

INTRODUCTION

The Carlisle Select Board recently created the Environmental Sustainability Committee (ESC)¹ to develop and implement a Town-wide environmental sustainability work plan. The ESC presents herein its initial proposed work plan to launch a multi-year process to transition Carlisle to a more sustainable community.

The work plan is based on the 2022 Carlisle Master Plan² and the “Path to Zero Emissions” report by the former Carlisle Energy Task Force³, with the goals to focus on utilizing the best practices for addressing climate change, protecting our natural environment and embracing our natural resources.

The work plan is divided into three sections: transportation and the built environment, natural and cultivated environment, and governance. The first two sections focus mainly on promoting actions that residents can take to reduce their carbon footprint, create a more livable town and be good stewards of the land. The governance section focuses on reviewing municipal management practices, policy, and future bylaws. There is a line under each action that relates to whether the action will be completed by a volunteer (V), a town staff (TS) member or both. In some cases, individual ESC members or town employees have been identified by name. The actions have been cross referenced to Master Plan goals, and to the Hazard Mitigation Plan that was approved by FEMA in 2021⁴.

We chose priority actions (highlighted in bold) because they are either a short-term goal in the Master Plan, a response to State Law which requires a town vote, actions being taken by the Town that should be reviewed for their environmental and sustainable impact, research or tasks that can be completed with no financial impact to the Town, or educational outreach to the residents of Carlisle.

The ESC views this document as a “living” work plan that we will periodically adapt based on available resources and changes in the Town’s priorities. If an action is not completed this year, it will roll over to next year or evolve into a different action.

¹ The Carlisle Select Board appointed the initial six ESC members at its August 29, 2022 meeting and subsequently appointed three additional members.

² Carlisle Forward - Path to a Sustainable Future; April 2022; available at: <https://www.carlislema.gov/DocumentCenter/View/3969/Carlisle-Plan-2022-FINAL-DRAFT?bidId=>

³ Path to Zero Emissions - Creating a Sustainable Carlisle; March 31, 2020; available at: <https://www.carlislema.gov/758/Path-to-Zero-Emissions>

⁴ Town of Carlisle Hazard Mitigation Plan 2021 Update; November 23, 2021; available at: <https://www.carlislema.gov/DocumentCenter/View/3421/Carlisle-Hazard-Mitigation-Plan-Update-11-23-2021?bidId=>

Environmental Sustainability Committee: Draft Work Plan and Timeline to June 2023: 11/29/22

1	2	3	To Date	Proposed progress from November 2022-June 2023							'23- '24	24-26
				November	December	January	February	March	April	May		
<i>Transportation</i>												
Goal 1: Reduce Carbon emissions, energy use, and promote health	Educational Webpage (MP15H)	ET01: Educational Webpage / resources/ social media/ articles		Temporary Educational Webpage:							Move to Town's new website	
		Staffing/Volunteers		V/ TS							V/TS	
		ET02: Events inc. cultural		Planning for "Route to Sustainability Day" (RTSD)				RTSD	Follow up from RTSD			
		Staffing/Volunteers		V/TS				V/TS				
	Active Travel (Code AT)	AT01: Trails and Sidewalks MP 10D	Existing Trails maps "Complete Street" crossings.		Coordinate with the Trails Committee.	Review of surrounding town approaches. Liaise with Trails Com. to develop standard assessment of ecological impact for all new trails and sidewalk. Crosses with GMP01		Info on Trails at RTSD		Plan for comprehensive trail and sidewalk connectivity w/ info on bikes on trails		
		Staffing/Volunteers			Eric	Eric / TS		Eric	Eric / TS			
		AT02 – Bicycles, Scooters, etc. (human / battery powered alternatives to vehicular transportation) MP15D			Inputs from DPW, Police Dept, and Schools		Decide if Bike swap/ sale is feasible	Possible bike swap / sale event during RTSD	Proposed infrastructure safety enhancements to facility bicycles / scooters across a wider range of age groups			
	Staffing/Volunteers			Eric /TS		V	V	V/TS				
	Vehicular Travel (Code VT)	VT:01 School Bus Electrification MP 16C			Liaise with school to discuss ridership and federal incentives to electrify school busses							
		Staffing/Volunteers			Eric /TS							
		VT02: Promote Electric Vehicles MP 16C	Install 6 EV charging stations.	Review of Town charging costs	Liaise with Town Administrator for ESC person to advise on town EV charging costs	Webpage	Reach out to EV owners for EV parade.	Possible EV Parade				
	Staffing/Volunteers		Glenn	Eric /, Glenn TS	Eric /TS	V	V					

Bold action items are the priority items for December 2022-June 2023.

Environmental Sustainability Committee: Draft Work Plan and Timeline to June 2023: 11/29/22

1	2	3	Proposed progress from November 2022-June 2023								'23- '24	24-26	
Transportation			To Date	November	December	January	February	March	April	May	June		
		VT03: First Mile Last Mile. MP 15D		Update from MAGIC	Identify current day options			Review surrounding community approaches		Survey Carlisle residents regarding commuting practices		Provide recommendations, & implementation plan	
		Staffing/Volunteers		Debbie	Eric/TS			V/TS		V/TS		V/TS	
		VT04: Ride Share with COAHS MP 15D	COAHS MAGIC		Identify current day COAHS operations. Review Pilot Final Report. (Sudbury, Maynard, Stow, Acton, Concord) from MAGIC			Review surrounding community approaches, e.g., MAGIC Identify possible grant sources.		Survey Carlisle residents regarding Ride Share interest and acceptance		Provide a set of recommendations and implementation plan	
		Staffing/Volunteers			Eric/ TS			V/TS		V/TS		V/TS	
		VT08: Public Anti Idling Advisory and Education. (MA law)	Some signs at school.	Identify key locations where idling is excessive with Police, DPW, Carlisle Schools	Develop approaches (e.g., education, additional signage, occasional police presence) to reinforce anti-idling requirement within the Town.								
		Staffing/Volunteers		Eric/TS		V/TS							

Environmental Sustainability Committee: Draft Work Plan and Timeline to June 2023: 11/29/22

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1	2	3	To Date	Proposed progress November 2022-June 2023								2024	
Built Environment				November	December	January	February	March	April	May	June	2023-24	To 26
Reduce Carbon emissions, energy use, and solid waste (MP Goals 15, 16, & 17)	Educational (MP 15H)	EB01: Webpage/ reference / social media			Create resources list for library purchase	Temporary external webpage					Move information to town webpage		
		Staffing/Volunteers			V	TS/V					TS/V		
		EB02: Events inc. cultural	Applied for LCC Grant	Planning for "Route to Sustainability Day" (RTSD)					Art/ Science School Exhibition?	Evaluate RTSD			
		Staffing/Volunteers	V/TS	V/TS	V/TS	V/TS	V/TS	V/TS	V/TS				
		EB03: Lectures/ Workshops/ Events			Liaise with other enviro groups in town and Schools								
	Staffing/Volunteers			V				V					
	Residential (Code RB)	RB01: Sustainable Home and Energy Reduction Plans MP 15D, crosses with Municipal Vulnerability report #14	Age of houses from Assessors Data (dated)	HERS Rating analysis for homes built since 2011	Encourage detailed home energy assessments through coaching (see below)		Research types of home planning, including weatherization and preparation for climate change.	Review proposed Mass Save Documentation (TBD)	Plan display for RTSD	Review Historic Preservation MA / Building Science Inc Research papers. Display at RTSD		Develop Sustainable Home Plan templates by home type. Consider EnerPHit & embodied carbon	
		Staffing/Volunteers		Debbie	V		Bob	Bob	V		V		
		RB02: Promote Mass Save Home Energy Assessments MP 15D				Review best practices	RFP for Home Energy Assessor	Contract with Assessor Will this cost the Town money?	Webpage				
		Staffing/Volunteers				V	TS/V	TS/V	TS/V				
RB03: Electrify Home & Water Heating MP 15D		Heat Smart Alliance; one heat-pump coach		Webpage	Secure second Carlisle coach	Community presentation		Updated webpage Display/ event at RTSD					
Staffing/Volunteers			TS/V	Bob	Bob		TS/V						

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Environmental Sustainability Committee: Draft Work Plan and Timeline to June 2023: 11/29/22

1	2	3	To Date	Proposed progress November 2022-June 2023								2024	
Built Environment				November	December	January	February	March	April	May	June	2023-24	To 26
		RB04: Electrify Clothes Drying, Cooking, etc. MP 15C			See if library has funds to purchase loaner induction hot plates	Fund raise to permit library to purchase loaner induction hot plates if needed	Mosquito Article on CO2 usage and induction cooking and Mass Save rebates		Webpage (include air drying) Mosquito article on air drying. Washing line display at RTSD. Cooking event?				
		Staffing/Volunteers			Bob/ Librarian	TS/V	V		TS/V				
		RB05: Electrify Lawn & Garden Equipment MP 15C and 19D					Webpage/ social media. Plan Display for RTSD	Mosquito article on fossil fuel and CO2 on leaf blowing	“Petting zoo” exhibition	Mosquito article on fossil fuel mowers and landscapers			
		Staffing/Volunteers						V	TS/V	V			
		RB06: Promote Community Choice Aggregation MP 15D	Community Choice Aggregation, including webpage		Article on electricity price changes & CCA		Support Town Staff to start prep for next contract		Updated Webpage on renewable options				
		Staffing/Volunteers			Bob		TS/Bob		TS/Bob				
		RB07: Promote Reduction, repurposing over waste (with Transfer Station Acton Committee). MP17A			Article in Mosquito re Sustainable Christmas with Transfer Station Action Committee?	With TSAC Promote local social media ‘give away’ sites.			Reduce, Reuse, Repurpose Table/Event at RTSD				
		Staffing/Volunteers						V	TS/V	V			
		RB08: Promote On-Site Solar & Community Solar. MP 15D	Google Maps completed in @ 2017 by ETF and Analysis of 2 PV Solar Challenges.				Data collection on size of existing solar Installations. Plan Display for RTSD		Information Display at RTSD on how much solar power Carlisle creates	Research incentives & benefits	Add to webpage on solar options		
		Staffing/Volunteers					V/ TS			V	TS/V		

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1	2	3	To Date	Proposed progress November 2022-June 2023							2024			
Built Environment				November	December	January	February	March	April	May	June	2023-24	To 26	
		RB09: Emergency Power & Demand Response	Powerwall PowerPoint from ETF						Investigate time-of-use rates, incentives, technology options. Coordinate with Transportation.		Webpage; Mosquito article			
		Staffing/Volunteers								V	TS/V			
		RM01 Behavioral Practices MP 15H				“Five changes in your lifestyle to reduce your carbon footprint in 2023 challenge” Debbie		Article in Mosquito following residents and what options they followed.				Article in Mosquito following residents.		
		Staffing/Volunteers						V/ Mosquito				V/ Mosquito		
		RM02: Investigate Financial Incentives for Residents		Mass Save	PACE	New Building Code /Mass Save incentives	Government / state incentives	Article on sustainable pension funds (or not) in the Mosquito.			Article on crafting sustainable investments and divesting fossil fuels/ companies without sustainability policy, on webpage.			
	Staffing/Volunteers		TS/V	V	V	TS/V	V			V				
	Municipal (Code MB)	MB01: Energy Reduction plan for each Municipal building. MP 15D and 16B				Liaise with Municipal Facilities Committee and the Select Board.	Establish if energy reduction engineer consultant’s role is applicable for Carlisle buildings.	ESC role would be to advise on the plan and tracking, not to complete the plans.						
		Staffing/Volunteers				TS/ V	TS/ V	TS/ V						
		MB02: Actions relating to Data Collection and Analysis. (MP 15 D and 16B and Green Communities)	ESC chose not to be the lead committee for Green Communities as it relates	Green Communities Report submitted to Green	Connect School Gas meter to MEI	SB /MFC/ ESC Prepare Action plan for future green community grants. (ESC			ESC chose not to be the lead committee for Green Communi-	Green Communities Report submitted to Green				

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1	2	3	To Date	Proposed progress November 2022-June 2023								2024	
Built Environment				November	December	January	February	March	April	May	June	2023-24	To 26
			to only Municipal Buildings. ESC will monitor only.	Communities		community education)		ties as it relates to only Municipal Buildings. ESC will monitor only.	Communities				
		Staffing/Volunteers	ESC	TS	TS	TS/V		ESC	TS				
		MB03: Prioritize town land that could be used for future solar arrays. MP 15D	School Parking Lot: ETF report on possible sites (Bob Clarke, and Helen Young)				Research Information needs to be transferred to Town Data Site for future reference.						
		Staffing/Volunteers	V				TS						
		CIB01: Raise Awareness of non-profit land that could be used for solar arrays and future financial incentives	Suggestions in recent webinars that this is will be MA future policy.	Monitor changes in MA policy and if/ when it happens advise Town nonprofits accordingly.									
		Staffing/Volunteers		TBD									

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1	2	3	Proposed Progress November 2022-June 2023									2023	2024
Natural Environment			To Date	November	December	January	February	March	April	May	June	To24	To26
Goal 2: Protect the natural environment and create a healthy sustainable environment.	Educational (Master Plan Goal 15H)	ENR01: Webpage/ reference / social media		Create resources list for library purchase	Temporary educational webpage; establish social media pages						Transfer to town website		
		Staffing/Volunteers	V	V/TS							TS		
		ENR02: Events inc. cultural		Planning for "Route to Sustainability Day" (RTSD)						Art/ Science School Exhibition	Evaluate RTSD		
		Staffing/Volunteers	V							V/TS	V		
		ENR03: Lectures/ Workshops/ Events		Plan "challenge of the month/ season"	"Challenge of the Month/ Season"								
			V	V									
	ENR04: Eco Programs at CCHS MP 15H			Liaise with School to create / encourage local Eco programs									
	Staffing/Volunteers			V/TS									
	ENR05: Eco Programs at CCHS MP 15H			Liaise with School to create / encourage local Eco programs									
	Staffing/Volunteers			V/TS									
	RESIDENTIAL LAND (Code RE)	RE01: Promote Sustainable Gardening. MP19C					Public lecture at Gleason by Garden Club (CGC)		Gardening workshops Seed Swap (CGC)	Continue community outreach			
		Staffing/Volunteers							Christina				
		RE02: Educate on mowing practices and Yard / Lawn Clean up. MP19D			Composting Initiative (with Transfer Station Task Force)	"Leave the leaves" initiative			Info table/ session "Why is my yard messy?" signs	Continue community outreach			
		Staffing/Volunteers			Chrisina/TS	Christina			Christina	Christina			
	RE03: Promote reduction of lawn			Webpage	"Kill your lawn" promotion.		Plan display for RTSD		Info table/ session	Continue community outreach			

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1	2	3	Proposed Progress November 2022-June 2023								2023	2024	
Natural Environment			To Date	November	December	January	February	March	April	May	June	To24	To26
		size and irrigation. MP18B											
		Staffing/Volunteers				Christina	Christina	Christina	Christina	Christina			
		RE04: Hard vs soft landscaping, including material choice (Crosses with wildlife and water) MP18B				Webpage		Articles on webpage on sustainable hard landscaping.	Crosses with the rain-gardens display?				
		Staffing/Volunteers				V		V/TS	V				
		RE05: Education on Natives, Invasives and Soil Health. plan goal MP19C	John Bakewell demo. Invasive garden at Banta			Webpage	“Plant native, non-cultivar” incentive	Plan workshops for RTSD	Workshops	Native garden tours.	ID invasives Banta invasives garden tours?		
		Staffing/Volunteers				V	V		V	V	V		
		RE06: Alternative use of non-hazardous chemicals and materials (crosses with water protection and wildlife). MP19D			Webpage	“New year, healthy year”		Plan event for RTSD	Info table/session. Alternatives to pesticides and herbicides, hazards of cleaners.	Begin self-assessment/progress campaign.			
		Staffing/Volunteers			Christina	Christina /TS		Christina	Christina	Christina			
		RE07: Reduce External Light Pollution (Crosses with wildlife) MP 19D				Webpage	Mosquito article on why curtains cut energy use and help the natural environment	Plan display for RTSD	Info table/session	Continue outreach			
		Staffing/Volunteers				V	V		V	V			
		RB08: Raise awareness of harmful natural gas and chemical use in			Article in Mosquito re toxicity of natural gas in the home, re new			Web page article on building insulation options	Information table	Continue outreach			

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1	2	3	Proposed Progress November 2022-June 2023									2023	2024	
Natural Environment			To Date	November	December	January	February	March	April	May	June	To24	To26	
MUNICIPAL	the home (inc. in construction materials)	building code												
		Staffing/Volunteers			V				V					
		RE09: Backyard burning and wildfires (crosses with pollution and CO2) MP 15D MP19D See also GNR11, crosses with Municipal Vulnerability report #11			Research and review other town burning ban. Reach out to Fire Department	Article in Mosquito re habitat destruction			Hazards of burning yard "waste"	Avoiding Wildfires with Fire Dept.			Discuss possible Town policy See GNR11	
		Staffing/Volunteers			V/TS	V			V	V/TS		V /TS		
		ME01 Remove lawns from existing facilities and add native planting. MP 19C, crosses with Municipal Vulnerability report #16								Liaise with Municipal Facilities Committee and Departments		Outcome depends on new public safety facility location		
		Staffing/Volunteers												
	SUSTAINABLE LIFESTYLE	AE01: Community Sustainability (Buy Local) MP15D	Liaise with Local Farms and small holders							Local Farms Exhibition				
		Staffing/Volunteers		V					V					
		AE02: Promote plant-based diet MP 15D	Liaise with Library re Book / video Selection for January	Liaise with FRS to support their efforts	Promote a plant-based diet as part of the 5 things you can do to lower your carbon footprint. (crosses with RM01)				Vegetarian / Vegan Food at the RTSD					
		Staffing/Volunteers	Debbie/ TS	v	Debbie				V					

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1	2	3	Proposed Progress November 2022-June 2023								2023	2024	
Natural Environment			To Date	November	December	January	February	March	April	May	June	To24	To26
WILDLIFE	NR01: Protect Wildlife: Promoting creating/ protecting animal and insect habitat (inc. Soil). MP 19C	Check with Land Stewardship re mowing and pollinators	Educational articles in the Mosquito		List of Speakers/ video/ articles. look for funding.	Plan Bat Box Challenge (need wood workers).	Pre-order Aster Blooms (May be easier with GC plant sale in June)	Bat Box Challenge. Aster/ Fall Blooms promotion. "don't squish it" campaign	Continue outreach				
	Staffing/Volunteers		Christina		Christina /TS	Christina	Christina	Christina	Christina				
TREES	NR02: Tree Health, Carbon Sequestration, and beneficial shading education. (Crosses with GBE06) (MP 19B)			Establish what data has already been developed by other towns (Concord).	Protecting trees from invasives/ what to do if invaded		Article on Website on benefit of tree shading on houses.	Benefit of trees cable, don't cut"					
	Staffing/Volunteers				V	V/TS	V	V					
	NR03: Raise Gas Leak Awareness in town (methane gas emissions) as Methane gas damages trees. MP15D	HEET.org webpage	Webpage: HEET map				Review Mothers Out Front research	Article in the Mosquito re gas leaks and the law	Plant flags where there are leaks in town event.				
Staffing/Volunteers						V	V	V					
INVASIVES AND NATIVE PLANTS	NR04: Invasive Species Eradication and Native habitat restoration. MP 19C			Educational articles in the Mosquito. Liaise with LSC to coordinate efforts. Research other towns policy.	Eco Sensitive Invasive removal challenge Collaboration with Center Park and Land Stewardship			Information and examples on display.			Funding in 2024 budget		
	Staffing/Volunteers			Christina /ST	Christina /ST			Christina			Christina /TS		

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1	2	3	Proposed Progress November 2022-June 2023										2024	
Governance			To Date	November	December	January	February	March	April	May	June	2023-24	2026	
Implement Master plan Masterplan practices	GMP01: Incorporate environmental stewardship and sustainability impacts into municipal decision-making. MP 15E (This is a short-term goal of the Master Plan)	Prioritize goals		Investigate what other towns have implemented	Initial consultation with other committee and department.	Draft/Implement Masterplan Goal 15E incorporate environmental stewardship and sustainability impacts into municipal decision-making.	Consult with other town committees and departments	Finalize 15E	Ask Select Board and Town to implement.					
		Staffing/Volunteers		All Committee	All Committee	All Committee	TS+V	TS+V	TS+V					
		GMP02: Establish and pursue community-wide carbon reduction goals aligned with State goals and develop a detailed implementation plan for achieving carbon-reduction goals and a framework for tracking and evaluating progress over time. MP 15C and 15D	“Pathway to Net Zero” report 2019	Workplan submitted to the Select Board.	Discuss with Town Administrator and Select Board regarding dedicated staff who will help develop Carlisle’s implementation plan, track, and evaluate goals.									
		Staffing/Volunteers	All	TS+ Debbie Bob Christina										
		GMP03: Establish and maintain accountability (with performance metrics) for municipal energy use and emissions MP 16B			Town administrated / Selectboard to designate responsibility to relevant for Town department and designate a person responsible for tracking energy use in MEI	Discuss behavioral changes and business practices in different departments that can result in a reduction in energy use and emissions (Subject to Town Administrator timetable) (linked with GMP01)	Set 5-year goals for energy reduction in partnership with the relevant department (subject to Town Administrator timetable)	Track and evaluate progress.						

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1	2	3	Proposed Progress November 2022-June 2023										2024
Governance			To Date	November	December	January	February	March	April	May	June	2023-24	2026
		Staffing/Volunteers			TS		TS			TS		TS	TS
		GMP04: Promote reduction, repurposing over waste. MP 17A				Discuss working practices and policy in Municipal buildings	Research other towns' policy.		Draft a Town policy		Craft a Town policy.		
		Staffing/Volunteers				TS	TS				TS		
		GMP05: Review current maintenance and cleaning policies to eliminate use of harmful substances inside and outside of buildings. (crosses with pollution and water.) MP 19C					Liaise with Town Administrator	Liaise with School Facilities Manager					
		Staffing/Volunteers					TS/V	TS/V					
		GMP06: Review current practice and alternative use of non-hazardous chemicals and materials (crosses with water protection and wildlife) MP 19C, crosses with Municipal Vulnerability report #16		Coordinate with Land Stewardship efforts. Liaise with other town efforts (conservation land ConsCom, Trails, non-profits)	Liaise with Recreation Commission and Schools	Cultivated Land: Liaise with Center Park. Garden Club, DPW, Foss Farm and Lessees							Discuss possible policy
				V	V/TS	V/TS							
	Transportation	GT01: Vehicle Emission Data Collection MP 15D and 16B				Current day annual CO2 emission estimates from transportation sources	Framework for estimating CO2 reductions						
		Staffing/Volunteers				V/TS	V/TS						

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Governance			To Date	November	December	January	February	March	April	May	June	2023-24	2026
		GT02 – Additional CO2 reduction techniques for municipal vehicles MP 15D	2018 Analysis of carbon emissions due to trucking waste. Path to Zero Report.			Craft a list of sample opportunities in coordination with other town departments and committees		Estimate CO2 reduction with these proposals		Proposed implementation plan			
		Staffing/Volunteers				V/TS		V/TS		V/TS			
		GT03: Support the use of electric vehicles for municipal fleets where feasible. MP 16C			Establish data on age of existing municipal fleet and when it is scheduled to be replaced.	Review other towns policies and goals to electrification						Create and implement a policy and plan for electrification of fleet.	
		Staffing/Volunteers			TS	TS						TS	
		GT04: Town involvement in local and regional transportation alternatives (MP 15D, crosses with Municipal Vulnerability due to Climate Change #4.)			Assess current alternatives to inform ESC discussion on possible next steps. Engage COAHS and others as needed.			ESC to determine whether and what recommendations should be made					
		Staffing/Volunteers			TS+V	TBD							
		GT05: Vehicles: Minimize construction Traffic, pollution, and noise. MP 19D				Investigate other towns’ policy and evaluate how successfully Acton St construction policy has worked.	Draft a policy for all future developments for Select Board review if necessary.						
		Staffing/Volunteers				V/TS	TBD						

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Governance			To Date	November	December	January	February	March	April	May	June	2023-24	2026	
Built Environment	GBE01: Institutional and Commercial Energy Use Reporting to town. MP 15D				Meet with churches' environmental groups.		Investigate how successful Lexington has been.					Discuss possible policy for future Town Meeting		
	Staffing/Volunteers				V		V					V		
	GBE02: Low Embodied Carbon Materials and Net zero policy for new municipal buildings. MP 15D				Liaise with Public Safety Facilities Task Force regarding ESC work plan.	Update town boards and committees regarding new building codes.							Discuss possible policy for Town Meeting 2024	
	Staffing/Volunteers			V	Debbie	Debbie, Glenn, Jon Metivier							TS/ V	
	GBE03: Promote building adaption/ deconstruction over demolition and encourage re-use of building materials, where appropriate. MP 17A and MP 17B				Reach out to Planning board re Demolition Delay Bylaw. (DDB) Raise awareness with committees on embodied Carbon in existing buildings.	Review Adopting Mass DEP "Solid Waste Recycling and Management Plan" Policy for municipal buildings with Town Administrator and Selectboard	Continue to raise awareness with committees on embodied Carbon in existing buildings.	Investigate establishing construction reuse shed/ area at the Transfer Station or regional alternative with TSAC	Research DDB and deconstruction policy elsewhere. (Carlisle is the only town in this area not to have DDB). With Planning Department				Possible DD Bylaw vote at town meeting	
	Staffing/Volunteers				Debbie	Debbie/TS	V/TS	V/TS		V/TS				TS/V

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Governance			To Date	November	December	January	February	March	April	May	June	2023-24	2026
		GBE04: Promote minimal site disruption construction. Including common driveways and land clearance for new construction (Crosses with water, rainfall run off and trees) MP 19B crosses with Municipal Vulnerability due to Climate Change #4.				Investigate what other towns have done.	Liaise with Planning Committee	Discussions with Planning. BoH, Conscom, Building Commissioner	Promote Soak up the rain-gardens display? Could this be part of a MVP Grants?			Discuss possible By Laws for Town Meeting 2024	
		Staffing/Volunteers				TS/V	V/TS	TS/V				TS/V	
		GBE05: Housing Policy options to minimize land and energy use MP 20 B						Liaise with Housing / Planning Committees					
		Staffing/Volunteers						V					
		GNR01: Promote Sustainable agriculture practice. MP 18B and 19C			Liaise Select Board to re-establish Agricultural Committee.	Reach out to Sweet Autumn Farm for information			Information station from town?			Discuss possible policy	
		Staffing/Volunteers			V/TS	V			V			V/TS	
		GNR02: Review current practices on town land inc. soil health. MP 19C, crosses with Municipal Vulnerability report #16			Liaise Select Board to re-establish Agricultural Committee.	Liaise with ConsCom re current practices						Discuss possible policy	
		Staffing/Volunteers			V/TS	V/TS							

Bold action items are the priority items for December 2022-June 2023.

Environmental Sustainability Committee: Draft Work Plan and Timeline to June 2023: 11/29/22

1	2	3	Proposed Progress November 2022-June 2023									2024	
Governance			To Date	November	December	January	February	March	April	May	June	2023-24	2026
		GNR03: New Municipal/ Institutional landscaping and parking to follow ecological landscaping best practices. MP 19C. Crosses with Municipal Vulnerability report #16	Example Tower Hill Botanic Gardens Parking (Ryan Assoc)									Liaise with Planning Department Discuss possible policy/bylaw	
		Staffing/Volunteers										TS/V	
		GNR04: Additional rainfall and runoff due to climate change and construction. (Existing buildings) Crosses with Municipal Vulnerability report #4								Soak up the rain-gardens display? Could this be part of a MVP grant?		Liaise with Building Department, Planning ConsCom, and Historic Commission. Discuss possible policy.	
		Staffing/Volunteers							V			V/TS	
		GNR05: Water: Consumption and protection. (MP18B)					Liaise with BOH regarding droughts and water quality		Water Barrel challenge				
		Staffing/Volunteers					V/TS		V				
		GNR06: Carbon Sequestration and shading (crosses with site layout) MP 19B, crosses with Municipal Vulnerability report #17				Protecting trees from invasives/ what to do if invaded	Investigate tree removal bylaws in other towns.	Article on Website on benefit of tree shading on houses.	Benefit of trees ("Cable, don't cut")			Discuss possible policy for Town Meeting	
		Staffing/Volunteers				V	V/TS	V	V			V/TS	

Bold action items are the priority items for December 2022-June 2023.

Environmental Sustainability Committee: Draft Work Plan and Timeline to June 2023: 11/29/22

1	2	3	Proposed Progress November 2022-June 2023									2024	
Governance			To Date	November	December	January	February	March	April	May	June	2023-24	2026
		GNR06: Data collection on age of trees and species and carbon sequestration on municipal land. MP 15D, crosses with Municipal Vulnerability report #12, #19			Establish what data has been collected previously, and how available it is to others.		Investigate if a survey by tree keeper or others is feasible.						
		Staffing/Volunteers			V/TS		V/TS						
		GNR08: Tree protection (outside Wetlands protection area) (Master Plan Goal 19B)			review Conscom's tree policy and supplement for areas beyond jurisdiction	Review tree committees and ordinances in other towns	Assess whether and how ESC should move forward on this activity					Discuss possible policy for town meeting.	
		Staffing/Volunteers			V	V	V						
		GNR09: Review Light Pollution MP 19D	Street lighting LED Completed by ETF. Street lighting map on MyMaps.			Ask Alan Lewis if he would be willing to share his expertise.		Assess nature of problem and potential remedies, including other town efforts, e.g., Concord	Assess if and how ESC should move forward on this activity				
		Staffing/Volunteers				V		V	V				

Bold action items are the priority items for December 2022-June 2023.

Environmental Sustainability Committee: Draft Work Plan and Timeline to June 2023: 11/29/22

1	2	3	Proposed Progress November 2022-June 2023										2024	
Governance			To Date	November	December	January	February	March	April	May	June	2023-24	2026	
Natural Environment and Resources	GNR10: Town Ordinance on gas powered lawn equipment. MP 15D				Review other towns' ordinances Focus on both residential /commercial applications & hours of operation?					Decide whether to propose regulations to Select Board		Bylaw to Town Meeting vote?		
	Staffing/Volunteers			V					V			TBD		
	GNR11: Explore town ordinances on native plants. MP 19C						Review ordinances in other towns							
	Staffing/Volunteers						V							
	GNR12: Investigate more restricting or prohibit open burning MP 15D and pollution Crosses with Municipal Vulnerability report #11					Review State recommendations with Fire Department	Outreach for Public Comemnt (Select Board presentation?)	Decide whether to propose regulations to Select Board					Warrant for Town Meeting?	
	Staffing/Volunteers					TS+V	V/TS	V						
	GESC01: Assist other committees and departments with sustainability issues				Committees/ Department liaison			Encourage committees to be involved in RTSD			Committees/ Department liaison			
	Staffing/Volunteers				TS+V									
	FUNDING	GF01: Investigate Grant Opportunities. MP 15G		Create list of grant opportunities, benefits, requirements and timeline.		LCC Grant awards published.	Discuss MVP grant with Planning Board. Apply for Cultural Council ARPA grant if possible.					MVP grant deadline		

Bold action items are the priority items for December 2022-June 2023.

Environmental Sustainability Committee: Draft Work Plan and Timeline to June 2023: 11/29/22

1	2	3	Proposed Progress November 2022-June 2023									2024	
Governance			To Date	November	December	January	February	March	April	May	June	2023-24	2026
STATE LAW	Staffing/Volunteers		TS		V	V/ TS					TS		
	GF02: Establish Committee Budget		Research and budget submitted to Select Board	Submit 2024 budget to Select Board and FinCom									
	Staffing/Volunteer		TS+Bob, Barney	TS+Bob									
	GF03: Create community outreach email list and investigate Fundraising donations		Discuss options with Town Administrator.	Issue fundraising letter to residents.									
	Staffing/Volunteers		TS+V	TS+V									
	GF04: Valuing in dollars our Natural Resources.				Investigate ways of valuing our natural resources in \$								
	Staffing/Volunteers				V/TS								
	GL01: implement state law and regulatory changes			Post educational info on new building codes informed by outreach to John Metivier	Outreach to local contractor. Prepare materials for Select Board and other relevant Town Committees on 'Specialized opt-in Stretch Code'	Present to Select Board (and FinCom?) to get their support of Specialized opt-in Stretch Code	Mosquito Article explaining the new code.	Specialized opt-in stretch code vote at Town Meeting April 2023 (partial cross with Master Plan goal 16 A)					
Staffing/Volunteers			Debbie and Glenn/ Jon Metivier										

Bold action items are the priority items for December 2022-June 2023.

Environmental Sustainability Committee: Draft Work Plan and Timeline to June 2023: 11/29/22

1	2	3	Proposed Progress November 2022-June 2023									2024	
Governance			To Date	November	December	January	February	March	April	May	June	2023-24	2026
COORDINATION AND COLLABORATION WITH OTHER GROUPS	GL02: Monitoring the 10-town gas ban pilot MP 16A			➔									
	Staffing/Volunteers			V	V	V	V	V	V	V	V		V
	GC01: Regional and state coordination MP 15F		Green Communities with Town Administrator DOER briefing MAGIC meeting	State Park Liaison Great Meadows NWR		Establish if State Parks/ Wildlife Dept. would like a display at RTSD		Information table/exhibit?					
	Staffing/Volunteers		TS+V	TS+V		V/ ST		V					
	GC02: Non -Profit Coordination MP 15F		CCF, MA Climate Action (M CAN) Heat Smart Alliance. Building Electrification Accelerator (BEA) Xerces Society Native Plant Trust Trustees of Reservations MA Invasive Plant Advisory Group										
	Staffing /Volunteers		V	V									
	GC03: Professional Organizations Coordination MP 15F		Passive House MA										
Staffing/Volunteers		V											

Bold action items are the priority items for December 2022-June 2023.

APPENDIX 1: WORKPLAN DETAILED ELEMENT TABLE

To be used for each project action to evaluate the progress against the Masterplan and MA Climate Goals.

Title:	
Goal:	Measurable goal for element
Master Plan Reference:	Cross reference to specific Master Plan recommendation, including timeframe as reported in Section 8 of Master Plan
Lead:	Lead organization or person
Support:	Supporting organizations/persons
Environmental Benefits:	
Other Benefits:	
Milestones:	Key deliverables and due dates; include how deliverables will be documented
Metrics:	Quantifiable metrics that will be used to measure progress
Approach:	Actionable narrative outlining recommended approach —perhaps not in table, but beneath table

Example of Completed Form

Title:	AT01 – Trails and Sidewalks (walking as alternative to vehicular transportation)
Goal:	Set of recommendations and a plan to provide improved foot transportation
Master Plan Reference:	10D <i>Cross reference to specific Master Plan recommendation, including timeframe as reported in Section 8 of Master Plan</i>
Lead:	ECS / E. Balles
Support:	Trails Committee, Historic Society, DPW, Sustainability Coordinator
Environmental Benefits:	Reduced CO2 emissions from transportation-related sources
Other Benefits:	Enhanced individual health, overall general well-being, and sense of community
Milestones:	Inputs from related town groups and DPW (15 Jan), review of surrounding town approaches (15 Mar), info for RSD (15 Apr), proposed combined trails – sidewalks network (also indicating if bicycles are allowed) (15 Jun)
Metrics:	Summary docs: a) Carlisle inputs; b) surrounding town initiatives; c) integrated map and implementation recommendations
Approach:	Develop background info working with the Sustainability Coordinator, meetings w/ related groups, small working group (TBD) to map out proposed trail & sidewalk network to enhance non-vehicular intra-Carlisle travel and consider ecological impacts.

APPENDIX 2: MASTERPLAN MATRIX CROSS REFERENCE

Master Plan Goal For ESC	ESC Action Item	Master Plan Goal For ESC	ESC Action Item
10D. Consider environmental impact when developing new or expanded trails.	AT01	16C. Support the use of electric vehicles, both for individuals and municipal fleets where feasible.	VT01, VT02, Gt03
15C. Establish and pursue community-wide carbon reduction goals aligned with State goals.	GP02	17A. Establish policies to encourage recycling and reduce solid waste in accordance with the findings of the 2021 Transfer Station Task Force and newly established Transfer Station Action Committee	GMP04, GBE03
15D. Develop a detailed implementation plan for achieving carbon-reduction goals and a framework for tracking and evaluating progress over time.	VT03, VT04, RB01, RB02, RB03, RB05, RB06, AE02, NR02, GT01, GT02, GT04, GBE01, GBE02, GNR07, GNR10, GNR11, MB03	17B. Encourage re-use of building materials, where appropriate.	GBE04
15E. Incorporate environmental stewardship and sustainability impacts into municipal decision-making.	GP01	18B. Encourage reduction of community-wide water use for irrigation/outdoor watering, especially during dry months.	RE03, GNR05, RE04, GNR01
15F. Support and encourage state and federal policies that address environmental stewardship. Coordinate with neighboring communities and local partners on this effort.	GC03, GC02	19B Explore options and possible methods for, and costs and benefits of, extending regulation of tree cutting to individually owned parcels of land that would build upon the regulations in place	GBE05, GNR06, GNR08:
15G. Leverage available state and federal resources that address environmental stewardship.	GF01	19C. Promote environmentally sensitive and sustainable agricultural, gardening, and lawn/recreational field care practices	RE01, RE05, ME01, NR01, GMP05, GMP06, GNR2, GNR03, NR03
15H. Develop a comprehensive education program on behavioral practices that can lower environmental impacts.	ET01, ET02, EB01, EB02, EB03, ENR01, ENR02, ENR03, ENR04, ENR05, RM01, RM02	19D. Explore additional measures to reduce unnecessary noise and outdoor lighting.	RB07, RE02, RE06, RE07, RE09, GT05, GNR09
16A. Explore options to restrict the use of fossil fuels in new construction or major renovations using a Home Rule petition or other means.	GL02	20B. Explore strategies to promote housing diversity and allow development of “missing middle” housing in specified areas.	GBE07
16B. Establish and maintain accountability (with performance metrics) for municipal energy use and emissions.	MB01. MB02, GMP03		

APPENDIX 3: ROUTE TO SUSTAINABILITY DAY POSTER.

