Scope Area	Action Level	Primary Action Link	Action ID Action	Action Type	Responsibili ty UBC Lu	ad Key Partners	Timeline	Related Plan/ Policy	Status	Emissions Impact	Adaptation Impact	Health & Wellbeing	Accessibility	Affordability	Academic Connection	Other Equity Considerations	Notes
			Strengthen building performance requirements t	0													
New Construction	Primary	NC-1	NC-1 achieve net-zero, resilient new construction Undertake a study to support development of resiliency requirements (cooling and air quality), adoption of BC Step Code energy and carbon targets, and cooling energy efficiency performanc NC-1.1 targets in REAP.	e Research / external study	C+CP UBC Buildin		Quick sta years)	t (1-2 REAP		Foundationa	Foundational						CAF (code acceleration fund) study funding covers this work. Will also partner with City of Vancouver. Look to minimize risks of individual/portable air conditioners through comfort requirement. Look at global examples of comfort regulations. Align any CEDI or comfort targets with future climate projections. Stay technology agnostic where possible within REAP (but maybe some prescriptions needed - e.g. natural ventilation)
New Construction			Adopt the BC Zero Carbon Step Code, Zero Carbon NC-1.2 Performance Step (EL-4) (2025 timeline target)		UBC Buildin	Green		t (1-2 REAP - 2025 update		High	N/A						Look at Singapore example - for emissions reporting to improve compliance. Commissioning reports for occupancy.
New Construction	Sub-action	NC-1	Adopt Step 4 of the BC Energy Step Code for energy efficiency in advance of Provincial NC-1.3 requirement	Regulation	C+CP - UBC Buildir		Near tern years)	(3 - 5 REAP		Low	Low						Provincial policy would make this base code for 2032. Imperative to achieve higher energy efficiency becomes less important once have decarbonized energy source. CAF (code acceleration fund) study outcomes will inform timing.
New Construction	Sub-action	NC-1	Review and update REAP building resiliency requirements (cooling and air quality) and cooling energy efficiency targets to address future climate NC-1.4 conditions.		C+CP - UBC Buildin		Quick star years)	t (1-2 REAP		N/A	Medium						CAF (code acceleration fund) study will support these REAP updates. Sizing for future climate conditions safeguards against future retrofits.
New Construction	Sub-action	NC-1	Review and update REAP on-site energy NC-1.5 production and back-up power credits	Regulation	C+CP - UBC Buildir		Near tern years)	1(3-5 REAP		Low	Low	-					At what scale, building/site scale, or at the neighbourhood level. Consider technologies mature in the near term, as well as potential future options. Explore opportunity from EV in MURB parking garages (car-to-grid). Is there an opportunity for battery storage? What are the impacts from diesel generators? Look to address climate impacts identified through UBC VRA process.
New Construction	Sub-action	NC-1	Update building adaptation and resilience NC-1.6 measures in REAP	Regulation	C+CP - UBC Buildin		Near tern years)	(3 - 5 REAP		N/A	Medium						Look to apply learnings from Institutional buildings resilient building project based on Provincial resilience measures.
New Construction	Sub-action	NC-1	Explore and develop potential performance requirements for refrigerant usage in mechanical NC-1.7 systems.		C+CP - UBC Buildin		Near tern years)	(3 - 5 REAP		Foundationa	I N/A						Explore potential quick start items for next iteration of REAP. Will require exploring implications for building-level and NDES systems. Product supply chain is very different for different scale of system. Consider implications of the Kigali amendment. Important when move to whole building life cycle emissions targets. Resources: https://vancouver.ca/files/cov/refrigerant-impact-ghgi-study.pdf https://issuu.com/deepgreenengineering/docs/refrigerantsenvironmental_impac tselementa/46
New Construction	Sub-action	NC-1	Establish REAP pre-condition restricting NC-1.8 combustion based fireplaces in new construction.	Regulation	C+CP - UBC Buildin		Quick sta years)	t (1-2 REAP	Not Started	Low	N/A						Link to REAP indoor air quality requirements. We presently have protection from wildfire smoke via filtration, but there are worse impacts from indoor impacts of natural gas equipment. There is also a financial benefit to developers to not have to bring NG infrastructure to buildings. 1% of natural gas usage globally is due to methane leakage in domestic settings.
New Construction	Sub-action	NC-1	Review policy for natural gas equipment in new NC-1.9 construction (e.g. stoves)	Research / external study	C+CP - UBC Buildin		Near tern ust years)	1 (3 - 5 REAP	Not Started	Low	N/A						Include plan to canvass neighbourhood development community to understand current market demand for natural gas amenities among private developers and also is there a value to a carbon neutral certification. Link to REAP indoor air quality requirements. We presently have protection from wildfire smoke via filtration, but there are worse impacts from indoor impacts of natural gas equipment. There is also a financial benefit to developers to not have to bring NG infrastructure to buildings. It's very costly to do this just for 'cooking'. 1% of natural gas usage globally is due to methane leakage in domestic settings. Consider adding optional credits for cooking equipment, and explore pathway to mandatory compliance.
Existing Buildings	Primary	EB-1	Enable retrofits to achieve net-zero, resilient EB-1 existing buildings														
Existing Buildings	Sub-action	EB-1	Advocate to Provincial government to adopt policies, programs, and regulations that support EB-1.1 net-zero, resilient building retrofits	Advocacy	C+CP - UBC Buildin		Quick star years)	t (1-2	Initiated	High						UBC neighbourhoods disproportionately have a voice.	E.g. 2030 equipment energy efficiency requirements, strata depreciation report, strata concierge program, equity incentives. Province considering enabling local gov to adopt 2030 equipment efficiency requirements ahead of 2030
Existing Buildings Existing Buildings			Undertake retrofit design study to provide detaile information on retrofit design strategies and life- cycle costs. Develop regulatory pathway to enable retrofit permitting requirements for decarbonization and resilience	Research /	C+CP - UBC Buildin		Quick star years) Near tern ust years)		Significant Progress Not Started		Foundational						Explore passive design measures to supplement active cooling systems. Review and integrate Vancouver Coastal Health's climate ready buildings work. This is a critical piece to enable decarbonization pathway and what will allow us to set permitting requirements at time of equipment replacement. Need work to understand what form this needs to take.
Existing Buildings			Implement permitting requirements for low carbon-only equipment replacement for domestic hot water and space heating systems or connection to low carbon Neighbourhood District EB-1.4 Energy System. (2030 timeline target)		UBC		Long term years +)	(6	Not Started		High					State of Washington existing building regulation - have	Applies to equipment replacements at end-of-life. Low carbon definition needs to limit/restrict fossil fuel equipment to peaking usage (for NDES and for in-building systems). Energy performance for space heating should exceed COP of 1. Build up capacity and incentivize early adoption in lead up to implementing permitting requirement (Provincial Strata Act) Look at pre-condition requirement for a whole building electrical capacity assessment.
Existing Buildings	Sub-action	EB-1	Identify incentive opportunities for heat-pump an EB-1.5 electrification retrofits	d Policy / Planning	UBC	UNA BC Hydro	Quick star years)	t (1-2	Initiated	Foundationa	l Foundational					resources for low income homes, so even when regulations are in place (and other incentives are no longer available) need to consider how to support these equity deserving groups.	Consider availability for both whole building and in-suite retrofits. Need to continue advocacy to Province to ensure financial incentives are available to all residential tenancy types. Financial, as well as other incentives (e.g. process support)
Existing Buildings	Sub-action	EB-1	Explore potential permit process streamlining and other incentives to encourage accelerated EB-1.6 adoption of net-zero, resilient, healthy retrofits.	Policy / Planning	UBC		Near tern years)	(3 - 5	Not Started	Foundationa	l Foundational						Review what types of incentives might be possible (e.g. timelines, process streamlining) and explore options for implementation.

6	A - + :	Primary Action Link	A -4: 10	6 - 47 - 17	Action Type	Responsibil tv		Kau Danha an	Timeline	Related Plan/ Policy	Status	Emissions Impact	Adaptation Community Impact Connection		coossibility Aff-ud-bility		Academic	Other Equity Considerations	Notes
Scope Area	Action Level	Action Link	Action ID	Action	Action Type	Lý	ODC Lead	Key Partners	Timeline	Policy	Status	impact	impact connection	wendenig	Anordability	Leadership	connection		City of Vancouver, Condo Homeowners Association - will be partners on this
																			Need to look at existing buildings with these systems - is there alternate heating in these spaces?
												1							BC Hydro - currently discussing option for incentives for electric replacement of gas fireplaces
																			Consider a demonstration project, with story telling as well Whole building replacements might be needed to meet requirements for CleanBC
Existing Buildings	Sub-action	EB-1	EB-1.7	Explore approaches to transition existing natural gas fireplaces to low carbon solutions	Policy / Plannin	ug UBC		UNA	Near term (3 - 5 years)		Not Started	Low	N/A					Consider impacts on tenants/people living in spaces	incentives, but might be tricky to implement without displacing large groups of people.
Existing Buildings	Sub-action	EB-1	EB-1.8	Implement streamlined in-suite heat pump permitting requirements	Regulation	UBC		UNA	Quick start (1-2 years)		Moderate Progress								
																			Strong alignment to address key risks from UBC VRA. Action needed to support NCAP target on % units with cooling.
												K							Want to move faster here than on decarbonization retrofits. Not all buildings have amenities/common spaces.
																		Prioritize vulnerable community members most at risk from	
Existing Buildings	Sub-action	EB-1	EB-1.9	Develop plan for accelerating cooling retrofits in existing buildings.	Policy / Plannin	ug UBC		UBC PT	Near term (3 - 5 years)		Not Started	N/A	Medium					heat events, including with those with limited/restricted mobility	supports to help set up this equipment, explore a community/volunteer-led program to install portable cooling equipment.
				Compile summary of global policy and regulations				Sustainability Hub	Quick start (1-2										
Existing Buildings	Sub-action	EB-1	EB-1.10	supporting zero-carbon, resilient retrofits.	external study	UBC		SEEDS	years)		Not Started	Foundational	Foundational						SEEDS or Sustainability Scholar project.
																			Include developmment of a design guide and supporting decision tools to support strata councils going through the process as part of their deferred maintenance
																			programs. Look for outcomes from CoV Implementation Offer Study (Brady F, cooling focus),
																			Ashley (decarb retrofit focus).
Existing Buildings	Subaction	EP-1	EB-1.11		Resource	UNA			Quick start (1-2 years)		Not Started	Foundational	Foundational						Ensure materials encompass life cycle impacts (e.g. ongoing maintenance differences) Alignment in materials between UNA and UBC - need to have the same resources/info sheets.
Existing Bunungs	Sub-action	ED-1	CD-1.11	Require electricity capacity studies in existing	development	UNA		UBC			Not started	Foundational	Foundational						
Existing Buildings	Sub-action	EB-1	EB-1.12		Regulation	UBC		UBC PT	Near term (3 - 5 years)		Not Started	Foundational	N/A						Strata buildings would be covered under proposed amendments to Strata Act, but need to look at non-Strata buildings
				Develop demonstration projects to provide examples of retrofit approaches ahead of	Pilot / demonstration			UBC PT	Near term (3 - 5	;									Explore 'storytelling' with community members who go through the process.
Existing Buildings	Sub-action	EB-1	EB-1.13	mandatory requirements	project	UBC		BC Hydro	years)		Not Started	Low	Low						Look to partner with academic researchers.
							C+CP - Green		Near term (3 - 5										Informed by results of retrofit design study. Include coordination with other local governments and organizations (e.g. City of
Existing Buildings	Sub-action	EB-1	EB-1.14	Develop retrofit plan. Create tiered embodied carbon performance	Policy / Plannin	ug UBC	Buildings	UBC PT	years)		Initiated	Foundational	Foundational				_	Do these actions make it more challenging for lower income	Vancouver, MBAR) to support the transition to low carbon, resilient retrofits.
New Construction	Primary	NC-2	NC-2	targets for new construction														individuals to move into the neighbourhoods?	
																			Supported by Climate Acceleration Fund (CAF) study.
																			Study will include cost implications of embodied carbon targets alongside other performance requirements (e.g. energy efficiency, low carbon). Development
																			industry should be engaged in discussions on cost implications. Depending on outcomes of study, consider adopting an interim embodied carbon
																			performance target. Identify a tiered target schedule for REAP.
																			Consider how fundamental design change at the neighbourhood urban design level (e.g. no underground parkades) can support embodied carbon reductions.
New Construction	Sub-action	NC-2	NC-2.1	Undertake a study to support the development of tiered embodied carbon targets.	Research / external study	UBC	C+CP - Green Buildings		Quick start (1-2 years)	REAP	Not Started	Foundational	N/A						Include research in materials not currently covered by embodied carbon targets (e.g., MEP).
																			Supported by CAF study, including development of reporting templates.
																			Includes updates to UBC Whole Building Life Cycle Assessment Guidelines Ensure alignment with City of Vancouver, reporting template (which is set to become
																			national standard - through Treasury Board federal gov) <cagbc also="" looking="" to<br="">adopt this standard</cagbc>
																			Data collection and monitoring - need to explore this (ref CoV) <need have="" raw<br="" to="">data shared, not just LCA summary report, as well as assumptions</need>
										UBC Whole Building Life Cyc	le								How do we set boundaries? Are some pieces pushed off site? MEP? How do we incent including more elements? Have these items allowed to contribute to overall
				Develop and update embodied carbon accounting			C+CP - Green		Quick start (1-2										reduction target OR REAP optional credit? Need to build up industry capacity to deliver on more holistic embodied carbon
New Construction	Sub-action	NC-2	NC-2.2	and reporting requirements.	Policy / Plannin	Ig UBC	Buildings		years)	REAP	Not Started	Foundational	N/A						accounting in future. Include 10% reduction as a precondition and tiered optional targets in the 2025
				Adopt 10% embodied carbon reduction requirement compared to baseline building and															update to REAP. Consider optional credits for proven prescriptive design strategies, or even parallel
New Construction	Sub-action	NC-2	NC-2.3	develop tiered target schedule for REAP. (2025 timeline target)	Regulation	UBC	C+CP - Green Buildings		Quick start (1-2 years)	REAP - 2025 update	Not Started	Low	N/A						approach (prescriptive or reduction vs baseline)>prescriptive steps would likely negate the need for LCA accounting - saving paperwork
																			CAF study will include study on relationship between embodied and operational emissions.
																			MEP also needs to be included before a total carbon footprint target is formally adopted in regulation.
																			Net zero embodied target Informed by World Green Building Council Net Zero Carbon Buildings commitments (By 2030, all new buildings, infrastructure and renovations
				Explore adopting a total carbon footprint target for															will have at least 40% less embodied carbon with significant upfront carbon reduction, and all new buildings are net zero operational carbon. By 2050, new
New Construction	Sub-action	NC-2	NC-2.4	new construction and study the long term pathway to net zero embodied carbon in buildings		UBC	C+CP - Green Buildings	UBC PT UBC Sustainability Hub	Near term (3 - 5 years)	REAP	Not Started	Foundational	N/A						buildings, infrastructure and renovations will have net zero embodied carbon, and all buildings, including existing buildings must be net zero operational carbon.)
																			Target for adoption - 2030 Target may be adjusted based on results of study into feasibility on whole building
New Construction	Sub-action	NC-2	NC-2.5	Adopt 40% or greater embodied carbon reduction requirement (2030 timeline target)	Regulation	UBC	C+CP - Green Buildings		Long term (6 years +)	REAP	Not Started	Medium	N/A						Aligns with World Green Building Council net zero vision.
New Construction	Primary	NC-3	NC-3	Support industry adoption of improved embodied carbon performance.					,,										
new construction	a millary	ine 5	ine s	ansource carbon performance.															
																			PT has some example, as well as Institutional projects Virtuoso project - structural mass timber
New Construction	Sub-action	NC-3	NC-3.1	Showcase successful projects that demonstrate how to achieve low embodied carbon projects	Research / external study	UBC	C+CP - Green Buildings	UBC Sustainability Hub	Near term (3 - 5 years)		Not Started	Foundational	N/A						Look to showcase industry capacity to deliver proposed embodied carbon targets. Tie into embodied carbon research being done through Sustainability Hub.

		Primary				Responsibili				Related Plan/		Emissions		Community					Academic		
Scope Area	Action Level	Action Link	Action ID	Action	Action Type	ty	UBC Lead	Key Partners	Timeline	Policy	Status	Impact	Impact	Connection	Wellbeing	Accessibility	Affordability	Leadership	Connection	Other Equity Considerations	Notes Focus on high impact materials (e.g. concrete, bitumen layer in the roof, insulation
																					etc.). This would support development of potential prescriptive requirements for some
New Construction	Sub-action	NC-3	NC-3.2	Update prescriptive standards for building materials.	Research / external study	UBC	C+CP - Green Buildings		Quick start (1-2 years)		Not Started	Foundational	N/A								building materials (could supplement building level targets). Review across common building archetypes (there will be differences).
New Construction	Sub-action	NC-3	NC-3.3	Utilize submitted lifecycle assessment (LCA) data to support embodied carbon studies.	Research / external study		C+CP - Green Buildings	UBC Sustainability Hub	Near term (3 - 5 years)		Not Started	Foundational	N/A								
Existing Buildings		EB-2	EB-2	Explore embodied carbon performance targets for existing building projects					100.07												
Existing buildings	Primary	LD-2	LD-2	ior existing building projects																	
Existing Buildings	Sub-action	EB-2	EB-2.1	Review potential approaches to develop embodied carbon standards for building deconstruction and retrofits. Improve awareness and processes of UBC's	Research /	UBC	C+CP - Green Buildings	UBC PT	Near term (3 - 5 years)		Not Started	Foundational	N/A								Consider offering credit if consider embodied emissions in retrofit projects (link to regulation/permitting coming for emissions reductions in existing building retrofits) UBC PT buildings have easier pathway/more options to considering these pieces vs strata buildings (e.g. larger retrofits maybe captured through permitting, but interiors would be able to influence PT, but harder for stratas) Resource on embodied carbon of retrofits in a UK context - LETI Climate Emergency Retrofit Guide: https://www.leti.uk/retrofit Will need incentives for stratas - land lease implications Review data from City of Toronto existing building project What is typical lifetime - are these buildings built to last 300 years, or only 1 renewal - 50 year lifetime and then demo. For shorter (expected) lifetime - does it make sense to address existing buildings embodied in retrofits. Concrete buildings will likely last longer than lease lifetime, but not true for wood frame
New Construction	Primary	NC-4	NC-4	Residential Environmental Assessment Program (REAP) process																	Improve process (toolkits, clarity) Improve regulatory process to ensure buildings comply with REAP requirements.
New Construction		NC-4	NC-4.1	Review and develop improvements to REAP process.	Policy / Planning		C+CP - Green Buildings		Quick start (1-2 years)	REAP	Initiated	Foundational	Foundational								Currently exploring process to add a mid-construction review to try to avoid issues at occupancy. When adding more requirements, we should consider the time allowed for these processes to target sufficient time to commission. Consider applying institutional standards (there is a envelope commissioning requirement add on).
				Develop clear guidelines to share with developers	Resource		C+CP - Green		Quick start (1-2												UBC PT shares relevant UBC policy info with developers when leases are brought to market, it would be helpful to provide more clarity on NCAP policy that will impact
New Construction	Sub-action	NC-4	NC-4.2	on upcoming policy in future REAP iterations	development	UBC	Buildings	UBC PT	years)	REAP	Not Started	Foundational	Foundational								future buildings.
New Construction	Sub-action	NC-4	NC-4.3	Develop communication materials for REAP that target building owners and community members.	Resource development	UBC	C+CP - Communications		Near term (3 - 5 years)	REAP	Not Started	Foundational	Foundational								
Transportation &		TM-1	TM-1	Support sustainable transportation through					100.07												
NODIILY	Primary	1101-1		neighbourhood design						Neighbourhood											
Transportation &				Prioritize curb space to support sustainable modes where possible in amended and future			C+CP -		Quick start (1-2	Plans Transportation											E.g. car share, ZEV
Mobility	Sub-action	TM-1	TM-1.1	neighbourhood plans.	Policy / Planning	UBC	Transportation	UBC Properties Trust	years)	Plan	Not Started	Foundational	N/A								Explore how to implement in existing neighbourhood areas.
Transportation & Mobility	Sub-action	TM-1	TM-1.2	Designate curb space to support essential pick-up, drop-off, and delivery activities in amended and future neighbourhood plans.	Policy / Planning	UBC	C+CP - Transportation	UNA UBC Properties Trust	Quick start (1-2 years)	Neighbourhood Plans Transportation Plan	Not Started	Foundational	N/A								e.g. induce high turnover to enable short trips, carpooling, services, and deliveries Include considerations for low carbon deliveries, such as adequate space for electric cargo bikes. Explore how to implement in existing neighbourhood areas.
				Preserve adequate rights-of-way for potential future transit and active transportation						Neighbourhood Plans											
Transportation & Mobility	Sub-action	Th4 1	TM-1.3	infrastructure in amended and future neighbourhood plans.	Policy / Planning	LIRC	C+CP - Transportation	UNA UBC Properties Trust	Quick start (1-2 years)		Not Started	Foundational	N/A								Plan for additional walking and cycling capacity needs of corridors connecting to/from rapid transit stations
	Sub-action	TIVI-1	11VI-1.3	Explore retrofits to existing neighbourhoods to	Policy / Planning	UBC					NOL SLATED	Foundational	N/A								
Transportation & Mobility	Sub-action	TM-1	TM-1.4	support rights-of-way for future transit and active transportation infrastructure.	Policy / Planning	UBC	C+CP - Transportation	UNA UBC Properties Trust	Near term (3 - 5 years)	Transportation Plan	Not Started	Foundational	N/A								Informed by updated standards for new neighbourhood areas.
Transportation & Mobility	Sub-action	TN4-1	TM-1.5	Investigate alternative approaches to supplying resident, customer and visitor parking that meets interim needs while enabling adaptive reuse if/when parking demand declines.	Policy / Planning		C+CP - Transportation	UNA UBC Properties Trust	Near term (3 - 5 years)	Transportation	Not Started	Foundational	N/A							Consider needs of people dependent on cars for accessibility purposes.	UBCPT exploring options to provide adequate parking without impacting efforts to increase mode shift (e.g. temporary parking lots in future development sites). Explore establishing more stringent parking regulations/design limits in future when increased transit service and expanded active transportation networks are in place.
Transportation & Mobility	Primary	TM-2	TM-2		, ,																
	Triniary			Support sustainable, low carbon goods delivery																	Look at work at regional scale - partner with TransLink. Potential pilot could test and develop long-term enforcement and management
Transportation & Mobility	Sub-action	TM-2	TM-2.1	Investigate policy changes and/or pilot programs that encourage the use of low carbon devices (e.g. cargo bikes) for local / last mile deliveries. Explore opportunities to allocate flexible	Policy / Planning	UBC	C+CP - Transportation		Near term (3 - 5 years)	Transportation Plan	Not Started	Low	N/A								policies for low carbon goods delivery programs. Based on results of pilot projects, look to implement findings/programs throughout neighbourhoods.
Transportation & Mobility	Sub-action	TM-2	TM-2.2	hardscape space in new developments suitable for use by low-carbon delivery vehicles (e.g. cargo bikes).	Policy / Planning		C+CP - Green Buildings	UBC Properties Trust	Quick start (1-2 years)	REAP	Not Started	Low	N/A								Consider space for bicycle couriers, including those with electric cargo bikes.
Transportation & Mobility	Sub-action	TM-2	TM-2.3	Design neighbourhood streets and cycling infrastructure to accommodate low carbon deliveries where possible in amended and future neighbourhood plans.	Policy / Planning		C+CP - Transportation		Quick start (1-2 years)	Neighbourhood Plans Transportation Plan	Not Started	Low	N/A								Consider space for bicycle couriers, including those with electric cargo bikes.
Transportation &				Expand and enhance active transportation network to, from, and around the																	
Mobility Transportation &	Primary	TM-3	TM-3	neighbourhoods for all ages and abilities Incorporate accessibility measures into future and			C+CP -		Quick start (1-2	Neighbourhood Plans Transportation										Prioritize safety and comfort of persons with disabilities and vulnerable road users - when we enhance their mobility	Use inclusive messaging that doesn't tie climate action to being able-bodied, active
Mobility	Sub-action	TM-3	TM-3.1	amended neighbourhood plans	Policy / Planning	UBC	Transportation	UBC Properties Trust	years)	Plan Neighbourhood	Not Started	LOW	LOW							everyone benefits.	modes are not accessible to all.
Transportation &				Prioritize safe, efficient, and connected cycling infrastructure where possible in amended and			C+CP -	UNA	Quick start (1-2	Plans Transportation											
Mobility	Sub-action	TM-3	TM-3.2	future neighbourhood plans.	Policy / Planning	UBC	Transportation	UBC Properties Trust	years)	Plan	Not Started	Medium	Low								
Transportation & Mobility	Sub-action	TM-3	TM-3.3	Prioritize and protect connected greenspaces in amended and future neighbourhood plans.	Policy / Planning	UBC	C+CP - Transportation	UNA UBC Properties Trust	Quick start (1-2 years)	Neighbourhood Plans Transportation Plan	Not Started	Low	Medium								To discuss - tension between cyclists vs other modes of active transportation on these routes.
												•									

Scope Area	Action Level	Primary I Action Link	Action ID	Action	Action Type	Responsibili ty	UBC Lead	Key Partners	Timeline	Related Plan/ Policy	Status		Adaptation Impact		Accessibility		Academic Connection	Other Equity Considerations	Notes
				Incorporate safe, comfortable sidewalk design for						Neighbourhood Plans						1.			
Transportation & Mobility	Sub-action	TM-3	TM-3.4	users of all ages and abilities in amended and future neighbourhood plans.	Policy / Planning	UBC	C+CP - Transportation	UNA UBC Properties Trust	Quick start (1- years)	2 Transportation Plan	Not Started	Low	Low						
Transportation &				Work with UNA to improve accessibility features o existing neighbourhood active transportation	F		C+CP -	UNA	Near term (3 -	5 Transportation									
Mobility	Sub-action	TM-3	TM-3.5	networks and public spaces.	Coordination	UBC	Transportation	UBC Properties Trust	years)	Plan	Not Started	Low	Low						e.g. multi-sensory wayfinding, legible signage, connected cycling paths
Transportation & Mobility	Sub-action	TM-3	TM-3.6	Study ways to improve access to active transportation through equity-oriented programming.	Research / external study	UBC		UNA	Quick start (1- years)	2 Transportation Plan	Not Started	Low	Low					Target supports towards more vulnerable users. Reference work from Community Social Planning Council's Transportation Access, Climate and Economic Security (TACES) program (e.g. Saanich e-bike equity program).	Also consider equity for shared mobility options (e.g. e-bike share, bike share). Explore partnerships with shared mobility providers. Investigate best practices for developing equity-oriented funding.
Transportation & Mobility	Sub-action	TM-3		Explore potential to expand UBC's Bike Kitchen programming within existing and future neighbourhoods.	Programming		C+CP - Community Programs & Outreach	4	Quick start (1-	2	Not Started	Foundational	Low					Consider how to engage groups who have barriers to access cycling (e.g. recent immigrants, low income) UBC Bike Kitchen is considering running a 'learn to ride' program for newcomers.	Look for opportunities to expand current neighbourhood programming, which includes pop-up drop-in clinics (bike tune-ups, cycling maps, resources). Promotion of repair will also help achieve neighbourhood goals with respect to reducing waste.
Transportation & Mobility	Sub-action	TM-3		Maintain and review bike parking requirements fo New Construction	Policy / Planning	UBC	C+CP - Green Buildings		Near term (3 - years)	5 REAP	Not Started	Foundational	N/A						Consider space allocations to support increased cycling uptake, including of cargo bikes. Existing REAP requirements specify a 10% oversized spaces. Current requirements exceed most other municipalities. Will review policy at future REAP update cycles to confirm if any changes are needed.
Transportation & Mobility	Primary	TM-4	TM-4	Continue engaging with Translink to expand and enhance transit service to, from and around the neighbourhoods for all ages and abilities															
				Support and advocate for SkyTrain and other rapid															
Transportation & Mobility	Sub-action	TM-4	TM-4.1	transit expansion to campus including stations within walking distance of neighbourhoods	Advocacy	UBC	C+CP - Transportation	UNA	Quick start (1- years)	2	Initiated	Foundational	Foundational						
Transportation & Mobility	Sub-action	TM-4		Plan for increased frequency and coverage of service for intra-campus transit service in amended and future neighbourhood plans.	Policy / Planning	UBC	C+CP - Transportation	TransLink MOTI	Near term (3 - years)	Neighbourhood Plans 5 Transportation Plan	Not Started	Low	Low						Target frequency of service, as well as coverage of service. Plans should include design standards for transit stops that are accessible to all ages and abilities, as well as connected to active transportation networks and shared micro mobility hubs.
				Recommend design standards for transit stops tha are accessible to all ages and abilities, as well as connected to active transportation networks and						Neighbourhood Plans									
Transportation & Mobility	Sub-action	TM-4	TM-4.3	shared micro mobility hubs are included in amended and future neighbourhood plans.	Policy / Planning	UBC	C+CP - Transportation		years)	2 Transportation Plan	Not Started	Foundational	Foundational						Will enable safe, accessible, and convenient travel to and from transit stops.
Transportation & Mobility	Sub-action	TM-4		Explore options for improving transit affordability for neighbourhood residents	Research / external study	UBC		UNA	Near term (3 - years)	5	Not Started	Foundational	N/A					Target efforts towards equity-deserving groups (e.g. youth, low income)	Consider advocating to TransLink to expand free fare for all youth (currently free for ages 5 - 12)
Transportation &				Apply a climate resilience and safety lens to the planning and design of streets and other															
Mobility Transportation & Mobility	Primary Sub-action	TM-5		transportation infrastructure.	Policy / Planning	UBC		UNA UBC Properties Trust	Quick start (1-	2 Neighbourhood Plans	Not Started	Foundational	Foundational					Target feedback/collaboration from persons with disabilities and vulnerable residents.	Considering items such as: Shading and covered shelters at public transit facilities, shading along active transportation networks, benches and other residence-oriented furniture (e.g. misting stations), lighting along active transportation networks, alignment with UBC institutional standards Consider mapping locations of these features for future reference by community members.
Transportation & Mobility	Sub-action	TM-5	TM-5.2	Explore opportunities to retrofit existing neighbourhood transportation networks to improve resilience and safety.	Policy / Planning			UNA UBC Properties Trust	Near term (3 - years)	5	Not Started	Foundational	Foundational					Prioritize retrofits based on review of existing measures and gaps to improve equity within neighbourhoods. Potential to link in with larger equity mapping process, looking at measures under ecology, climate emergency preparedness, etc.	Review existing measures and identify gaps. Considering items such as: Shading and covered shelters at public transit facilities, shading along active transportation networks, benches and other residence-oriented furniture (e.g. misting stations), lighting along active transportation networks, alignment with UBC institutional standards
Transportation &	Sub-action			Ensure a level of redundancy in the transportation network to ensure mutiple means of access and egress in the event of disruptions or emergencies.				моті		5 Transportation Plan		Foundational							Considering modes and routes to travel to, from and around campus.
Transportation & Mobility	Sub-action	TM-5		Continue support for community led active / sustainable mobility initiatives	Programming				Quick start (1- years)	2	Initiated	Low	Low						e.g. school walk programs, bike jams
Transportation & Mobility	Primary	TM-6	TM-6	Expand shared mobility within UBC's residential neighbourhoods (e.g. bike share, e-bike share, ca share, other micro mobility programs)															
Transportation &				Ensure neighbourhood development includes allocation of space and provision of electricity for				UNA	Quick start (1-	2 Neighbourhood									
Transportation &	Sub-action Sub-action		TM-6.1 TM-6.2	shared mobility programs. Complete study into neighbourhood transportation preferences to understand factors influencing shared mobility uptake.	Policy / Planning Research / external study			UBC Properties Trust	years) Near term (3 - years)	Plans 5 Transportation Plan	Not Started	Low Foundational	N/A Foundational						Development funds are collected to support car share. To date public uptake has bee slower than anticipated. Partner organizations (e.g. Modo) will only provide cars when there is proven demand. Study should explore why uptake has been lower than expected and look to understand transportation preferences and barriers to alternatives.
Transportation & Mobility	Primary	TM-7	TM-7	Support and enable the transition to zero emission vehicles (ZEV)															
Transportation & Mobility	Sub-action		TM-7.1	Review EV requirements for New Construction and update as needed.	Policy / Planning	UBC	C+CP - Green Buildings	UBC Properties Trust	Quick start (1-) years)	2 REAP	Not Started	Medium	N/A						
Transportation &				Develop plan to support retrofits for ZEV charging	, ,				Near term (3 -										
	Sub-action	TM-7	TM-7.2	infrastructure within existing buildings	Policy / Planning	UBC		UNA UNA UBC PT	years) Quick start (1-		Not Started	Medium	N/A						Including support for access to incentives. Continue to coordinate with BC Hydro on total electricity demand within the neighbourhoods. Coordinate with Hydro on EV infrastructure plan at neighbourhood scale to
	Sub-action	TM-7	TM-7.3	Expand public EV charging network Provide increased access to public and/or dedicated charging stations for car-share or ride	Coordination	UBC		UNA UBC PT	Quick start (1-		Initiated								Adequately allocate EV charging including associated infrastructure. Will support transition of carshare and ride hailing to ZEV Exploring dedicated access for Level 2 chargers for car share. There are licensing issues to consider with the UNA.
	Sub-action	TM-7	TM-7.4	hailing vehicles. Explore options for local monitoring of	Policy / Planning	UBC		BC Hydro	years)		Not Started								Deliveries/ride hail supported by expanded public fast chargers.
Mobility	Primary	TM-8	TM-8	neighbourhood transportation metrics.															

		Primary				Responsibili				Related Plan/		Emissions			Health &			Climate	Academic	
Scope Area	Action Level	Action Link	Action ID	Action	Action Type	ty	UBC Lead	Key Partners	Timeline	Policy	Status	Impact	Impact	Connection	Wellbeing	Accessibility	Affordability	Leadership	Connection	Other Equity Considera
				Complete study to explore how to track									1							
Transportation & Mobility	Sub-action	TM-8	TM-8.1	neighbourhood transportation patterns and emissions.	Research / external study	UBC		UNA	Near term (3 - 5 years)	Transportation Plan	Not Started	Foundational	N/A							
Waste, Materials & Consumables	Primary	WC-1	WC-1	Support the UNA in establishing community zero waste initiatives																
consumatives	, , , , , , , , , , , , , , , , , , ,																			0
Waste, Materials &				Enable sharing for infrequently used items (e.g. tool share, camping/outdoor equipment, party																
Consumables	Sub-action	WC-1		supplies) Create and expand community hubs to support	Programming	UNA					Not Started	Low	N/A							
Waste, Materials &				consignment and re-use (e.g. community yard							Latitude d									
Consumables Waste, Materials &	Sub-action	WC-1	WC-1.2	sale) Create programming designed to support repair	Programming	UNA					Initiated	Low	N/A							1
Consumables	Sub-action	WC-1	WC-1.3	(e.g. clothing, bicycles, electronics, etc.) Explore potential research projects to support UNA	Programming	UNA					Not Started	Low	N/A							
Waste, Materials & Consumables	Sub-action	WC-1		programming for community zero waste initiatives.	Research / external study	UBC		UNA	Quick start (1-2 years)		Not Started	Foundational	N/A							
Waste, Materials &					external study	obc			ycursy		Not Started	i oundational	N/A							
Consumables	Primary	WC-2	WC-2	Support improved waste diversion and reduction Support and facilitate awareness and behavioral																
Waste, Materials & Consumables	Sub-action	WC-2		change campaigns on waste diversion and waste reduction	Coordination	UNA			Quick start (1-2 years)		Not Started	Foundational	N/A							
Waste, Materials & Consumables	Sub-action	WC-2	WC-2.2	Expand and enhance UNA Green Depot		UNA			Near term (3 - 5		Not Started	Low	N/A							
Consumables	Sub-action	WC-2		Review and, where feasible, strengthen	Programming	UNA			years)		Not Started	LOW	N/A							
Waste, Materials &				requirements for waste separation and disposal facilities in new neighbourhood buildings through			C+CP - Green		Near term (3 - 5											
Consumables	Sub-action	WC-2	WC-2.3	future REAP updates.	Regulation	UBC	Buildings		years)	REAP	Not Started	Low	N/A							
Waste, Materials &				Review recycling and organics service in existing	Research /				Near term (3 - 5											
Consumables Waste, Materials &	Sub-action	WC-2	WC-2.4	residential properties Support and expand public waste sorting and	external study	UBC		UNA	years) Long term (6		Not Started	Foundational	N/A							
Consumables	Sub-action	WC-2	WC-2.5	disposal infrastructure	Programming	UNA			years +)		Not Started	Low	N/A							1
Waste, Materials & Consumables	Sub-action	WC-2	WC-2.6	Explore expansion of community recycling facilities (e.g. planned South Campus recycling facilities).	Programming	UBC			Long term (6 years +)		Not Started	Low	N/A							
consumables	Sub-action	WC-2		Adopt improved target in REAP requiring buildings	Frogramming	OBC			years +)		Not started	LOW	NA							
				to prepare and implement a Waste Management Plan that diverts 90% (by weight) of construction																
Waste, Materials & Consumables	Sub-action	WC-2		and demolition waste from landfill. (2025 timeline target)	Regulation	UBC	C+CP - Green Buildings		Quick start (1-2 years)	REAP - 2025 update	Not Started	Low	N/A							
consumasies	Sub dellon			Review and, where feasible, strengthen	negulation	000	Banangs		100107	apuote	norotantea	2011								
				construction and demolition standards in future REAP updates to reduce and eventually eliminate																
Waste, Materials & Consumables	Sub-action	WC-2	WC-2.8	disposal of any reusable, compostable, or recyclable materials.	Policy / Planning	UBC	C+CP - Green Buildings		Long term (6 years +)	REAP	Not Started	Low	N/A							
				Advocate and support improvements to recycling																1
Waste, Materials & Consumables	Sub-action	WC-2		processes (e.g. Extended Producer Responsibility programs, Canada Plastics Pact).	Advocacy	UBC		Metro Vancouver Province of BC	Quick start (1-2 years)		Not Started	Low	N/A							
Waste, Materials & Consumables	Primary	WC-3	WC-3	Improve local monitoring of waste generation and diversion																
Waste, Materials & Consumables		WC-3		Complete study to explore how to track construction and demolition waste.	Research / external study	UBC		UBC PT	Near term (3 - 5 years)		Not Started	Foundational	N/A							
Consumables	Sub-action	WC-S	WC-5.1			UBC		UNA	years)		Not Started	Foundational	N/A							
Waste, Materials &				Complete study to explore how to better track residential waste generation and diversion for	Research /			UBC PT (Wesbrook Properties / Village Gate	Near term (3 - 5											
Consumables	Sub-action	WC-3	WC-3.2	ongoing monitoring.	external study	UBC		Homes)	years)		Not Started	Foundational	N/A							
Waste, Materials & Consumables		WC-4	WC-4	Support development of community resources																
Waste, Materials &				around consumption choices (e.g. food, air travel) Explore potential research projects to support	Research /				Near term (3 - 5											
Consumables	Sub-action	WC-4	WC-4.1	reduction on consumption based emissions Gauge public interests and develop resources to	external study	UBC		UNA	years)		Not Started	Foundational	N/A							
Waste, Materials & Consumables	Sub-action	WC-4	WC-4.2	support reduced impact through consumption choices.	Resource development	UNA			Near term (3 - 5 years)		Not Started	Foundational	N/A							
Adaptation &		AR-1	AR-1																	
Resilience	Primary	AK-1	AK-1	Complete climate adaptation planning process.				UNA												
Adaptation & Resilience	Sub-action	AR-1	AR-1.1	Complete UBC Vulnerability and Risk Assessment (2024 timeline target)	Policy / Planning	UBC		UBC Emergency Management	Quick start (1-2 years)		Significant Progress	N/A	Foundational							
Adaptation &				Complete detailed adaptation action planning				UNA UBC Emergency	Quick start (1-2											
Resilience	Sub-action	AR-1	AR-1.2	(2025 timeline target)	Policy / Planning	UBC		Management	years)		Not Started	N/A	Foundational							1
Neighbourhood				Convert the Neighbourhood District Energy																
Infrastructure	Primary		NI-1	System to low carbon energy supply																
Neighbourhood				Update Neighbourhood District Energy System					Quick start (1-2											
Infrastructure	Sub-action	NI-1	NI-1.1	Infrastructure Agreement	Coordination	UBC		Corix	years)		Initiated	Foundational	Foundational							
				Explore options to improve affordability of thermal																
Neighbourhood Infrastructure	Sub-action	NI-1	NI-1.2	energy supply from the Neighbourhood District Energy System for neighbourhood residents.	Policy / Planning	UBC		Corix UBC PT	Quick start (1-2 years)		Initiated	N/A	N/A							
Neighbourhood Infrastructure	Primary	NI-2	NI-2	Work with BC Hydro to initiate upgrades to electrical supply based on NCAP actions																

erations	Notes
	Current modelling uses data and projections from the Regional Transportation Model, which is updated infrequently. Study should look into methods of gathering data on mode and kilometers travelled from neighbourhood residents to enable more frequent tracking of changes.
	Recreation staff can be used to help run things like this. Don't have space to house these items in UNA facilities (e.g. rec centre). Maybe look for volunteer and shared at individual community homes/residences to get around space needs.
	Look for business partnerships, (e.g. thrift store) to help enable these. Support/expand use of community sharing apps are available (e.g., https://minivillage.ca/ubc-residents)
	Align/supplement with resources from Campus ZWAP to support waste diversion.
	Lots of challenges on common spaces (bike parking, waste, parking etc) in all buildings. Only option is to add additional parking levels (\$\$\$). Think all buildings are using a waste hauler aligned with MV standards that require
	recycling services - but enforcement is lax in practice. Potential to consider UNA bylaw on recycling and organics.
	Land challenges - access to space is current challenge for UNA. Yard space needed.
	Additional space needed to support improved reuse, and recycling.
	Current REAP requires 85%
	Consider changing the metric.
	Province of BC, Extended Producer Five Year Action Plan https://www2.gov.bc.ca/assets/gov/environment/waste- management/recycling/recycle/extended_producer_five_year_action_plan.pdf Canada Plastics Pact: https://plasticspact.ca/
	UBC PT has some tracking set up with current practices, explore how to leverage this data to track our progress.
	Consider partnering with UBC PT since likely will have single waste hauler company. Some residential buildings using IoT to monitor the waster diversion to ensure residents put the waste into the right bin.
	Work will complete in first half of 2024. Work undertaken through ICLEI Canada's Building Adaptive and Resilient Communities (BARC) framework.
	Update overall NCAP actions/work plan based on outputs of this work.
	Key amendments: commitment to near zero emissions transition, cooling service added to remaining Wesbrook sites, alignment with updated LUP, nodal plant approach, flexibility for future technology/policy changes
	Permanent Wesbrook node expected online around 2026, and will provide near zero thermal energy supply to all new building. Corix is exploring options to convert existing NDES supply to near zero emissions around 2030.
	Explore adding developer charges to DE connected buildings to offset some of the costs otherwise repaid through NDES utility rates. The implications of this, and other potential initiatives, needs to be further studied to understand the impacts.
	processes interesting to be further studied to understand the impacts.

Scope Area	Primary Action Level Action Lin	k Action ID	Action	Action Type	Responsibili tv	UBC Lead	Key Partners	Timeline	Related Plan/ Policy	Status		Adaptation Impact		Accessibility	Affordability	Climate Leadership	Academic Connection Other Equity Considerations	Notes
				Action Type			BC Hydro			Status					Anordubility			
Neighbourhood Infrastructure	Sub-action NI-2	NI-2.1	Coordinate and plan for future neighbourhood electricity demand among various stakeholders	Policy / Planning	UBC		UBC PT Corix	Quick start (1-2 years)		Initiated	Foundational	Foundational						Recommend a strategic electricity demand plan that incorporates expected impacts of NCAP actions (e.g. decarbonizations of NDES and building retrofits, EVs)
Neighbourhood			Develop policies to support energy demand				BC Hydro UBC PT	Quick start (1-2										e.g. EV charger load management requirements for new buildings/retrofits, smart
Infrastructure	Sub-action NI-2	NI-2.2	management	Policy / Planning	UBC		Corix	years)		Not Started	Foundational	Foundational						thermostats
Neighbourhood			Explore embodied carbon performance targets															
Infrastructure	Primary NI-3	NI-3	for neighbourhood infrastructure projects															
																		e.g. roads, sidewalks, energy infrastructure
			Review potential approaches to develop embodied	1														Define typical baseline conditions, understand current procurement practices, propose options for introducing performance targets.
Neighbourhood Infrastructure	Sub-action NI-3	NI-3.1	carbon standards for neighbourhood infrastructure projects.		LIBC		UBC PT Corix	Near term (3 - 5 years)		Not Started	Foundational	N/A						Consider impacts if elements are moved out of building and into other areas within the neighbourhood (e.g. DE, parking structures), defining boundaries will be critical.
Neighbourhood		141 3.1	Update Integrated Rainwater Management Plan	external study	obe			yearsy		Not Started	1 oundational	N/A						the neighbourhood (e.g. be, parking structures), defining boundaries will be endear.
Infrastructure	Primary NI-4	NI-4	to consider climate adaptation.											-				
Neighbourhood Infrastructure	Sub-action NI-4	NI-4.1	Include future climate projections in rainwater modelling.	Policy / Planning	URC	C+CP - IRMP		Quick start (1-2 years)	IRMP	Significant Progress	N/A	Foundational					Modelling will help highlight vulnerable areas on campus allowing us to target interventions to these areas.	Climate science projections indicate reduced summer precipitation and increased precipitation in fall, winter, and spring.
initiasti ucture	Sub-action NI-4	111-4.1	Identify adaptive green rainwater infrastructure	Folicy / Flaming	OBC	C+Cr - INWIF		yearsy	INVIE	riogress	N/A	roundational						precipitation in fail, whiter, and spring.
Neighbourhood Infrastructure	Sub-action NI-4	NI-4.2	that responds to seasonal variability and future climate conditions	Policy / Planning	UBC	C+CP - IRMP		Quick start (1-2 years)	IRMP	Initiated	N/A	Medium						Landscaping and other natural systems offer important ecosystem services for flood regulation
Neighbourhood	Cub antian All 4	NI 4 2	Develop performance targets for rainwater			C+CP - IRMP		Quick start (1-2 years)	101.40	Not Started								Optimize rainwater management at the source, to minimize downstream impacts and
Infrastructure	Sub-action NI-4	NI-4.3	management. Integrate ecosystem services throughout	Policy / Planning	OBC	CTCP - INIVIP		yearsy	INIVIP	Not Started								the need for grey infrastructure upgrades.
Ecology	Primary ES-1	ES-1	neighbourhood planning to address climate action.															Ecosystem services are also included in UBC's updated Integrated Rainwater Management Plan, covered in Neighbourhood Infrastructure.
																	Maps should be developed with equity focus, looking for	Consider completing as part of neighbourhood planning processes, as part of landscape / parking upgrades, etc.
Ecology	Sub-action ES-1	ES-1.1	Analyze baseline seasonal shading in neighbourhoods.	Research / external study	LIBC		UNA UBC Properties Trust	Quick start (1-2 years)		Not Started	Foundational	Foundational					areas underserved by existing ecosystems. Allowing future planning to prioritize these areas.	Focus on open spaces, and explore seasonal differences based on tree species (e.g. how is shade different in winter vs summer)
2001087			Explore and test nature based urban design		050				Neighbourhood	Horotantea	i canadananan	- Curiadional						
Ecology	Sub-action ES-1	ES-1.2	solutions to address urban heat island effect and building cooling energy demand.	Research / external study		C+CP - Green Buildings		Quick start (1-2 years)	Plans REAP	Initiated								Sustainability Scholar project - Summer 2024
																		Prioritize tree plantings for multiple climate action co-benefits (e.g., providing shade,
			Explore planning and design tools, such as policies and guidelines, for amended and future															carbon sequestration, air quality improvements) Target supports for climate action areas, including along active transportation routes,
			Neighbourhood Plans to prioritize tree retention and increased tree planting in support of climate				UNA	Quick start (1-2	Neighbourhood									public transit infrastructure. Look to reduce urban heat island effect. Consider tree species and age, growth pattern, as well as location and future climate
Ecology	Sub-action ES-1	ES-1.3	action.	Policy / Planning	UBC		UBC Properties Trust	years)	Plans	Not Started	Low	Medium						conditions.
Ecology	Sub-action ES-1	ES-1.4	Explore and establish performance targets relating to neighbourhood shade coverage.	Policy / Planning	UBC			Near term (3 - 5 years)		Not Started	Foundational	Foundational					Targets should aim to improve equity and provide similar service levels throughout neighbourhood areas.	Form of targets to be determined through study, and based on baseline assessment data.
																		e.g. trees, grasslands, soils Explore quantitative methods to track sequestration, and how to accurately account
																		for additional benefits from natural systems that could be included in community
			Explore how to quantify biological carbon sequestration from natural systems to support	Research /				Near term (3 - 5										emissions monitoring (to balance remaining emissions). Study should explore which plants are optimal for sequestration.
Ecology	Sub-action ES-1	ES-1.5	overall net zero emissions targets. Identify opportunities to increase biodiversity and	external study	UBC			years)		Not Started	Foundational	N/A						
5		55.4.6	ecosystem services at site scale through future			C+CP - Green		Quick start (1-2	0540			E						Neighbourhood Plans do have some parcel guidelines as well.
Ecology	Sub-action ES-1		REAP updates	Policy / Planning	UBC	Buildings	UBC Properties Trust	years)	REAP	Not Started	N/A	Foundational						Implement potential new requirements as optional to start.
Ecology	Primary ES-2	ES-2	Develop climate resilient planting guidelines.															
																		Plantings should consider climate adaptation benefits from ecosystem services, such
			Develop a planting and soils guideline for amended and future Neighbourhood Plans that															as to reduce damage from extreme weather event, regulation of water flow, erosion prevention and maintenance of soil fertility. Consider plants that are suitable for
			reflects the local ecological context and that supports resilient plants for future climate				UNA	Quick start (1-2	Neighbourhood								Consider what habitats are provided, what species are	projected future climate conditions. Consider the palette and how groups of plantings will work together. Composition is
Ecology	Sub-action ES-2	ES-2.1	conditions.	Policy / Planning	UBC		UBC Properties Trust	years)	Plans	Not Started	N/A	Foundational					supported through different strategies.	important, and guidelines should be looking at plantings that will support each other.
																		Approaches should consider the balance between aesthetics and function looking to support a variety of landscapes.
			Develop demonstration projects to pilot, monitor,	Pilot /		C+CP - Planning &											There are a diverse set of needs and preferences for neighbourhood landscapes. Consider needs for place making	Look to find room for joy and experimentation. g, Assessment should gauge how people perceive the planting design following
Ecology	Sub-action ES-2	ES-2.2	and assess emerging approaches to climate resilient plantings and the soils that support them.	demonstration project		Design (landscape architecture)	UNA UBC Properties Trust	Near term (3 - 5 years)		Not Started	N/A	Low					cultural aspects, sense of belonging. A variety of landscapes are needed to meet these diverse needs.	
		-5 2.2				C+CP - Planning &												
Ecology	Sub-action ES-2	ES-2.3	Explore policy to implement findings from climate resilient plantings demonstration projects.	Policy / Planning		Design (landscape architecture)	UNA UBC Properties Trust	Near term (3 - 5 years)		Not Started	N/A	Medium						Influenced by monitoring and assessment data from demonstration projects.
			Review and update biodiversity credits to include climate resilient planting guidelines at site scale			C+CP - Green		Quick start (1-2										Neighbourhood Plans do have some parcel guidelines as well.
Ecology	Sub-action ES-2	ES-2.4	through future REAP updates	Policy / Planning	UBC	C+CP - Green Buildings	UBC Properties Trust	Quick start (1-2 years)	REAP	Not Started	N/A	Foundational						Neignbournood Plans do nave some parcel guidelines as well. Implement potential new requirements as optional to start.
			Develop resources to support climate resilience	Resource				Quick start (1-2										
Ecology	Sub-action ES-2	ES-2.5	and biodiversity in community gardens.	development	UNA			years)		Not Started	N/A	Low						
Ecology	Primary ES-3	ES-3	Support the UNA in developing sustainable landscape practices															
Ecology	Sub-action ES-3	ES-3.1	Support the UNA on sustainable landscaping practices.	Coordination	UBC		UNA	Quick start (1-2 years)		Not Started	N/A	Low						Explore landscaping equipment and maintenance practices to support a diverse range of landscapes.
																		Should include details on suitable plants for future climate, as well as maintenance
Ecology	Sub-action ES-3	ES-3.2	Collaborate and share information to support climate resilient replanting in the public realm.	Coordination	UBC		UNA	Near term (3 - 5 years)		Not Started	N/A	Low						recommendations. Informed by overall studies into climate resilient plantings approaches.
Ecology	Primary ES-4	ES-4	Support development of UBC's Biodiversity Strategy															
		FC 4.4	Include future climate projections in scoping for Biodiversity Strategy	Doliny / Direct	LIRC			Quick start (1-2		Not Charles 1	N/A	Foundation						Strategy must consider impacts to biodiversity from our changing climate, and how to
Ecology	Sub-action ES-4	ES-4.1	Biodiversity Strategy.	Policy / Planning	OBC			years)	Strategy	Not Started	N/A	Foundational						address them As part of overall adaptation planning work. This should address the higher risk
																		climate impacts to natural systems identified through the UBC Vulnerability and Risk Assessment process.
Faal	Cub anti-	FC 4 5	Develop actions to address climate impacts to	Dalia (D	LIDC		UNA	Quick start (1-2		Net		Course la str						Actions will likely be implemented through both the upcoming Biodiversity Strategy
Ecology	Sub-action ES-4	ES-4.2	natural systems in neighbourhoods	Policy / Planning	OBC		UBC Properties Trust	years)	Strategy	Not Started	N/A	Foundational						and NCAP.

Scope Area		Primary Action Link	Action ID	Action	Action Type	Responsibili tv	UBC Lead	Key Partners	Timeline	Related Plan/ Policy	Status		Adaptation Impact		Accessibility		Academic Connection	Other Equity Considerations	Notes
Climate Emergency Preparedness		CP-1	CP-1	Develop resources, programming, and infrastructure to enable response before, during and after extreme heat and other emergency climate events.															Resources, programming, and infrastructure will also be beneficial for other (non- climate) emergency events (e.g. earthquake), as well as broader climate action planning for adaptation and mitigation.
Climate Emergency	Sub-action	CP-1		Develop resources to share information on emergency cooling spaces with residents.	Policy / Planning	g UNA			Quick start (1-2 years)		Not Started	N/A	Low						Look for opportunities to integrate this work into Campus as a Living Lab Project: Resilience hubs for UBC campus communities Generate list of existing public spaces, commercial and neighbourhood buildings that can provide emergency cooling. e.g. indoor cooling centres, misting stations, spray parks, weather protected plazas, actively cooled buildings/rooms within buildings Also consider opportunity from commercial spaces (e.g. cafes, grocery stores, UBC hotel). List should also include spaces in the institutional parts of campus and make clear that anyone is able to access these spaces. Campus services has, 2 libraries available, open until midnight, as well as AMS Nest and they coordinate to ensure food also available. There is the option to open additional spaces when events occur. Look to gather information from community to supplement the list -' where do you go during hot days' Think about programming during these events, so not just sitting in an empty room. Are there opportunities with spaces like UBC Botanical Gardens (under-tree cooling) or Museum of Anthropology? Explore opportunity of UBC Safe App. The push notification feature will be implemented when an extreme heat alert is issued by Environment and Climate Change Canada.
								-											Look for opportunities to integrate this work into CLL Project: Resilience hubs for UBC campus communities Identify gaps in availability of emergency cooling spaces. Considering, what are opening hours of these spaces, are there times of the day where no spaces are available?
Climate Emergency Preparedness	Sub-action	CP-1		Coordinate efforts to expand public spaces for emergency cooling.	Policy / Planning	g UNA		UBC Emergency Management C+CP	Near term (3 - 5 years)	5	Not Started	N/A	Low					Barriers in accessing cooling centres is a critical risk factor during heat events.	Continue to coordinate with campus emergency management to provide aligned response to events. What would overnight spaces look like? UBC Emergency Management has a program to provide basic overnight necessities (e.g. cots)
Climate Emergency Preparedness	Sub-action	CP-1		Explore options to accelerate resilient HVAC upgrades to Old Barn Community Centre.	Pilot / demonstration project	UNA			Near term (3 - 5 years)	5	Not Started	Low	Medium						Look for opportunities to integrate this work into CLL Project: Resilience hubs for UBC campus communities Look for incentive funding to support this project. Next major building upgrade at this facility will be HVAC systems. Add goals to increase resilience/climate adaptation measures and decarbonize mechanical systems, including adding cooling and air filtration, as well as exploring on-site energy generation. Should provide demonstration on what HVAC retrofits can achieve in community spaces.
				Develop communications materials to educate and				UBC Emergency										Barriers in communications are critical risk factor during heat events. nclude specific information to support groups disproportionately at risk. For example, certain medications	Look for opportunities to integrate this work into CLL Project: Resilience hubs for UBC campus communities Other climate emergency events may include: air quality under wildfire smoke events, flooding, wind storms How to reach vulnerable members of the population? Let this be led by these members of the population - support them in the way they need to be. Look for develop consistent information that delivers clear information about options, but that deesn't encourage shaming those who need additional supports during heat events (e.g. for those who need A/C vs fans) Include information to support navigating different occupancy scenarios (e.g. strata owner, tenants, advice for landlords - especially private rentals) Include information on safety risks, where to go/gather during events, where to get information during event. Build on existing UBC Emergency Preparedness Guide (https://ready.ubc.ca/wp-content/uploads/2023/10/UBC-Emergency-Booklet_UNA.pdf) Information on shelter-in-place, what that means, who's vulnerable, what activities are okay. How can you communicate with loved ones if major communication/power outage -
Climate Emergency Preparedness	Sub-action	CP-1		prepare residents for extreme heat and other climate emergency events.	Resource development	UNA		Management C+CP UBC Emergency Management	Quick start (1-2 years)		Not Started	N/A	Medium					anguage residents, tenants - especially tenants in strata uuildings.	especially for international students. Touch on nuance - when are fans okay, when do you need to seek something more. Considering staff availability during emergency events (i.e. when non-local staff can't travel to site) UNA currently looking to hire more locally-located auxiliary staff for these periods.
Climate Emergency	Sub-action		CP-1.5	Review and look to strengthen UNA emergency event procedures. Develop resources, programming, and infrastructure to enable response before, during	Policy / Planning	3 UNA		UBC Security	Quick start (1-2 years)		Initiated	N/A	Foundational						Additionally, looking for volunteers and coordinating training for them. UBC Emergency Management is providing training.
Preparedness Climate Emergency Preparedness	Primary Sub-action	CP-2		and after local wildfire events. Review and ensure Fire Smart Principles are included in future and amended Neighbourhood Plans.	Policy / Planning	g UBC			Quick start (1-2 years)	Neighbourhood Plans	Not Started	N/A	High						Focus on directions for wildland / urban interface.
Climate Emergency Preparedness	Sub-action	CP-2	CP-2.2	Explore options to incorporate FireSmart design into future REAP updates.	Policy / Planning	g UBC			Quick start (1-2 years)	REAP - 2025 update	Not Started	N/A	Medium						Institutional resilient buildings project can help inform potential approaches.
Climate Emergency Preparedness	Sub-action	CP-2		Explore options (e.g. infrastructure, landscaping) to address any existing neighbourhood areas with high risk for wildfire events at forest / urban interface.	Policy / Planning	g UBC		UNA Metro Vancouver	Near term (3 - 5 years)	5	Not Started	N/A	High						Should also include a map of any areas at risk (e.g. Hampton Place built without a buffer between Pacific Spirit Park). Look to work with partners (Metro Van) to explore options to mitigate the risk (e.g. pruning)
Climate Emergency Preparedness	Sub-action	CP-2		Develop communications materials to educate and prepare residents for local wildfire events.	Resource development	UNA			Quick start (1-2 years)		Not Started	N/A	Medium						Including explanation of what current mitigation efforts are, and who's leading them. Build off of Emergency Planning events held fall 2023.
Climate Emergency Preparedness	Sub-action	CP-2		Develop comprehensive local emergency response plan for local wildfire events	Policy / Planning	g UBC	Emergency	UNA C+CP UEL MOTI Vancouver Fire Rescue Services BC Wildfire Service Metro Vancouver Watershed Fire Protection BC Hydro Water utilities - Metro Van and UBC Water	Near term (3 - 5 years)	5	Not Started	N/A	Foundational						Needs to be a comprehensive plan for the entire peninsula. Consider evacuation planning and transportation Consider water supply for fire suppression. Equipment needs to be in place to enable some fire suppression/water solutions (e.g. pumping from pool in aquatic centre) and access needs to be improved.

		Primary				Responsibil	i			Related Plan/		Emissions	Adaptation	Community	Health &			Climate	Academic		
Scope Area	Action Level	Action Link	Action ID	Action	Action Type	ty	UBC Lead	Key Partners	Timeline	Policy	Status	Impact	Impact	Connection	Wellbeing	Accessibility	Affordability	Leadership	Connection	Other Equity Considerations	Notes
Climate Emergency				Strengthen social connectedness and resilience																	
Preparedness	Primary	CP-3	CP-3	within neighbourhood communities																	
								UBC Emergency													
Climate Emergency				Deliver emergency preparedness workshops that				Management	Near term (3 - 5												
Preparedness	Sub-action	CP-3	CP-3.1	are rooted in social connectedness.	Programming	UNA		C+CP	years)		Not Started	N/A	Low								Typically UNA and Emergency Management work closely together to advertise event.
																					Refer to resources from Hey Neighbour Collective
																					Evergreen materials, such as maps, videos, and other resources can be produced to
																					help with social connectedness (e.g. maps on best places for a forest walk)
				Develop toolkits and other resources to support																	Consider other items focused on climate action (e.g. managing climate anxiety, individual actions - 'Happy Climate' approach, carbon/ecological footprint calculators)
Climate Emergency				community building focused on addressing climate	Resource				Near term (3 - 5												Provide examples of other successful community-led initiatives (at UBC or elsewhere)
Preparedness	Sub-action	CP-3	CP-3.2	action	development	UNA		C+CP	years)		Not Started	N/A	Foundational								that built resilience within neighbourhoods.
																					Develop long-term programming that enables connection/interaction with
																					neighbours. Supported by Connected Community Coordinator - joint UBC/UNA position focusing
																					on low barrier, social connection opportunities in the neighbourhoods.
																					Consider how to support community members looking to become 'connectors' that
Climate Emergency				Expand and develop programming to facilitate			C+CP - Community Programs &		Near term (3 - 5												help lead these initiatives within the neighbourhoods. Support for community gardens in particular, which offer numerous climate action
Preparedness	Sub-action	CP-3	CP-3.3	community-led initiatives	Programming	UNA	Outreach	C+CP	years)		Not Started	N/A	Foundational								benefits while building social connection.
																					Look for opportunities to integrate this work into CLL Project: Resilience hubs for UBC
																					campus communities
									-												Look for ways to integrate neighbourhood community members into broader campus
																					life (e.g. Increase advertising of on-campus events through UNA communications channels).
				Explore opportunities to streamline processes and			C+CP - Community														Review and streamline processes for permitting to allow community members ease
Climate Emergency				increase resources, grants, supplies, and			Programs &		Near term (3 - 5												of access to booking streets, parks, and other community spaces for community-led
Preparedness	Sub-action	CP-3	CP-3.4	equipment for social connectedness activities.	Policy / Planning	g UBC	Outreach	UNA	years)		Not Started	N/A	Foundational								events.
Climate Emergency				Study impact of social connectedness on climate	Research /				Near term (3 - 5												Look for opportunities to integrate this work into CLL Project: Resilience hubs for UBC
Preparedness	Sub-action	CP-3	CP-3.5	emergency response.	external study	UBC		UNA	years)		Not Started	N/A	Foundational								campus communities
Net-Zero	Primary	NZ-1	NZ-1	Define pathway to net-zero community emissions Coordinate with institutional climate action plan					Near term (3 - 5												
Net-Zero	Sub-action	NZ-1	NZ-1.1	team to align definitions and approach.	Coordination	UBC			years)		Not Started	Foundational	N/A								
Net-Zero	Sub-action	NZ-1	NZ-1.2	Explore options to integrate embodied carbon emissions into community emissions accounting.	Policy / Planning				Quick start (1-2 years)		Not Started	Foundational	N/A								
110-2010	Sub-action	142-1	182-1.2	Research sequestration options to achieve net-	Research /	5 000			Near term (3 - 5		not started	Junuational	17/1								Explore potential of technology based options (e.g. carbon capture and storage) as
Net-Zero	Sub-action	NZ-1	NZ-1.3	zero community emissions.	external study	UBC			years)		Not Started	Medium	N/A								well as potential of local ecosystems.
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