

Policy development has now advanced to the point where Council support of the draft policy is required. Arriving at this point has included analysis of relevant senior level legislative and regulatory documents, local policy and guiding document review, research of approaches in other relevant jurisdictions, and considerable community engagement. A brief overview of the draft policy is provided in this report and the full draft policy is appended as Appendix "A".

The draft policy is rooted in our community's current knowledge and values, and provides guidance for the appropriate, responsible and respectful use of e-mobility devices in Whistler. The primary focus of this draft policy are e-bikes as they represent the largest area of concern. An effective policy is required to manage the expectations, potential impacts, and experience of residents, visitors and businesses, as demand for e-bike use grows.

Background

There are a broad range of inputs to the draft e-mobility devices policy in terms of scope, context and regulatory framework. Several of these are highlighted below. All have been considered in the development of the draft policy.

E-Bike Current Context

- E-bikes have arrived in Whistler, their use is increasing, and they are not going to disappear;
- E-bikes provide a new transportation and recreation option;
- E-bikes allow more people of varying ages and abilities to recreate outdoors, travel to destinations, and use the trails;
- Regardless of the type of bike, trail use is increasing with Whistler's growing population and visitation;
- There are some types of e-bikes and e-devices that may be more appropriate than others for our community;
- E-bike technology will continue to advance and evolve;
- Effective policies are required to manage potential impacts and the experience of residents, visitors and businesses;
- E-bike policies and legislation will likely need to evolve as e-bike use increases and as e-bike technology advances; and
- Enforcement of e-bike use will be challenging. Until relatively recently, motorized recreation options have been gas-powered and directed into specific zones due to noise, smell and speed issues; electric motors have changed the norm.

Geographic Scope

The draft policy considers the municipally managed recreational Valley Trail network, as well as local non-motorized recreational off-road trails managed by the RMOW, the Whistler Off Road Cycling Association (WORCA), and Recreation Sites and Trails BC (RSTBC) provincial Crown Lands within the boundaries of the Cheakamus Community Forest. The Whistler Interpretive Forest is included in the geographic scope.

BC Parks and Whistler Blackcomb's Controlled Recreation Area are outside of the geographic scope for this draft policy, however efforts have been made to consider these agencies to achieve alignment in policies.

Regulatory Framework

A number of existing municipal policy documents and bylaws, as well as provincial policies and legislation establish the regulatory framework for Whistler's e-bike policy. These are identified and discussed in the "Other Policy Considerations" section of this report.

Of note, RSTBC's *Electric Bicycles* policy (April 2019) has significant implications for many of Whistler's recreational trails - the RSTBC policy is a key influencer of Whistler's draft policy. Consequently, Whistler's proposed draft policy connects to and aligns with RSTBC's policy.

E-Mobility Device Scope

A wide range of e-mobility devices exist, which can use 100 per cent human power, 100 per cent motor power, or a combination of both. These include:

- Several classes of e-bikes;
- E-adaptive mountain bikes (electric mountain bikes that are highly-adapted for users with limited mobility);
- Motorized wheelchairs and mobility scooter; and
- Other personal mobility devices (e.g. e-scooters, e-skateboards, and other non-bike e-devices like Segways).

E-bikes are the primary focus of this draft policy, because they are the most prevalent and largest commercial sales device type, and represent the largest use concern. That said, some consideration is given to other devices within the draft policy for liability and consistency with the provincial *Motor Vehicle Act*.

E-Bike Classifications

There are a number of e-bike classifications used by RSTBC's e-bike policy and industry:

- Class 1: A bike equipped with a motor that provides assistance only when the rider is pedalling (pedal assist) and ceases to provide assistance when the bike reaches 32 km/hour and has a maximum continuous wattage output of 500 watts. Class 1 e-bikes are considered a Motor Assisted Cycles (MAC) according to the RSTBC e-bike policy.
- Class 2: A bike equipped with a motor that can be used exclusively to propel the bike (throttle equipped) and ceases to provide assistance when the bike reaches 32 km/hour. Class 2 e-bikes are classified as motorized vehicles according to the RSTBC e-bike policy.
- Class 3: A bike equipped with a motor that provides assistance only when the rider is pedalling (pedal assist) and ceases to provide assistance when the bike reaches 45 km/hour. Class 3 e-bikes are classified as motorized vehicles according to the RSTBC e-bike policy.
- Electric adaptive mountain bike: Electric mountain bikes that are adapted for users with limited mobility in their limbs from spinal cord injuries or other disabilities.

Draft Policy Development Approach

Several key approaches were used to develop the draft policy. These included:

Area vs. a Trail-by-Trail Approach

Consideration was given to assigning e-bike permissions or restrictions either according to a geographic area or on a trail-by-trail basis. Through stakeholder engagement it was determined that looking at areas, rather than individual trails was preferable for Whistler. Doing so makes public understanding of permissions or restrictions more straightforward, and compliance more likely.

WORCA Partnership Approach

WORCA is responsible for many of Whistler's non-motorized off-road recreational trails. Recently, Council provided WORCA with substantial funds to maintain trails through a three-year Fee For Service agreement. As a significant trail manager in the community it is sensible to take a partnership approach with draft policy development. Draft policy consensus between WORCA and the RMOW was reached through ongoing dialogue.

Stakeholder Input and Community Values

Many trail users are not represented by WORCA. Thus, a broad and detailed stakeholder and community engagement process was initiated, focusing on developing a set of project objectives in phase one and then gathering input on proposed policy directions in phase 2. Underpinning both elements were community values, as well as existing community policies and plans.

A more detailed summary of the community engagement process is outlined in the "Community Engagement and Consultation" section of this report. The complete Whistler E-bike Policy Development Community Engagement Report (March 2019) is appended to this report as Appendix "B".

Draft Policy Summary

A high-level overview of the draft e-bike policy is provided below. The complete draft policy is included as Appendix "A".

Class 1 E-bikes

The e-bike policy proposes to permit Class 1 e-bikes on the municipally managed recreational Valley Trail network and most, **but not all** off-road non-motorized recreational trails managed by either the RMOW, WORCA or RSTBC.

Human-powered devices (bikes, skateboards, push scooters, etc.) and powered accessibility devices (wheelchairs, accessibility scooters, adaptive e-mountain bikes) would continue to be permitted on these trails.

Class 1 e-bikes restrictions are proposed on the following trails for the stated rationale:

- All "hiking only" designated recreational trails
 - Rationale: these trails are not built for and cannot withstand mountain biking, or are otherwise not appropriate for mountain biking.
- All recreational non-motorized trails located above the Flank Trail on Sproatt and Rainbow mountains
 - Rationale: for reasons of environmental considerations, user safety, and efforts to advance grizzly bear management. This restriction represents a precautionary approach to risk management. (Note: E-bikes **are** permitted on the Flank Trail.)
- All recreational non-motorized trails within the Emerald Forest Conservation Area, other than the "Access Road" connecting Lorimer Road to Alta Lake Road.
 - Rationale: the Emerald Forest Conservation Area is a Council-approved conservation area, where conservation is valued over recreational interests. (Note: E-bikes are permitted on the access road connection between Lorimer Road and Alta Lake Road.)

Class 2 and 3 E-Bikes

Class 2 and 3 e-bikes are considered motor vehicles by senior legislation including the *Motor Vehicle Act* and the Recreation Sites and Trails BC's policy. Therefore Class 2 and 3 e-bikes are deemed not appropriate or safe for use on any recreational non-motorized trails located on Crown Lands. The

municipal Parks Bylaw currently prohibits public motor vehicles, as defined by the *Motor Vehicle Act* from recreational trails it manages, including the Valley Trail.

Class 2 and 3 e-bikes are currently permitted on motorized trails (however, none exist in the Whistler area), and Resource Roads (Forest Service Roads). They are also permitted on municipal and provincial roads and highways, as long as they and their users meet ICBC regulations.

Other E-Mobility Devices

Low speed motorcycles (e.g. e-mopeds), other mobility devices such as powered skateboards, stand-up e-scooters (throttle), Segways and hoverboards are classified as motorized vehicles according to provincial legislation. The municipal *Park Use Bylaw No. 1526, 2002* prohibits motor vehicles in parks and on the Valley Trail. Thus, these devices are prohibited from the Valley Trail and non-motorized off-road recreational trails.

Issues to Address Moving Forward

Arising out of the engagement phase were a number of topics requiring further consideration and attention. These are briefly discussed below.

Valley Trail Speed, Safety and User Conflict

While there was strong support for permitting Class 1 e-bikes on the recreational Valley Trail, there were many concerns raised about speed, safety and potential for increased user conflicts.

In 2017 the municipality retained a qualified consultant to undertake a safety review of the recreational Valley Trail network with e-bikes and user speed in mind, and developed an updated set of Valley Trail design guidelines. These documents were used to identify deficiencies that create safety issues and to identify appropriate corrective actions. In conclusion, this work did not identify significant safety concerns with the Valley Trail in general or specially; however, it did identify a number of less significant opportunities for improvement for which corrective work is currently underway.

Through the safety review process a Valley Trail speed limit was discussed. A speed limit is not recommended as the built form typically limits the speed to an acceptable level, most cyclists do not have a speedometer on their bicycles that indicates their speed, and implementation of a speed limit creates an enforcement expectation, which is not practical to implement consistently or frequently. As an alternative it is recommended that a broad communication strategy be implemented to:

- Remind all users that the Valley Trail is a recreational multi-use trail used by a wide range of ages, abilities and user types, as well as a key attraction for visitors, and is not a dedicated bicycle commuter network;
- Encourage appropriate and respectful use of the Valley Trail, and;
- Direct those wishing to travel faster to use roadways.

A communication plan has been developed and is part of the overall e-bike implementation and monitoring program recommended in this report.

Alpine Trails E-bike Restrictions, Backcountry Safety

Community open house and online survey opinions were divided on alpine restrictions.

A portion of respondents generally expressed that e-bike users should be allowed everywhere regular bikes are permitted to allow equal access to all riders, as opposed to being "discriminated against due

to age and/or ability.” Many also indicated their belief that e-bikes and e-bike riders do not have a greater impact on areas and trails than regular bikes and riders. Some respondents stated accessing the new alpine trails on Mt Sproatt was the inspiration for their e-bike purchase.

Alternatively, a portion of respondents supported the proposed restriction listing the following reasons: wildlife impacts and conflict, overcrowding and degraded experience, increased conflict between riders, and safety of inexperienced riders.

At this time the proposed alpine e-bike restriction is recommended for environmental considerations, efforts to advance grizzly bear management and user safety.

Grizzly bear management is an emerging topic, and at this time is not fully understood. While the municipality is in the process of developing a Grizzly Bear-Human Conflict Mitigation Strategy along with the Conservation Officer Service (COS) and the Ministry of Forests, Lands, Resource Operations and Rural Development (FLNRORD), at this time a more restrictive approach to alpine access is the preferred approach until a better understanding of recreational implications is better understood.

In terms of user safety, e-bikes, because of their ability to reduce access barriers, can place people in the backcountry who do not have the knowledge, skills and ability to be there.

These two issues have led us to recommend a precautionary approach to risk management that is consistent with resort community vision documents including the new draft Official Community Plan as well as Whistler2020.

Off-Road Trail Directionality

Stakeholders raised concerns about the potential for e-bike users to travel in non-traditional trail directions, thus introducing potential safety issues to both downhill and uphill riders. This concern is founded upon European trends where uphill e-bike riding is a new and growing type of trail experience.

A further consideration is the use of trails by trail runners who are influenced by topography in a different way than mountain bikers and thus may travel in the opposite direction to mountain bikers. For example, trail runners often prefer a steeper climb and easier descent while mountain bikers often prefer the opposite.

In response, while many of Whistler’s trails are currently bi-directional there may be heightened need to better identify preferred directionality and related warnings for select trails. The municipality with work with trail partners to address this concern in the field, on maps and in communications.

Off-Road Trail Wear and Tear

Concerns about increased trail wear, and the implications to maintenance needs and costs have been mentioned in the context of e-bike use. E-bikes allow users to travel further in a given ride opportunity thus increasing the number of trail kilometres ridden. E-bikes also allow users to access a particular trail that the user might not have done so otherwise due to time, distance, and topography or fitness constraints. E-bikes do weigh more than a traditional bike however e-bike technology continues to advance with lighter components.

While it is anticipated that trails will see more wear with e-bikes, quantifying the impacts of that wear is challenging. As part of its monitoring program the RMOW, WORCA and RSTBC will observe trail wear and durability patterns, and take findings into consideration moving forward.

Commercial E-Bike Use

The use of rental e-bikes for guided or self-guided riding is increasing and is expected to increase over time. At present less than half of the bike rental stores offer e-bikes, and generally speaking traditional bikes make up the vast majority of rental fleets. Other than a business license there are few restrictions for commercial rental shops. Guided operations, e-bike or not, have the advantage of being identifiable, accountable and a potential partner in managing resort success. Concerns have been raised by residents about large group sizes on rental bikes “taking over the trail” and a feeling of over-tourism. Of course this could be on traditional rental bikes as much as e-bikes.

Moving forward the municipality may wish to focus attention on the commercial utilization of public lands including parks and trails in order to best manage capacity issues.

Policy Flexibility

Concerns were raised that the e-mobility device policy would not be nimble or flexible enough to adjust to rapid changes in technology and use patterns.

Staff propose to monitor e-bike use over the next one to two years to understand changes, trends and issues, and then adapt or re-evaluate the proposed policy with community input where required.

Monitoring

While the majority of the engagement results are supportive of the draft policy, there is an underlying concern that there is a lack of relevant e-bike precedent experience in comparable communities to inform local outcomes, and that e-bikes may turn out to be more problematic than anticipated.

To address this, a broad monitoring program has been developed and includes the following initiatives:

- Trail user intercept survey
 - Targeting all user types on the Valley Trail and off road recreational trails;
- Bylaw Services’ Park and Trail Ambassador program
 - Observe and record anecdotal observations on the Valley Trail;
- Alpine Ranger Program on Mt. Sproatt;
 - Observe, record and inform on all aspects of alpine trail uses
- Trail counters, TrailForks heat maps and related data;
- Autumn or winter online e-bike community follow-up survey;
- More detailed rental bike inventory;
- Information, results and observation sharing between WORCA, RSTBC and the municipality;
- Whistler Search and Rescue
 - Bike, e-bike and hiker related incidents/call outs
- Vancouver Coastal Health (Whistler Health Care Centre)
 - Tracking of biking and location incidents, including e-bikes
- Tourism Whistler, Whistler Blackcomb
 - Follow e-bike trends

At season’s end the municipality will review and report out monitoring findings and consider if changes are necessary.

Enforcement Mechanisms

Enforcing an e-mobility device policy will not be without its challenges. Part of the intent of this draft policy is provide direction based upon current community values, and through communication seek a high level of voluntary compliance.

That said, there is some ability for enforcement. For trails located upon municipally controlled lands and the entire Valley Trail network, with modest adjustments to “Park Use Bylaw 1526, 2002” and the installation of signage the municipality has the ability to designate and enforce trail use.

For trails located upon crown lands both within and outside of the municipality, RSTBC has the ability to enforce trail uses as long as the subject trails are formally established with appropriate use designation and signed accordingly.

To be clear, there is no ability to enforce trail use designations for non-established trails located on crown Lands.

RSTBC has communicated that preferred trail use designations (i.e. no e-bike, yes e-bike, hiking only, motorized etc.) are up to a local community to determine, and that RSTBC considers the Whistler e-bike policy’s community engagement process a satisfactory means to determine preferred trail designations.

WHISTLER 2020 ANALYSIS

W2020 Strategy	TOWARD Descriptions of success that resolution moves us toward	Comments
Transportation	Whistler policy, planning and development prioritizes preferred methods of transportation in the following order: 1. pedestrian, bicycle and other-non-motorized means, 2. transit and movement of goods, 3. private automobile (HOV, and leading low-impact technologies), 4. private automobile (SOV, traditional technology)	E-bikes encourage more biking as a preferred mode of transportation.
Transportation	Whistler’s transportation system is transitioning toward renewable energy sources, improving air quality, and maintaining ecosystem integrity	If e-bikes help to get more people out of their cars (which they seem to do), then we are contributing to this DOS. If e-bikes simply get more people recreating using a battery, then we are moving in the wrong direction on this DOS. E-bikes should be promoted as a preferred form of transportation to encourage more people out of cars.
Energy	The energy system is continuously moving towards a state whereby a build-up of emissions and waste into air, land and water is eliminated. Whistler’s energy system is transitioning to renewable energy sources	As above
Recreation & Leisure	Recreational experiences reflect an appropriate balance between adventure, challenge and safety, and <u>exist within the comfortable carrying capacity of the amenity</u>	Not permitting e-bikes in the alpine trail network is a precautionary approach to mitigate a number of potential issues, including the potential to surpass the comfortable carrying capacity of that network and degrade the area from overuse.

Natural Areas	Backcountry areas are protected from overuse and degradation	As above
Visitor Experience	Whistler proactively anticipates market trends	E-bikes are coming and they enable more ages and abilities to bike and enjoy Whistler's outdoor amenities.
Economic	Whistler proactively seizes economic opportunities that are compatible with tourism, and effectively adapts to changing external conditions	E-bike demand is increasing and e-bikes provide a compatible use of Whistler's trail network so long as conflict and safety issues are well managed.
Recreation & Leisure	Residents and visitors of all ages and abilities enjoy activities year-round that encourage healthy living, learning and a sense of community	E-bikes will enable more people to recreate outdoors, improving their overall health and wellbeing.

W2020 Strategy	AWAY FROM Descriptions of success that resolution moves away from	Mitigation Strategies and Comments
Energy	The energy system is continuously moving towards a state whereby the net physical impact to land and water ecosystems is eliminated	Increased use of e-bikes for recreation purposes without a corresponding or greater uptake of e-bike use as an alternative to vehicle transportation will increase Whistler's overall energy use. In order to mitigate this, e-bikes should be promoted as a preferred form of transportation to get more people out of their cars.
Materials & Solid Waste	Substances and chemicals that are harmful to human health are being eliminated, replaced, or managed in a way that they do not disperse in nature	Many types of batteries consist of toxic materials such as lead, mercury, and cadmium as an electrode or electrolyte. When batteries reach their end of life they must be disposed of properly to prevent environmental damage. Ensuring that our recycling system can accept e-bike batteries will be the mitigating strategy here.
Recreation & Leisure	Recreational experiences reflect an appropriate balance between adventure, challenge and <u>safety</u> , and exist within the comfortable carrying capacity of the amenity	E-Bikes have the potential to increase safety risks and conflict on the trails. These risks and a number of other potential issues will be closely monitored, beginning in 2019 and then the e-bike policy will be adjusted if necessary.

OTHER POLICY CONSIDERATIONS

The proposed draft e-mobility policy is founded upon community values and articulated through a set of project objectives generated from existing and draft municipal policy documents including the Council adopted Whistler 2020 plan, the Recreation and Leisure Master Plan (2015), the Transportation Action Plan (2018), the draft Official Community Plan (2019) and the Whistler Transportation and Recreational Cycling Plans (2006).

The proposed draft e-mobility policy is generally consistent with the existing municipal "Park Use Bylaw 1526, 2002", for municipally managed non-motorized recreational trails including a portion of Whistler's off-road trails and the entire Valley Trail network. As noted in the recommendations of this report, with support of the draft policy, adjustments will be required to the "Park Use Bylaw 1526, 2002" for clarity

and enforcement reasons. These adjustments will be presented to Council at a future date, at which point the policy would be formally adopted.

The proposed draft e-mobility device policy is aligned with senior levels of government regulatory documents including the *Motor Vehicle Act*, ICBC, the *Off Road Vehicle Act*, and the more recent Recreation Sites and Trails BC *E-Bicycle Policy*. The RSTBC policy has direct jurisdiction on many of Whistler's trails.

Maintaining consistency with relevant provincial regulations and policies is legally required, affords the best opportunity for an easy to understand and administer regulatory approach, and is also good practice in the event of potential litigation.

BUDGET CONSIDERATIONS

Costs to deliver on the recommendations of this report are accommodated within existing capital and operating budgets.

COMMUNITY ENGAGEMENT AND CONSULTATION

Given the strong and varied opinions regarding e-bikes in our community, considerable stakeholder and community engagement was undertaken.

The first phase included a review of existing municipal documents to develop a list of Whistler values and objectives relevant to e-bikes. The objectives are listed in the draft policy and some of the values include:

- Whistler has always been a leader in recreation and tourism trends;
- Protecting natural areas, especially those that are sensitive, is of key importance in Whistler;
- We value nature-based recreation, which has varying degrees of impact on the natural playground we use;
- Most of us enjoy a mix of human-powered and motorized experiences (e.g. chair lift access); and
- We strive to be inclusive of all ages and abilities, and provide recreation opportunities for physical, mental and spiritual wellbeing and access to nature, while protecting the natural environment.

The objectives were then tested in the community and adjusted accordingly. Testing included review by municipal committees of council and stakeholder input from Whistler Off Road Cycling Association (WORCA), Association of Whistler Area Residents for the Environment (AWARE), Tourism Whistler, Whistler Blackcomb, Whistler Adaptive Sports, Trials 99, Whistler Search and Rescue, Recreation Sites and Trails BC, BC Parks, local businesses, and the Mature Action Community. Subsequent meetings were then held with WORCA and RSTBC to ensure detailed alignment.

Phase 1 also included research in comparable jurisdictions about e-bike use and adoption practices.

The second phase built upon phase 1 findings. Draft policy directions were developed and made available for public review and comment through a March 13, 2019 community open house (80 attendees) and an online survey (580 responses). Open house and survey results were generally consistent with one another.

Online survey results demonstrated:

- Majority (72%) of respondents were from Whistler;
- Majority (72%) were non-WORCA members;
- Strong support (80%) for permitting Class 1 e-bikes on the Valley Trail, however many comments were received concerning safety and user speed on the Valley Trail;
- Strong support (79%) to prohibit Class 2 and 3 e-bikes from the Valley Trail;
- Strong support (88%) to prohibit e-bikes from areas where biking is currently prohibited;
- Moderate support (55%) to prohibit e-bikes from alpine trails above the Flank Trail; and
- Moderate support (60%) to prohibit e-bikes from the majority of the Emerald Forest Conservation Area

The complete Whistler E-bike Policy Development Community Engagement Report is appended to this report as Appendix "B".

A summary presentation along with draft directions was provided to the Transportation Action Group in April 2019.

This topic has been presented and discussed multiple times at the Recreation and Leisure Advisory Committee (RLAC) and the Forest Wildland Advisory Committee (FWAC). Both Committees supported the following resolution at their June 2019 meetings:

Whereas Class 2 and Class 3 e-bikes are considered motor vehicles as per senior government policies and therefore are not permitted on the Valley Trail or formally established non-motorized recreational trails, the RLAC (and FWAC) support the draft RMOW e-bike policy direction to:

- *Allow only Class 1 e-bikes on the VT and on all formally established off-road recreation trails except:*
 - *Hiking only trails;*
 - *Above the Flank Trail; and*
 - *Emerald Forest (other than "Access Road" connecting Lorimer Rd to Alta Lake Rd).*
- *Subject to:*
 - *Deployment of emerging plans related to communications, safety and monitoring;*
 - *Updating of relevant municipal Bylaws; and*
 - *Committee review at season's end.*

SUMMARY

This report provides a draft policy for Council's consideration regarding the appropriate and responsible use of personal e-mobility devices in Whistler. An effective policy is required to manage the expectations, potential impacts, and experience of residents, visitors and businesses, as demand for e-bikes in particular grows.

The draft policy is rooted in community values as informed by guiding municipal documents, and has been evaluated through considerable community engagement. Recreation Sites and Trails BC's recent *E-Bicycles* policy has significant implications for many of Whistler's recreational trails, as does the provincial *Motor Vehicle Act*.

With adoption of the recommendations of this report Council will provide direction to the community regarding our e-bike position, enable staff to commence an implementation and monitoring program, and pursue amendments to the "Park Use Bylaw 1526, 2002" to enable enforcement on municipally controlled lands.

Respectfully submitted,

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