

Long Term Strategic Planning Initiative

Interim Summary Report – July 2022

Prepared by the RMOW Economic Development & Tourism Recovery team

Resort Municipality of Whistler
whistler.ca/balancemodel



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1 INTRODUCTION AND BACKGROUND

1.1 Purpose of this Report

The purpose of this report is to provide a summary of work completed to date on Whistler's long term strategic planning, specifically the Balance Model Initiative that is intended to support municipal decision making and enable progress towards the community vision as set out in the Official Community Plan (OCP).

The Balance Model initiative provides specific and quantifiable insights into Whistler's current and potential future performance against the OCP, and how future evolution of Whistler's population may impact its ability to achieve its stated goals.

This report focuses on sharing the insights derived from the Balance Model and the core principles that have emerged. Additionally, some illustrative example strategies and actions are shared and considered in the context of the emerging principles to demonstrate how these can be used moving forward.

1.2 Context

With the development of Whistler into a major ski resort, successful Host Mountain Resort for the 2010 Olympic and Paralympic Games and subsequently, a year round four seasons destination, the community has continued to become a highly desirable place to live and visit. With this success, Whistler has faced a number of ongoing challenges over time, and as described in the OCP adopted in June 2020, include:

- escalating living, housing and business costs,
- pressures on Whistler's physical size,
- climate change impacts on weather, snowfall and forest fire risk, and declining quality and functioning of natural systems
- uncertain global economic conditions,
- increasingly costly limited natural resources
- growing competition among tourism destinations and changing tourism patterns and
- changing demographics and population.

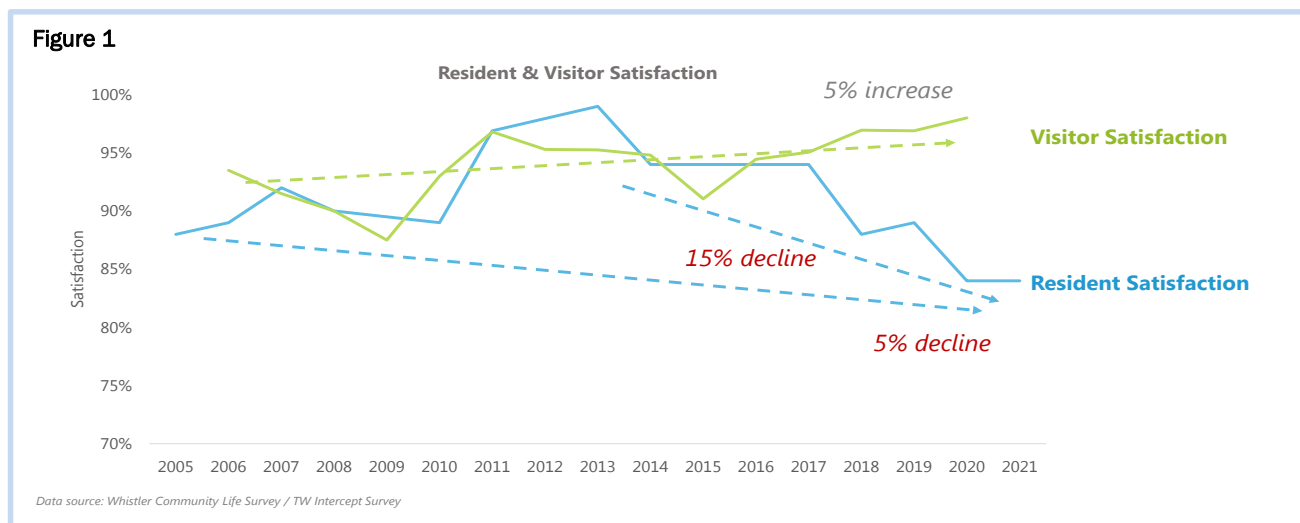
Similar to many communities in British Columbia, the Resort Municipality of Whistler (RMOW) has seen strong population growth in recent years. As a community that values our deep connection to the natural environment, the wellbeing and prosperity of community members, and the sustainability of the resort economy, the increased pace of growth in recent years (prior to COVID and then the subsequent resurgence in recent months as restrictions have been reduced or eliminated) caused growing pains and conversations about community balance grew. Refer to Figure 1 below which illustrates the complexities in balancing a vibrant resort economy that has flourished in recent years, while residents are feeling the pressures that this brings.

In response to these complexities, the Strategic Planning Committee (SPC) was initiated in May 2019 to support Council decision making related to community, land use planning and growth management. It should be noted that experience of the COVID-19 pandemic has further highlighted and in some cases exacerbated the challenges already being felt in the community prior to the pandemic. These experiences have also been considered in this long term strategic planning work.

It is acknowledged that while there are macro-economic and geopolitical factors, traveler trends, consumer preferences and other external factors that may change over time, and that can have significant effects on the resort community and economy, this report is intended to focus on the longer term strategic planning such that

the resort as a whole can be more resilient over time, while at the same time being able to pivot and adapt through changing times.

So, while the OCP sets out a vision and goals for the community, this strategic planning process focusses on strategies and actions required to deliver on those high level future oriented goals, both in the near term and longer term.



The Strategic Planning Committee

As referenced above, the SPC was established as a Select Committee of Council with Terms of Reference adopted in 2019 with the objective to act in an advisory capacity, to support council in its decision making related to community, land use planning and growth management. The Committee is composed of the Mayor and two representatives from Whistler Council, three senior staff representatives from the RMOW, and five engaged members of the community, with facilitation by the RMOW's Economic Development department.

The primary goals set out for the SPC are to:

- Provide input to long term strategy development for community and land use planning activities within the municipal boundaries;
- Provide strategic input for potential amendments to the Official Community Plan and major development projects being considered in the RMOW;
- Establish guiding metrics and targets to effectively manage and balance Whistler's resort and community capacity while protecting Whistler's unique sense of place and meeting the community's long term needs.

As a part of their advisory, the SPC identified and supported prioritizing development of what is now known as the Balance Model initiative, to identify key drivers of growth and enable scenario planning and impact assessments. The intent was to build upon the existing body of community monitoring already available and deepen the understanding of key trends and drivers of growth across the resort community over the last 10 to 20 years. This would then be used in future scenario analyses that would contemplate the influencers on Whistler's future evolution and the implications for the community as a whole, such that proactive policies and actions could be implemented to guide the RMOW towards its community vision.

While the committee’s work officially began in Q4 of 2019, the global COVID-19 pandemic interrupted the work of staff in progressing the balance model initiative due to other higher priorities in responding as the pandemic evolved and frequent adaptation was required. As such, the work that is shared in this report is a culmination of work over many months, and includes the benefit of hindsight with the experiences during the pandemic as well.

The Balance Model Initiative

The Balance Model Initiative seeks to understand the changing trends in Whistler’s population - and study the implications on capacity of services and amenities to support that population. The intent is to consider those implications of growth in the context of progress towards the achievement of Whistler’s vision such that possible impacts on social, environmental and economic performance are all considered.

“A place where our community thrives, nature is protected, and guests are inspired”

– Whistler’s Community Vision

The Balance Model itself is an integrated modelling tool for use in community planning, ongoing analysis, and evaluation of progress against the goals that have been set out in the OCP. It is a management tool to help inform decision making – it will not in itself provide strategies, actions or solutions, but will provide data and analysis to support staff with their work, the SPC with their observations and insights, and Council in its decision making.

This initiative aimed to leverage quantitative data to uncover the influencers¹ behind historical growth, the links between population and community balance, and the future trajectory of population and community performance under various scenarios of development, which may also be considered built ‘capacity’ limits.

Whistler typically considers its built capacity as a limitation of growth and analysis through this initiative is intended to show how the resort’s historical development provides the opportunity for change in population and its mix over time, and where limitations are inherent. ‘Carrying Capacity’ can be thought of in terms of both experience and perspective of a group of people (i.e. comfortable carrying capacity, at a point in time), and physical constraints which typically set limitations by the size of built infrastructure. Capacity is further analyzed in section 3.

The Strategic Planning Committee has played a critical role in providing guidance and input to the development of the Balance Model, the interpretation of quantitative data and trends, and emerging key insights and core principles.

The Balance Model provides information that is used to address current perspectives on Whistler’s balance through quantification of community performance across social, environmental, and economic indicators that may be impacted by population and visitation growth. This allows us to understand where we may be doing well, and conversely where we may be off balance today, and how this could be influenced moving forward.

¹ ‘Influencers’ of growth were identified through a comprehensive correlation testing of Whistler’s historical population segments with a range of external factors, such as regional and US population growth, macroeconomic factors, foreign exchange rates, weather patterns, and snowfall, and more. A total of 48 potential influencers were tested against each population segment. Those factors with the strongest correlation to each of Whistler’s population segments were selected as leading indicators. More information on Influencers can be found in [Section 7](#).

The figure below details recent perspectives on community balance and some of the analysis questions that have guided the work of the Balance Model Initiative.

Perspectives on Whistler's Balance

- Significant investments in tourism have enabled transition to a year round destination and with other factors, saw rapid economic growth in a relatively short timeframe
- Residents are feeling increased pressures from resort attracting more people, including access and affordability challenges
- Community amenities & services may not have kept pace with resort development and population growth
- Climate Action has not been sufficient to enable the community to meet its targets, and increasing emphasis is needed to protect Whistler's natural environment as visitor numbers grow



Balance Model Analysis Questions

- Where are Whistler's service and amenity capacities currently strained, or conversely underutilized?
- How might population change (volumes + mix) and what impacts would that have?
- How might potential future developments or initiatives impact balance across the community?
- What tradeoffs may need to be intentionally considered?
- How can we use the disruption caused by COVID to rebuild Whistler as a more sustainable tourism community?

While projecting population levels into the future is not a new concept, the Balance Model brings a unique perspective by combining the interrelationships relevant to a resort economy – where visitation and the resident population are intertwined, and both can have varying impacts across social, environmental, and economic indicators. This tool enables us to see the 'multiplier' impact of visitation, as it drives workforce, directly impacts the resident population, and then subsequently determines the need for community and social services – for instance, the Balance Model may help us quantify the relationship between visitation, tourist accommodations, and the demand for employee housing.

The Balance Model is a tool that can be updated regularly as time evolves, more is learned about the changing trends in the community, and as new data becomes available. While it is not intended to be deterministic in predicting exact figures, it is useful in that it helps us understand the interrelationships between different aspects of the community, as well as the potential magnitude and direction of impacts.

For these reasons, the Balance Model is a tool used to inform strategic discussions, understand tradeoffs and implications, and support decisions regarding impact and priority of future policy decisions or investments.

1.3 Process and Work Plan

Development of the Balance Model included three broad phases depicted below:



While the Current State Assessment and Potential Future Scenarios are considered ‘complete’ as of now (July 2022), it is recognized that the ‘Balance Model’ tool will be used iteratively to continually update understanding of Whistler’s current state and future trajectory as time progresses and new learnings are applied.

Phase I was an exploration of historical trends and interrelationships between Whistler’s population and external influencers (e.g. YVR airport capacity, Lower Mainland & Pacific North West USA population growth), and the impact on community indicators such as traffic congestion, greenhouse gas emissions, housing, childcare, healthcare, hotel occupancy, consumer expenditures, etc.

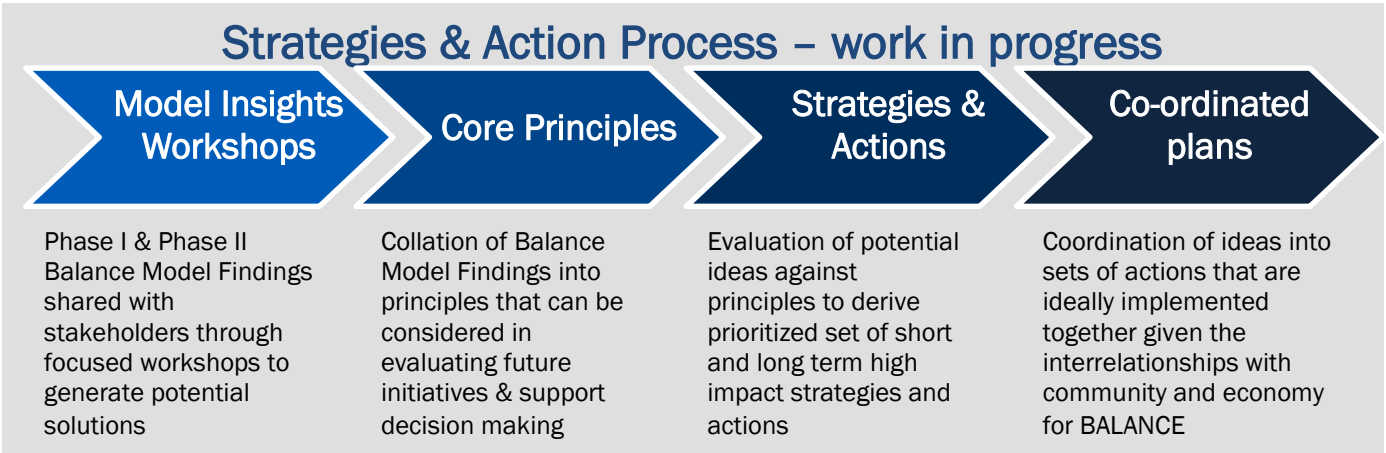
Phase II applied the learnings from Phase I and projected those trends into the future under varying scenarios of future development. This delivered quantitative insights about our potential future, suggesting timing and magnitude of impacts to the community, environment, and economy with varying levels of population growth.

Outcomes from both Phase I & II were shared with Council and the public at Whistler Council’s Committee of the Whole meetings in December 2021 and June 2022 respectively, and the presentations are both available at whistler.ca/balancemodel.

Phase III of the Balance Model is currently in progress, and takes the insights from Phases I & II to deliver a set of core principles, as well as priority initiatives that will support long-term community balance and progress towards achievement of the OCP vision.

The current work in progress for the Phase III Strategies and Actions process is shown below, where a set of three workshops with a range of resort stakeholders were recently held to share Balance Model insights and develop ideas that could be considered. The insights from the Balance Model, discussions from and outcomes of the workshops, and subsequent SPC input, has enabled the formulation of draft key principles.

The three workshops were held with a range of stakeholders including members of SPC, Transportation Advisory Group (TAG), Economic Partnership Initiative (EPI) and additional community stakeholders such as AWARE, and provided time to focus on themes that arose from balance model insights and are considered foundational to Whistler’s success - housing, transportation/climate, demand management. These foundational insights are further described in section 4 of this report, while section 5 identifies the key principles emerging, and how ideas generated from the workshops may be considered against those.



Additional consideration has also been given to other recent initiatives that deliver further insights, albeit more qualitatively, including the 2022 Housing Needs Report and the Whistler Sessions.

Following the release of this Interim Report, work will continue in Q3/4 2022 to further detail out a priority set of actions. To inform a final report, it will be important to hear from the community as part of the process to incorporate feedback on the key principles and the identified priority strategies and actions. Of particular interest, will also be to hear the community’s input on areas that may not be so tangible (and therefore not in the balance model analyses), such as sense of belonging, diversity and wellbeing in the community.

In parallel, the Framework Agreement, together with the Economic Development Committee (EDC) will provide guidance for how the RMOW will involve Lil’wat Nation and Squamish Nation in this work. This Interim Summary document and related materials will be referenced and used as a basis for developing points of focus in the EDC.

Through the Balance Model analysis, it has also been identified that there is data that is currently not available, but would be useful to have to incorporate into the balance model in future and further inform community needs. One such area relates to community recreational facilities. For example, the ice rink/arena facility at Meadow Park Sports Centre is anecdotally considered at capacity based on the various user groups feedback, where they limit registrations due to restricted availability of the ice, but data relating to its use is currently not available. Similarly, data relating to the use of neighbourhood facilities such as local parks/tennis courts is not available, and could further inform neighbourhood specific needs and resource allocation.

The community’s input and feedback in the coming months will be key, to gather additional insights before finalizing priorities and recommendations with the new council early in 2023.

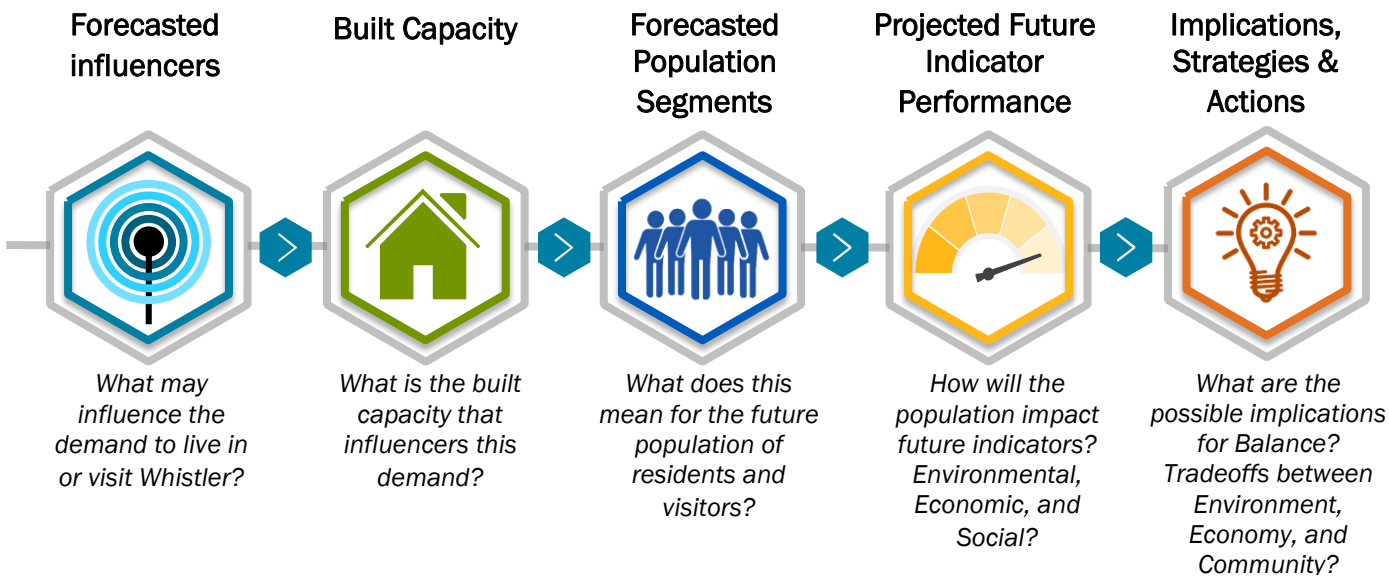
This report is intended as an Interim Summary, sharing an update with the community as major milestones have been completed. Therefore, this report focuses on sharing the Balance Model Insights and the core principles

that have emerged. Additionally, some illustrative ‘example’ strategies and actions are shared and considered in the context of the emerging principles, to demonstrate how these can be used moving forward.

2 BALANCE MODEL DEVELOPMENT

Balance Model Structure and Design

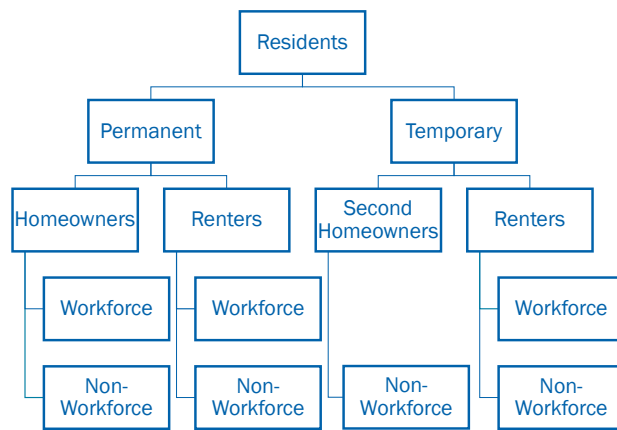
The Balance Model forecasts population based on external influencers and internal capacity constraints, to project potential community performance under various circumstances. The diagram below gives a high-level overview of the components and structure of the model. Please refer to [Section 7](#) for further detail on each phase of the Balance Model design.



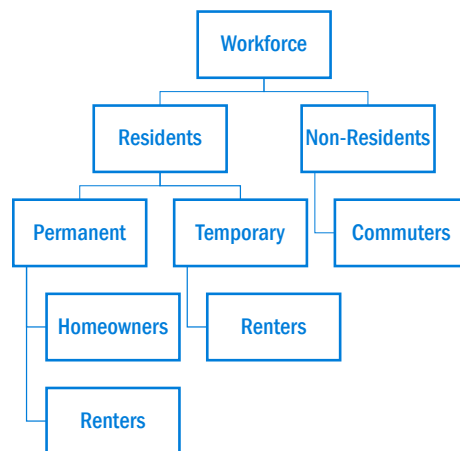
Population Segments and Growth

The Balance Model Initiative considers Whistler’s population in terms of visitor and resident segments.

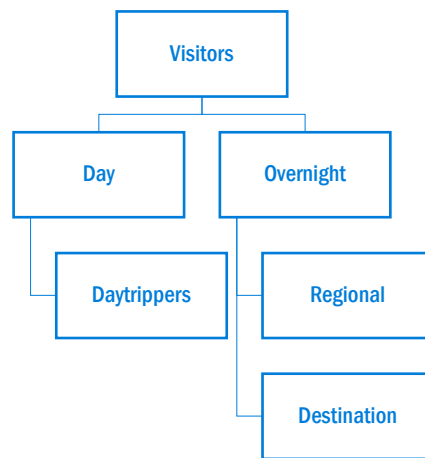
Resident segments are broadly defined as permanent and temporary populations, as depicted in the figure below. Note this figure is not intended to be hierarchical, but simply illustrative of the connections between population segments.



The workforce, which refers to those who work for a business located in Whistler and is an important segment to interpret the needs of a sustainable resort economy, is further segmented into residents and commuters, permanent and temporary populations, and homeowners and renters. This enables the Balance Model to consider the varying needs of each workforce segment in the context of community infrastructure and services.



Visitors are segmented into overnight visitors and daytrippers, and well as regional and destination visitors. Regional visitors are defined as those who visit from within British Columbia and Washington State, while Destination visitors are from elsewhere in Canada, the United States, and international.



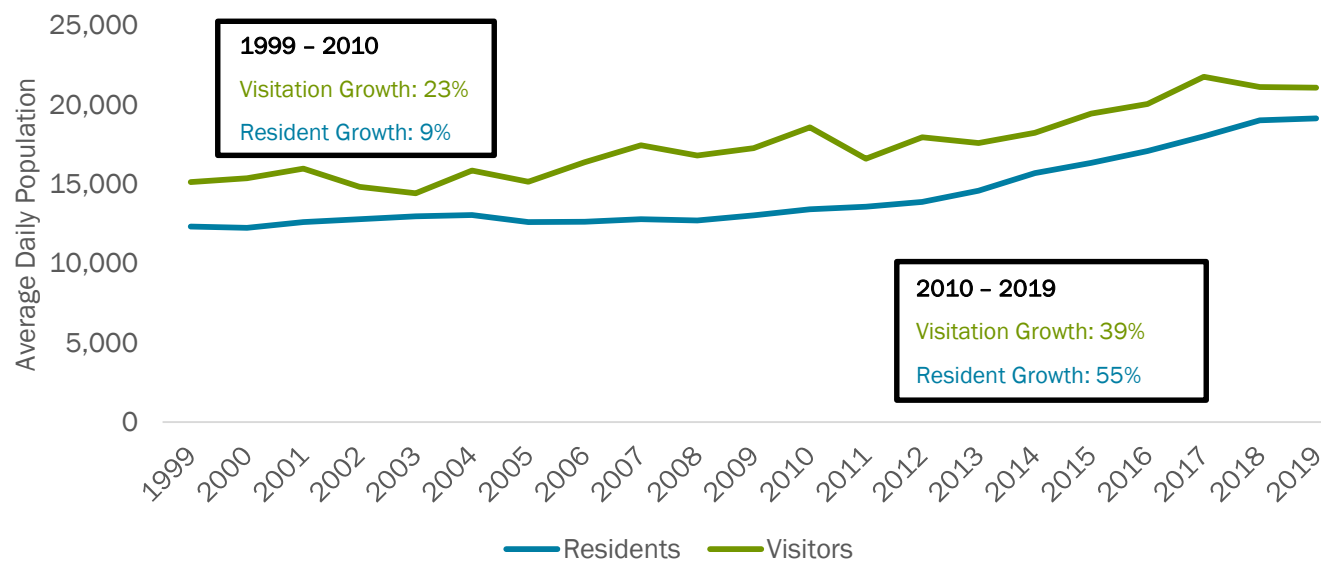
Segmenting population to this extent has allowed us to understand the different historical growth trends for each group, enabling a greater depth of understanding of the different populations in Whistler and their respective determinant of growth.

Together, these population segments described above comprised an average daily population equivalent of ~40,000 people in 2019, over 19,000 of which are considered permanent and temporary residents, and ~21,000 visitors and commuters. Figure 2 below shows historical growth of resident and visitor populations since 1999. Note how the resident population experienced slower growth pre 2010, while after 2010, both visitation and resident population increased significantly.

This evolution is due to a number of factors including development of new resort products and offerings in both winter and summer seasons, easier access via highway 99, increased YVR capacity and arrivals, population growth and increasing prosperity of those in Pacific Northwest US/Canada, a weakening Canadian dollar against the US dollar as well as many others. It is therefore noted that Whistler's population growth is partially in the control of Whistler stakeholders, but also subject to significant external factors that are not directly in our control.

Figure 2

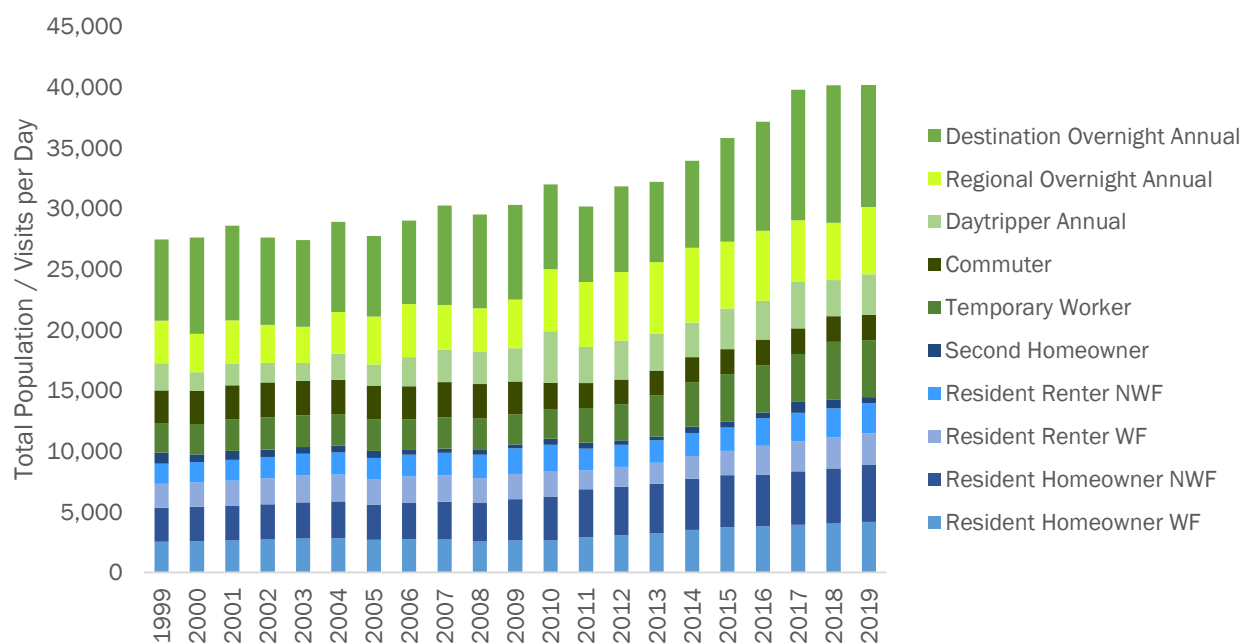
Whistler Historical Population Growth - Residents and Visitors



And figure 3 below further breaks residents and visitors down into their component segments.

Figure 3

Whistler's Historical Population Growth - Detailed Segments



3 WHISTLER'S CARRYING CAPACITY & POPULATION

3.1 Whistler's Carrying Capacity

'Carrying Capacity' can be thought of in terms of both the experience of a group of people (i.e. comfortable carrying capacity), and physical constraints which typically set limitations by the size of the built infrastructure.

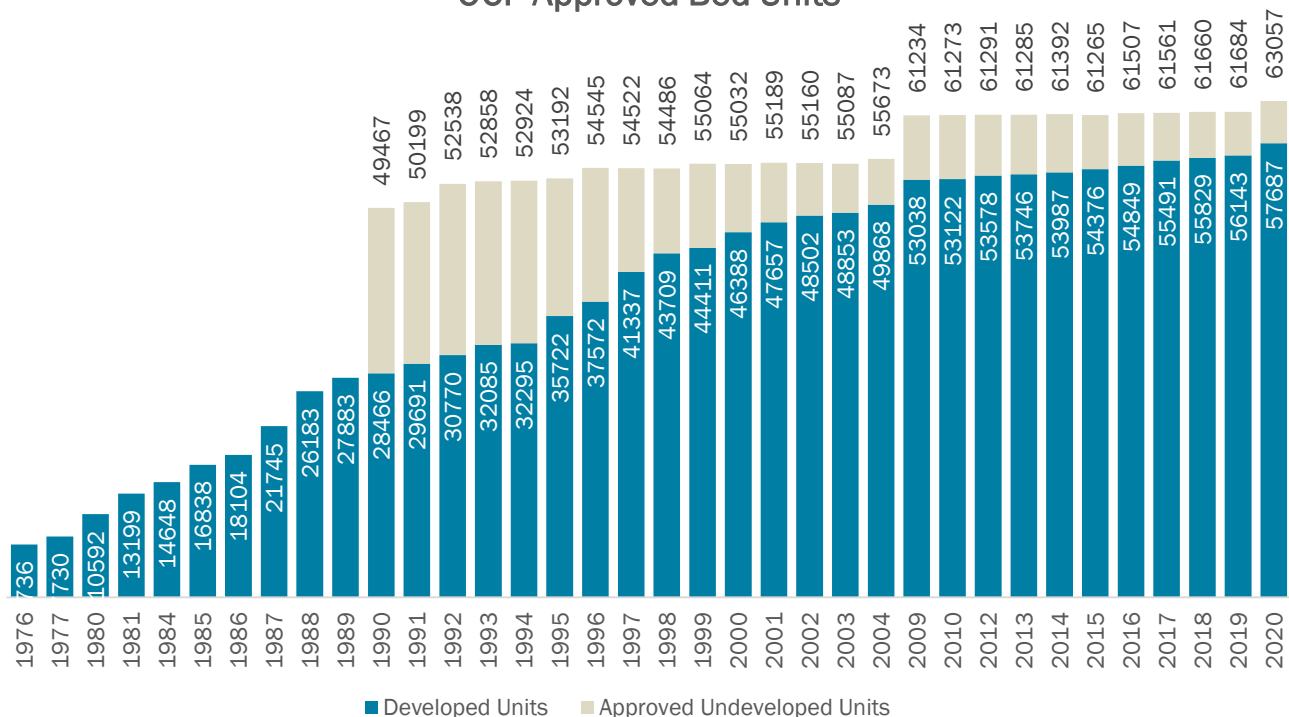
The built capacity of infrastructure in Whistler is intended as the limiting factor to the community's growth as per the OCP, and this section will show how the resort's historical development provides the opportunity for change in population and its mix over time, and where limitations may constrain growth.

The physical constraint is the most tangible definition of capacity, and in Whistler this is defined by 'bed units', which is a theoretical count intended as a proxy to represent a number of people. Figure 4 below (adapted from page 43 of the [Official Community Plan](#) to include the 1,000 incremental approved bed units resulting from Mayor's Task Force on Employee Housing) outlines the inventory of bed units within the RMOW, and this shows the intended development to support the overall resort community. These include a strong foundational mix of both tourist accommodation as well as residential accommodations.

Referencing the data shown in Figure 4, it is evident that Whistler's capacity has had minimal change over recent time. In fact, most incremental bed units were approved and developed over several years leading up to 2010, with most of the growth in 2009-2010 relating to employee housing as part of the Athletes Village development for the 2010 Olympic and Paralympic Games. Approximately 10% of all bed units were still undeveloped at that time.

Figure 4

OCP Approved Bed Units



Given the growth in employee restricted housing bed units driving the overall bed unit growth above, it can be deduced that historically, resident population growth has been supported by employee housing bed unit expansions, while growth in visitation levels has only been growing into the existing supply of tourist accommodations.²

Figure 5a below compares Whistler's 2019 populations of residents and visitors, including average summer and winter seasons and peak days, to the total accommodation capacity in Whistler. The darker green portions show the overnight visitation at relatively high levels of occupancy compared to the tourist accommodation bed units, with some amount of room for growth, while resident population (blue) shows potential for higher growth into residential accommodations– albeit most of the incremental residential accommodations relate to market housing (which is unlikely to house resort employees in the future). As a result, the resident population, particularly the workforce, has been restricted and has not been able to grow at pace with the growth in visitation. This depicts an imbalance in the built infrastructure that highlights the potential for investments to support a rebalancing with employee housing needs as priority. Refer to Figure 5b for a detailed breakdown of population estimates and bed units.

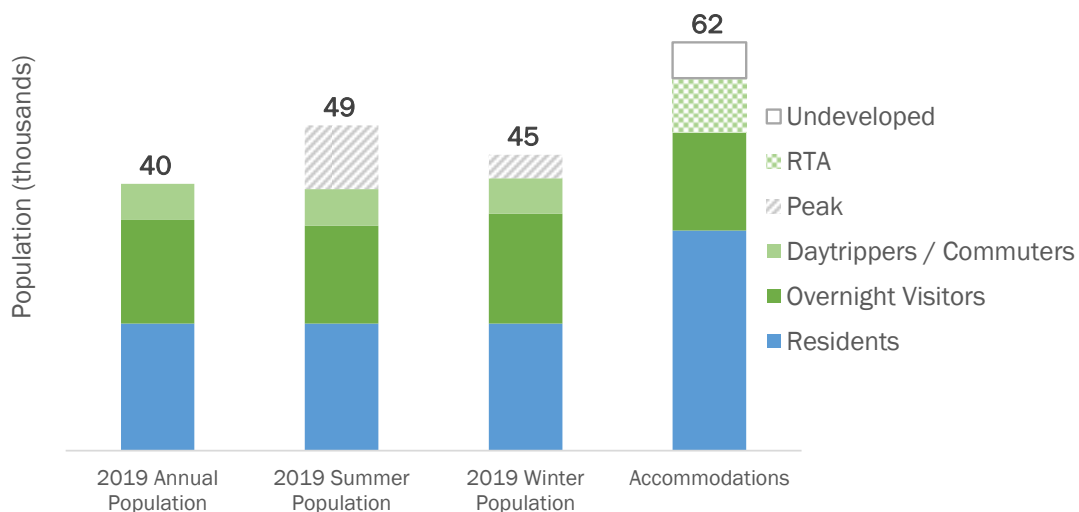
It should be noted that employee restricted housing makes up approximately 16% of the total residential accommodations³ and 1,000 new employee restricted beds were approved under the Mayor's Task Force on Employee Housing which are currently in rezoning application and/or building permit processing taking the total to approximately 7500 bed units and 18% of total residential bed units.

² More recently, remote working trends may also be contributing to rising resident populations and second homeownership

³ Total residential accommodations includes employee-restricted housing, market residential housing, and properties that allow for both residential use and tourist accommodations (RTA)

Figure 5a

Whistler Population vs. Accommodation Capacity



4

Figure 5b – Bed Units and 2019 Population Estimates

BED UNITS			POPULATION (2019)	
Type	Developed	Undeveloped	Segment	Total
Resident – employee restricted	6,568	3,217	Resident - Workforce ⁵	11,494
Residential – Market	26,814	1,324	Commuters - workforce	2,100
Residential/Tourist Accommodations	8,248		Resident - Non-workforce ⁶	7,168

⁴ RTA refers to residential and tourist accommodations – these are accommodations that can be used in either capacity at the discretion of the owner.

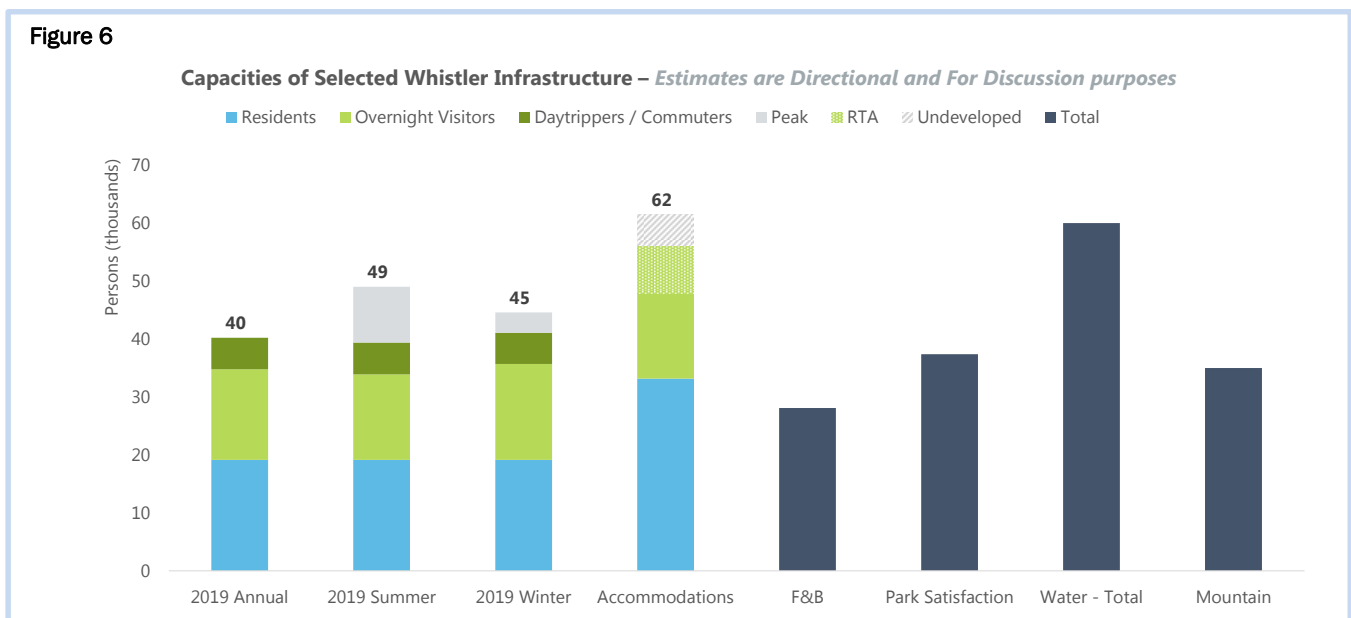
⁵ Includes both permanent resident workforce members as well as temporary workers.

⁶ Includes retirees as well as partners and children of workforce members

Tourist Accommodations	14,725	1,707	Visitor - day ⁷	3,335
			Visitor - overnight ⁸	15,647
TOTALS	56,355	6,248	TOTAL	39,744

While there is not a fixed population number that Whistler is equipped to ‘carry’, the bed units provide a base for comparison, and there are implications for balance in terms of how and where population growth occurs, and what infrastructure, services, and technology exist to support the bed base.

The following Figure 6 shows additional perspective on carrying capacity with a few examples of other amenities and services to illustrate potential excess capacity, sufficiency or deficits, in the balance of appropriate services relative to the built bed unit base or population capacity.



While it is evident that water capacity may be aligned with the overall bed base, it is to be noted that the geographic location of additional development will require deeper analysis to ensure sufficient water supply as it is known that water restrictions have needed to be implemented in relevant seasons in recent times.

There are two examples shown, being Food & Beverage licensed seats, and Parks, where it is evident that a deficit exists between overall population and those services’ capacities. For Food & Beverage, in addition to the quantitative analysis here that shows seating at a level lower than the peak visitor levels in both summer and

⁷ Represents annual average visits per day

⁸ Ibid

winter (i.e. not including any residents), there has also been qualitative anecdotal notice of the longer wait times or difficulty in getting a dinner table during these times. For Parks, this level of capacity has been determined more qualitatively, based on the population at the point in time where resident satisfaction levels have started to decline. As the capacity of parks in Whistler is not deterministic, but based on the existing layout and usage by people (and cars and bikes etc.), this may be variable over time by changing layouts, parking spaces, bike storage and other factors. The current revitalization of Rainbow Park is one example whereby the improvements envisaged could expand capacity in the existing space.

Additionally, it is to be noted that day visitors who are not constrained by the accommodation bed unit base but by the parking spaces available throughout the community, or highway traffic congestion, are typically dispersed across the Whistler and Blackcomb mountains and through the village in Winter season, while in Summer, the vast majority of the population is more confined in parks and the village, which makes summer capacity more constrained than the winter.

Overall, what this section on capacity illustrates is that while accommodation bed units establish a capacity limitation on overnight visitors and residents, the constraint on day trippers is less effective. And further, the capacity available across various services and amenities is not consistent with the built bed unit capacity, indicating potential opportunities to enhance capacity in these areas and support a greater level of balance in the community. This is further discussed in section 4.

3.2 Population Forecasts

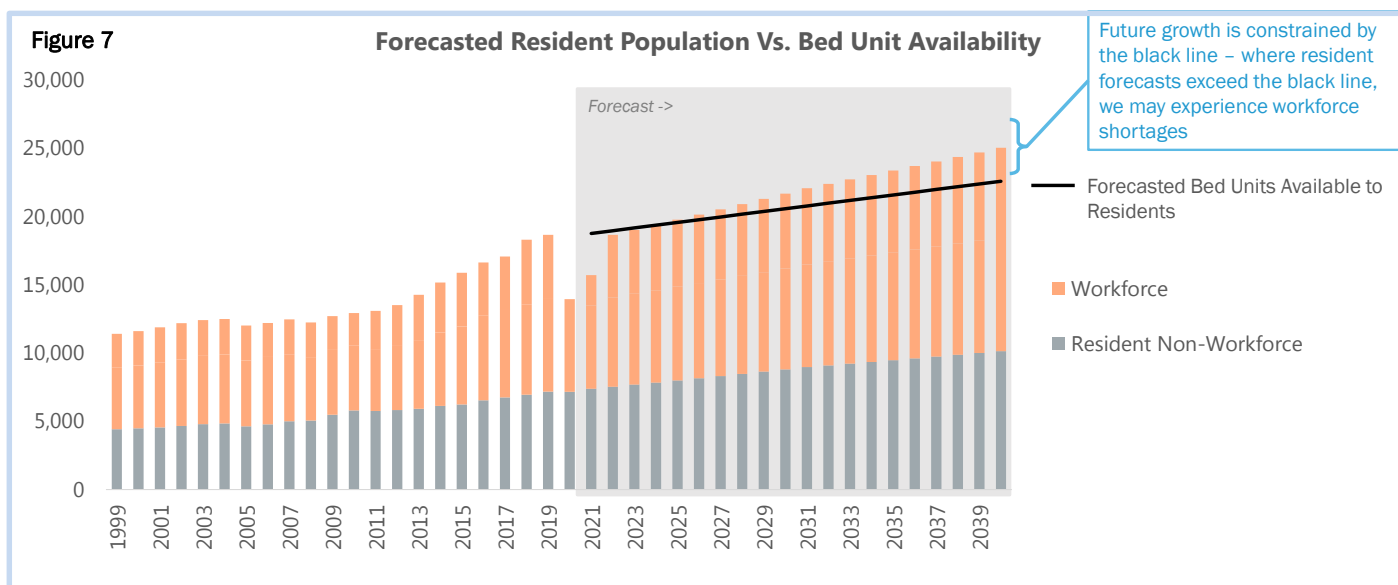
The Balance Model estimates the pre-COVID daily population equivalent at around 40,000 people. With the existing OCP approved bed units, and an assumed build of currently undeveloped approved bed units, it is anticipated that Whistler's total daily equivalent population could reach 50,000 people at maximum capacity – within the 20 year horizon.

The following subsections illustrate the possible evolution of resident and tourist populations based on built bed unit capacity, and the historical trending utilization of those properties.

Resident population

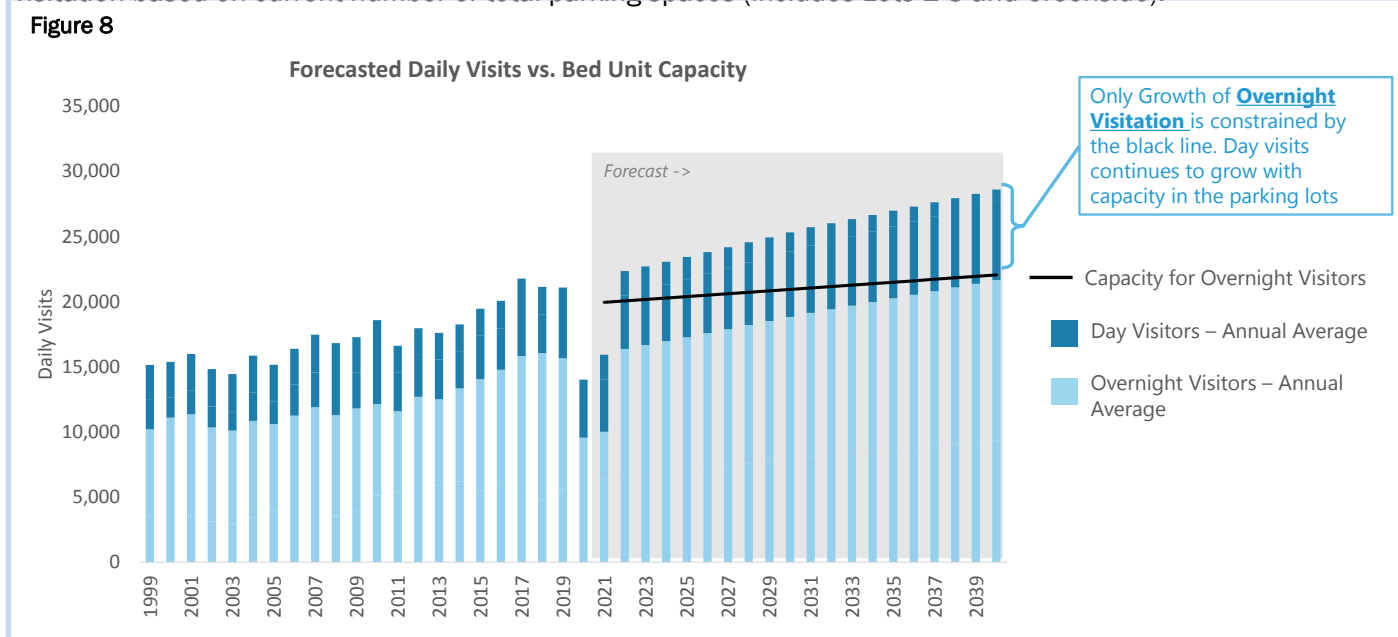
Future population growth of year-round residents is constrained by the availability of residential bed units – both employee-restricted and unrestricted market. Availability of residential beds is determined both by the total number of residential and employee restricted developments, as well as the utilization of market residential properties for year-round residents. Currently, about 40% of market residential bed units are occupied by a Whistler resident, with the remainder used by owners on a part-time basis or as their second home. This is reflected by the solid black line in Figure 7 below, which includes the trend simulation of current 40% market housing lived in by residents.

Acknowledging that recent trends related to the declining availability of market housing for Whistler workforce members could accelerate, means that the forecasts below could be brought forward in time, resulting in a declining workforce. This has implications for community wellbeing as well as workforce needs for local businesses. It is noted that the current employee housing shortage could be exacerbated, as development of new employee beds take time, and to date, have not been sufficient to keep pace with the housing needs of the community.



Tourist Accommodations

Future growth of overnight visitation is possible within the capacity of tourist accommodations, as shown in Figure 8, eventually reaching maximum capacity shown by the black line. However, day visitation continues to grow as they are not related to accommodations but the capacity of Whistler's parking lots, and by the number of people travelling per vehicle. Figure 10 further illustrates that the parking capacity does not constrain day visitation based on current number of total parking spaces (includes Lots 1-8 and Creekside).



Looking at Figure 9, in terms of hotel occupancy, overnight visitation growth is expected to drive average hotel occupancy to its maximum operational capacity in the lead up to 2030 in the winter season (as seen by the

flattening of the blue line in the following chart, indicating maximum occupancy is reached), with summer rates close behind.

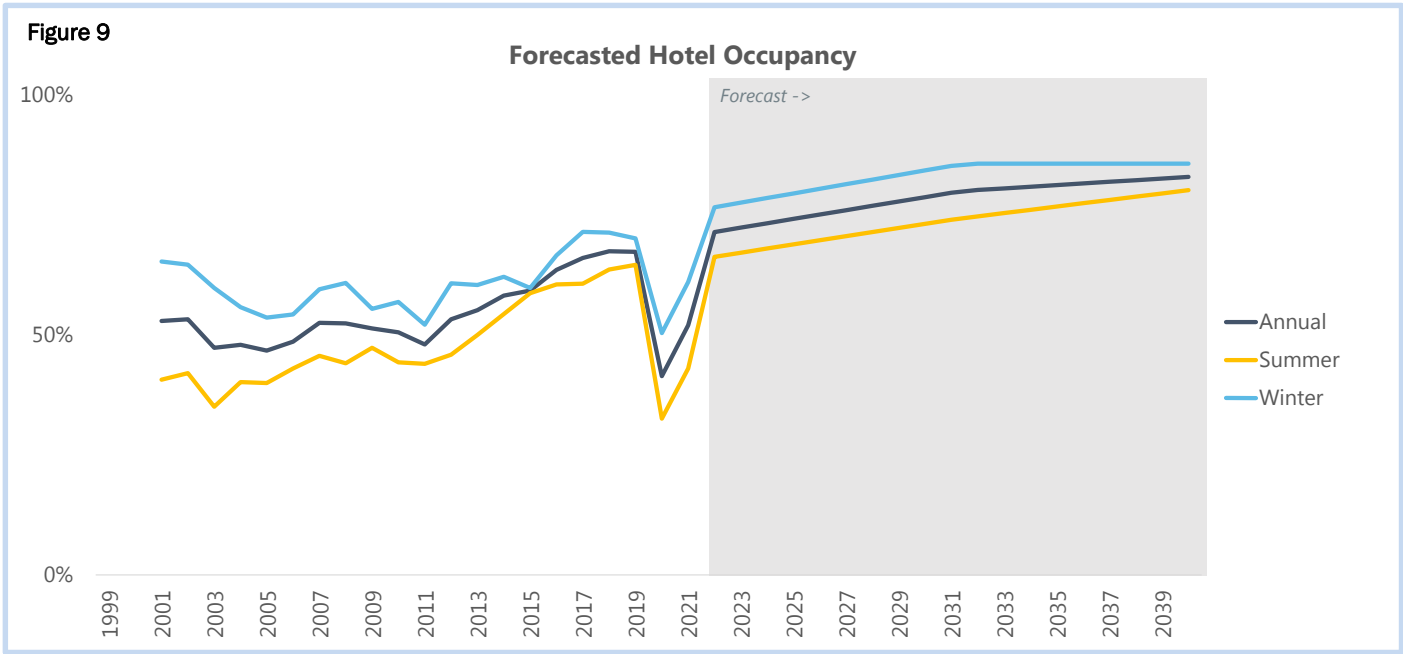
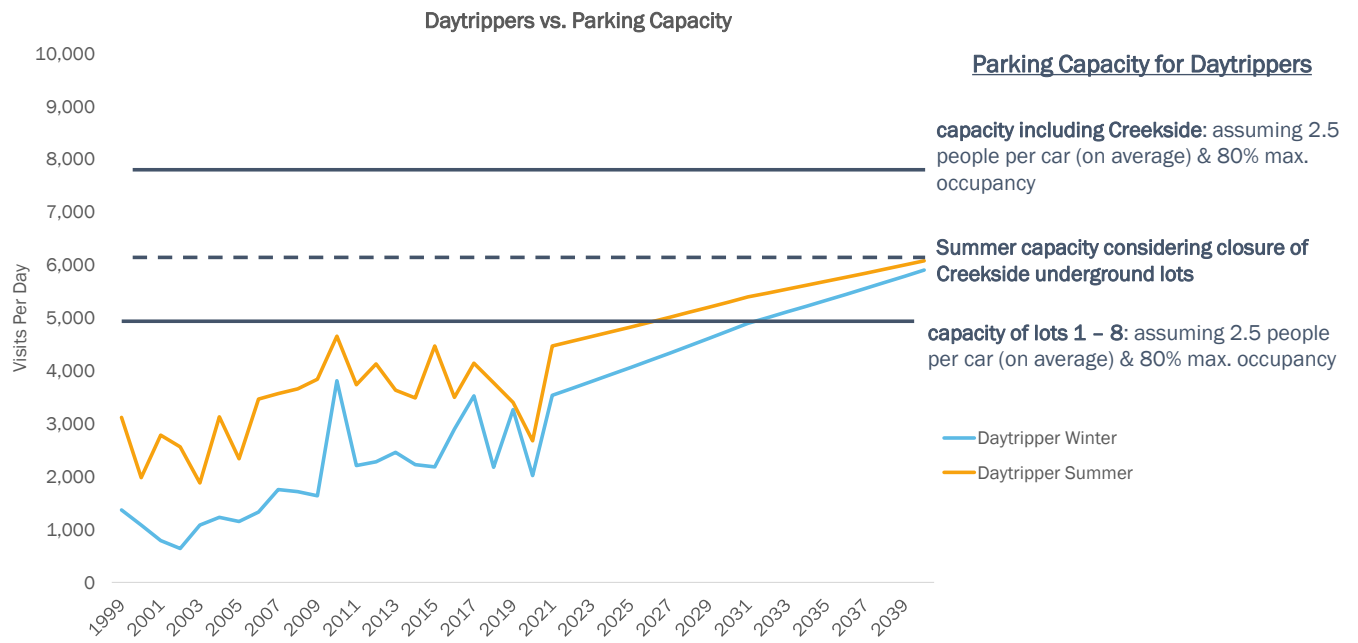


Figure 10 shows estimated capacities of Whistler’s parking lots against projected growth of average daytripper volumes, where there is room for growth of day visitation into the future. Note that daytripper visitation is not strictly limited by parking lot capacity (due to the availability of shuttle services), and that additional carpooling could enable further increases to the capacity for daytrippers.

Figure 10



4 BALANCE MODEL INSIGHTS AND IMPLICATIONS

Phase I & II of the Balance Model Initiative delivered insights about the interrelationships across and within population segments and indicators of community performance, which resulted in a set of key implications. These implications are broken into two groups: Foundational and Additional Implications.

Foundational Implications are those identified as fundamental to the community's success and wellbeing, and critical to resolve in order to have meaningful impact on some core goals of the community. These foundational implications are like building blocks that will support or benefit the Additional Implications described further below.

Additional Implications are also very important and can be directly impacted by resolving, or firstly dealing with, the Foundational areas described below.

4.1 Foundational Implications:

The foundational implications are described below.

Without significant further interventions...

1. **The current housing challenges will continue to worsen**, as demand for employees continues to outpace additional supply of employee restricted housing, leading to inevitable further workforce shortages. It is estimated that ~5,000 workers could still be reliant on market housing even as the additional employee restricted beds are built out over time. The demand for workforce is heavily influenced by visitation levels.
2. **Transportation congestion and related GHG emissions have worsened during COVID, and will continue to challenge the community** – exceeding the capacity of the highway and village roads resulting in longer congestion and travel times, while also neglecting to meet GHG emission targets, and impacting both resident and visitor experiences.
3. **Demand Management** is needed as visitation will continue to increase from external forces outside of RMOW control to fill the existing built capacity, until current 'peak' visitation levels become the average with daytrippers able to exponentially increase, and higher visitation levels significantly driving up the need for workforce – subsequently further exacerbating the current housing and transportation related challenges as described in 1 and 2 above.

These Foundation implications were identified as primary insights due to their impact across all three areas of community balance, as depicted in the figure below.

	Community	Economy	Environment
Housing	Affordability challenges for residents, potential loss of community	Workforce shortages impacting businesses, (without efficiencies)	Increased commuters, impacting GHG emissions
Transportation	Congestion within Whistler, impacting livability	Congestion impacting visitor experience	Single occupancy vehicle use impacting GHG emissions
Demand Management	Increasing commercial rates, impacting viability for resident-oriented businesses & services	Labour needs, increasing cost of business may impact business viability, sustaining Whistler's differentiation & uniqueness	Increasing GHG emissions from vehicles, degradation of parks, trails and biodiversity

4.1.1 Detailed Balance Model Insights

The Balance Model supported the above primary implications with the following quantitative insights:

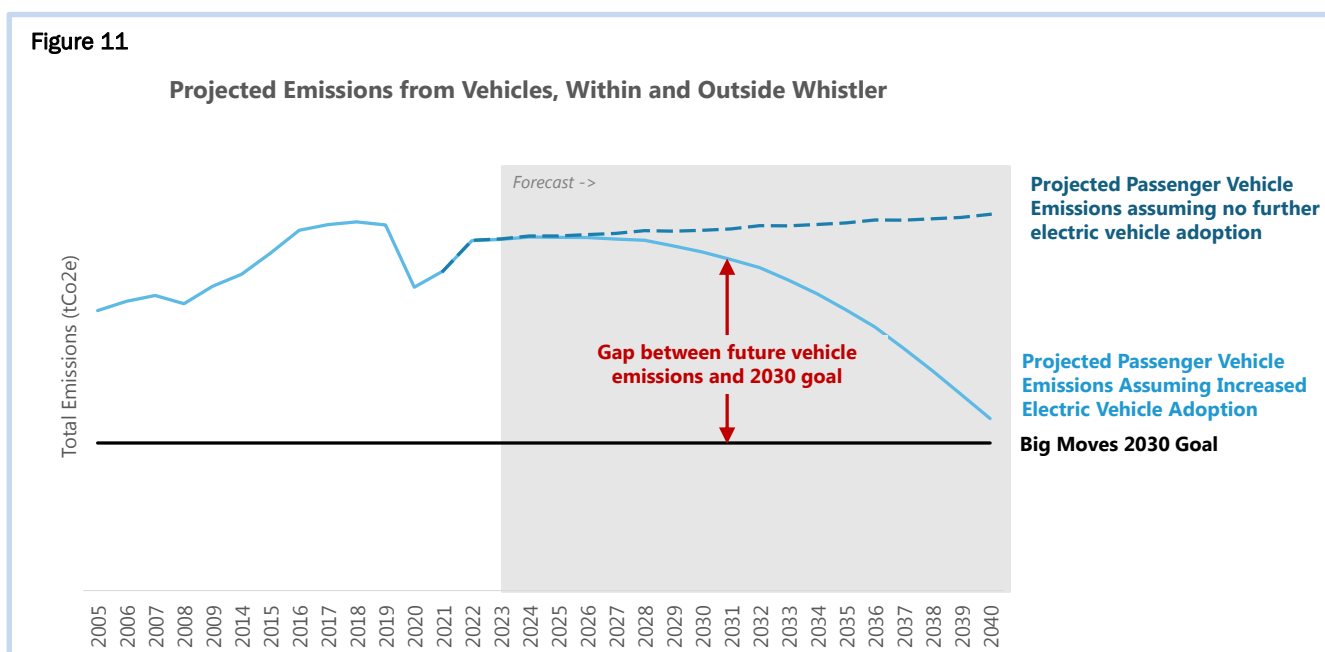
Housing

- It is currently estimated that ~5000 workforce members rely on market housing, suggesting that these people, particularly those renting, may face insecurity and unaffordability of housing, and that this portion of the workforce could be at risk
- Even as employee restricted beds are built over the next 20 years, ~4000-5000 people remain reliant on market housing, as the demand for labour outpaces development
- Without further intervention, workforce shortages are inevitable due to lack of housing, even as the approved employee restricted bed units are built out – as the demand for labour (driven by visitation) outpaces development of approved employee restricted bed units
- A 15% increase in workforce efficiency (via technology, more hours per worker, process improvements etc.) could alleviate workforce housing shortages
- Current estimates indicate ~40% of market residential bed units are occupied by a resident, and it is very possible that this could continue to decline moving forward based on recently observed trends in the price appreciation, sales trends and use of Whistler's market homes. The pace of this trend may further exacerbate workforce shortages, where even a 10% decline in market housing available to residents and workforce members over the next few years could double the forecasted workforce shortage

- Family structures of the workforce living in employee restricted housing impact the number of bed units required to house a certain amount of employees. Permanent workforce members require more bed units to accommodate children and spouses (who may not be a part of Whistler's workforce), while temporary workforce can be housed more efficiently. Accommodating a mix of both types of workforce members are critical to the makeup of a diverse community, as well as to the economy to ensure appropriate skills and experiences are available for the different types of jobs (e.g. management to frontline positions, year-round to seasonal work, etc.)
 - The utilization of employee restricted bed units, as defined by the number of employees living in employee restricted homes as a % of total employee restricted bed units, are currently estimated at:
 - 60% for ownership units,
 - 75% for rental units, and
 - 200% for dorm units (where a 2-bed employer provided apartment typically houses 4 temporary workers)

Transportation / Climate Action

- Passenger vehicle emissions are the largest contributor to Whistler's community GHG emissions. Whistler is projected to exceed its Big Moves 2030 target for passenger vehicle emissions by over 100% (even when accounting for growing adoption of electric vehicles)⁹ due to increasing traffic volumes. Figure 11 shows the graphical representation of forecast GHG emissions compared to the 2030 Big Moves goal, with the goal still unlikely to be achieved by 2040, 10 years later.



⁹ Electric vehicle adoption was determined assuming the targets laid out in the Province's Zero Emission Vehicles Act (ZEV Act) would be achieved, which requires automakers to meet an escalating annual percentage of new light-duty ZEV sales and leases, reaching: 10% of light-duty vehicle sales by 2025, 30% by 2030, and 100% by 2040.

- Traffic congestion is currently estimated at ~3 hours per day on average.^{10 11} With no interventions, the current trend projects further increases in traffic volumes, potentially doubling congested hours to 5-6 hours per day (on average) by 2040.
- Historically, Whistler's data shows there has been limited to no evidence that an increase in population alone will increase transit ridership. Rather, during a prior time when services levels declined (i.e. frequency and convenience), Whistler experienced a decline in transit ridership. This is a typical rider behavior, and is well recognized by transportation professionals outside of Whistler, whereby ridership levels are directly related to the reliability and frequency of service levels. As such, to increase transit ridership, Whistler would need to significantly increase frequency of services and show tangible benefits for trip duration compared to using a private car.

Visitation and Demand Management

- The population in the Lower Mainland has historically been the leading driver of regional visitation in Whistler. For every 100,000 person increase in the Lower Mainland population, Whistler has seen, on average, close to 400 additional regional visitors staying overnight per day
- For every 1 million additional YVR arrivals, Whistler has seen, on average, over 300 additional destination visitors per day
- Historically, visitation has been the leading driver of Whistler's workforce, where on average, for every 1,000 additional total daily visitors seen in resort, there have been 600 more people employed in Whistler. Refer above under Housing to see the implications on accommodating the size of the growing workforce.
- As visitation further grows into the current approved built tourist accommodations capacity, current peak days could become the year-round average, From ~16,000 to ~22,000 overnight visits per day (on average throughout the year, and from ~3,300 to ~6,000 day trippers per day (on average throughout the year). The daytripper population could even go higher with a static level of parking, if car occupancy levels increased (i.e. assumed people per vehicle).¹²
- As shown earlier in the Carrying Capacity section, winter visitation capacity may be considered different to summer due to the capacity of the Whistler and Blackcomb mountains (and the village areas) which can absorb a large number of both overnight and day visitors, whereas in summer, the same number of visitors are dispersed into smaller waterfront park locations (and the village areas).
- The average Winter season hotel occupancy rate is expected to reach maximum operational capacity by 2030, while average Summer season occupancy rates are expected to be >70%.¹³

¹⁰ Traffic counts were taken at Brio, and are combined for both North and Southbound directions.

¹¹ A 'congested' hour is when there are more than 1000 vehicles per hour (vph) in a single direction on the highway. This is consistent with the experiential capacity of the highway, where ~1000 vph are reached at busy times. Although the theoretical highway capacity is estimated at 1600 vph, at Brio the maximum levels of congestion reached are ~1400 vph.

¹² There are an estimated ~4000 parking spaces between lots 1 – 8 and Creekside. Assuming 2.5 people per vehicle and a maximum parking lot capacity of 80%, this could theoretically accommodate up to 8000 daytrippers (current 'peak' daytripper volumes are ~6000 daytrippers).

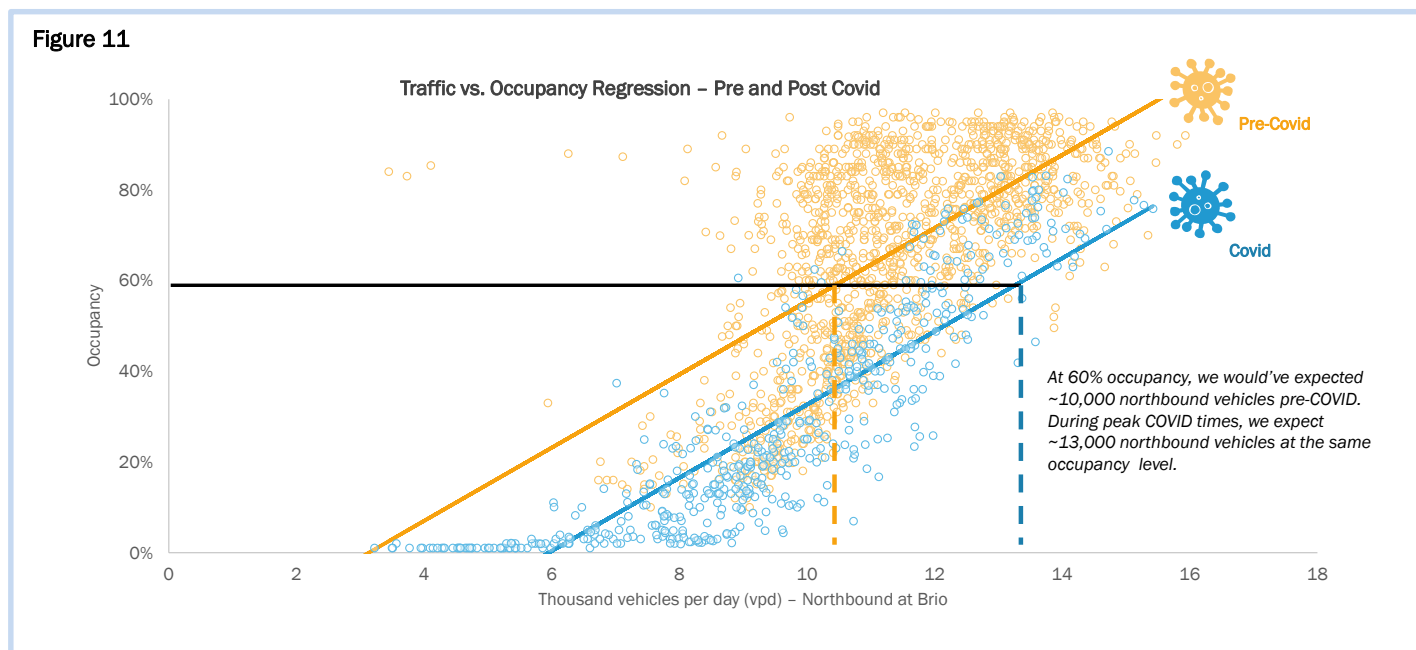
¹³ For the purposes of this modeling exercise, maximum operational hotel capacity is assumed to be 90%

- It is estimated that ~30% of units that allow both residential and tourist accommodation use are used as tourist accommodations, while the remainder are often used as personal vacation homes or by residents. Of the remainder, the majority are used by second homeowners for personal use.
- There is recognition that Phase 2 bed units are more secure 'warm beds' for tourist accommodations, due to the requirement for these to be made available in a rental pool (with limited owner usage), compared to Phase 1 (which typically permit unlimited owner use for vacation purposes) and Residential Tourist Accommodations (which permit both residential and tourist accommodations).

Additional COVID Insights

The COVID pandemic has provided new insights to the traffic-visitation relationship, where traffic levels remained high despite falls in overnight visitation and hotel occupancy. This is likely due to changes in visitor mix and behaviours (e.g. more regional guests, more daytrippers, less carpooling/airport shuttle use). If this trend continues, together with the return of destination visitors, this could potentially amplify future traffic and congestion levels as hotel occupancy rates return to their pre-COVID levels. Ongoing measurement and analysis is needed post-COVID to determine whether this is a one-off implication or if the disruption of the trend might prevail.

Figure 11 displays a regression between daily hotel occupancy rates and northbound traffic volumes within Whistler. The impacts of COVID on this relationship can be seen by the shift from the yellow trendline (Pre-COVID) to the blue trendline (post-COVID), with an expected increase in ~3,000 northbound vehicles per day at any given level of hotel occupancy.



4.2 Additional Implications

The following are additional potential consequences identified in the Balance Model Initiative, which are mostly driven by changes in population, both resident and/or visitors:

Community:

- **Childcare** – Significant increases in licensed childcare spaces are required to support and keep pace with Whistler’s growing permanent population – assuming similar trends in employees working in resort starting families as has been seen in the past. To reach the target access rates for childcare, an additional 50 spaces are needed by 2025, ~120 more spaces by 2030, and another ~40 spaces by 2040 – nearly 200 more than is available today.
- **Healthcare** – The capacity of healthcare services may not be sufficient to support Whistler’s population. Whistler currently lags behind the Canadian national average for health access, measured in terms of GPs (general practitioners) per capita. Ignoring any implications as a result of Whistler having a generally more active and healthy population, and the viability of GP practices, in order to meet the national average access rate, an additional ~20 GPs are needed by 2025 (with incremental GPs needed every few years to keep pace with population growth of residents).
- **Parks Visitation** – utilization of parks has recently increased, with increases in regional and daytripper visitation and preference for outdoor social activities due to COVID, while overall RMOW park lands has remained constant (in terms of square meters of space). Concurrently, satisfaction with Whistler’s parks peaked in 2015 (as captured by the Community Life Survey) and has since been declining every year. As population has since grown over 5% (to 2019 levels), this may suggest the comfortable carrying capacity of Whistler’s parks is being exceeded.¹⁴

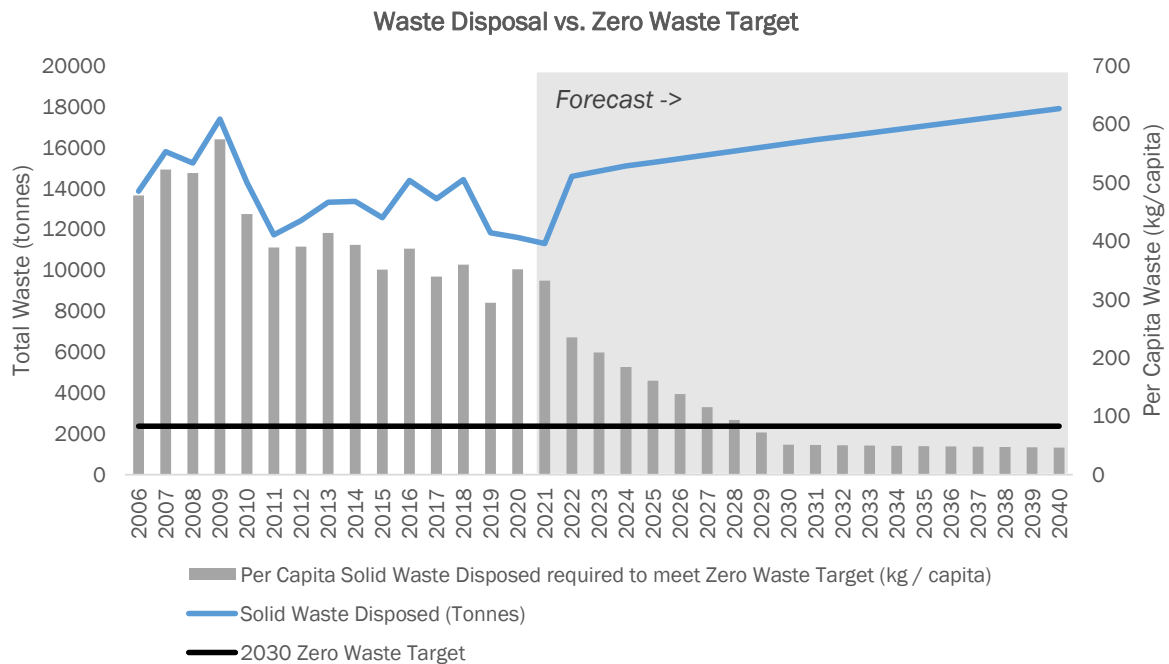
Environment:

- **GHG emissions from buildings** – Total energy consumption correlates closely with overall population levels – both residents and visitors. As fossil fuels (used to heat buildings) constitutes the second largest contribution to community GHG emissions (behind passenger vehicle emissions), increased electrification levels is necessary to meet our Big Moves target as the population continues to grow and consumes more energy. At current building electrification levels,¹⁵ we expect to exceed the Big Moves 2030 GHG target by ~75% for commercial buildings, and ~30% for residential buildings.
- **Waste Reduction** – Whistler has managed to reduce its overall waste disposal in the past (despite population growth) due to prior interventions, such as removing the landfill, increasing waste diversion, and promoting composting. Significant further interventions will be required to enable the >80% reduction in per capita waste required to meet 2030 Zero Waste targets. Figure 12 below shows Whistler’s forecasted waste levels if no interventions took place and per capita waste remained constant (the solid blue line), versus the Zero Waste target (solid black line). The grey bars indicate the per capita waste levels that would be required to bring current annual waste volumes down to the Zero Waste target by 2030.

¹⁴ Projects such as the Rainbow Park Rejuvenation Project aim to enhance and expand the comfortable carrying capacity of Whistler’s parks

¹⁵ Based on 2020 energy consumption levels between electricity versus fossil fuels, it is estimated that 51% of commercial energy use is electric, and 70% of residential energy use is electric.

Figure 12



- **Water Consumption** – the capacity of Whistler’s water supply is designed to meet the needs of the population when completely grown into the bed unit capacity. However, specific water sources are limited in where they are distributed, and where future developments occur may have implications for neighbourhood-specific water supply. Further, peak consumption days (generally driven by high levels of visitation and irrigation) may test the capacity of neighbourhood water facilities, particularly in the village, which is evident in the restrictions that have been implemented in recent years. While the total capacity of all water sources is ~40 ML/day¹⁶, the capacity available to the village is 25ML/day, which is not far off from recent maximum total water consumption levels. Opportunities exist to further enhance awareness of the limitations to the water supply, and look to widespread residential and commercial metering to encourage reduced usage across the board.
- **Wastewater Treatment Capacity** – the capacity of the wastewater plant is designed to meet the needs of the population at full OCP bed unit capacity (i.e. if all approved bed units per the OCP are built out). The wastewater treatment plant is expected to come very close to its capacity (of 25 ML/day) by 2030 under OCP bed unit development. If more bed units are approved for development, then we may reach this capacity by 2030, requiring further investment to expand plant capacity.

Economy:

- **Food & Beverage** – The capacity of Food & Beverage (F&B) facilities (i.e. licensed restaurants and cafes) shows seating capacity at a level lower than peak visitors in both summer and winter, (ie not including

¹⁶ This may be further reduced to ~37ML/day during periods of heavy rainfall or snowmelt that impact the turbidity of surface water sources.

any residents), and anecdotal feedback on the longer wait times or inability to even get a table, has identified the resort is already at capacity when it comes to F&B. Looking forward, as visitation grows into the capacity of approved tourist accommodations, average Winter overnight visitation levels are expected to reach ~90% of Food & Beverage capacity¹⁷ by 2030, and exceed this capacity by 2040 if no interventions to enhance F&B capacity are taken.

- **Commercial Space** – Commercial vacancy rates have historically been very low (around 4%) with most of the vacancies in lower pedestrian areas such as underground in the village commons, while the overall amount of commercial space (measured in square meters) has remained relatively constant. Meanwhile, consumer expenditures are expected to grow over 30% (in nominal terms) from 2019 levels. While this enhances viability of commercial space, this may also place further pressure on triple net rents and hinder locally owned businesses that compete with large corporates, thus having an impact on the local and authentic character that make Whistler unique.
- **Securing Tourist Accommodations for the long term** – According to recent survey data¹⁸, it is estimated that 30% of properties that permit both residential and tourist accommodations (RTA), are being used primarily as tourist accommodations. As trends continue with RTA properties being increasingly used as personal vacation homes for second homeowners (and less available to visitors), there is potential erosion of tourist accommodations and ‘warm beds’ which could impact commercial viability. Phase 2 bed units are different to RTA units, in that they are required to be in a rental pool and made available for tourist accommodations, with limited owner usage each season. These type of bed units would protect the supply of tourist accommodations available in the future for their intended purpose and support long term sustainability of the tourism resort economy.

¹⁷ F&B capacity is measured in number of licensed seats, assuming 2 seatings per night. There are currently ~14,000 licensed indoor seats, so at maximum capacity this could accommodate 28,000 people on a given day

¹⁸ According to the results of the 2021 Housing Survey, which are available on the municipal website at <https://www.whistler.ca/services/housing/whistler-housing-survey>

5 CORE PRINCIPLES – B.A.L.A.N.C.E

Through looking at quantitative insights from the Balance Model, as well as qualitative input from the Strategic Planning Committee, staff and other stakeholders, the following draft 'core principles' have emerged that can be a basis for considering new initiatives, their prioritization and the planning for implementation:

Balance considers the interconnectedness of the number of visitors with workers needed and how both economic and community needs can be sustained

Availability of and access to employee housing requires a sustained increase in supply

Labour efficiencies are needed with a coordinated approach

Active participation of all resort stakeholders and citizens to enable step change

No single initiative on its own can deliver balance

Climate goals will not be achieved without radical intervention

Evaluating performance requires new metrics

5.1 Using the Core Principles – B.A.L.A.N.C.E

The following further outlines the potential types of actions or policy decisions that may be prioritized in a future set of recommendations, when considering the B.A.L.A.N.C.E principles above. As described previously, three ‘ideation’ workshops were held to generate new ideas that may address housing, transportation, and visitation/demand management.

The above emerging principles can be used to evaluate and strengthen any potential idea, and below are illustrative example ideas related to the principles that have been developed from the three ideation workshops held recently.

Balance considers the interconnectedness of the number of visitors with workers needed and how both economic and community needs can be sustained

It is evident in the work described in this Interim Summary document that balance is a delicate word that requires significant effort beyond what has been done in the past, and to consider old solutions that can now be looked at in a new context, or with renewed urgency, together with new ideas that may arise in the current context.

It is acknowledged that everything is related and needs to be integrated in planning for any actions.

Availability of and access to employee housing requires a sustained increase in supply

Given the significance of the number of resort workers that are relying on market housing, and the ongoing and sustained levels of price appreciation in market housing, it is assumed that there will need to be a significant increase in supply of employee restricted housing – and at a faster pace than currently being delivered as the demand for labour outstrips the current pace of development.

Finding new ways to deliver a viable financial model that works for rental employee housing, in addition to ownership, will be fundamental. As an example, the city of Vienna has purpose built rental housing throughout the city that is delivered by both the city as well as partners such as private developers and social enterprises on city owned lands, and continue to deliver new supply year on year to accommodate its population. While this idea is similar to what the RMOW is already doing with the Whistler Housing Authority (WHA) and Whistler Development Corporation (WDC), this could significantly expand development of purpose built rental housing for eligible employees of the Whistler resort located centrally in the village, and would offer suitable housing to a broader range of demographics from young adults to experienced professionals, families and seniors, all of whom may be already working, or recruited to start working, in the resort economy.

The potential of an empty homes tax or underutilized housing tax has been raised and it is still an area of debate in many jurisdictions where these have been implemented, as to whether this type of tax has the intended purpose.

Another example for enhancing supply may be the offering of a temporary housing solution that takes advantage of the growing trend for temporary workers choosing a more mobile lifestyle. This could be a more near term or transitional solution that includes transforming lands slated for future development into a location for temporary workers who have their own mobile home (van, etc), or could lease onsite mobile tiny homes for a maximum 1 year term. There could be set standards for site design and maintenance to ensure a high quality of living, and common facilities such kitchen, washrooms, heated eating areas as well as bike and ski repair and storage could be included. Occupants must be working in resort, or actively looking for work in the tourism resort.

Labour efficiencies are needed with a coordinated approach

It has been identified that by enhancing labour efficiencies, whether it be by accessing technological solutions, increasing full time workforce or by other means, a significant impact could be had on reducing housing need in the community.

To progress and find labour efficiency opportunities, this will require coordination amongst relevant resort partners including the business community and related trade organizations, and others to find opportunities that may be appropriate, viable and long lasting.

Active participation is needed by all resort stakeholders and citizens

Given the significance of some of the challenges currently being experienced and anticipated to get worse in the future, initiatives will require action by many and a community that embraces the need for step change in specific areas.

For example, efforts by private businesses and private developers to deliver housing are needed in conjunction with municipal efforts. Enabling small local businesses to access Whistler Housing Authority waitlists for their staff, may be another example of broadening the current way of working.

No single initiative on its own can deliver balance

This Interim Summary has shared light on a range of areas that require additional focus. It is evident that a single initiative will not deliver balance for the community, but many initiatives supported by the community, across a range of areas will be needed that take into consideration implications across social, environmental and economic conditions.

For example, considering the location of future employee housing should take into account the traffic and GHG emissions implications. For example, while Cheakamus Crossing provides significant municipal land available for employee restricted housing, a paradigm shift might be that future employee housing is focused closer to the village, close to amenities and services and with ease of walkability to workplaces. This may require contemplation of higher density of employee housing than has been previously considered.

And, while Whistler pursues climate action to meet its own targets, working collaboratively as a resort partner with resort stakeholders to drive a net zero resort economy in the future might be a required minimum in the future to attract visitors who value and respect the lands and the natural environment as well as the outdoor adventure pursuits. Establishing 'house rules' to ensure visitors and residents understand the community expectations to respect the natural surroundings, the history of Whistler's people, and engaging with each other in a respectful manner could be an additional avenue to educating what Whistler stands for.

Climate goals will not be achieved without radical intervention.

Electrification of vehicles on its own will not deliver the GHG reductions needed to meet our climate goals. A significant rethink of transportation modes could be possible when considering the current highway capacity challenges associated with traffic congestion, visitation levels and climate action needed.

Examples of radical interventions include:

- A village overhead tram to move community members and visitors faster and more efficiently throughout the municipality
- Visitor reservation systems for transit and parking that support an improved and enhanced experience
- Highway optimization, with dedicated bike lanes, specific bus and commercial vehicle lanes, which means highway space is reallocated from single family vehicles
- A train to Pemberton, and a southern transit service to Squamish and beyond
- Parking fees progressively hiked to contribute to a funding model to provide the active transportation network of the future needed for the community

Short term solutions that could be implemented relatively easily include:

- Paving and painting of a priority lane on the highway for bus prioritization to encourage transit use and enable it to be a faster more efficient service for users.
- Enhanced valley trail maintenance for winter bike commuters.
- Park and ride services with reservation systems

Evaluating performance requires new metrics

Through the balance model initiative, it has become evident that refined targets are needed to support future decision making. For example, the current target for 75% of all employees to live and work in resort has not been specific enough in ensuring appropriate housing for the diversity of the workforce, so a set of metrics that considers vulnerable groups, affordability, and availability of secure employee housing will be more supportive to achieve Whistler's goals.

Note that examples shown above are illustrative and have not been fully prioritized or developed to the point that may be required for implementation, As such, they are not intended to be firm recommendations at this

stage. Rather, they are illustrative examples of interventions and strategies that may help Whistler address its three biggest challenges – housing, transportation, and visitation/demand management.

6 NEXT STEPS

Staff anticipate continuing to work on the Balance Model Initiative with guidance from the Strategic Planning Committee. In particular, next steps identified are:

1. Continue to engage with the SPC to refine the emerging principles, and further develop ideas generated from workshops into coordinated sets of actions that can be implemented by a range of actors and prioritized with short term and longer term focus
2. Continue to collaborate with EPI to progress on principles and potential actions relating to demand management and the resort economy.
3. Engage with Lil'wat Nation and Squamish Nation on the insights and implications arising in this report, through the Economic Development Committee.
4. Prepare for broader community engagement to inform a final report, as it will be important to hear from the community as part of the process to incorporate feedback on:
 - a. the Balance Model Initiative as well as the Foundational and Additional implications that have emerged from the various insights
 - b. the draft principles that have emerged
 - c. development of new emerging ideas or improvements to existing ideas such that prioritized action plans can be refined
 - d. any areas that may not have been considered so far, for example intangibles such as sense of belonging, community diversity and wellbeing.
5. After community engagement, proceed to share findings with the Council, and return with final recommendations regarding implementation and rollout of sets of coordinated strategy and action plans.

Note: This report is intended as an Interim Summary, sharing an update with the community as major milestones have been completed. Therefore, this report focuses on sharing the Balance Model Insights and the core principles that have emerged. Additionally, some illustrative 'example strategies and actions are shared and considered in the context of the emerging principles, to demonstrate how these can be used moving forward.

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7 APPENDIX – BALANCE MODEL STRUCTURE AND DATA

The Balance Model forecasts population based on external influencers and internal capacity constraints, to project potential community performance under various circumstances.

The table below further describes each component of the model.

Model Stage	Description
Forecasted Influencers	External and internal projections for ‘influencers’ inform our expectations for Whistler’s future population
Built Capacity	Whistler’s built capacity is examined to determine its ability to accommodate the above expectations for Whistler’s future population
Forecasted Population Segments	Forecasts for Whistler’s population segments are then derived as a ‘constrained forecast’, where the influencer projection (or, the demand) is constrained by the built capacity (the supply)
Projected Future Indicator Performance	Population segment forecasts are used to calculate expected indicator performance, as informed by historical trends
Strategies and Actions	Projected indicator performance and population growth are all combined to illustrate major implications, tradeoffs, and interrelationships, and provide guiding principles to evaluate future strategies and actions.

7.1 Population Segments

The table below provides definitions and data sources for each population segment.

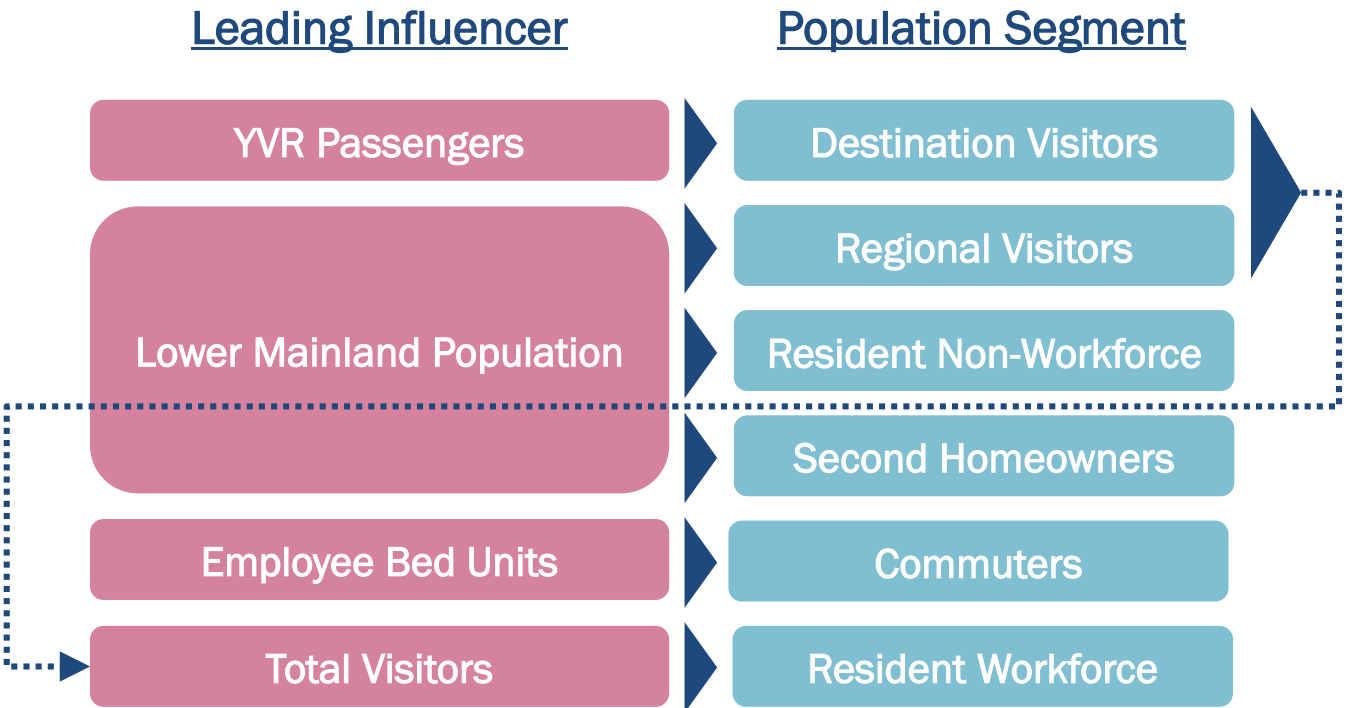
SEGMENT	DEFINITION	DATA SOURCE
Residents	Residents include those that consider their home in Whistler on a permanent basis or temporarily (see <i>below Permanent Residents and Temporary Residents</i>)	<i>Census + Statistics Canada</i>

		<i>custom reports</i>
Permanent Residents	Permanent residents are those that identify their usual place of residence as Whistler and include both those working and not working in the community.	<i>Census</i>
Temporary Residents	For Census purposes, those who consider being in Whistler on a temporary basis, where their place of residence is elsewhere. Differentiating temporary residents from visitors, is the duration and also intent- visitors are here on vacation typically less than 30 days, while temporary residents may be in Whistler for an extended stay (greater than 30 days)	<i>Census + Statistics Canada custom report</i>
Workforce	Workforce refers to those employed in Whistler's resort economy, and does not include those working in Whistler for a company located outside of Whistler. Workforce is a subset of Residents (permanent and temporary) and includes Commuters in.	<i>Statistics Canada custom report</i>
Commuters In	Commuters are those who do not live in Whistler, but travel from their place of residence to Whistler for work. They are employed in a resort business. Commuters In are a subset of the workforce.	<i>Census custom report</i>
Commuters Out	Residents of Whistler who work outside the community – this may include both commuters and remote workers	
Homeowner	Assumes owner occupied dwelling located in Whistler.	<i>Census</i>
Renter	A person who leases a residential home from a landlord.	

Second homeowner (SHO)	Owners of property in Whistler, who do not live here permanently, but use their home as a vacation or second home to visit Whistler. Visits to Whistler may be frequent, regular or not.	<i>Tourism Whistler</i>
Visitors	Visitors include those who may come to Whistler on vacation, on a day or overnight basis.	
Day visitor	Visitors who do not stay overnight.	
Overnight visitor	Visitors who stay in either paid accommodation or with friends and family.	
Regional visitor	Visitors originating from British Columbia and Washington state.	
Destination visitor	Visitors originating from anywhere other than British Columbia and Washington state.	

7.2 Influencers of Growth

An influencer analysis was conducted to identify the *leading* influencers of population growth in Whistler. While in reality a multitude of factors may influence resident population and visitation in a given year, for the purposes of this model only one leading ‘influencer’ per segment is used to conduct forecasts. The diagram below shows the leading influencers mapped to the corresponding population segments.



The table below shows the influencers and corresponding population segments, and the results of historical regression analyses that are used to establish future forecasts.

Influencer	Source of Influencer Data	Whistler Population Segment	Regression Results		
			Correlation Coefficient ¹⁹	Slope	Intercept
Average Daily Visitors (thousand)	Internal – balance model derived forecast	Resident Homeowner WF	0.89	196	139
		Resident Renter WF	0.78	152	905
Annual Destination Visitors (thousand)	Internal – balance model derived forecast	Temporary Worker	0.86	262	-855
Employee Restricted Bed Units (hundred)	RMOW Planning & OCP Approved Bed Units	Commuter	-0.95	-29	3,864
YVR Passengers (million)	YVR 2037 Master Plan	Destination Overnight Annual	0.85	340	1,683
		Destination Overnight Summer	0.92	367	-522
		Destination Overnight Winter	0.66	315	3,879

¹⁹ All modelling results are subject to change as time evolves, situations may change and additional data is collected

LM population (hundred thousand)	Metro Vancouver Regional Growth Strategy and Fraser Valley Regional Growth Strategy	Resident Homeowner (Non Workforce)	0.98	281	-3,748
		Resident Renter (Non Workforce)	0.80	87	-306
		Second Homeowner ⁱ	0.04	2	465
		Daytripper Annual	0.79	265	-4,251
		Regional Overnight Annual	0.84	384	-5,532
		Daytripper Summer	0.65	215	-2,224
		Regional Overnight Summer	0.72	297	-2,789
		Daytripper Winter	0.81	316	-6,306
		Regional Overnight Winter	0.84	467	-8,157

7.3 Capacity Constraints

The influencer forecasts of Whistler's population growth are constrained using expected development and availability of: tourist accommodations, residential and employee bed units, and parking facilities. Further information is provided in the table below.

Population Segment	Constraining Factor	Assumptions	Constraint
Visitors - Overnight visits per day	Tourist Accommodations (measured in bed units)	90% maximum annual operational capacity of tourist accommodations 30% of properties that allow both residential & tourist accommodations are used primarily as tourist accommodations (based on 2021 Housing Survey results) 78% of total overnight visits are in paid commercial accommodation – the remainder stay with friends & family (based on historical trends)	~17,000 – 19,000 visits per day (increases as OCP bed units are developed over the 20 year forecast)
Residents	Resident and Employee Restricted Bed Units	~60% of market residential bed units are not occupied by Whistler residents (due to second homeownership, underutilized homes, etc.) 30% of properties that allow both residential & tourist accommodations are used primarily as tourist accommodations (based on 2021 Housing Survey results) - Employee restricted bed units are utilized as follows (employees living in restricted housing as % of total employee restricted bed units): 60% of ownership bed units are occupied by a workforce member	~19,000 - ~24,000 permanent and temporary residents (increases as OCP bed units are developed over the 20 year forecast)

		○ 75% of rental bed units are occupied by a workforce member ○ 200% of dorm bed units are occupied by a temporary workforce member (4 people per 2-bed dorm)	
Daytrippers	Parking Lot capacity	• ~4000 parking spaces including Lots 1-8 and Creekside • 2.5 people per car • 80% maximum operational capacity	~8000 daytrippers per day

7.4 Performance Indicators and Calculations

Indicators were selected to represent capacity and performance across Community, the Environment, and the Economy. Indicators were also selected for availability and reliability of data, as well as relation to population derived through historical correlation analysis where possible. The indicators and methods used to forecast each indicator is detailed in the tables below.

Pillar	Indicator	Metric	Forecasting Method	Residents	Regional Visitors	Destination Visitors	Target / Capacity
Community	Housing Security	Workforce in Employee Housing	Per Capita Calculation	✓			Suggested 100% temporary workforce housed in employee housing. TBD for permanent residents.
		Workforce in Market Housing	Per Capita Calculation	✓			
	Water Consumption	Annual Water Demand	Unit rate forecast with 'fixed' assumptions for maximum rainwater infiltration and irrigation levels	✓	✓	✓	37 ML / day
	Waste Water Treatment	Annual WWTP Volumes		✓	✓	✓	25 ML / day
	Childcare	Licensed Childcare Access Rate	Per child capita calculation	✓			14.3 / 17 / 24 Licensed Spaces per 100 children in 2022 / 2025 / 2030

Pillar	Indicator	Metric	Forecasting Method	Residents	Regional Visitors	Destination Visitors	Target / Capacity
	Healthcare	General Practitioners (GPs) Access	Per Capita Calculation	✓			2.61 GPs per 1,000 residents
	Traffic	Vehicles per hour & congested hours per day	Multivariate regression against residents and visitors	✓	✓	✓	
	Parks Access	Lakefront Park Space per capita	Per Capita Calculation		✓	✓	
		Public Open Park Space per capita	Per Capita Calculation		✓	✓	

Pillar	Indicator	Metric	Forecasting Method	Residents	Regional Visitors	Destination Visitors	Target / Capacity
Economy	Commercial Space	Licensed Food & Beverage Seats per capita	Per Capita Calculation	✓	✓	✓	2 seatings per licensed seat per day
		Commercial & Industrial Space per capita	Per Capita Calculation	✓	✓	✓	

Pillar	Indicator	Metric	Forecasting Method	Residents	Regional Visitors	Destination Visitors	Target / Capacity
	Hotel Occupancy	Hotel Occupancy Rates by season	Calculation using party size to determine room nights, divided by forecasted hotel inventory		✓	✓	90% maximum annual average operational capacity
	Municipal tax revenues	Municipal Regional District Tax (MRDT) Revenues	Calculation Using Visitation, assumed 3% MRDT rate, and constant ADR		✓	✓	
	Parking Utilization	Village Daylot Parking Occupancy	Single variable regression against traffic	✓	✓	✓	80% maximum capacity

Pillar	Indicator	Metric	Forecasting Method	Residents	Regional Visitors	Destination Visitors	Target / Capacity
Environment	Waste	Per capita waste disposal required to meet Zero Waste Targets	Per Capita Calculation requirement to meet overall target	✓	✓	✓	80% reduction from 2019 levels by 2030
	GHG emissions from vehicle use	Tonnes of CO2 emissions per year	Calculation using traffic Assumption for average fuel efficiency of vehicles by type Assumption for emission intensity of gasoline and diesel Assumption for electric vehicle adoption	✓	✓	✓	50% reduction from 2007 levels by 2030
	GHG from energy used to in buildings	Commercial energy consumption	Single variable regression against total population	✓	✓	✓	

Pillar	Indicator	Metric	Forecasting Method	Residents	Regional Visitors	Destination Visitors	Target / Capacity
		Residential energy consumption	Single variable regression against total population	✓	✓	✓	
		Tonnes of CO2 emissions per year from commercial buildings	Calculation assuming carbon emission factor of natural gas and electrification % of commercial buildings	✓	✓	✓	40% reduction from 2019 levels
		Tonnes of CO2 emissions per year from residential buildings	Calculation assuming carbon emission factor of natural gas and electrification % of residential buildings	✓	✓	✓	20% reduction from 2019 levels

For more information about this Interim Summary, please refer to:

www.whistler.ca/balancemodel

Or contact the RMOW Economic Development and Tourism Recovery team

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