

# 2023 Big Moves Climate Action Projects

Draft – December 2022

Resort Municipality of Whistler



This Big Moves Climate Action Implementation plan is building on the Resort Municipality of Whistler's previous climate work and addresses both Whistler's climate change mitigation and adaptation planning, two key components of a comprehensive, integrated approach to climate action. Climate change mitigation efforts in this plan are focused on 6 Big Moves around the transportation, buildings and waste sectors with the 2030 goal to reduce Whistler's community-wide GHG emissions by 50 per cent below 2007 levels. Climate change adaptation efforts are prioritized into three main adaptation goals related to minimizing threats from wildfires, increasing the resilience of our built environment to extreme weather events, and protecting local ecosystems and biodiversity. All adaptation Goals and Key Initiatives in the Big Moves Climate Action Implementation Plan have the overall aim of increasing the resilience of our natural, built and socio-economic systems to withstand the impacts of climate change that we know are coming or are already underway.

More information about the Big Moves Climate Action Plan can be found at: [https://www.whistler.ca/sites/default/files/2022/Aug/related/27498/2022\\_big\\_moves\\_caip.pdf](https://www.whistler.ca/sites/default/files/2022/Aug/related/27498/2022_big_moves_caip.pdf).

The list below shows planned municipal projects across the organization that are in some way linked to the advancement of the Big Moves Climate Action Implementation Plan.

Project	Project	Division	Big Moves Details	2023	2024	2025	2026	2027
A080	EPI Initiatives	CAO Office	This project is in alignment with the Big Moves strategy as the modeling work and strategic planning work will help inform municipal decision making and its movement to mitigate and adapt to climate change.	40,000	10,000	30,000	10,000	30,000
A083	Strategic Planning Committee	CAO Office	This project is in alignment with the Big Moves strategy as the modeling work and strategic planning work will help inform municipal decision making and its movement to mitigate and adapt to climate change.	60,000	15,000	15,000	15,000	15,000
L001	Library Furniture and Equipment	Corporate and Community Services	The plans for this project support Whistler's approach to adapt to climate change by increasing resilience to extreme weather events. These funds will be used in part to make improvements that will allow the library to better serve the community as a safe place during weather related emergencies.	26,530	20,000	15,000	25,000	0
L002	Library Collection	Corporate and Community Services	This ongoing project budget supports Whistler's Big Moves goals by supporting access to locally reusable resources, and increasing community connections through sustainable consumption and reuse.	146,000	150,000	153,000	156,000	159,000
L010	Library Infrastructure & Improvements	Corporate and Community Services	The plans for this project will support Whistler's Big Moves goals of closing the loop on waste by creating access to shared resources.	115,114	159,000	14,000	0	0
S013	Firefighting Equipment and Replacement	Corporate and Community Services	Improving and replacing aging firefighting equipment supports the RMOW's approach to mitigate and adapt to climate change by enhancing WFRS's ability to minimize wildfire threats, increases resiliency to extreme weather events and assisting WFRS in protecting local ecosystems & biodiversity through new advanced technology in firefighting equipment.	195,000	240,000	240,000	240,000	240,000
S056	Wildfire Protection	Corporate and Community Services	The Community Wildfire Protection project will assist the RMOW's approach to mitigate and adapt to climate change by minimizing wildfire threats to human health and safety, private property, infrastructure, wildlife and natural areas and assist in protecting, supporting and increasing the local ecosystem, natural assets and biodiversity. The project will address recommendations provided in the Community Wildfire Resiliency Plan which align with the Climate Action Implementation Plan and increases the RMOW's resilience to extreme weather events.	90,000	200,000	125,000	50,000	50,000
E130	Solid Waste Outreach Program	Infrastructure Services	Let waste means less embodied carbon to make products for short term use and less transportation required to move material around.	92,000	35,000	35,000	35,000	35,000
E201	Reservoirs and Intakes Upgrades	Infrastructure Services	Environmental and climate change considerations embedded within design and construction sequencing.	125,000	1,175,000	1,550,000	1,225,000	150,000
E202	Water Well Upgrades	Infrastructure Services	The Alpine wells project will reduce energy usage by centralizing the water treatment for the three Alpine Meadows wells.	50,000	125,000	1,500,000	150,000	500,000

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E203	Water Pump Station Upgrades	Infrastructure Services	Environmental and climate change considerations embedded within the design, and construction sequencing. The building design for the new water treatment facility exceeds the prescriptive building requirements for insulation, and is working towards a zero emissions building design.	1,550,000	5,500,000	150,000	0	0
E204	Pressure Reducing Valve Station Upgrades	Infrastructure Services	The PRV upgrades design worked towards Big Moves step six; this project minimizes the embodied carbon by building kiosks instead of buildings. The construction emissions, and material consumption will be greatly reduced.	450,000	25,000	25,000	0	0
E205	Watermain Upgrades	Infrastructure Services	The water fixtures and fitting works is sequenced to centralize efforts and reduce construction emissions, the project also increases the life of the existing infrastructure, which reduces consumption of construction materials.	600,000	1,000,000	600,000	1,025,000	1,750,000
E303	Sewer Trunk Main Upgrade	Infrastructure Services	Environmental and climate change considerations will be embedded within the design and construction sequencing.	50,000	0	0	0	0
E320	Sewer Main Upgrades	Infrastructure Services	The sewer main and manhole lining program reduces embodied carbon from products and services, and increases the lifespan of the existing infrastructure. The application of the trenchless cured in place pipe liner, reduces construction emissions, and material requirements in comparison to the traditional open trench method.  The sewer fixtures and fitting works is sequenced to centralize efforts and reduce construction emissions, the project also increases the life of the existing infrastructure, which reduces consumption of construction materials.	3,400,000	2,150,000	5,350,000	4,750,000	2,150,000
E401	WWTP Primary Treatment Upgrades	Infrastructure Services	Implementation of recommendations made in the 2021 Energy Efficiency Study. The recommendations include; a new energy efficient process boiler, and HVAC upgrades.	675,000	1,370,000	275,000	25,000	0
E403	WWTP Biological Reactor Upgrades	Infrastructure Services	The project works include small repairs to the existing structures, and mechanical components to increase the lifespan. Environmental and climate change considerations embedded within design and construction sequencing.	200,000	0	0	100,000	0
E404	WWTP Solids Handling Upgrades	Infrastructure Services	This project will work towards making the existing building better. The condition assessment will also look at automation for the building, and process activities. The automation would work towards increasing energy efficiency of the solids handling building and processes.	300,000	680,000	320,000	25,000	0
E405	WWTP Secondary Treatment Upgrades	Infrastructure Services	Environmental and climate change considerations embedded within design and construction sequencing. Repair of existing concrete structure included to extend life of secondary clarifier.	1,650,000	250,000	0	100,000	0

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E407	WWTP Tertiary Treatment Upgrades	Infrastructure Services	Environmental and climate change considerations will be embedded within design of the tertiary treatment facility. The tertiary treatment will provide added capacity to the wastewater treatment plant to protect, support and increase the resilience of local ecosystems, natural assets and biodiversity.	150,000	5,000,000	5,000,000	150,000	0
E408	District Energy System Upgrades	Infrastructure Services	The district energy system upgrades the current system to increase capacity for future users.	125,000	500,000	0	0	0
E409	WWTP Building Upgrades	Infrastructure Services	The wastewater treatment plant building upgrades projects work to make existing building better, and decrease emissions.	1,040,000	50,000	100,000	400,000	550,000
E410	WWTP Operating Capital Upgrades	Infrastructure Services	The wastewater treatment plant optimization planning works towards increasing process efficiencies, the recommendations include environmental and climate action considerations.	185,000	25,000	25,000	25,000	25,000
P085	Building Department Process Upgrades	Infrastructure Services	<p>The digital application platform project intends to move the permit process away from paper resources which aligns with Big Move #6: Close the loop and shift toward lower carbon consumption to continue to reduce all streams of waste.</p> <p>The digital application and process improvement will help to support Big Move #4: Build zero emission buildings by creating an application processes that can support owners and developers with additional GHG related tasks as required. A digital submission process will also benefit Big Move #1: move beyond the car, as applicants will no longer have to physically drop of application submissions.</p>	495,000	100,000	100,000	0	0
T001	Upgrade Roads	Infrastructure Services	The road reconstruction program works to centralize efforts to reduce construction emissions.	1,785,000	1,415,000	1,375,000	1,375,000	1,385,000
T006	Fitzsimmons Creek Gravel Removal	Infrastructure Services	The Fitzsimmons Creek Flood Protection and Maintenance helps deliver on the Big Move goals to increase community resilience in response to an extreme weather event. The protection this project provides may reduce waste caused by potential storm damage of public and private property that would need to be managed.	425,000	445,000	400,000	450,000	450,000
T017	Bridge Reconstruction Program	Infrastructure Services	This project replaces existing material to extend the life of the bridge.	200,000	0	50,000	0	0
T027	Fitzsimmons Creek Debris Barrier Monitoring	Infrastructure Services	The Fitzsimmons Creek debris barrier and maintenance helps deliver on the Big Move goals to increase community resilience in response to an extreme weather event. The protection this project provides may reduce waste caused by potential storm damage of public and private property that would need to be managed.	95,000	55,000	55,000	70,000	55,000

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T052	Flood Plain Mapping & Mitigation	Infrastructure Services	Flood Protection and Planning delivers on the Big Move goals to increase community resilience in response to an extreme weather event. The protection this project provides may reduce waste caused by potential storm damage of public and private property that would need to be managed.	430,000	50,000	25,000	25,000	25,000
Y001	Fleet Replacement	Infrastructure Services	Where ever possible the RMOW will be sourcing alternative fuel vehicles such as electric powered and continuing towards our 2030 commitments.	1,440,000	3,100,000	3,500,000	2,133,000	900,000
A074	Interpretive Panels	Resort Experience	A07401 Interpretive Panels: The Interpretive Panels program contributes to Whistler's Big Moves by enhancing awareness of Whistler's natural surroundings and human heritage which, in turn will inspire stewardship on the premise that through understanding, appreciation; through appreciation, protection.	100,000	50,000	0	0	0
A088	Cultural Initiatives	Resort Experience	A08806: Whistler 101 videos will contribute indirectly to Whistler's Big Moves in two ways:  1. Enhance awareness of Whistler's natural surroundings which, in turn will inspire stewardship on the premise that through understanding, appreciation; through appreciation, protection.  2. Enhance awareness through a specific W101 episode titled Climate Change & Climate Action.	105,000	91,000	56,000	42,000	58,000
B001	Municipal Hall	Resort Experience	Building Department office renovations will help to support the e-apply and digitization project that intends to move the permit process away from paper resources which aligns with Big Move #6: Close the loop and shift toward lower carbon consumption to continue to reduce all streams of waste. Renovation work will create an improved work environment that will allow the Building Department staff to support the key initiatives related to Big Move #4: Build zero emission buildings. Envelope improvements move the RMOW closer to Big Move #4 Build Zero Emission Buildings and Big Moves #5 Make Existing Buildings Better.	415,000	777,500	30,000	32,500	35,000
B002	Public Safety Building	Resort Experience	This project will explore opportunities to reduce or eliminate GHG emissions from the PSB Big Moves #4 Build zero emission buildings	2,325,000	3,917,140	25,000	0	0
B003	Public Works Yard	Resort Experience	Projects completed under this project will align with Big Moves #4 Build Zero Emission buildings and Big Moves #5 Make existing buildings better. Installation of building automation systems will enable real-time monitoring and trending of building operations and energy performance. This will enable early action to mitigate unnecessary consumption in addition to better understanding of the effectiveness of implementations and scheduling. Project will limit environmental inputs by providing site cleanliness, spill containment and proper storm drainage.. These improvements are supported by past energy performance studies.	372,050	542,500	160,500	99,050	108,205

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B004	Meadow Park Sports Centre	Resort Experience	This project will move the RMOW toward its 2030 climate change targets with a significant reduction in GHG emissions at MPSC. The outcome directly addresses Big Moves #4 Build Zero Emission Buildings and Big Moves #5 Make Existing Buildings Better through comprehensive upgrades to the building envelop and HVAC system which are intended to optimize building energy performance and shift away from GHG emitting energy sources. The proposed project is anticipated to reduce GHG emissions to <10% of current levels. This project will move the RMOW toward its 2030 climate change targets with a significant reduction in GHG emissions at MPSC. The outcome directly addresses Big Moves #4 Build Zero Emission Buildings and Big Moves #5 Make Existing Bui	768,950	1,225,000	1,820,000	22,000	0
P053	Park Master Planning	Resort Experience	Master planning and strategy documents all of which include environmental and climate change considerations.	30,000	0	0	0	0
P079	Energy & Climate Program	Resort Experience	Taking action on climate change is a priority for the RMOW. The RMOW is delivering a variety of Climate Action Big Moves Strategy projects such as EV uptake outreach, provincial incentive "top ups", building sector engagement, residential heat pump "one stop shop", corporate GHG improvements, GHG emissions analysis tool development, and public outreach. In addition, the Province and RMOW are offering various home energy assessment, energy conversion and EV charger rebates that can be found at <a href="http://whistler.ca/climate">whistler.ca/climate</a> .	30,500	40,500	168,500	168,500	168,500
P084	Western Toad Infrastructure	Resort Experience	The Western Toad infrastructure project helps deliver on the Big Moves CAIP adaptation goal to protect, support and increase the resilience of local ecosystems, natural assets and biodiversity.	0	92,000	0	0	0
P093	Disc Golf Feasibility Study	Resort Experience	Environmental and climate change considerations are embedded within the project, including the development of environmental suitability guidelines specific to disc golf.	165,000	0	0	0	0
P100	EV Chargers	Resort Experience	This project directly supports Big Move #2 Decarbonize passenger and commercial transport.	186,395	155,406	101,196	0	0
P102	River of Golden Dreams Improvements	Resort Experience	The River of Golden Dreams improvements project helps deliver on the Big Moves CAIP adaptation goals to increase resilience of built assets, infrastructure and services to endure extreme weather and environmental events, as well as protect, support and increase the resilience of local ecosystems, natural assets and biodiversity.	347,245	0	0	0	0
P106	Priority Habitat Management Strategy	Resort Experience	Project P106 delivers on the Big Moves CAIP adaptation goal to increase resilience in the face of climate change by protecting, supporting and increasing the resiliency of local ecosystems, natural assets and biodiversity.	35,000	35,000	0	0	0

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P108	Village Animation & Events Infrastructure Enhancement & Replacement	Resort Experience	Adhere to RMOW Procurement Policy Section 4.1 8.  Purchase modern energy efficient Winter Operations Facility.  Ensure all event and safety equipment and AV equipment is well maintained and properly repaired to ensure it is operating properly to maximize efficiency.  Replace and/or enhance event and safety equipment and AV equipment with modern energy efficient equipment.	310,000	80,000	85,000	135,000	115,000
P110	RTS Trails Master Plan	Resort Experience	Environmental and climate change considerations imbedded in this planning work.	50,000	50,000	0	0	0
P112	Bayly Park Master Plan Update	Resort Experience	Environmental and climate change considerations embedded within park design.	0	170,000	0	0	0
P114	Municipal Natural Assets Management	Resort Experience	Natural Assets Management helps deliver on the Big Moves CAIP adaptation goals to increase resilience of built assets, infrastructure and services to endure extreme weather and environmental events, as well as protect, support and increase the resilience of local ecosystems, natural assets and biodiversity.	25,000	25,000	15,000	0	0
P115	Alpha Lake Projects	Resort Experience	New VT component aligns with Climate Action Big Moves strategy #1 to "move beyond the car."	858,000	2,607,829	0	0	0
P116	Millar Creek Lands Acquisition	Resort Experience	Park acquisition will lead to park and Valley Trail development as per P115.	180,000	0	0	0	0
S018	Community Wildfire Protection	Resort Experience	The Wildfire Management project helps deliver on the Big Moves CAIP adaptation goals to minimize wildfire threats to human health and safety, private property, infrastructure, wildlife and natural areas, as well as protect, support and increase the resilience of local ecosystems, natural assets and biodiversity.	351,044	(137,196)	322,024	303,524	513,819
X116	Meadow Park Rejuvenation	Resort Experience	Environmental and climate change considerations will be embedded in the park design.	1,897,008	0	0	0	0
X145	Rainbow Park Rejuvenation	Resort Experience	Environmental and climate change considerations embedded in park design.	1,807,144	0	0	0	0
X157	Conference Centre Landscape Improvements	Resort Experience	Environmental and climate change considerations will be included in rejuvenation effort.	150,000	0	0	0	0



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X166	Building energy efficiency review	Resort Experience	This project directly addresses the Communities objective to effect climate change through the Big Moves Strategy. Big Moves #4 Build Zero Emission Buildings and Big Moves #5 Make Existing Buildings Better are achieved through targeted upgrades to the building envelopes and HVAC systems intended to optimize performance and move away from GHG emissions.	0	22,000	26,620	29,282	0
X179	Recreation Trail Bridge Replacements	Resort Experience	This project replaces existing bridges with more durable and longer lasting bridges.	316,000	41,000	0	0	0
			<b>TOTALS</b>	<b>27,008,980</b>	<b>33,628,679</b>	<b>23,836,840</b>	<b>13,390,856</b>	<b>9,467,524</b>