

**RESORT MUNICIPALITY OF WHISTLER**

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STAFF REPORT TO COUNCIL

PRESENTED: July 5, 2022
FROM: Parks Planning
SUBJECT: EVO E-BIKE SHARE DEMONSTRATION PROJECT

REPORT: 22-098
FILE: 6750-20

RECOMMENDATION FROM THE CHIEF ADMINISTRATIVE OFFICER

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

RECOMMENDATION(S)

That Council receive Information Report No. 22-098 regarding an Evo E-Bike Share Demonstration Project.

PURPOSE OF REPORT

The purpose of this report is to provide Council with information regarding the British Columbia Automobile Association's (BCAA) Evo E-Bike Share Demonstration Project being implemented for late summer 2022.

☒ Information Report ☐ Administrative Report (Decision or Direction)

DISCUSSION

Background

Personal vehicles are Whistler's largest source of greenhouse gas (GHG) emissions, accounting for 54 per cent of Whistler's total emissions. Moving beyond car-based transport to active transportation modes is key to reducing transport-related emissions and limiting traffic congestion. In 2019, 67 per cent of full-time residents made most of their trips to work by car, while 33 per cent traveled to work primarily using transit or active transport.

Walking and cycling are increasingly seen as a viable opportunity to get around Whistler. Ongoing investments in safe and well-maintained active transport infrastructure continues to better support both recreational use and commuter purposes. Significant gaps in current connections have been addressed in recent years, with plans to undertake further work on missing segments in the coming years.

Opportunity

The Climate Action Big Moves Strategy - Big Move #1 – Move beyond the car, identified a key initiative to “scale up use of e-bikes and other e-mobility devices and address barriers to progress”. Staff have

worked collaboratively with the BCAA through their Evo Car Share brand over the past months to explore opportunities for an e-bike share demonstration project in Whistler during the 2022 summer season. Evo has been, and continues to be, a leader in mobility options in the lower mainland with over 170,000 car share members across BC. BCAA is now introducing the next iteration of mobility options within their Evo mobility product offering, designed for sustainable and active transportation in British Columbia. Evolve E-Bike Share is a turnkey, zero emission, electric, pedal-assisted bike (e-bike) share that offers a simple system adoption for improved mobility. They currently have partnerships for several “closed” systems where they provide e-bike share systems to businesses in Metro Vancouver.

Staff have been actively engaging with other municipalities to understand the challenges and opportunities of an e-bike share program and how it might fit in Whistler. Such a program will be able to provide access to destination parks and amenities as well as the Village and residential neighbourhoods to support ongoing commuting and sustainable transportation opportunities.

Demonstration Project

Evo is exploring e-bike share partnerships with various municipalities. In early 2022, they approached the Resort Municipality of Whistler (RMOW) to partner for summer 2022. This partnership required financial contribution from the RMOW to undertake the program. Due to limited timelines, funding constraints and supply chain challenges, staff deemed that it was not a viable option at the time.

After further discussion, Evo has agreed to run a demonstration project in Whistler from August through to October of 2022. This will be at no partnership cost to the RMOW. However, the RMOW will contribute some in-kind services to provide system oversight, identify locations, implement bike rack installations and integrate the program overall with day-to-day operations. Evo will use this as a proof of concept to work with other jurisdictions. This no-cost option has substantial mutual benefits for both the RMOW and Evo.

Implementing an e-bike share program requires substantial technology support in developing mobile applications, geo-specific controls, membership management and customer service infrastructure. All of these aspects of an e-bike share system are substantial undertakings that were deemed to be unlikely to be developed in short-order by other providers to enable a demonstration project during 2022.

Long-term, staff intend to issue a request for proposals (RFP) to establish an ongoing permanent bike share system in Whistler. Staff anticipate undertaking the RFP process upon completion of the demonstration project, with the aim of implementation in summer 2023. This will allow for collection of ridership data and enable staff to understand what works and what doesn't, including any identified operational challenges. During this time staff will also engage in dialogue with local bike rental companies on the relationship of this mobility option to their product offerings.

How it Works

A fleet of e-bikes will be stationed at pre-determined parking locations and made available to the public. All trips begin and end at one of these parking locations. Members have access 24 hours a day, seven days a week to the Evolve E-Bikes and their customer service team via their smart phone. Members can pause their e-bike trip using the app during a trip and lock it up while not in use. For the duration of the demonstration project, bikes will be required to be within a designated geo-fenced area and locked with built-in cable locks to a designated bike rack.

Members can register and gain instant approval through their smart phones. There is also educational onboarding, the ability to end and pause trips, as well as access to their trip history all through the app.

The e-bike share demonstration program is designed for ease and flexibility. The Evo team will be responsible for operating all aspects of the e-bike sharing system, including self-service access to their e-bikes and helmets through the applications well as regular e-bike maintenance, repair, retrieving and redistributing, cleaning, and charging of the bikes. They will also be responsible for marketing curated to achieve demonstration goals, providing access to their customer service team, and will provide anonymized aggregated reporting on e-bike usage to track the program's performance.

The partnership requires RMOW to install bike racks at dedicating locations for e-bike parking, enable and amplify program onboarding and engagement throughout the program using available communication channels, as well as to designate internal contacts for administration, business, and communication activities throughout the demonstration.

Geo fence controls will be established to restrict speed in certain locations and to prevent the bike from being ridden within certain zones such as the Village Stroll or beyond the boundaries of the demonstration project.

Project Details

An e-bike share program supports active trips for residents and guests with a focus on serving key destinations including parks, amenities, and key population centres. It can also support businesses who wish to provide memberships to employees to support active, affordable commuting options. The target user group is those looking for single, short duration trips from one destination to another without the worry of bike theft, or the hassle of parking, and ultimately replacing car trips.

The aim of a bike share system is to target a user who would not undertake a trip through a bike rental provider and therefor these trips would be net-new bike trips, replacing vehicle or transit trips. The goal is not to introduce direct competition, which would replace a bike rental trip with a bike share trip. Bike share users are typically seeking a quick and convenient option, accessed through a personal mobile device, to undertake a trip that provides greater convenience and timeliness than other mobility options including driving or transit. This also addresses the significant growth in park visitation and demand on options to access parks, demonstrated during summer 2020 and 2021, which saw an increase of 77% over 2019 levels.

Local e-bike rentals are typically focused on a product that offers two hours or more of rental time, with full day or multi-day as a typical product offering. Though product offerings vary substantially, a typical two-hour local rental ranges from \$39 - \$67 and a typical one day rental ranges from \$69 - 120 per day for a Valley Trail style e-bike – see Figure 1 for typical price comparison.

Figure 1: Price Comparison – Local Bike Rental Companies

	2 Hour Rental	4 Hour Rental	1 Day Rental
Valley Trail Bike – Traditional	\$25 - \$31.50	\$40 - \$49	\$45 - \$71
Valley Trail Bike – E-Bike	\$39 - \$67	\$69 - \$120	\$79 - \$126
Trail Mountain Bike – Traditional	\$49 - \$60	\$75 - \$94.50	\$90 - \$135
Trail Mountain Bike – E-Bike	\$79 - \$110	\$110 - \$130	\$139 - \$162
Downhill Mountain Bike – Traditional	-	\$110 - \$120	\$108 - \$162
Downhill Mountain Bike – E-Bike	-	-	-

It is critical to note that e-bike share programs target single direction trips, such as a trip from the Village to Rainbow Park or from Meadow Park Sports Centre to the Village. Typical fees for other similar municipal services include a \$1.00 unlocking fee plus an additional \$0.30/minute making a 15 minute ride cost approximately \$5.50. This price point is viable to replace vehicle trips as this can compete with the cost of parking and potential inconvenience of finding parking options at a destination. However, utilizing the bikes for thirty minutes or beyond one hour will result in overage fees to ensure that the product price point is not a more cost effective option than local bike rental options which are geared towards longer duration use. This is reflective in the cost matrix provided as Figure 1. Ultimate bike share unlocking and per-minute costs are being resolved and details will be provided to the public as the implementation plan is finalized.

Staff will also be working with Evo to investigate embedding information about local bike rental options for users seeking a longer-duration rental in both the application and in signage materials.

Locations

The preliminary deployment plan for e-bike share stations being considered include locations in the Village such as Whistler Olympic Plaza, Gateway Loop, Day Lot 2, and Day Lot 4, along the Fitzsimmons Connector. Locations outside of the Village include Rainbow Park, Lost Lake Park, and Meadow Park Sports Centre. Locations were considered based on high visibility, link to existing transit opportunities, and locations where parking is restricted or limited. Locations will include a bike rack where bikes will be locked, and signs helping to locate the e-bikes. Further locations will be considered and modifications to the system may be made during the demonstration project.

Next Steps

The project will include a soft launch at the end of July and a formal public launch anticipated for August 5, 2022. The demonstration will run until October, targeting close-out just after the Thanksgiving weekend.

Staff will report back to Council to provide an update on the project results and progress on a long-term e-bike share plan.

Analysis

Staff sees significant value in this opportunity as it aligns with the key initiatives adopted as part of the Climate Action Big Moves Strategy. This program aims to reduce internal vehicle trips and provide a viable short-term, cost-effective biking option, reduce parking congestion at key areas and work toward a greater range of mobility options aligned with the Climate Action Big Moves Strategy.

POLICY CONSIDERATIONS

Relevant Council Authority/Previous Decisions

[Climate Big Moves Strategy \(2020\)](#): This demonstration project directly supports the Climate Action Big Moves Strategy and the number one goal of moving beyond the car by supporting and enabling active transportation and reducing vehicle trips. It supports active transportation by scaling up use of e-bikes to address barriers to progress.

[Transportation Action Plan \(2018 - page 113\)](#) One of the key objectives of these plans is to encourage reduced vehicle use by increasing cycling and other preferred modes of transportation. This project is aligned with and supports that overall objective.

[E-Mobility Device Draft Policy \(2019 - page 118\)](#) : This project follows the guidelines set out in the 2019 draft E-Mobility Device Policy. Evolve E-bikes are Class 1 pedal-assisted e-bikes which are permitted on the Valley Trail, municipal roads and Highway 99, forest service roads, and off road trails (with some exceptions).

[Recreation and Leisure Master Plan \(2015 - page 103\)](#) :This project relates to and supports a number of the strategies within the Recreation and Leisure Master Plan, including the following: consider new assets to meet growing demands and retain resort differentiation; encourage the delivery of an enhanced and consistent quality of recreational experience across jurisdictions; and leverage and support existing and emerging recreation and leisure activities that are consistent with and further the Whistler brand

[Whistler Summer Experience Plan \(2021\)](#) : This implementation plan demonstrated the ongoing increase in park use and the challenge of parking at destination parks. This plan encouraged the use of sustainable modes of transport to access parks through the “Park and Play” campaign and supporting investments in Bike Valet services. An e-bike share system advances this work by providing further opportunities to utilize sustainable transportation solutions to access the RMOW park network.

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.

Municipal decision making supports the reduction in green house gas (GHG) emission levels by reducing internal vehicle trips and supporting active transportation. Ongoing investments in safe and well-maintained active transport infrastructure continues to better support both recreational use and commuter purposes.

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***

☐ Pandemic Recovery

*Leadership and support for **community and tourism recovery and sustainability** – priority focuses are where recovery needs intersect with other Council focus areas*

☐ 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

The Official Community Plan (OCP) is the RMOW's most important guiding document that sets the community vision and long-term community direction. This section identifies how this report applies to the OCP.

This project moves toward the OCP Chapter 10 Climate Action and Energy and more specifically goal 10.2 by contributing to substantially reduce carbon emissions from vehicles and transportation.

BUDGET CONSIDERATIONS

This demonstration project will require the allocation of staff time to provide project support and implementation coordination. Planned staff time will be accommodated within existing work programs.

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.

There are no specific considerations to include in this report.

COMMUNITY ENGAGEMENT

Level of community engagement commitment for this project:

☒ Inform ☐ Consult ☐ Involve ☐ Collaborate ☐ Empower

Comment(s):

Engagement with Local Business

At the time of writing this report, staff anticipate distributing a letter to local bike rental businesses on June 27, 2022, informing them of the demonstration project. Staff have a meeting scheduled with rental businesses on June 30, 2022 to assist in better understanding the relationship of this mobility option and their product offerings. This engagement, as well as the data collected during the 2022 demonstration project will help inform future services.

REFERENCES

None

SUMMARY

An e-bike share program supports active trips for residents and guests with a focus on serving key destinations including parks, amenities, and key population centres. The target user group is those looking for single, short duration trips from one destination to another, ultimately replacing car trips and the need to find and pay for parking. Staff sees significant value in this opportunity as it aligns with the key initiatives adopted as part of the Climate Big Moves Strategy. This program aims to reduce internal vehicle trips and provide a viable short-term, cost effective biking option. It is further helping to reduce parking congestion at busy parks and amenities, and working towards a greater range of mobility options aligned with the Climate Action Big Moves Strategy, without undermining the local retail bike rental sector.

SIGN-OFFS

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