

## STAFF REPORT TO COUNCIL

**PRESENTED:** August 2, 2022 **REPORT:** 21-109  
**FROM:** Environmental Stewardship **FILE:** A05001  
**SUBJECT:** 2021 WHISTLER GREENHOUSE GAS INVENTORY AND CLIMATE ACTION  
PROGRESS REPORT

### RECOMMENDATION FROM THE CHIEF ADMINISTRATIVE OFFICER

**That** the recommendation of the General Manager of Resort Experience be endorsed.

### RECOMMENDATION(S):

**That** Council receive the 2021 Whistler Greenhouse Gas Inventory and Climate Action Progress Report attached as Appendix A to this Information Report No. 22-109.

### PURPOSE OF REPORT

The purpose of this report is to share the 2021 Whistler Greenhouse Gas Inventory and Climate Action Progress Report in the updated reporting format to highlight Whistler's progress towards achieving our climate goals. The report provides a summary of Whistler's community and the Resort Municipality of Whistler's (RMOW) corporate greenhouse gas (GHG) emissions for the calendar year 2021 as well as progress towards the six Big Moves and three Adaptation goals as outlined in the 2022 Big Moves Climate Action Implementation Plan (Big Moves CAIP).

Information Report  Administrative Report (Decision or Direction)

### DISCUSSION

#### Background

On August 2, 2022, the strategically prioritized and action-focused Big Moves CAIP is being presented to Council as the new guiding organization-wide implementation plan for Whistler's action on climate change. This Big Moves CAIP is building on the RMOW's previous climate work as it consolidates the detailed complexity of the 2016 Community Energy and Climate Action Plan (CECAP) with the prioritized, strategic simplicity and community momentum of the 2020 Climate Action Big Moves Strategy (Big Moves). This consolidation addresses both Whistler's climate change mitigation and adaptation planning, two key components of a comprehensive, integrated approach to climate action.

As part of consolidating the 2016 CECAP and the 2020 Big Moves, an updated reporting structure on Whistler's progress towards achieving our climate goals is being proposed. As such, climate action progress reports to Council and the public will shift from quarterly CECAP progress reporting to semi-annual Big Moves CAIP reporting which aim to more clearly illustrate Whistler's progress on climate action. To accommodate these changes, the reporting outline and format for the annual Energy and

GHG Inventory Report (Annual Climate Action Report) was updated to serve as the main Big Moves monitoring tool. The new Annual Climate Action Report format will highlight the main achievements towards each Big Move and Adaptation Goals, in addition to outlining the annual community-wide and RMOW corporate GHG and energy performance. The 2021 Whistler Greenhouse Gas Inventory and Climate Action Progress Report in its updated format is attached as Appendix A.

Public reports on the community and corporate energy and GHG emissions performance have been published annually since 2013 and bi-annually since 2010 and continue to be part of Whistler's commitment under Whistler's Official Community Plan (OCP), the Big Moves CAIP, the BC Climate Action Charter, as well as the newly launched Provincial Local Government Climate Action Program.

## **Analysis**

### **2021 Annual Greenhouse Gas Inventory and Climate Action Progress Report (2021 Annual Climate Action Report):**

The intent of the Annual Climate Action Report is to provide transparent access to relevant GHG emissions data, as well as to inform both RMOW and community decisions as they relate to Whistler's climate action and GHG reduction targets. The 2021 Annual Climate Action Report is divided into six chapters, with chapter 1 and 2 summarizing the main highlights and take-away points regarding climate action in year 2021. Chapter 3 outlines Whistler's community-wide GHG inventory, chapter 4 the RMOW corporate GHG inventory, chapter 5 highlights progress and related actions on each Big Move, and chapter 6 highlights actions towards climate change adaptation.

Note that in 2020, the COVID 19 pandemic resulted in significantly lower GHG emissions due to travel restrictions, social distancing, and working from home when possible. Therefore, the 2020 annual GHG inventory is being treated as outlier in data and comparisons to the 2019 calendar year will be used to inform progress towards achieving our targets and further action on climate change.

### **Community GHG Inventory:**

Whistler's community wide GHG emissions in 2021 are estimated to total 127,337 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e). This is a 17 per cent increase compared to 2020 (107,836 tCO<sub>2</sub>e), 8 per cent decrease from 2019 (137,727 tCO<sub>2</sub>e), and 4 per cent lower than 2007 (133,019 tCO<sub>2</sub>e), but well above (+43 per cent) the 2020 community GHG reduction target levels.

The main reason for this overall increase in GHG emissions is an increase in passenger vehicle kilometers driven in Whistler and a resulting 42 per cent increase in GHG emissions compared to 2020 (46,830 tCO<sub>2</sub>e). In 2020, passenger vehicle activity was significantly lower due to the COVID-19 pandemic and all related restrictions.

In 2021, Passenger vehicle emissions account for 52 per cent of Whistler's community-wide GHG emissions (66,288 tCO<sub>2</sub>e), followed by natural gas for space and water heating in buildings which accounted for 36 per cent (46,751 tCO<sub>2</sub>e) for Whistler's total community-wide emissions in 2021.

The significant increase in community-wide GHG emissions compared to 2020 shows that despite recent achievements and a small decrease in GHG emission compared to 2019, Whistler is currently not on track to meet its GHG emission reduction target of 50% below 2007 by 2030 nor the target goals in most of the Big Moves without significant efforts and changes to our current operations. Further work is needed to identify interventions that will meaningfully impact the trajectory of GHGs. Additional

community engagement and discussion will be held this fall and winter in light of these results and the results of the Balance Model Initiative that has identified similar concerns regarding 2030 targets.

The 2021 GHG emissions per population equivalent<sup>1</sup> (PE) increased by 23 per cent in to 4.27 tCO<sub>2</sub>e/PE. This increase is a result of a 4 per cent decrease in Whistler's population equivalent number in 2021 (29,799) compared to 2020 (31,004) despite an increase in overall GHG emissions.

Community energy consumption for 2021 totaled 3.35 M GJ, which was a 12 per cent increase compared to 2020. Electricity is the most prevalent type of energy consumed in Whistler at 40 per cent of the total consumption, followed by vehicle fuels (30 per cent) and natural gas (28 per cent).

### **RMOW GHG Inventory:**

RMOW corporate GHG emissions in 2021 were 2,257 tCO<sub>2</sub>e. Direct corporate GHG emissions were 1,665 tCO<sub>2</sub>e, which represents a 23 per cent decrease from 2020 and contracted emissions were 592 tCO<sub>2</sub>e, which is a 23 per cent increase from 2020.

GHG emissions across directly delivered and contracted out corporate operations are produced primarily from use of mobile fuels (gasoline and diesels) at 55 per cent, followed by combustion of natural gas at 39 per cent, and electricity at 6 per cent. The decrease in direct emissions can be mainly attributed to a significantly lower electricity emission factor provided by this year's provincial methodology guidance. In addition, corporate fleet fuel use and RMOW fleet related GHG emissions decreased by 13%, mainly due to a decrease in heavy duty diesel usage in the IS fleet.

### **Big Moves Mitigation Progress Highlights:**

A comprehensive list of all actions to support progress towards achieving Whistler's Big Moves goals as outlined in the Big Moves CAIP can be found in Appendix A.

Actions highlights for each Big Move in which a significant milestone was achieved in 2021 and the beginning of 2022 are:

#### **Big Move 1** – Move beyond the car:

- Construction began on Village Gate Blvd bus shelter accessibility expansion in May 2022, targeted for completion in summer 2022.
- Active transportation plan development is underway and on track for council adoption in 2022. In 2021, funding was received and an Active Transportation Sub-committee of the Transportation Advisory Group was formed to guide the development of an Active Transportation Plan for Whistler.
- E-bike pilot program (with Evo) confirmed for August-October 2022.
- BC Transit Future Action Plan developed with BC Transit; on track to go to Council for adoption in September 2022.

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<sup>1</sup> The nature of Whistler being a tourism community means the number of people in Whistler on any given day is generally far greater than the population counts provided Canada Census or BC Statistics estimates. The total Population Equivalent is an estimate of the total number of people in Whistler on an average annualized basis. The indicator is often used in 'per capita' measures to normalize the data and make it comparable to other communities.

**Big Move 2** – Decarbonize passenger and commercial transportation:

- A grant was received from Clean BC Communities Fund for the expansion of the Sea to Sky EV charger network in collaboration with the District of Squamish, Village of Pemberton and Lil'wat Nation. The funding will be used to install 41 Level 2 and DCFCs over the next 4 years.
- The EV Charger User Fee strategy was adopted by council which will ensure equitable access to public EV charging in Whistler while recovering operation and maintenance cost.
- The Whistler EV Strategy was adopted by Council on June 7, 2022.
- Emotive funding was received in Q2 2022, for a collaboration with the District of Squamish to support residents in stratas via education and outreach. The project will be delivered in Q3/Q4 2022.
- Parks Operations Team continuing to replace equipment with lower carbon options, such as electric leaf blower, electric trimmer and e-bikes to reduce vehicle use.

**Big Move 3** – Reduce visitor travel emissions:

- A script framework was completed for the new Whistler 101 “Climate Change” episode.
- RMOW is playing a key role in the collaborative development & execution of the “Don’t Love it to Death” campaign (launching July 12, 2022) with Destination BC and partners.

**Big Move 4** – Build zero emission buildings:

- Council endorsed the *Help Cities Lead* advocacy campaign.
- Collaboration with District of Squamish and Community Energy Association (CEA) to develop embodied carbon roadmap for BC communities; new project website launched and podium discussion on importance of embodied carbon is scheduled for LMLGA 2022.
- Renewed Provincial and municipal rebates/incentives for low carbon energy systems (new/retrofit).

**Big Move 5** – Make existing buildings better:

- The Retrofit Assist program was launched in May 2022.
- A Residential Retrofit Strategy framework was completed by the CEA in collaboration with the District of Squamish to provide guidance to the RMOW on approaches to expanding the supports for local industry and homeowners in completing home energy retrofits beyond heat pumps.
- Grant Application submitted to the Clean BC Communities fund for a deep energy and emissions retrofit of Meadow Park Sport Centre
- The Meadow Park Sports Centre energy study was completed by AME consulting.

**Big Move 6** – Close the loop and shift toward lower carbon consumption:

- Waste bins in the Village have been consolidated to have 4 streams at each location: garbage to landfill; food and compostables; coffee cups; and bottles and cans. Collecting coffee cups separately from other recyclables will ensure that bottles and cans can be recycled.

**Adaptation Progress Highlights:**

**Adaptation Goal 1** – Minimize threats from wildfires:

- The Community Wildfire Resiliency Plan was approved by Council on April 5, 2022.

- FireSmart programs are ongoing, with increased staff resources.
- Landscape-level fuel thinning ongoing (spring/summer 2022 projects include Taluswood and Rainbow areas).

Adaptation Goal 2 – Increase resilience to extreme weather events:

- Research and project planning phase begun for updating the Whistler Integrated Stormwater Management Plan.
- An Extreme Weather Response Plan is currently in development.
- Development of the Recreation Trails Strategy is underway, currently in stakeholder engagement phase.
- Municipal Natural Assets Management Plan initiative presented to Council for support in July, 2022.

Adaptation Goal 3 – Protect local ecosystems and biodiversity:

- RFP for development of a Priority Habitat Strategy was awarded; consultants have begun the project.
- Finalized RMOW pesticide & rodenticide policy; currently implementing in RMOW facilities. Research ongoing regarding municipal restrictions on public rodenticide use.
- The Cheakamus Community Forest Board held a strategic planning session in July, which included discussions around implementation of Ecosystem Based Management and supporting the climate resiliency of the Community Forest.
- “Small Steps for Big Moves” social media campaign is still underway. This campaign will conclude in August, after 12 months of climate-focused posts focused on raising awareness and promoting individual calls to action.

## POLICY CONSIDERATIONS

### Relevant Council Authority/Previous Decisions

Regular public reporting of both community and corporate GHG emissions is a commitment of the Whistler OCP, the Big Moves Climate Action Implementation Plan, the RMOW Carbon Neutral Operations Plan, and our Council-adopted commitments within the BC Climate Action Charter.

The Big Moves Climate Action Implementation Plan is a consolidation of the 2016 CECAP and the 2020 Big Moves including the 2030 target to reduce Whistler’s GHG emissions by 50 per cent below 2007 levels. The Big Moves CAIP supports the OCP, and aims to inform the Whistler Transportation Action Plan 2018 - 2028, the Green Building Policy update, and the Solid Waste Management Strategy.

### Corporate Plan

The RMOW Corporate Plan is updated annually and articulates strategic direction for the organization. This section identifies how this report links to the plan.

### **Council Focus Areas**

Community Balance

*Effectively **balance resort and community needs** through deliberate planning, partnerships and investment*

Climate Action

*Provide leadership to **accelerate climate action and environmental performance** across the community*

Housing

*Advance strategic and innovative initiatives to enable and **deliver additional employee housing***

Not Applicable

### **Corporate Goals**

Community character and mountain culture is reflected in municipal initiatives

Municipal decision-making supports the effective stewardship of natural assets and ecological function

Corporate policies and operations ensure continuous excellence in infrastructure, facility and program management

A high level of accountability, transparency and community engagement is maintained

Corporate financial health is optimized to ensure long-term community success

A vibrant local economy and safe, resilient resort community is effectively reinforced by organizational activities

Pandemic recovery

### **Community Vision and Official Community Plan**

Regular public reporting of both community and corporate GHG emissions is a commitment of the Whistler OCP, the Big Moves Climate Action Implementation Plan, the RMOW Carbon Neutral Operations Plan, and our Council-adopted commitments within the BC Climate Action Charter.

The consolidated Big Moves CAIP aims to streamline climate action planning, reporting and to advance climate action mitigation and adaptation and is therefore particularly strongly aligned with the OCP Goals listed below and all associated Objectives and Policies included within the Natural Environment Chapter 7, the Climate Action and Energy Chapter 10, and the Transportation Chapter 11 of the current OCP.

**5.4. Goal** - Reduce the environmental and energy impacts of residential neighbourhoods to improve the quality of life and sustainability of the resort community.

**5.8. Goal** – Achieve a sustainable community forest, balancing forest harvesting, recreation, visual management, watershed protection, the Squamish Nation and Lil'wat Nation cultural values, and community and environmental values in the CCF.

**6.5. Goal** - Support sustainable diversification compatible with the tourism economy.

**7.1. Goal** – Whistler's sensitive ecosystems, wildlife, habitat and biodiversity are protected, managed and restored.

**7.2. Goal** – Natural areas are proactively managed for and resilient to climate change.

**7.3. Goal** – Water quality and quantity in local water bodies, streams and groundwater are protected.

**7.4. Goal** - Air quality is protected.

**8.6 Goal** – Create and embed effective governance mechanisms and partnerships to create trust, responsibility and accountability.

**8.14. Goal** – Water is used efficiently and that water quality is protected throughout Whistler’s food system.

**8.16. Goal** – Reduce waste from the food system and divert waste from landfills.

**10.1 Goal** - Municipal decision-making is well-structured to achieve energy efficiency goals and GHG reduction targets.

**10.2 Goal** - Substantially reduce GHG emissions from vehicles and transportation.

**10.3 Goal** - Substantially reduce GHG emissions from buildings and infrastructure.

**10.4 Goal** - Substantially reduce GHG emissions associated with solid waste management

**11.2 Goal** - Integrate the transportation system with land use planning to minimize the need for travel by motor vehicle.

**11.3. Goal** - Minimize GHG emissions created by the transportation system.

**11.4 Goal** - Support the increased use of preferred modes of transportation for all travel purposes to reduce dependence on private motor vehicles.

**11.7 Goal** - Ensure the transportation system respects Whistler’s natural environment, minimizes climate impacts and improves the livability of the resort community.

**12.3 Goal** - Move progressively toward zero waste.

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## BUDGET CONSIDERATIONS

The tracking and reporting of energy consumption and GHG emissions does not have direct budget implications beyond the dedication of staff time. The inventories themselves however do provide the basis of forecasting future energy budgets for individual Divisions, Departments and Workgroups across the organization.

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## LIL’WAT NATION & SQUAMISH NATION CONSIDERATIONS

The RMOW is committed to working with the Lil’wat People, known in their language as *L’il’wat7úl* and the Squamish People, known in their language as the *Skwxwú7mesh Úxwumixw* to: create an enduring relationship; establish collaborative processes for Crown land planning; achieve mutual objectives; and enable participation in Whistler’s resort economy. This section identifies areas where RMOW activities intersect with these relationships.

There is no direct intersection between the 2021 Whistler Annual Greenhouse Gas Inventory and Climate Action Progress Report and the Lil’wat and the Squamish People. Opportunities to identify mutual climate objectives, to collaborate and build relationships with Lil’wat and Squamish People through climate action will be a fundamental part of climate mitigation and adaptation going forward.

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## COMMUNITY ENGAGEMENT

Level of community engagement commitment for this project:

Inform     Consult     Involve     Collaborate     Empower

Small Steps for Big Moves:

In support of multiple Big Moves actions related to community outreach and engagement, the “Small Steps for Big Moves” community outreach campaign was launched in September 2021, in partnership with the Association of Whistler Area Residents for the Environment (AWARE).

“Small Steps for Big Moves” was a year-long campaign to encourage every resident in Whistler to make small changes in their lives that will have a meaningful impact to reduce their contribution to climate change. The campaign was launched in September 2021 and will conclude in August 2022, with 12 monthly themes based on Whistler’s Climate Action Big Moves Strategy.

Each month, the campaign:

- highlighted options for action specific to that month’s theme.
- created space to ‘ask me how’ with community members already taking action.
- shared quick facts about why action related to that month’s theme is important.
- asked the community to share what they learned for a chance to win prizes.

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## REFERENCES

Appendix A – 2021 Whistler Annual Greenhouse Gas Inventory and Climate Action Progress Report

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## SUMMARY

The 2021 Annual Climate Action Report outlines Whistler’s annual community-wide and RMOW corporate GHG and energy performance and provides action highlight of Whistler’s main achievements towards each Big Move and Adaptation Goals as outlined in the 2022 Big Moves CAIP.

The 2021 Annual Climate Action Report also shows that despite recent achievements, Whistler is currently not on track to meet its target goals in most of the Big Moves without significant efforts and changes to our current operations. Further work is needed to identify interventions that will meaningfully impact the trajectory of GHGs. Additional community engagement and discussion will be held this fall and winter in light of these results and the results of the Balance Model Initiative that has identified similar concerns regarding 2030 targets.

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## **SIGN-OFFS**

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