam Indian Band. This process helps identify, protect, and manage cultural resources while meeting regulatory requirements.

YVR is also exploring opportunities to enhance this approach by developing a Heritage Program which integrates heritage considerations into existing practices. This initiative would further support the recognition and protection of Musqueam's cultural heritage, sacred sites, and enduring connections to the land, strengthening our commitment to meaningful collaboration and stewardship.







# 3.7 ECOSYSTEM HEALTH

#### SALMON-SAFE CERTIFICATION

In 2016, YVR was the first airport in North America to achieve Salmon-Safe certification and, in 2022, we become the first organization in Canada to be recertified for another five years. As the airport takes a leadership role in shaping a greener tomorrow, this renewal acknowledges YVR's continued efforts and commitment to ensure its land and water management practices protect Fraser River water quality and enhance the habitat so Pacific salmon can thrive.

#### INTEGRATED PEST MANAGEMENT

Our Integrated Pest Management Plan (IPMP) ensures a comprehensive approach to managing pests on Sea Island. It prioritizes prevention and control strategies that are effective, cost-efficient, and environmentally responsible. Aligned with Salmon-Safe requirements, the IPMP aims to minimize the use of hazardous chemicals and pesticides, reducing risks to both human and ecological health.

#### SURFACE WATER QUALITY MONITORING

As a Salmon-Safe certified Airport we take water quality monitoring seriously. Our Water Quality Monitoring Plan outlines how we protect the surrounding Fraser River aquatic ecosystem from contamination and other water quality-related impacts due to surface runoff from Sea Island. The Plan details the framework, best practices for pollution prevention and control, the water quality monitoring program, and regulatory compliance to ensure adaptive management of water quality at YVR.

During snow and sub-zero temperatures, Aircraft De-icing Fluid (ADF) is essential for safe aircraft operations. We maintain a comprehensive glycol management program to collect, recover, store, and remove sprayed ADF while monitoring potential glycol presence in airport drainage through rigorous perimeter sampling. Investments in infrastructure to capture and contain de-icing fluid, along with proactive monitoring, enable early detection and resolution of equipment or infrastructure issues.







# 3.8 WILDLIFE MANAGEMENT

YVR is located on Sea Island at the mouth of the Fraser River, one of the largest estuaries on the west coast of North America. We coexist with a unique and rich habitat of local wildlife, birds, and plant species. Our wildlife management team ensures safe aircraft operations while conserving wildlife. Aircraft operating at YVR share the skies with migratory birds from across the globe. Many of these birds rely on the productive habitats found on the Fraser River delta. We mitigate the risk of collisions between these animals and aircraft through our Wildlife Management Program. Our program is informed by a detailed understanding of the behavioural ecology of wildlife. Our work is supported by data systems, like avian radar, to document and understand patterns of bird behaviour. From this information, we strategically deploy a variety of non-lethal techniques to disperse animals away from the runways and aircraft flight paths. These include using trained birds of prey and dogs to scare birds from the airfield and capturing and translocating wild birds of prey away from the airport to safer, more suitable habitats. Decisions to permanently remove wildlife are rare, occurring only when we have exhausted all available non-lethal means of control, or wildlife demonstrates behaviour that is likely to result in an aircraft safety issue.





We promote environmental sustainability and regulatory compliance through comprehensive environmental impact assessments of projects on airport lands. In accordance with the Canadian Impact Assessment Act, the Airport Authority reviews all projects to ensure responsible design and mitigate potential environmental impacts. Impact assessment studies and environmental reviews are integrated with the Airport Authority's facility permit process which ensures projects meet applicable standards including the YVR Land Development and Construction Bylaw and Development Rules.

#### **CONSTRUCTION MONITORING**

Environmental monitoring of construction activities is conducted when impact assessment reviews identify certain risks and need for follow up programs to ensure environmental mitigation measures are implemented and are effective. Monitoring plays a vital role in ensuring compliance with environmental regulations and standards. Regular site visits and environmental reviews help identify and address potential issues promptly.

YVR is also committed to minimizing the environmental impact of construction activities. As part of our Construction Waste Management Plan, we require waste management plans for large scale projects or those generating significant waste. These plans prioritize reusing and recycling materials to minimize landfill contributions.



# 3.10 CONTAMINATED SITES

Our Contaminated Sites Program assesses and manages contaminants that can be found at YVR to ensure protection of human health and the environment. Its primary objectives are to ensure thorough site assessment and contaminant management, mitigate environmental impacts, site restoration, and maintain regulatory compliance. Additionally, the program emphasizes collaboration with stakeholders and the Musqueam community to address environmental concerns and protect archaeological and cultural resources.



# 3.11 HAZARDOUS MATERIALS MANAGEMENT & SPILL RESPONSE

Our Hazardous Materials Management Program ensures the safe handling, storage, use, and disposal of hazardous substances at YVR, minimizing risks to human and environmental health. Jointly managed by the Climate and Environment and Health & Safety departments, the program exceeds regulatory requirements through planning, risk assessment, emergency preparedness, training, and evaluation. The Hazardous Materials Spill Response Program focuses on spill prevention and mitigation to protect people and the environment. Integrated with YVR's Safety Management System, it includes clear response procedures, spill data updates, and compliance measures. The program also engages YVR tenants and operators to promote responsible spill management. Both programs establish measurable safety, security, and environmental goals, ensuring continuous improvement and sustainable operations.



# 3.12 ENVIRONMENTAL AUDITING

The Environmental Audit Program ensures regulatory compliance and promotes continuous improvement in environmental management by evaluating tenant adherence to legislation and best management practices by mitigating risks and enhancing environmental awareness. Tenants are required to operate responsibly and comply with applicable federal and provincial legislation, relevant policies, and tenancy agreements. The program aims to assess compliance, reduce risks, foster awareness, enable improvement, and demonstrate due diligence, all of which support environmental stewardship, regulatory compliance, and community engagement.



# 3.13 ENVIRONMENTAL COMPLIANCE

Environmental compliance is essential to uphold federal and provincial regulations, maintain operational licenses, and minimize legal risks. It reflects the Airport Authority's commitment to sustainability by integrating safety, security, and environmental performance into its operations while fostering community trust through responsible environmental management. The Environmental Compliance & Protection team oversees key programs such as Petroleum Storage Tank Management, Oil-Water Separator Monitoring, and Halocarbon Management to prevent contamination and ensure regulatory compliance. Through cross-department collaboration, the team enhances project management and drives initiatives that go beyond regulatory requirements.



## 3.14 AERONAUTICAL NOISE MANAGEMENT

While there are substantial economic and social benefits provided by the airport to the region, there are local impacts, including noise, on communities located around YVR. The goal of the YVR Aeronautical Noise Management Program is to minimize the level of disturbance to those living in the vicinity of the airport while recognizing the need for 24-hour airport operations to serve the region and support the economy of British Columbia.

The YVR Aeronautical Noise Management Program includes elements such as: monitoring and reporting noise levels around the airport; maintaining an Aeronautical Noise Management Committee; checking for compliance with Noise Abatement Procedures; receiving and responding to community questions and concerns; and actioning initiatives in the 2025 to 2029 Noise Management Plan.

# 04 Community Engagement

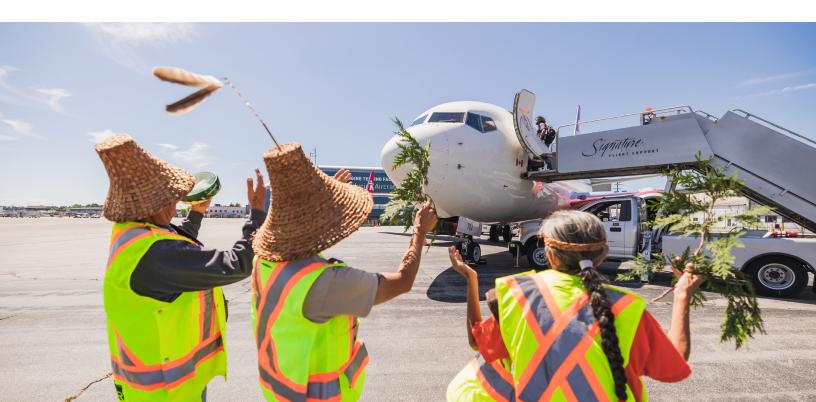
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# 04 Community Engagement

Achieving the strategic priorities of this plan and continuing to support and improve our ongoing environmental programs not only requires strong coordination between the many departments within the Vancouver Airport Authority, it also needs support from the Musqueam Indian Band, involvement from YVR tenants and business partners, and input from the surrounding community.

## 4.1 MUSQUEAM FRIENDSHIP & SUSTAINABILITY AGREEMENT

The Musqueam Indian Band – YVR Airport Sustainability and Friendship Agreement is a 30-year partnership based on mutual respect, aiming for a sustainable future for both communities. The agreement focuses on four key pillars: social, economic, environmental, and governance. Economically, YVR contributes one percent of its annual revenue to the Musqueam Indian Band. Socially, the agreement supports education-to-employment pathways, including scholarships, apprenticeships, and business collaborations. Environmentally, it emphasizes protecting the land and waters around Sea Island, with joint efforts in noise management, environmental restoration, and archaeological protection. In governance, both parties ensure the agreement's ongoing success through regular consultation and relationship-building. The agreement also highlights the importance of respecting traditional knowledge and archaeological resources, with a focus on collaboration and capacity building for local First Nations.



# 4.2 ENVIRONMENTAL ADVISORY COMMITTEE

The Environmental Advisory Committee is a consultative working group that provides advice to the Airport Authority on environmental issues arising from the development and operation of the airport. It provides a forum for key stakeholders to share specific knowledge or perspectives and provide direct feedback about environmental management issues of relevance to the Airport Authority. Committee representatives are appointed by their stakeholder groups, which include community and environment groups, industry, airlines, representatives from the federal and municipal governments and the Musqueam Indian Band.



### 4.3 AERONAUTICAL NOISE MANAGEMENT COMMITTEE

The Aeronautical Noise Management Committee plays a pivotal role in guiding efforts by YVR to mitigate the effects of aircraft noise on surrounding communities. Through collaborative efforts involving strategic planning, continuous monitoring, education and awareness, and engagement with key stakeholders, the committee works to ensure a balance between the operational needs of the airport and the well-being of local residents. This commitment to noise management not only fosters community trust but also supports the sustainable growth of airport activities. Members include: Nav Canada, Transport Canada, Municipal Staff, Citizen Representatives, Musqueam, and Airlines and Aircraft Operators.



## 4.4 TENANT ENGAGEMENT: PROJECT GREEN YVR

Project Green YVR is an Airport Authority initiative that helps Sea Island businesses reduce their waste, water and energy use to limit their impact on the environment and save money through a variety of Project Green YVR Programs.

Project Green YVR helps to build strong relationships with Sea Island businesses to tackle today's environmental challenges and promote green technologies.







# 05 Join Our Journey



# 05 Join Our Journey

The 2025-2027 Environmental Strategy includes commitments that will be challenging to plan, launch and deliver. This plan is visionary, but we believe the targets are achievable with a concerted investment, coordination and changes in culture. Vancouver Airport Authority will support the plan and will monitor and report annually on progress against our goals and the lessons learned, while seeking regular feedback on how to do better. We report annually on our activities through our suite of Annual and Sustainability Reports which include our Annual Report, our Sustainability Report, and our Climate Change Resilient Report and can be found on our website at yvr.ca.





# Become part of the journey!

Achieving environmental excellence in YVR's diverse and complex setting requires collaboration and partnership and is achieved through the actions of all of us.

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Flying through YVR? We hope you have a wonderful experience and enjoy our many amenities. You can help reduce your environmental impact by:

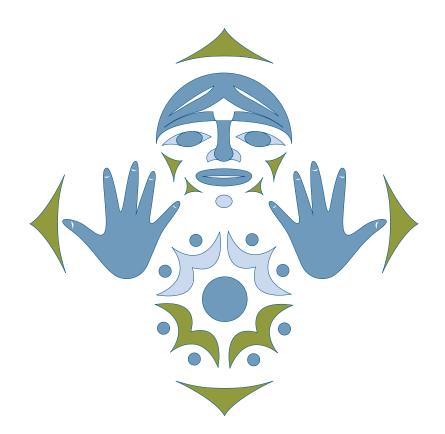
- Reduce your paper use by selecting paper-free options when offered, such as electronic boarding cards.
- Take a sustainable mode of transportation to get to and from the airport.
- Use your own refillable water or coffee/tea cup to prevent the use of single-use items.
- Ensure that your waste makes it into the proper receptacle.
- Consider buying carbon offsets to account for the carbon emissions from your flight. Many airlines offer this service when you purchase your ticket.
- Are you a business that operates on Sea Island? Consider joining Project Green YVR, our community of businesses that share our commitment to reducing our environmental impact. Learn about how other businesses are tackling the environmental problems of today, discover resources to help your business and share your knowledge with others. Together, we can solve problems and celebrate our successes.

#### YVR ENVIRONMENTAL SUSTAINABILITY PLAN

Vancouver Airport Authority PO Box 44638 YVR Domestic Terminal RPO Richmond, BC V7B 1W2 Canada

yvr.ca/environment

For questions regarding this document, please contact us at the following: Email: environment@yvr.ca



YVR sits on the traditional, ancestral and unceded territory of the Musqueam people.

