# Succeeding in Uncertain Times

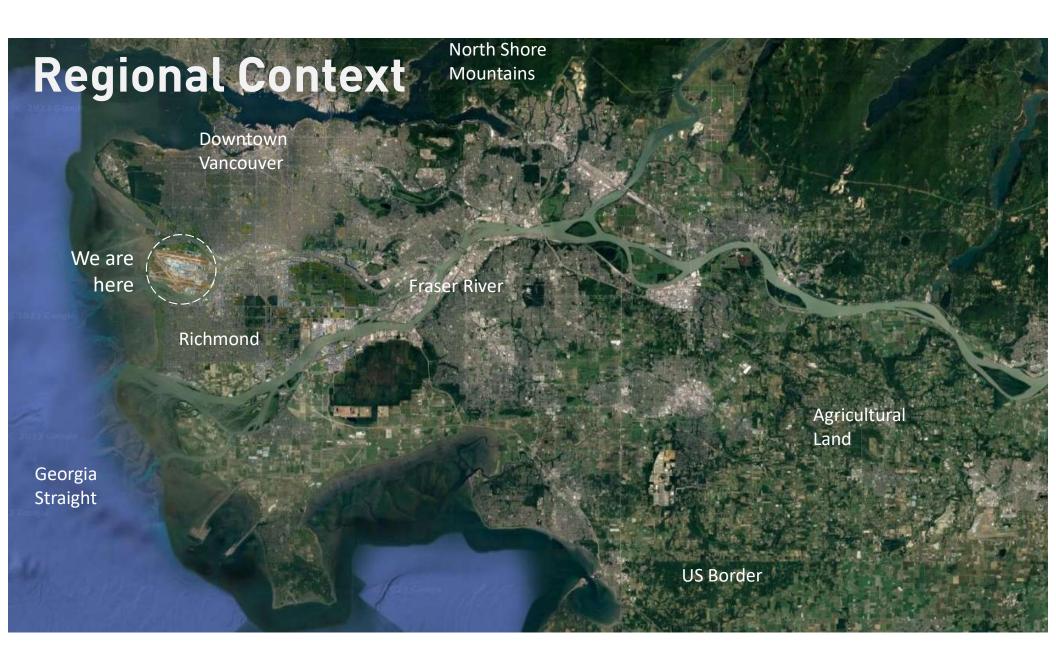
#### WiLAT Sip and Chat

Peta Wolmarans, Director Planning

Vancouver Airport Authority









#### Vancouver International Airport



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Global gateway, local economic generator, community contributor



Vancouver Airport Authority (VAA), a nonshare capital community-based corporation

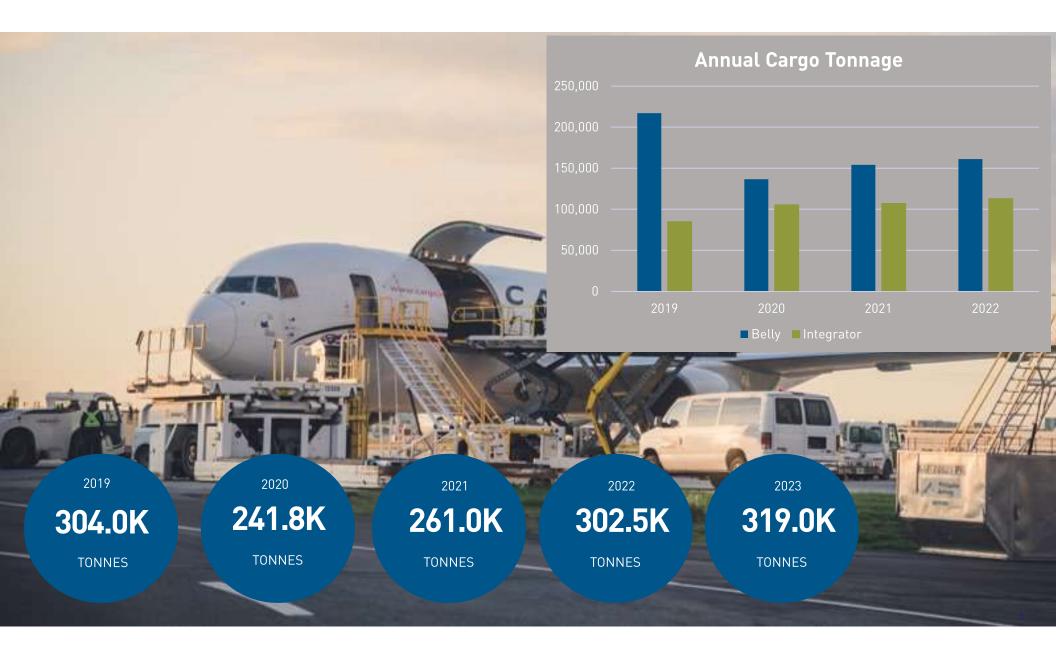


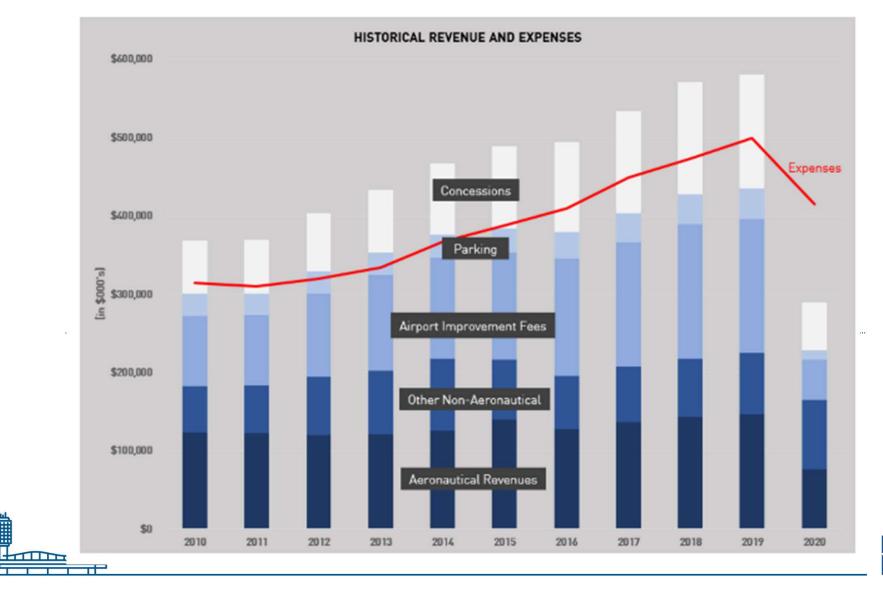
Best Airport in North America (SKYTRAX) 12 years in a row



One of the cleanest, safest and healthies airports in the world (Covid-19 Airport Excellence)











## Our Strategic Plan Notre Plan stratégique 2022-2024

YVR exists to serve our community and the economy that supports it...

## **Six Strategic Themes**



#### Staying ahead of COVID



Strengthening the Core



Climate



**Financial Sustainability** 



Gateway to the New Economy



Purpose through People



Reconciliation • Customer • Digital



## Staying Ahead of COVID

- Building operational resilience
- Working with partners to coordinate efforts

AIR CANADA

 Leveraging technology to improve predictability, efficiency, and customer experience

## **Strengthening the Core**

- Asset management and maintenance
- Driving value from existing infrastructure
- Airside optimization
- Terminal optimization



### Climate

- Net Zero by 2030
- Reducing airside emissions
- Positioning Sea Island as a platform for the zero-carbon economy
- Transition to a multi-modal hub
- Preparing for impact of climate change on our infrastructure

#### Gateway to the New Economy

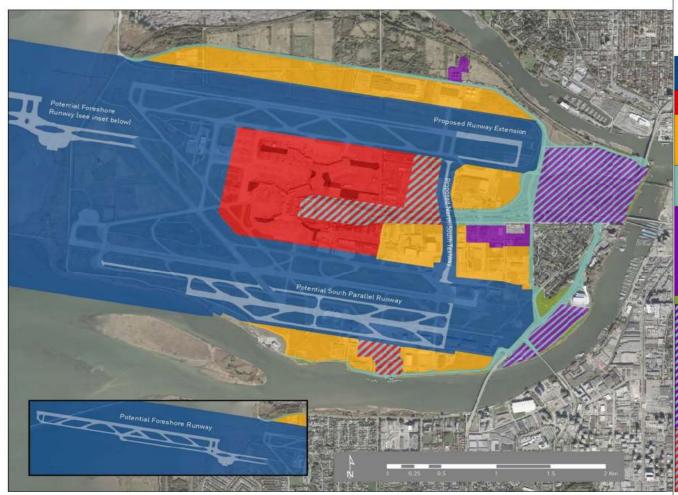
- Supporting emerging and new aviation markets
- Realizing the potential of our land assets
- Providing a platform for growth industries
- Exploring the Free Trade Zone concept
- Partnering for prosperity

# Positioning YVR for the Future





#### Previous YVR 2037 Land Use Plan



#### Vancouver International Airport

Land Use Plan - Approved May 8, 2018

YVR recognizes that Sea Island holds historical and cultural significance to Musqueam and that recorded and unrecorded heritage resources are

Airfield - Land for existing and future airfield to support the safe movement of aircraft. Includes runways, runway end safety areas, taxiways, airside roads, navigational sids and other facilities.

Terminal - Land for existing and future passenger terminal facilities, aprons, and ancillary commercial and operational uses.

Airside - Land for existing and future uses that require direct access to the airfield. Priority to be given to those uses requiring access for aircraft [cargo buildings, aircraft maintenance, etc.] and then to those uses requiring vehicle access to the airfield.

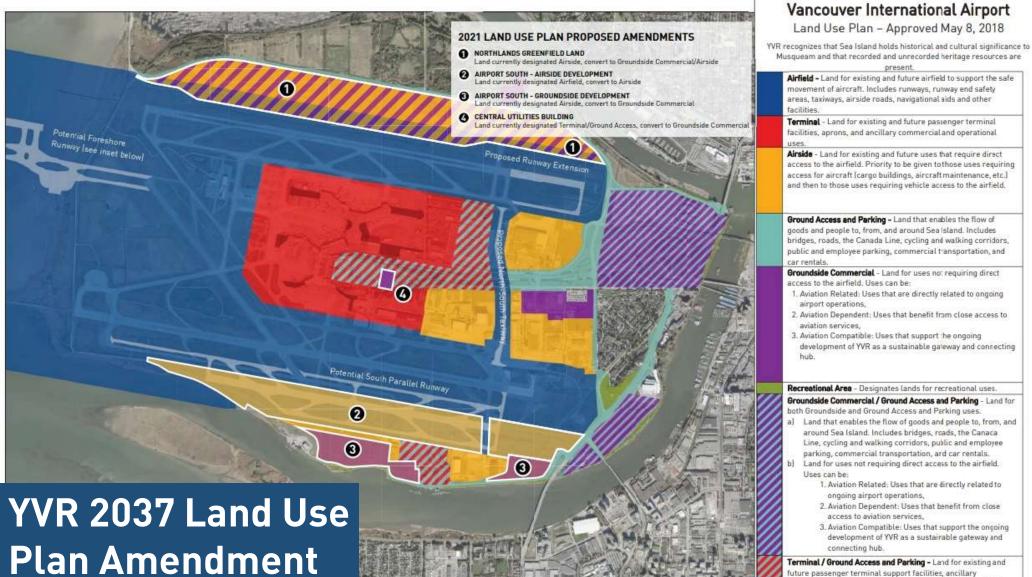
Ground Access and Parking - Land that enables the flow of goods and people to, from, and around Sea Island. Includes bridges, roads, the Canada Line, cycling and walking corridors, public and employee parking, commercial transportation, and car rentals.

- Groundside Commercial Land for uses no: requiring direct access to the airfield. Uses can be:
- Aviation Related: Uses that are directly related to ongoing airport operations,
- Aviation Dependent: Uses that benefit from close access to aviation services,
- Aviation Compatible: Uses that support the ongoing development of YVR as a sustainable galeway and connecting hub.

#### Recreational Area - Designates lands for recreational uses. Groundside Commercial / Ground Access and Parking - Land for both Groundside and Ground Access and Parking uses.

- a) Land that enables the flow of goods and people to, from, and around Sea Island. Includes bridges, roads, the Canaca Line, cycling and walking corridors, public and employee parking, commercial transportation, and car rentals.
  b) Land for uses not requiring direct access to the airfield.
  - Uses can be: 1. Aviation Related: Uses that are directly related to ongoing airport operations,
    - Aviation Dependent: Uses that benefit from close access to aviation services.
    - Aviation Compatible: Uses that support the ongoing development of YVR as a sustainable gateway and connecting hub.

Terminal / Ground Access and Parking - Land for existing and future passenger terminal support facilities, ancillary commercial and operational uses and land that enables the flow of goods and people to, from, and around Sea Island. Includes bridges, roads, the Canada Line, cycling and walking corridors, public and employee parking, commercial transportation, and car rentals.



Recreational Area - Designates lands for recreational uses.

Groundside Commercial / Ground Access and Parking - Land for both Groundside and Ground Access and Parking uses.

- a) Land that enables the flow of goods and people to, from, and around Sea Island. Includes bridges, roads, the Canaca Line, cycling and walking corridors, public and employee parking, commercial transportation, ard car rentals.
  - Land for uses not requiring direct access to the airfield.
    - 1. Aviation Related: Uses that are directly related to
    - 2. Aviation Dependent: Uses that benefit from close
    - 3. Aviation Compatible: Uses that support the ongoing development of YVR as a sustairable gateway and

Terminal / Ground Access and Parking - Land for existing and future passenger terminal support facilities, ancillary commercial and operational uses and land that enables the flow

<sup>2.</sup> Aviation Dependent: Uses that benefit from close access to

<sup>3.</sup> Aviation Compatible: Uses that support the ongoing development of YVR as a sustainable galeway and connecting

Cargo and Logistics Business Enablement corridor improvements

Moray Bridge/ Highway 99

New Cargo Village

Ferguson Rd realignment

# **Building Resilience**





### Real-Time Situational Awareness: Digital Twin and Dashboards







### Airport Risk and Resilience Assessment

#### **Regional Projections**

- IPCC (AR5) climate models
- Projections to 2050 and 2080
  - More intense rainfall events
  - Warmer temperatures, hotter temperatures will occur more often
  - Sea level rise and storm surge
  - Less snow, but unpredictable
  - Drier summers



YVR Climate Change Adaptation Plan

Climate Risk and Resilience Report



### More frequent and intense precipitation events

• BC's Atmospheric River, Nov 2021

## A 'River in the Sky'

Atmospheric rivers are giant bands of water vapour in the sky. They are, on average, 800 kilometres wide, and several hundred kilometres long.

> Water vapour rises over the side of the mountains, and as it cools, it comes down as heavy rain or snow.

WaterVapour

Massidue

©Global News

Runoff from the mountains results in flooding and landslides

Merritt

Vancouver

An average atmospheric river carries 25X the volume of the Mississippi River, or twice the volume of the Amazon River.

Source: Scripps Oceanographic Institute; NOAA; NASA

### **BC's Atmospheric River**





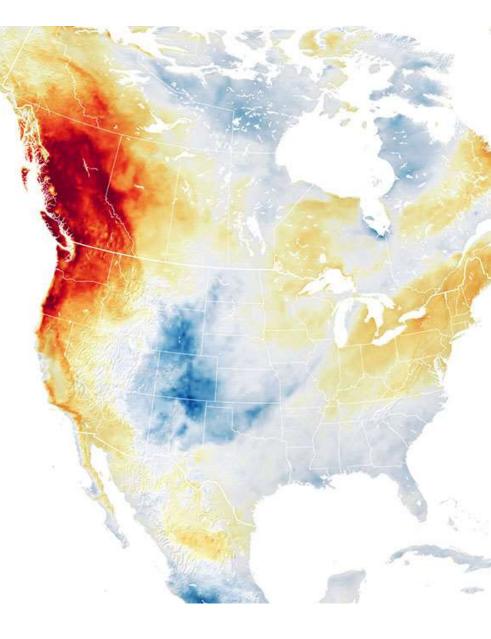


## Heat Dome

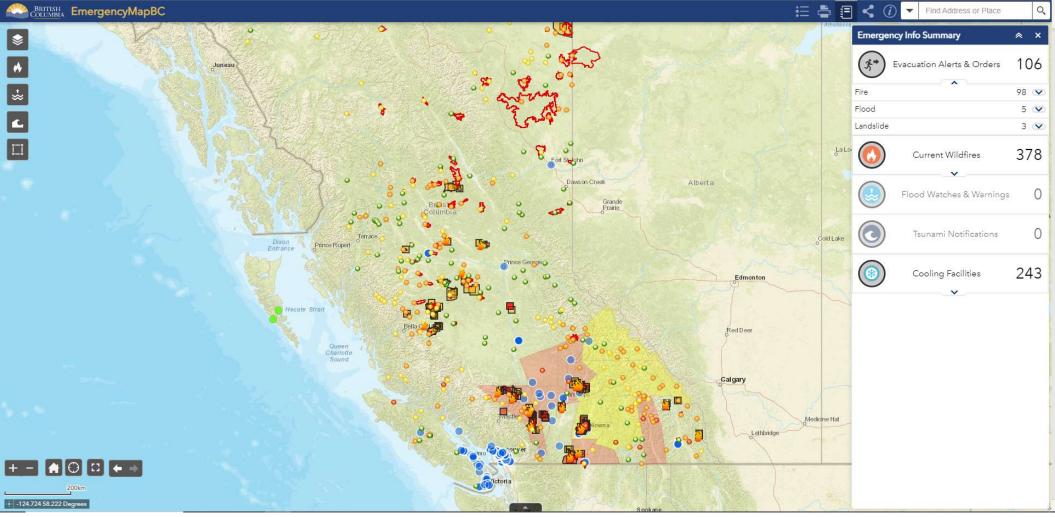
#### June 2021

- Temperatures 20 degrees above normal
- 4 days in June 2021 exceeded 30 degrees C
- Max temp 32.4 degrees





#### Wildfires



### **Snow & Winter Disruption**



#### YVR Report & Action Plan

DECEMBER 2022 TRAVEL DISRUPTION

Vancouver Airport Authority







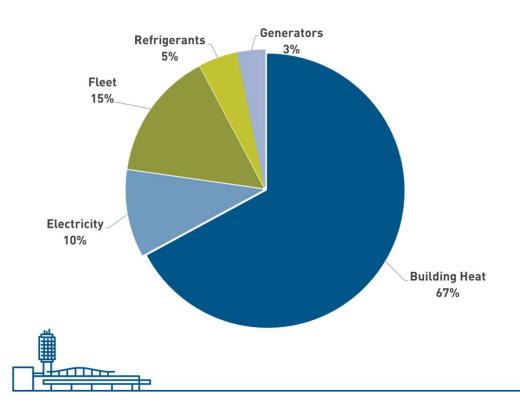
# Tackling New Challenges



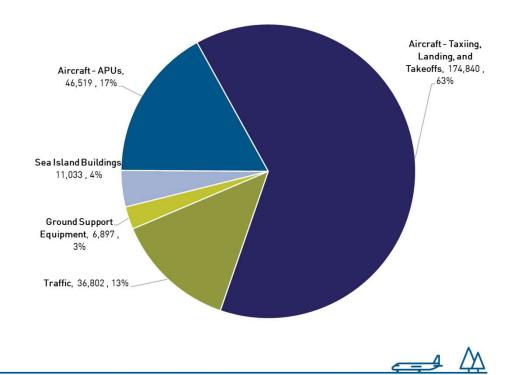


### **Our footprint**

#### Airport Authority Emissions (2022) Scope 1 & 2 = 11,437 tonnes



#### Airport Supply Chain Emissions (2022) Scope 3 = 276,091 tonnes



#### **Decarbonizing Aviation**



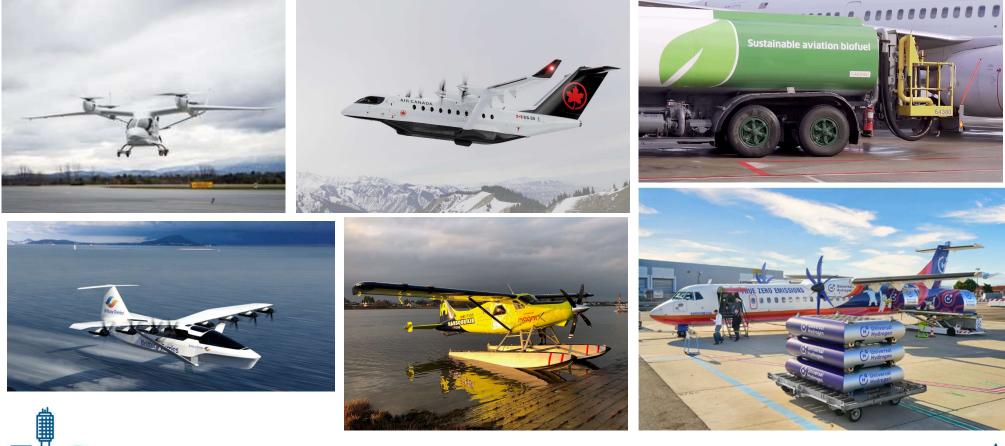






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#### **Future Demand – Aircraft Propulsion**





# **THANK YOU**



