

Vermont Climate Action Plan

PATHWAYS, STRATEGIES, ACTIONS SUMMARY



CUTTING CLIMATE POLLUTION

Transportation

PATHWAY	STRATEGY	ACTIONS
#1: Light Duty Electrification	<i>Market-driving technology forcing regulatory programs</i>	Adopt California's Advanced Clean Cars Regulations for Low and Zero Emission Vehicles including a 100% ZEV requirement by 2035.
	<i>Light duty electric vehicle purchase incentives</i>	Expand and redesign point of sale incentives for new and used EVs and E-bikes. Continue to fund and expand Replace Your Ride, Mileage Smart and micro-transit pilot programs.
	<i>Public investment in electric vehicle supply equipment</i>	Implement a new vehicle efficiency price adjustment with protections for low-income Vermonters and commercial users that require particular vehicles. Continue to fund and support the expansion of EV chargers. Prioritize multi-family and workplace charging. Direct the Public Utilities Commission to develop beneficial EV charging rates to incentivize adoption.
	<i>Join the Transportation and Climate Initiative Program (TCI-P)</i>	Join the TCI-P when regional market viability exists. Regulated entities will have to purchase and pay carbon allowances equal to the amount of fuel delivered.
	<i>Educate drivers on benefits of electrification and other transportation options to reduce vehicle miles travelled.</i>	Implement and enhance EV and high efficiency transportation options and include VMT reduction in driver education curriculum.
#2: Heavy Duty Electrification	<i>Market-driving technology forcing regulatory programs</i>	Adopt California's Advanced Clean Trucks Rule including a requirement for manufacturers to increase percentage of ZEVs.
	<i>Electricity Medium and Heavy-Duty Vehicle Auxiliary Systems</i>	Incentivize hybrid-electric bucket trucks, electric transportation refrigeration and installation of electrified parking spaces in truck loading/unloading zones.
	<i>Join the Transportation and Climate Initiative Program (TCI-P)</i>	See above.
#3: Reduction in Vehicle Miles Travelled (VMT)	<i>Increase state, regional and local capacity to plan for VMT and implement sustainable transportation strategies</i>	Require VTrans to create a <i>State Sustainable Transportation Plan</i> to assess the cost effectiveness of Smart Growth strategies that reduce emissions. Set state VMT targets and continue to fund and provide technical assistance to municipalities and Regional Planning Councils.
#4: Lower the Carbon Intensity of Fuels	<i>Join the Transportation and Climate Initiative Program (TCI-P)</i>	See above.



CUTTING CLIMATE POLLUTION

Building and Thermal Emission Reductions

PATHWAY	STRATEGY	ACTIONS
#1: Reduce Energy Use in Buildings 25% Plus	<i>Develop and implement a multi-year statewide Weatherization at Scale Initiative</i>	Adopt legislation or administrative recommendations with the goal of weatherizing 90,000 additional homes by 2030 and allocate funding to achieve it. Appoint a member of the administration to be responsible for coordinating executive agency weatherization workforce development efforts. Authorize implementation of a plan for coordinating and enhancing energy and financial coaching services for low and moderate income Vermonters who can benefit from the State's energy savings programs. Encourage electric and gas utilities to offer on-bill financing tariffs via legislation.
	<i>Institute a Rental Property Efficiency Standard</i> <i>Improve the Energy Performance of All New Buildings in Vermont</i>	Regularly update the statewide residential building energy code to achieve a Zero Energy Ready code by 2030. Develop and fund a state-level Energy Code Circuit Rider initiative to provide training and enforcement of energy codes.
#2: Reduce Building-Related Carbon Emissions by Reducing the Carbon Content of the Fuels They Use	<i>Implement a Clean Heat Standard</i>	Adopt legislation authorizing the PUC to administer a Clean Heat Standard.
	<i>Transition the Water Heater Market in Vermont to Ensure Availability of Lower Cost Models</i>	With neighboring states, require electric water heaters for sale that allow for efficient management of the grid.

Electricity

PATHWAY	STRATEGY	ACTIONS
#1: Further Decrease GHG Emissions from Electric Sector Purchases	<i>100% Carbon-Free or Renewable Energy</i>	Move the 75% Renewable Energy Standard to 100%.
#2: Enable All Vermonters to Choose Electrification	<i>Provide Financial and Technical Assistance to Upgrade to Electric Service and Equipment</i>	Coordinate service and building upgrades with weatherization, efficiency and equipment incentive programs.
#3: Load Management and Grid Optimization	<i>Support and Expand Existing Programs and Policies that Encourage Load Management and Grid Optimization</i>	Support direct utility load control programs. Encourage rate design that support electrification and generate customer savings.



CUTTING CLIMATE POLLUTION

Agriculture

PATHWAY	STRATEGY	ACTIONS
#1: Maintain and expand Vermont's natural and working lands' role in cutting and absorbing emissions	<i>Reduce Methane and Nitrous Oxide Emissions, Substitute Biological Products for Fossil Fuels or Energy-Intensive Products and Capture Carbon in Soils and Vegetation</i>	<p>Implement argonomic practices that reduce tillage and increase vegetative cover such as no-till and crop rotation.</p> <p>Expand the Capital Equipment Assistance Program to include climate change criteria.</p> <p>Implement grazing practices that increase vegetative cover and forage quality such as rotational grazing.</p> <p>Implement agroforestry and silvopasture practies that integrate woody vegetation in agricultural products.</p> <p>Implement edge-of-field practices that increase vegetation including riparian forest buffers.</p> <p>Implement natural resource practices that cut emissions and increase resilience including river cooridor easements, wetland restoration and afforestation practices.</p> <p>Implement Nutrient Management Amendmends (i.e. compost) on cropland and grazing land.</p> <p>Implement methane capture and energy generation on farmes such as anaerobic digesters and covers.</p> <p>Research and pilot improved manure management and storage programs.</p> <p>Develop a climate feed management program to reduce methane emissions.</p>

Other Nonenergy Pathways for Mitigation

PATHWAY	STRATEGY	ACTIONS
#1: Reduce Emissions from Refrigerants in Vermont	<i>Adopt a Refrigerant Management Program</i>	<p>ANR and VEIC coordinate to outline the scope and impacts of a RMP program requiring businesses to report on and repair systems.</p> <p>Require and provide cost sharing for the installation of permanent leak detection systems for large users.</p> <p>Provide incentives to move from high to low emission alternatives.</p>
#2: Reduce Process Emissions from Semiconductor Manufacturing	<i>Continue to Explore Efficiencies and Alternatives to High Emission Fluorinated Gases in Semiconductor Manufacturing</i>	Under ANR or PUC, implement technologies for the reduction of emission and subsititions in the gaes used.
#3: Reduce Emissions from Wastewater Treatment Facilities	<i>Ensure Flare are Operational at Existing Anaerobic Digesters at Wastewater Treatment Facilities</i>	Determine flare capacity at all 10 WWFTs in Vermont. Require evaluations to determine the costs of installing a new system for facilities with inadequate capacity.



RESILIENT WORKING AND NATURAL LANDS

PATHWAY	STRATEGY	ACTIONS
<p>#1: Sustain, restore, and enhance the health and function of Vermont's lands and water to help both natural and human communities adapt to climate change.</p>	<p><i>Increase technical assistance, capacity, education, and resources to support private and municipal farm and forestland owners, planners, and managers for climate change adaptation.</i></p>	<p>Enhance and support funding for technical assistance to farmers, landowners and municipalities.</p>
	<p><i>Promote funding for nature-based solutions and traditional ecological knowledge efforts and incorporate into state funding and planning efforts.</i></p>	<p>Increase funding to Regional Planning Commissions (RPCs) to hire and support natural resource staff.</p>
	<p><i>Manage natural and working lands for biodiversity, forest health, and climate resilience.</i></p>	<p>Develop & fund climate adaptation planning and training for all farmers and foresters.</p>
		<p>Align state technical assistance, funding and regulatory programs with nature-based solutions (NBS) and traditional ecological knowledge (TEK).</p>
		<p>Develop financing such as a revolving loan fund and loan guarantees to de-risk capital investment in and support for NBS and TEK projects.</p>
		<p>Elevate the role TEK plays in climate adaptation and resilience and incorporate TEK into state-led climate assessments, planning efforts and priorities.</p>
		<p>Incentivize NBS and TEK in state regulatory processes and funding programs.</p>
		<p>Include Indigenous people knowledgeable in TEK and Vermont's youth in state, regional and municipal resource management planning.</p>
		<p>Fund increased investment in healthy soils education and implementation of practices.</p>
		<p>Support the financial capacity of land managers to respond and adapt to natural hazard and climate impacts.</p>
		<p>Fund local academic institutions and applied research to evaluate best climate land management practices.</p>
		<p>Support research efforts to better understand climate change impacts to farms, wetlands, forests and ecosystem services.</p>
		<p>Incentivize and support invasive species control efforts where populations threaten ecosystem function.</p>
		<p>Set land management objectives to protect and improve forest health and biodiversity on state, municipal and private lands.</p>
	<p><i>Plan and regulate for climate resilience and adaptation.</i></p>	<p>Identify "climate resilience zones" with high resilience potential for the natural and built environments. Use to inform land use development and regulations.</p>
		<p>Fully fund Regional Planning Commissions to address climate change in regional and municipal plans.</p>
		<p>Direct the Legislature to authorize development and implementation of a Statewide Land Use Plan.</p>
		<p>If a State Land Use Plan is authorized, explore creation of a State Planning Office and/or other potential structures within the executive branch to implement it.</p>
		<p>Create a mechanism, position or body within the Executive Branch to coordinate action across state government with environmental justice expertise.</p>
	<p><i>Increase flood resilience of the natural and built environments.</i></p>	<p>Promote flood resilience and biodiversity by expanding wetland, floodplain, and/or river corridor easements that better compensate landowners/managers.</p>
		<p>Ensure opportunities for floodplain reconnection and nature-based solutions are considered a high priority in the Statewide Conservation & Buyout Program.</p>
	<p><i>Promote healthy, connected river corridors, floodplains, and wetlands.</i></p>	<p>Invest transportation funding in improving flood resilience and aquatic and terrestrial connectivity.</p>



RESILIENT WORKING AND NATURAL LANDS

PATHWAY	STRATEGY	ACTIONS
<p>#2: Support and empower Vermont's natural and working lands owners, managers, and caretakers to enhance farm and forest viability and to make informed decisions to increase resilience and adaptation to climate change.</p>	<p><i>Support and enhance local food markets for greater viability, mitigation, and resilience benefits</i></p> <p><i>Foster partnerships at all levels (state, federal, nonprofit, and private sector): essential to recognizing, capacitating, and building strategies for landowners to address climate change and enhance community resilience</i></p> <p><i>Expand funding for existing programs dedicated to farmland access, forestland ownership and conservation, and leverage this funding to increase land access through flexible and new ownership financing mechanisms, policies, and models:</i></p>	<p>Implementation of the priorities in the The Vermont Farm To Plate (F2P) strategic plan to reduce the risk to large food system disruptions while addressing the needs of lower income communities.</p> <p>Dedicate funds to support Vermont Natural Resources Conservation Districts and farmer watershed organizations to educate and help other farmers, foresters/foresters and landowners to implement climate resilient practices.</p> <p>Maintain the Ag & Ecosystems Subcommittee to cultivate and reinforce state, federal, nonprofit and private sector collaborations.</p> <p>Fund a research project to fully understand household food insecurity in Vermont and how to invest in its elimination.</p> <p>Identify funding to increase farmland access, forestland ownership and conservation. Assist with implementation of climate smart agricultural practices, crop insurance for diversified Vermont-scale farms and recovery from extreme weather.</p> <p>Promote business growth and diversification by assisting food, forest product and farm businesses with navigating municipal and state permits and regulations.</p>
<p>#3: Grow and connect local and sustainable natural and working lands' economies, markets, and food systems while ensuring and providing equitable access to said economies, markets and food systems for Vermont's people.</p>	<p><i>Develop, expand, and sustain local markets specifically for food, agricultural, and forest products in ways that ensure food sovereignty and security and provide for all Vermont's peoples.</i></p> <p><i>Promote workforce development in all working lands sector along all points of the supply chain</i></p> <p><i>Strengthen all aspects of working lands' supply chains and the associated infrastructure to support them</i></p>	<p>Fund the Working Lands Enterprise Initiative and businesses that have climate/low carbon goals.</p> <p>Develop a strategic plan for the forest economy, modeled on Farm-to-Plate but with greater incorporation of impacted stakeholders and equity.</p> <p>Develop supply chain substitutions which better support local products.</p> <p>Support research and development efforts, and expansion of new markets and opportunities for local wood products processing and manufacturing in Vermont.</p> <p>Develop alternative markets for low-grade wood, focusing on cellulose insulation, bioplastic composites or biofuels.</p> <p>Research the efficacy of food hubs as public infrastructure (e.g libraries and public infrastructure).</p> <p>Map Vermont's agricultural land base and production capacity including geographic data about predicted climate change impacts, aggregation and distribution infrastructure, and regional dietary needs.</p> <p>Provide additional support for critical programs that promote sustainability and climate action in agriculture.</p> <p>Develop and implement fair trade and equitable labor practices and just livelihoods for the natural and working lands sector.</p> <p>Better resource state programs to support landowners' personal and professional development.</p> <p>Make significant investment in storage, processing and distribution infrastructure to enhance product innovation and quality across food and forest products.</p>



RESILIENT WORKING AND NATURAL LANDS

PATHWAY	STRATEGY	ACTIONS
<p>#4: Shape land use and development that support carbon sequestration and storage, climate resilience and adaptation, and natural and human communities for a sustainable and equitable future.</p>	<p><i>Ensure equitable access to local foods, culturally relevant foods, land, funds, grants, and technical assistance for people who have been historically marginalized and come from impacted communities:</i></p>	<p>Promote product-specific value chain development through facilitation of producer, distributor and buyer matchups and supporting producer-driven aggregation, distribution and marketing.</p> <p>Uplift and resource the work of the Vermont Releaf Collective and other BIPOC led organizations.</p> <p>Improve funding opportunities and create equitable access for BIPOC organizations and businesses by developing multi-year, unrestricted grants and loan programs.</p> <p>Support Tribal and Indigenous communities in their development and utilization of traditional products, e.g. birch syrup, sumac spices, etc.</p>
	<p><i>Develop a Vermont food security and sovereignty plan, centered around a thriving food system, and inspired by community-based responses to food insecurity and disruptive events</i></p>	<p>Involve food insecure individuals and farmers in planning for affordable housing, health care, transportation, siting of retail grocery stores, food distribution.</p> <p>Work to adopt state and regional level policies, procedures, and plans to ensure that Vermont's food supply can withstand global or national supply chain disruptions.</p>
	<p><i>Promote and incentivize compact settlement and reduce forest fragmentation</i></p>	<p>Provide enhanced technical assistance and support to municipalities and regions and outreach and education for landowners and community members to develop and implement town plans that maintain forests and connect habitat.</p> <p>Update Act 250 to include criteria that better address climate change, forest fragmentation and forest loss and challenges to working lands enterprises and respond to future land use pressure from climate change and in-migration of climate refugees.</p> <p>Reduce development pressures on open spaces by amending Act 250 to incentivize compact, dense settlement in areas with adequate local land use laws and existing infrastructure.</p> <p>Promote development and incentivize housing in downtowns and village centers.</p> <p>Incentivize, prioritize and/or require compact developments including investments in water/wastewater infrastructure planning and siting.</p> <p>Develop required climate-based framework and/or criteria for state grant and regulatory programs.</p>
	<p><i>Include biodiversity and resilience goals in the planning and management of natural and working lands (both public and private)</i></p> <p><i>Invest in strategic conservation in order to increase the pace of permanent conservation towards 30x30 targets</i></p>	<p>Improve statewide forest planning efforts on State and Federal Lands.</p> <p>Support efforts to research, educate about, and implement practices informed by traditional ecological knowledge such as using fire to promote regeneration and coppicing, where appropriate for Vermont's forests and ecosystems.</p> <p>Adopt a state policy of no net-loss of natural and working lands accounting for the transitions of lands within and between these conditions, with aspiration for a net gain.</p> <p>Amend the Use Value Appraisal (UVA) program.</p> <p>Identify lands needing conservation because they are in or adjacent to the built environment that have large impact to human health, wellbeing, and equity.</p> <p>Revise the Flood Hazard Area & River Corridor (FHARC) rule to incorporate statewide jurisdiction and permitting authority for river corridors for all kinds of development.</p> <p>Expand use of the Water Infrastructure Sponsorship Program (WISPr) to improve accessibility and use for restoration projects.</p>



RESILIENT WORKING AND NATURAL LANDS

PATHWAY	STRATEGY	ACTIONS
	<p><i>(described in federal report “Conserving and Restoring America the Beautiful”), with Vermont Conservation Design acting as the guiding plan for prioritization of efforts.</i></p> <p><i>Increase technical assistance, capacity, education, and resources to support private farm and forest land owners in addressing the trends relating to intergenerational transfer.</i></p> <p><i>Avoid, minimize, and mitigate the negative impacts of renewable energy generation on natural and working lands.</i></p>	<p>Promote statewide landscape connectivity and forest blocks conservation planning through robust support of the Staying Connective Initiative and use of Vermont Conservation Design and TNC’s Resilient and Connected Landscape in state program prioritization frameworks.</p> <p>Through permanent conservation coupled with both active and passive restoration efforts on both public and private lands, allow approximately 9% of Vermont’s forest to become (or be maintained as) old forest, specifically targeting 15% of the matrix forest within the highest priority forest blocks identified in Vermont Conservation Design to achieve this condition.</p> <p>Create a statewide environmental justice policy.</p> <p>Per the formula in statute, fully fund the Vermont Housing & Conservation Board (VHCB); including \$3M for the Farm & Forest Viability Program and increase annual VHCB funding above the statutory amount by 15%, targeting those funds for implementation of conservation actions recommended in CAP, especially those related to forests.</p> <p>Identify and protect climate refugia.</p> <p>Use best available data and mapping to analyze existing portfolio of conserved agricultural lands to identify forest, wetland and natural community restoration opportunities and prioritize funding for these projects.</p> <p>Maintain a suite of Farmland Conservation & Protection tools ranging from voluntary, regulatory and planning (e.g. easements, Act 250, planning, zoning).</p> <p>Support forestland succession/estate planning efforts to reduce forest parcelization and fragmentation through implementation of the Act 171 'Intergenerational Transfer of Forestland Working Group Recommendations' of 2017.</p> <p>Develop and implement a farmer retirement program to facilitate the transfer of intact farmland.</p> <p>Evaluate the effectiveness of the program of Regional Enhanced Energy Plans.</p> <p>Incentivize or carefully consider mandating solar and wind capacity on new buildings as well as in previously-disturbed/developed areas and avoid and minimize forest clearing for renewables through incentives and other siting polices, rules, and regulations.</p> <p>Consider the need for incentives to site new renewable energy generation on parking lots, rooftops, and already altered locations.</p>



VITAL COMMUNITIES

PATHWAY	STRATEGY	ACTIONS
<p>#1: Increase capacity for climate resilience planning and implementation and address inequities of under-resourced communities.</p>	<p><i>Provide tools and resources to help communities assess climate vulnerabilities and create climate resiliency plans.</i></p> <p><i>Establish permanent statewide funding and technical support for local and regional resilience planning and project implementation.</i></p> <p><i>Expand cross-sector collaboration to align efforts, share best practices and leverage resources to advance resilience and preparedness efforts statewide.</i></p> <p><i>Increase community participation in local governance and support civic engagement and citizen involvement.</i></p>	<p>Develop a climate planning toolkit to help towns assess climate risks and identify and prioritize action to increase resilience.</p> <p>Increase funding to Regional Planning Commissions and local governments to support planning with a focus on towns with limited staff and marginalized populations.</p> <p>Create and fund a staff position at every RPC to help implement climate policies and natural resource requirements.</p> <p>Establish a permanent state fund for design and implementation of local and regional climate adaptation and resilience projects.</p> <p>Provide flood and erosion risk technical assistance to local governments to assess drinking and wastewater systems and identify solutions.</p> <p>Set up a statewide individual assistance program to provide funding for under or uninsured households impacted by disasters not federally declared.</p> <p>Identify and develop new programs to address climate impacts and in particular those that harm Vermont industries.</p> <p>Complete a statewide climate change impact assessment for Vermont's commercial sector and natural resource based industries.</p> <p>Require remote meeting options including a call-in number for all public meetings.</p>
<p>#2: Proactively and strategically invest to enhance resilience in transportation, communications, water/wastewater and energy infrastructure statewide.</p>	<p><i>Create a policy, planning and organizational foundation to support effective investments in infrastructure resilience.</i></p>	<p>Develop a vulnerability index tool for identifying areas for investment for all infrastructure sectors.</p> <p>Seek federal stimulus (ARPA) infrastructure bill and other non-ratepayer funding to offset costs of electric utility upgrades.</p> <p>Completing the flood vulnerability assessment of all bridges, culverts and road segments on state and town highways systems and rail infrastructure. Incorporate emission reduction goals into VTrans planning.</p> <p>Increase funding for floodplain restoration and buyouts and for municipalities to improve wastewater systems. Assess the climate impacts of wastewater facility by-products and increase funding for pollution prevention.</p> <p>Invest and support communities with water supply planning with a focus on those with vulnerable long term supplies.</p> <p>Continue to invest in traditional and green infrastructure to intercept, sink and treat stormwater.</p> <p>Encourage the adoption of low impact development regulations for municipal zoning.</p>



VITAL COMMUNITIES

PATHWAY	STRATEGY	ACTIONS
	<p><i>Support public, private and nonprofit entities to prepare to respond and recover quickly to extreme weather and other climate disruptions.</i></p> <p><i>Reduce vulnerabilities to critical infrastructure facilities.</i></p> <p><i>Improve critical infrastructure system efficiency, reliability and redundancies.</i></p>	<p>Integrate planning and preparedness across disciplines and geographies addressing the interdependencies of transportation, energy, communication and other systems.</p> <p>Identify mission critical facilities with local and regional planner, utilities and transportation providers to identify actions and investments to reduce threats from extreme weather.</p> <p>Replace aging electric and communication infrastructure with resilient, cost effective alternatives.</p> <p>Create a transportation flood resilience program and funding to meet transportation action goals.</p> <p>Expand public investments in flood-proofing or relocating drinking water and wastewater treatment infrastructure. Improve road drainage and develop programs to cut emissions from these systems.</p> <p>Evaluate the risks and opportunities related to climate change in-migration to critical systems.</p> <p>Update the Vermont State Highway Design Standard to support smart growth.</p> <p>Increase funding for walking, biking and transit, support planning for regional bike coordinators.</p>
<p>#3: Support the reduction of municipal, school district, residential, university and hospital fossil fuel use in rural areas through equitable best practices.</p>	<p><i>Provide tools and resources to help assess data needs and establish best practices to reduce fuel use.</i></p> <p><i>Equitably expand access to weatherization, electrification and utility upgrades.</i></p>	<p>Require the collection of accessible fossil fuel use data from municipal building, vehicle fleets and utilities.</p> <p>Ensure broad and statewide public education and promotion of the benefits of fossil fuel reduction.</p> <p>Evaluate existing state programs for effectiveness, access and equity and increase funding for weatherization, electrification and energy efficiency including programs for zero up front costs.</p> <p>Explore a Commercial Property Assessment Clean Energy program for municipalities and programs such as bonding to support funding for public serving institutions for retrofits.</p> <p>The Public Service Department should ensure all utilities encourage fossil fuel reduction, electrification and energy savings.</p> <p>Increase low-income access to weatherization through the State Weatherization Assistance Program including technical assistance to help households and landlords manage the process.</p> <p>Expand workforce development programs, cover costs for businesses to train in-house auditors/technicians. Pilot new programs in rural areas where workforce needed is greater.</p> <p>Revise state building energy codes and standards to require a minimum 200 Amp service for new construction as electrification expands.</p> <p>Provide funding to assist low-income homeowners to upgrade electric service to 200 Amps.</p> <p>Implement a statewide program to support electrification of municipal fleet vehicles ensuring it is designed to allow equitable access and participation to municipalities regardless of tax base.</p>



VITAL COMMUNITIES

PATHWAY	STRATEGY	ACTIONS
<p>#4: Change Vermont's land-use policies so current and future land development will be adaptive and resilient to climate change impacts.</p>	<p><i>Increase investment in the infrastructure (sewer, water, stormwater, sidewalks, bike lanes, EV charging, broadband, energy supply) needed to support communities that are more resilient to climate disruptions, equitable, resource efficient, and protects the adaptive capacity of natural resources.</i></p> <p><i>Develop permanent private and public funding sources to flood-proof, elevate and purchase commercial and residential properties, as well as conserve and restore ecosystem services upstream to protect our people, property, environment, and economy from flooding.</i></p>	<p>Support water and wastewater systems in conducting and implementing energy audits and recommendations for energy reduction and electrification.</p> <p>Develop cost-effective programs to support renewable energy development on school and other municipal property, and evaluate and eliminate unnecessary statutory barriers related to capital financing and land purchase/lease.</p> <p>Help individuals, municipalities, and businesses through the process of weatherization, energy efficiency and fuel switching upgrades by establishing and funding Weatherization and Efficiency Navigators.</p> <p>Review and expand existing programs to support landlords in weatherizing rental properties.</p> <p>Monitor and update stormwater permitting process as needed to ensure green infrastructure is preferred in design considerations.</p> <p>Increase investment in stormwater and green infrastructure, including separating combined wastewater and storm water systems, to protect public health and water quality.</p> <p>Complete a Climate Readiness assessment of drinking water, stormwater, and wastewater infrastructure.</p> <p>Complete a Climate Readiness assessments of drinking water, stormwater, and wastewater infrastructure.</p> <p>Invest in enhancing water sources in vulnerable communities to enhance resilience to long-term drought.</p> <p>Increase investment to municipalities for new and expanded water and wastewater facilities to support reductions in inflow and infiltration into wastewater collection systems.</p> <p>Establish a dedicated, comprehensive state level program with funding to purchase or match funding for hazard-prone properties and easements to conserve river corridors, floodplains, forests, and wetlands to reduce flood risk.</p> <p>Expand the eligibility criteria and increase funding for VHCB's conservation and buyout program to address any flood-vulnerable structures.</p> <p>Expand the eligibility criteria and increase funding for VHCB's conservation and buyout program, to address any flood-vulnerable structures.</p>



VITAL COMMUNITIES

PATHWAY	STRATEGY	ACTIONS
<p>#5: Ensure that all people have access to safe, accessible, energy efficient, and affordable housing</p>	<p><i>Update state and local land-use governance, regulations, practices, and investments to eliminate barriers to housing development</i></p>	<p>Increase manufactured housing tax credits to replace older and inefficient manufactured homes.</p> <p>Expand the existing program to relocate mobile home park homes and residents outside of flood vulnerable locations.</p> <p>Create a rental registry and inspection program to locate all of Vermont's rental housing and improve their quality and safety.</p> <p>Train a network of local builders in the design and construction of small and mid-sized and accessory dwelling units, invest in development-ready infrastructure, build development partnerships and update zoning bylaws.</p> <p>Convene a statewide conversation on the Vermont Municipal and Regional Planning and Development Act's provisions on land use and housing to expand housing choice and improve community resilience.</p>
	<p><i>Increase investments in the preservation and development of both private-market and nonprofit-owned affordable housing.</i></p> <p><i>Increase access to fair and affordable housing for Vermonters who are housing instable.</i></p>	<p>Continue to fund housing investments that leverage private initiative and funding to cost-effectively create housing units under models.</p> <p>Create programs to assist prospective homebuyers to purchase and make improvements to homes that are energy inefficient and otherwise in need of immediate investment.</p> <p>Increase support for mission-driven, non-profit housing developers to produce high-quality and energy and location efficient housing.</p> <p>Implement the recommendations of the Analysis of Impediments to Fair Housing.</p> <p>Increase funding for community-based homelessness prevention and rapid re-housing.</p>



CAPTURING CARBON

PATHWAY	STRATEGY	ACTIONS
<p>#1 Maintain and expand Vermont's natural and working lands' role in the mitigation of climate change through human interventions to reduce the sources and enhance the sinks of greenhouse gases.</p>	<p><i>Leverage, expand, and adapt existing State of Vermont programs that support the agricultural sector's mitigation of climate change</i></p> <p><i>Create a system for tracking and accounting metrics and indicators for natural and working lands.</i></p> <p><i>Implement a Payment for Ecosystem Services (PES) program for natural and working lands.</i></p> <p><i>Address upstream waste and downstream emissions from food waste and synthetic fossil-fuel based inputs.</i></p>	<p>Conserving existing carbon pools in soils or vegetation, or by reducing emissions of methane and nitrous oxide.</p> <p>Increasing the size of existing carbon pools, and thereby extracting carbon dioxide from the atmosphere.</p> <p>Substituting biological products for fossil fuels or energy-intensive products.</p> <p>Develop a methodology and protocol for quantifying climate mitigation, resilience, and adaptation impacts of existing state and federal water quality implementation programs.</p> <p>Developing and issuing a Request for Proposals that will review and analyze methodological gaps of emission inventory tools.</p> <p>Amend the GHG emissions inventory protocol to include net GHG emission accounting for the agriculture, forestry and other land use sector.</p> <p>Develop and implement a PES program for healthy soils and soil carbon sequestration on farms.</p> <p>Develop and implement a PES program for forestland owners including water filtration/cycling and carbon sequestration.</p> <p>Incentivize management for ecosystem services through a tax credit system that compensates landowners/managers for maintaining or restoring ecosystem services.</p> <p>Develop program for tracking and limiting the use of chemicals, substances, or products that contribute to climate change.</p> <p>Identify simple, low and no-cost mechanisms to increase organics diversion and provide incentives and business and workforce development to private organics haulers, composters and farms.</p> <p>Increase funding to tree planting via Renewable Energy Standard (RES).</p> <p>Increase support, funding and education for urban tree planting efforts to increase access to natural spaces and improve carbon sequestration/storage.</p>



CAPTURING CARBON

PATHWAY	STRATEGY	ACTIONS
<p>#2 Energy & Materials: Support and empower Vermont’s farmers, foresters, and land workers to capacitate renewable energy and building product transitions</p>	<p><i>Educate, track, and appropriately reward on-farm renewable energy:</i></p> <p><i>Promote and incentivize use of local wood and agricultural products to reduce embodied carbon footprint.</i></p> <p><i>Transition fuel sources for the forestry and maple sector.</i></p> <p><i>Sustainably source renewable energy products and materials.</i></p> <p><i>Address biomass for thermal heat regarding climate mitigation, co-benefits and its impacts</i></p>	<p>Reward and support renewables on farm rooftops to minimize loss of working and natural lands to renewables development.</p> <p>Increase outreach and incentives to on-farm solar installation on existing built infrastructure.</p> <p>Promote and incentivize use of agricultural and sustainably harvested wood -based construction materials.</p> <p>Require that publicly funded building projects use chain of custody certified wood products that have been harvested under sustainable procurement standards.</p> <p>Develop a regional certification standard for forestry to validate carbon storage values for forest building products.</p> <p>Develop alternative markets for non-timber wood, focusing on cellulose insulation, bioplastic composites or biofuels.</p> <p>Provide funding to incentivize sugar makers to switch evaporators from fossil fuels to wood pellets and incentivize elimination of diesel generators for sap vacuum pumps.</p> <p>Incentivize alternative fuels such as biofuels or offsets for logging equipment.</p> <p>Fund competitive research to track and innovate on the sustainability and ethical implications of renewable energy materials and products.</p> <p>Prohibit the expansion of current and any new large-scale, industrial scale electric generation biomass facilities in the State of Vermont.</p> <p>Research the carbon accounting of various methods of and practices for harvesting and burning woody biomass for heat to develop recommendations for the most climate beneficial sources, methods and technologies.</p> <p>Ensure oversight, regulation and management of biomass facilities and their fuel sources to reduce emissions.</p> <p>Regulate, including preventing, if necessary, flow of wood pellets or similar commercial scale wood-derived energy products.</p>



CROSS-CUTTING SOLUTIONS

PATHWAY	STRATEGY	ACTIONS
<p>#1 Support compact settlement patterns that contribute to the reduction of GHG emissions, enhance community and built environment resilience, and help conserve natural and working lands.</p>	<p><i>Increase investment in the infrastructure (sewer, water, stormwater, mixed-use development, housing, sidewalks, bike lanes, EV charging, broadband, energy supply) needed to support compact, walkable development.</i></p>	<p>Increase investment in municipalities to improve, expand and build new drinking water and wastewater infrastructure to support compact development.</p> <p>Make village centers permanently eligible for the downtown transportation fund that builds infrastructure needed to increase walking, biking and transit.</p> <p>Increase weatherization and energy efficiency investments in buildings located in energy cost-burdened communities and where there are concentrations of older buildings, rental properties and low and moderate incomes.</p> <p>Expand the existing downtown and village tax credit program eligibility to offset the cost to elevate or flood proof existing buildings located in areas with increased flood risks.</p> <p>Support public private partnerships to fund the design and construction of new infill housing in existing neighborhoods.</p> <p>Expand the eligibility of the existing downtown and village center tax credit programs to revitalize neighborhood housing in and around state designated centers.</p> <p>Increase Municipal Planning Grant (MPG) funds to support physical planning and design, zoning modernization and bylaw adoption that creates housing growth opportunities and more housing choices.</p> <p>Establish a rolling planning grant for communities in need of consulting assistance to prepare Neighborhood Development Area (NDAs) applications.</p> <p>Hire a consultant to review and assess the state designation programs that recognize and support Vermont’s compact settlement areas.</p> <p>Create a multi-stakeholder committee process with funding to support the development of a statewide land use planning policy and implementation plan.</p> <p>Explore creation of a State Planning Office and/or other potential structures within the executive branch to implement the Plan at the state level.</p> <p>Authorize development and implementation of a Statewide Land Use Plan.</p> <p>Prioritize public funding for mixed-use developments near transit hubs in regional and rural centers.</p> <p>Provide enhanced technical assistance and support to municipalities and regions.</p> <p>Promote compact settlement.</p> <p>Amend Neighborhood Development Area (NDA) enabling statute to allow the inclusion of river corridors upon local adoption of River Corridor bylaws.</p> <p>Create an office of Strategic Investment and Coordination that supports achievement of land use planning goals.</p> <p>Align development regulations and remove financial barriers to compact development in and around downtowns and village centers.</p>
	<p><i>Fund research, data collection and digital maps to provide insights on land use decisions in Vermont and the impact it can have on climate and resilience goals and outcomes.</i></p>	<p>Pilot a land value taxation study in five communities to evaluate grand list shifts and incentivize compact development.</p> <p>Fund a study that quantifies the vehicle miles traveled and GHGs for both compact and dispersed areas of development as well as the co-benefits of compact centers.</p>

