

Appendix 13

Pathway, Strategy, and Action Matrices

Appendix 13 contains the pathways, strategies, and actions discussed in the Rural Resilience and Adaptation subcommittee during the development of the Initial Climate Action Plan (CAP). Actions were prioritized using the framework outlined in Appendix 5. Appendix 13 includes all the recommendations subcommittees discussed, regardless of whether they were included in the narrative of the Climate Action Plan.

All actions listed in the matrices not included in the final CAP narrative were discussed and important to be listed by the subcommittees but may not have full consent of all members of the Subcommittee. Specifically, actions that were not prioritized for inclusion in the CAP may or not enjoy consensus approval but were not advanced at this time due to the parameters imposed by the prioritization framework. See Appendix 5 for more details on the prioritization framework.

Adaptation and Building Resilience in Communities and the Built Environment Pathways, Strategies, and Actions

Pathway 1: Increase capacity for climate resilience planning and implementation, and address inequities of under-resourced communities.			
ID	Strategy + Action	Overall Priority Ranking	Included in CAP
Provide tools and resources to help communities assess climate vulnerabilities and create climate resilience plans.			
a	Develop a climate planning toolkit to help towns assess vulnerabilities to climate change impacts, such as heat, air quality, drought, flooding, high winds, heavy rain, hail and sleet, and identify and prioritize actions to increase their resilience to climate change. Include newly developed tools, such as the vulnerability index, and existing tools, such as the AOT Repeat Flood Damage Inventory Tool, and the NOAA Climate Resilience Toolkit.	High	x
b	Create a tool kit and provide technical assistance and training to promote local regulatory and non-regulatory options that protect and restore flood plains, flood ways, and river corridors.	Medium	
c	Expand ongoing efforts to collect and share strategies and best practices in local resilience and adaption	Medium	
d	Establish training and mandatory continuing education requirements for chairs and members of planning commissions, development review boards, zoning and floodplain administrators, and others involved in the planning and zoning process.	Low	
e	Expand existing programs that prepare homes and buildings for hot weather and days with poor air quality by installing air conditioning or heat pumps	Low	
f	Develop a mechanism for tracking new structural development in the river corridor so development patterns can be tracked over time.	Medium	
Establish permanent statewide funding and technical support for local and regional climate resilience planning and project implementation to enhance rural resilience to impacts of climate change.			
a	Increase funding to Regional Planning Commissions and local municipalities to support climate and energy planning and target funds to support towns with limited staff and marginalized populations that score high on the climate vulnerability index.	High	x
b	Create and fund one natural resource staff position at every Regional Planning Commissions to assist with implementation of climate policies and natural resources requirements such as Act 171 (forestry and habitat blocks). Use the Transportation Planning Initiative as a model to fund RPC natural resource staff and support trainings with ANR and other partners.	High	x
c	Increase and create a permanent state fund for design and implementation of local and regional climate adaptation and resilience projects.	High	x
d	Provide technical assistance to municipalities to assess the flood and erosion risks facing their drinking water and wastewater systems and identify potential mitigation improvements.	High	x
e	Establish a state level individual assistance program to provide financial assistance to uninsured or underinsured households impacted by disasters not federally declared. Program should incorporate Community Action Agencies and supporting networks to ensure assistance is received expeditiously by those that need it most.	Low	x
f	Target vulnerable municipalities to provide technical assistance to achieve ERAF compliance to lower overall financial exposure to declared disasters in the future.	Medium	
Expand cross-sector collaboration to align efforts, share best practices, and leverage resources to advance resilience and preparedness efforts statewide.			
a	Identify and develop new programs to address the full range of climate impacts, especially those that impact important Vermont industries, including drought, less or irregular snowfall, and shorter or irregular sugaring season.	High	x
b	Complete a Statewide climate change impact assessment for Vermont's commercial sector and natural resource based industries including but not limited to the ski, sugaring, and logging industries.	High	x
c	Compile a composite map of existing town zoning statewide	Medium	
Increase community participation in local governance and support civic engagement and citizen involvement.			
a	Require remote meeting options, including a call-in option for all meetings of public bodies; allow fully virtual meetings of public bodies with guidelines similar to the State of Emergencies; evaluate options for online collaboration in preparation for a meeting that can be done with transparency.	High	x
b	Share best practices and ideas to support activities that increase citizen awareness of climate resilience and build community cohesion.		
<i>The recommendation below was moved to the workforce section under Cross-Cutting Pathways section of the CAP</i>			
Cross-Cutting Pathways: Workforce			
Support workforce development in trades and skills that are needed to implement the Climate Action Plan.			
	Provide workforce training and development to create an apprentice program to create more homegrown, rural builders with expertise in resilient and energy efficient building practices.	High	x

Pathway 2: Proactively and strategically invest to enhance resilience in transportation, communications, water/wastewater, and energy infrastructure statewide.

ID	Strategy + Action	Overall Priority Ranking	Included in CAP
Create a policy, planning and organizational foundation to support effective investments in infrastructure resilience.			
a	Develop a vulnerability index methodology and tool for broad use by stakeholders to identify priority areas for investment. The index will account for the vulnerability communication, energy, transportation, and water infrastructure in addition to socioeconomic and equity factors that affect community resilience.	High	x
b	Update or adopt as appropriate infrastructure planning and design standards to reflect impacts from a changing climate, such as more frequent extreme weather as well as an increasing range of high and low temperatures, freeze/thaw cycles, and mixed precipitation (harden, incorporate redundancies, maximize life span, reduce annual maintenance and operational costs. etc.)	High	x
c	Seek federal stimulus (ARPA), infrastructure bill, and other non-ratepayer funding to defray costs of utility resilience upgrades that exceed benefits to ratepayers, such as: <ul style="list-style-type: none"> Ubiquitous communications networks that enable full utilization and participation of distributed energy resources in an interactive grid. Resilience Zones: batteries installed at or near critical facilities, potentially paired with solar (and/or small wind) and with a microgrid /islanding where possible, to allow them to continue to operate in the event of extended disruptions to electric service. Strategic upgrades to substations, distribution, and transmission capacity across the Vermont grid needed to enable the state’s renewable and electrification goals, after first exploring feasibility of any lower-cost options, e.g. flexible load management, curtailment, and storage. Emerging non-wires technologies that address major challenges system resilience (e.g. long-duration outages). 	High	x
d	Create a framework for identifying and evaluating climate resilience threats and impacts to energy systems serving rural communities.	High	x
e	Complete the flood vulnerability assessment of all bridges, culverts and road segments on the state and town highway systems, identify and prioritize needed investments. This action includes completing the statewide expansion of the Transportation Resilience Planning Tool.	High	x
f	Complete a flood vulnerability assessment of state-owned rail infrastructure to identify and prioritize needed improvements.	High	x
g	Incorporate GHG reduction goals and CAP strategies, and actions related to resilience in the VTTrans transportation planning and project development process.	High	x
h	Increase funding for floodplain restoration, including buy-out programs.	High	x
i	Increase investment to municipalities to support reductions in inflow and infiltration into wastewater collection systems.	High	x
j	Examine the climate impacts of sludge and biosolids to determine if regional facilities can reduce utility costs and climate impacts. Support investment in strategically placed facilities for sludge and septage processing (much is currently trucked to Montpelier/Chittenden Co.)	High	x
k	Increase efforts and funding towards pollution prevention programs at wastewater facilities to ensure that facilities protect available treatment capacity, which can focus development on already-served designated centers.	High	x
l	Understand source water vulnerabilities and invest in planning efforts to assist communities, especially those that are vulnerable for their long-term water supply needs. Revamp funding programs for source protection programs, increase funding for programs (include existing and new water sources) and conservation easements.	High	x
m	Increase the number of public water systems and publicly owned wastewater treatment works implementing an asset management program. Expanding programs, funding opportunities, and incentives to develop and implement these programs.	High	x
n	Continue investments in traditional and green infrastructure to intercept, sink and treat stormwater.	High	x
o	Encourage adoption of low impact development regulations for municipal zoning, including low water usage landscaping practices and increased density outside of flood prone areas.	High	x
p	Update or adopt as appropriate infrastructure design standards to reflect impacts from a changing climate, such as more frequent extreme weather as well as an increasing range of high and low temperatures, freeze/thaw cycles, and mixed precipitation (harden, incorporate redundancies, maximize life span, reduce annual maintenance and operational costs. etc.)	High	
q	Develop a comprehensive framework for defining, evaluating, and measuring energy and communications resilience solutions.	High	
r	Refine municipal electric/communications vulnerability index methodology and develop tool for broad use by stakeholders to identify priority areas for investment - This includes prioritization of locations where communications are served by solely by digital voice service (fiber, coax cable, Voip), which require electrical power at the home, that also lack cell coverage/copper wire landlines, to the extent that this information can be identified (in other words, where communications are entirely dependent on electricity)	High	
s	Identify modifications to policies and programs (eg net metering with storage) that could enhance resilience, while also seeking to align benefits/beneficiaries with costs/cost causers	Medium	
t	Review state and local permitting and inspection processes and standards (eg the interconnection rule) to encourage greater deployment of distributed energy resources that enhance resilience	Medium	
u	Expand program opportunities to establish conservation and buy-outs of flood-vulnerable properties and structures to improve natural river function and reduce repetitive loss	Medium	

v	Create best management practices that would allow consistent and coordinated permit acquisition for highway, electric distribution, and communication infrastructure resilience projects that fall under Act 250 or local planning commissions, that meet specific allowed criteria.	Medium	
w	Complete a Climate Readiness assessments of drinking water, stormwater, and wastewater infrastructure. (This is an EPA tool that looks at all climate impacts including, fires, droughts, flooding, etc.)	Medium	
x	Update Guidance Documents, Design Standards, and Rules for all water utilities to be compliant with the new EO on Flood Readiness, including going back to the Obama EO on Floodplains, including improvements to requirements for redundancy and resiliency	High	
y	Support systems in conducting and implementing energy audits of water/waste water facilities and recommendations for energy reduction	Low	
z	Examine regionalization efforts and sharing of water and waste water resources	Low	
ai	Establish Water Reuse Policies including water recycling/reclamation for non-potable uses	Low	
bi	New requirements relating to water conservation practices (e.g. water metering requirements for public water systems, high efficiency fixtures/appliances). Enhance public outreach and education on water conservation, including use of highly efficient fixtures	Medium	
ci	Increase funding and funding accessibility for private wells that run dry	Medium	
di	Get funding to create tools to help homeowners and design professionals greater understand liabilities associated with stormwater infiltration in areas of contaminated groundwater and soils.	Medium	
ei	Provide on-going state financial support fo the implementation of the 3-Acre Stormwater PermitConversion projects	High	
Public, private, and nonprofit entities should be prepared to respond and recover quickly to disruptions caused by severe weather and other			
a	Strategically integrate planning and preparedness across disciplines and geographies addressing the interdependencies of transportation, energy, communications, and other systems.	High	x
b	Expand the participation of joint preparedness exercises simulating loss of energy, communications, transportation and other critical infrastructure	Low	
c	Use increased incentives, technical assistance, and training to encourage adoption of Town Highway Road and Bridge Standards by all municipalities and evaluate the benefits of making adoption a pre-requisite for transportation grant programs.	Low	
Increase the resilience of critical infrastructure to severe weather and other climate change threats by reducing vulnerabilities of specific			
a	Identify mission critical facilities in collaboration with local and regional planners, utilities and transportation providers to identify actions, procedures, or investments to mitigate the impact of extreme weather events to services provided by these facilities. Examples of mission-critical facilities include designated emergency shelters, first responder facilities, hospitals and other medical facilities, key infrastructure such as water/wastewater pumping and treatment and sewer, key communications infrastructure such as fiber nodes, government offices, fuel suppliers, transportation hubs, supermarkets and other facilities municipalities identify as critical to serving communities during extreme weather events.	High	x
b	Replace aging electric and communication infrastructure with the most appropriate resilient alternative when cost effective. For example, during normal replacement schedules for aging and unreliable lines, evaluate and where cost effective and feasible, improve resilience by relocating lines underground or through other options.	High	x
c	Create a transportation flood resilience funding program to meet the requirements and related funding that are anticipated to be part of the 2021 reauthorization of the federal transportation act.	High	x
d	Expand public investment, particularly hazard mitigation funding to flood-proof or relocate drinking water and wastewater treatment infrastructure at significant risk of flooding, when flood damaged, or during end-of-life refurbishment.		x
e	Work with Vermont villages and property owners to relocate septic systems and public or private drinking water wells that are at risk due to floods.		x
f	Develop programs to achieve net zero energy drinking water and wastewater treatment facilities Including microhydro, solar energy, heat exchange, building envelope; AND operational and technological efficiencies.		x
g	Improve road drainage around lakes / ponds to reduce stormwater runoff and erosion, especially on municipal roads.	High	x
h	Develop the methods and a framework for evaluating climate related risks, life cycle costs, and environmental justice when designing, locating, and permitting new infrastructure.	Low	
i	Develop supporting policies and plans to locate utilities within transportation ROW corridors that are resilient to extreme weather and other climate change threats.	Medium	
j	Develop a process to coordinate the timing of transportation, water/waste water, electrical and communication infrastructure projects so resilience improvements can be cost effectively implemented with the least amount of disruption.	Low	
k	Consider the strategic abandonment or removal of vulnerable, non-critical transportation infrastructure.	Low	
m	Find ways to limit discharge of wastewater in water bodies during heavy precipitation events	Medium	
n	Support continued conversion of old combined sewer systems into newer systems that handle high-precipitation events without CSOs	Medium	
o	Eliminate septic leakage from shoreline development	Low	
Increase the resilience of critical infrastructure to severe weather and other climate change threats by improving system efficiency, reliability			
a	Evaluate the risks and opportunities created by potential climate change in-migration to VT's critical infrastructure.	High	x
b	Expand broadband to support remote work and tele-services to reduce the impact of travel disruptions.	High	x
c	Deploy foundational informational and operational technology statewide to enable and optimize storage and other distributed energy resources (e.g., GridLogic, Virtual Peaker, other emerging distributed energy resource management systems, in particular those that are open-source to various technologies and vendors)	High	x
d	Update the 1995 Vermont State Highway Design Standards to create context sensitive, multi-modal projects that support smart growth per the Act 167 (2014) Sec 26 Report - VT State Standards Work Plan.	High	x
e	Increase infrastructure investment needed to for walking, biking and transit; support planning for regional bike corridors to improve safety and transportation options between community centers. Identify and eliminate barriers to development, including inequities resulting from match, maintenance, and other requirements.	High	x

f	Provide flexibility as infrastructure and services are designed and implemented to accommodate future transformations.	Medium	
g	Update interconnection standards to: Enable full smart inverter functionality and distributed energy resource interoperability to maximize benefits and use cases (including islanding) and minimize risks (such as cascading trips) from integration of high penetrations of DERs; and maximize storage contribution and use cases while maintaining system stability and reliability.	Medium	

Pathway 3: Support the reduction of municipal, school district, residential, university, and hospital fossil fuel use in rural areas through equitable best practices that address the unique challenges of rural communities.

ID	Strategy + Action	Overall Priority Ranking	Included in CAP
Provide tools and resources to help assess data needs and establish best practices for rural communities, businesses, and institutions to reduce fossil fuel use.			
a	Require the collection of fossil fuel usage data for municipal operations for buildings, vehicle fleets, and utilities; identify data gaps and ways to collect that data for measuring change in fossil fuel use going forward.	High	x
b	Ensure data on fossil fuel usage at the municipal level is available and accessible in one location for municipal and public use.	High	x
c	Engage higher education institutions to actively participate in developing systems to gather, compile, update, extrapolate fossil fuel data and make that available to the public.	High	x
d	Identify, develop, and share best practices for reducing municipal, school district, residential, commercial, and industrial fossil fuel consumption. Identify and assess existing practices and note gaps.	Medium	x
e	Get number of customers on an annual basis from fossil fuel dealers.	Low	
Equitably expand access to programs that provide options to rural homeowners, landlords, municipalities, school districts, universities, and hospitals for weatherization, electrification, and utility upgrades.			
a	Ensure that there is broad and statewide public education and promotion of benefits, economic and otherwise, and opportunities for fossil fuel reduction.	High	x
b	Evaluate all existing state-funded programs for effectiveness, access, and equity and consider increased funding for weatherization, energy efficiency and electrification programs in order to expand access to all Vermonters, and to expand programs with zero up-front costs. Existing programs may include Efficiency Vermont rebates, HEAT Squad - NeighborWorks of Western Vermont home energy audit program, and the Shared Equity program . In addition, the private sector should be engaged to provide innovative third-party financing opportunities that are paid for over time by the customer	High	x
c	Explore Commercial PACE (Property Assessment Clean Energy) program for municipalities and other programs to elevate, such as bonding to support a statewide Tariffed On-Bill Finance Pilot and funding for a revolving loan fund for Public-Serving Institutions with retrofits. There may also be a need to continue providing the funding to support interest rate buydown (IRB) in EVT's Home Energy Loan and Business Energy Loan programs.	High	x
d	Create new educational programs to increase public outreach for existing energy efficiency, electrification, and utility upgrade programs.	High	x
e	The Public Service Department should ensure that all utilities provide similar opportunities for all customers (rebates, incentives) to encourage fossil fuel reduction, electrification, and energy savings.	High	x
f	Increase low-income weatherization through the State Weatherization Assistance Program including technical assistance to help households and landlords manage the process.	High	x
g	Entities that provide rebates for weatherization should stabilize rebate values year to year.	High	x
h	Expand workforce development programs such as the VT Training Program or the Department of Labor's Workforce Education & Training Fund; cover costs for businesses to train in-house auditors/technicians. Pilot new programs in rural areas where workforce needed is greater.	High	x
i	Revise state building energy codes and standards to require a minimum 200 Amp service for new construction as electrification expands.	High	x
j	Provide funding to assist low-income homeowners to upgrade electric service to 200 Amps. Electric utilities and renewable energy developers could provide new incentives and financing options through third-party financing mechanisms, on bill financing, RES Tier III incentives , third-party power purchase agreements, and grants. All programs must include equal access to renters.	High	x
k	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.	High	x
l	Support water and wastewater systems in conducting and implementing energy audits and recommendations for energy reduction and electrification.	High	x
m	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.	High	x
n	Help individuals, municipalities, and businesses through the process of weatherization, energy efficiency and fuel switching upgrades by establishing and funding Weatherization and Efficiency Navigators at each Regional Planning Commission (RPC), expanding the services currently available at CAP agencies and VEIC, and ensuring coordination and a whole systems approach among the entities providing services.	High	x
o	Review and expand existing programs to support landlords in weatherizing rental properties, including St. Johnsbury Rental Housing Improvement Program, and other programs in counties and towns.	High	x
p	Develop a statewide program that supports on-bill financing for energy efficiency upgrades, including for buildings using unregulated utilities such as heating fuel and propane.	Low	
q	Accelerate the adoption of Advanced Wood Heat (AWH) to replace high GHG emitting systems.	Low	
r	Develop a program for employers to help upgrade substandard homes to attract the workforce needed to help ensure that companies stay in VT.	Low	
s	Identify funding source, such as bonding, to support a Tariffed On-Bill Finance Pilot available to all electric utility customers statewide.	Low	
t	Provide funding for a revolving loan fund dedicated to serving public-serving institutions in the state with small, complex, or costly to finance energy efficiency retrofits and renewable energy projects such as advanced wood heat systems	Low	
u	Require that properties reconstructed after disasters are fitted with state-of-the-art energy efficiency and clean energy equipment and ensure funding is available to cover any additional costs.	Low	
v	Encourage net zero energy drinking water and wastewater treatment facilities o Including microhydro, solar energy, heat exchange, building envelop o Including operational and technological efficiencies	Low	
w	Increase incentives and training for businesses that offer one energy efficiency solution (such as solar) to diversify to whole-home energy offerings.		
x	Secure federal funding for utility upgrades for transmission load capacity.		
y	Secure federal funding for weatherization entities		
z	Update distribution grid and consumer electric upgrade intersection.		
ai	Develop new incentives and financing options for electrical upgrades at the household and municipal level through third-party financing mechanisms, on bill financing, RES Tier III incentives, and grants.		
bi	Enable capital expenditures and debt for energy conservation projects with a 20 year or less payback without voter approval.		

Pathway 4: Change Vermont's land-use policies so current and future land development will be adaptive and resilient to climate change impacts.			
ID	Strategy + Action	Overall Priority Ranking	Included in CAP
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.			
a	Monitor and update stormwater permitting process as needed to ensure green infrastructure is preferred in design considerations.	High	x
b	Increase investment in stormwater and green infrastructure, including separating combined wastewater and storm water systems, to protect public health and water quality.	High	x
c	Complete a Climate Readiness assessments of drinking water, stormwater, and wastewater infrastructure. (This is an EPA tool that looks at all climate impacts including, fires, droughts, flooding, etc.)	High	x
d	Examine regionalization efforts and sharing of resources for all water utilities.	High	x
e	Invest in enhancing water sources in vulnerable communities to enhance resilience to long-term drought.	High	x
f	Increase investment to municipalities for new and expanded water and wastewater facilities to support reductions in inflow and infiltration into wastewater collection systems.	High	x
g	Increase efforts and funding towards (wastewater) pollution prevention programs	Low	
h	Increase funding and funding accessibility for private wells that run dry	Low	
i	Expand programs that identify and repair municipal water supply leaks	Low	
j	Create tools to help homeowners and design professionals greater understand liabilities associated with stormwater infiltration in areas of contaminated groundwater and soils.	Low	
k	Update Guidance Documents, Design Standards, and Rules to be compliant with the new EO on Flood Readiness, including going back to the Obama EO on Floodplains, including improvements to requirements for redundancy and resiliency		
l	Examine the climate impacts of sludge and biosolids to determine if regional facilities can reduce utility costs and climate impacts - Support investment in strategically-placed facilities for sludge and septage processing (much is currently trucked to Montpelier/Chittenden Co.)		
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.			
a	Establish a dedicated, comprehensive state level program with funding to strategically purchase or match funding for hazard-prone properties, easements to conserve river corridors, floodplains, forests, and wetlands to reduce overall flood risk and enhance flood storage statewide.	High	x
b	Expand the eligibility criteria and increase funding for VHCB's conservation and buyout program, to address any flood-vulnerable structures.	Low	x
c	Fund ERAF for non-federal disasters in towns that have adopted floodplain and/or river corridor bylaws and to support the 25% non-federal match for buyouts and develop criteria for distribution when funding is limited.	Low	x
d	Create and maintain a database of tax-sale/foreclosed properties located within SFHA and State River Corridor maps to identify flood-vulnerable structures for removal.	Medium	
e	Develop a priority list and map of community-identified properties that have been damaged repetitively but are not on the FEMA Repetitive Loss (RL) or Severe Repetitive Loss (SRL) list to be used for buyout/conservation prioritization.	Medium	
f	Develop a Benefit/Cost Analysis methodology to facilitate buyouts in areas at risk from flood-related erosion and outside of FEMA-mapped Special Flood Hazard Areas.	Medium	
g	A stronger mitigation requirement for individual wetland permits, to require restoration of a substantial predetermined ratio (minimum 2:1) of degraded wetlands, or the creation of new functional wetlands to achieve an overall gain of wetlands.	not reviewed, sent to Agriculture & Ecosystems Subcommittee	
h	The Vermont In-Lieu Fee compensation program for wetland impacts should require funds to be spent on instate wetland restoration projects to ensure that mitigation fees contribute towards Vermont's restoration targets and not those of neighboring states.	not reviewed, sent to Agriculture & Ecosystems Subcommittee	
<i>The pathway and strategies below were moved to the compact settlement section under Cross-Cutting Pathways section of the CAP</i>			
Compact Settlement Pathway 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.			
ID	Strategy + Action	Overall Priority Ranking	Included in CAP
Increase investment in the infrastructure (sewer, water, stormwater, mixed-use development, housing, sidewalks, bike lanes, EV charging, broadband, energy supply) needed to support			
a	Increase investment in municipalities to improve, expand and build new drinking water and wastewater infrastructure to support compact development, including asset management tools to support long-term operation and maintenance.	High	x
b	Make village centers permanently eligible for the downtown transportation fund that builds infrastructure needed to increase walking, biking and transit.	High	x
c	Increase weatherization investments, and incentives, for energy efficient projects in buildings located in energy cost-burdened communities and communities with greater concentrations of older buildings, rental property, and low and moderate incomes.	High	x
d	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.	High	x
e	Support public private partnerships to fund the design and construction of new infill housing in existing neighborhoods.	High	x
f	Expand the eligibility of the existing downtown and village center tax credit programs to revitalize neighborhood housing in and around state designated centers.	High	x
g	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.	High	x
h	Establish a rolling planning grant for communities in need of consulting assistance to prepare Neighborhood Development Area (NDAs) applications. This designation works to align state and local regulations to increase housing options within compact centers.	High	x
Update state and local land-use governance, regulations, and practices to remove barriers to compact settlement and improve coordination on land use issues across agencies, departments, municipalities, boards, commissions, and authorities.			
a	Hire a consultant to review and assess the state designation programs that recognize and support Vermont's compact settlement areas.	Medium	x
b	Encourage the Legislature to authorize the creation a multi-stakeholder committee process with funding to support the development of a statewide land use planning policy and implementation plan that guides development to growth areas, town centers, and appropriate rural locations, and limits the development within ecologically sensitive/risk-prone areas. The Legislature should clarify how and if this plan informs or directs land use planning, policy and regulation at the local, regional, and state level.	High	x
c	If a statewide land use planning policy and implementation plan is authorized, explore creation of a State Planning Office and/or other potential structures within the executive branch to implement the Plan at the state level.	High	x
d	Create a State-wide redevelopment authority to bank land, underwrite acceptable risk, address blight, vacancy, and brownfields, improve building flood resilience in settled areas, and plan for new neighborhood development and infrastructure.	High	x
e	Prioritize public funding for mixed-use developments near transit hubs in regional and rural centers	High	x
f	Provide enhanced technical assistance and support to municipalities and regions, including outreach and education for landowners and community members, to develop and implement town plans intended to maintain forest blocks and connecting habitat as authorized by Act 171, and effective zoning and subdivision bylaws to maintain forest blocks and connecting habitat. Because forest and habitat blocks do not end at state and national boundaries, support engagement in interstate and bi-national forest block and habitat connectivity efforts such as the Staying Connected Initiative at both the state and regional levels.	High	x

g	Update Act 250 to promote compact settlement by: i. Waiving the mitigation fees for prime agricultural soils for alternative or community wastewater systems that will serve a state designated center. ii. Removing the population-based caps on the Act 250 exemption for priority housing projects iii. Including criteria that better address climate change, forest fragmentation and forest loss, to incentivize growth in the state's designated centers and better address the specific challenges to working lands enterprises; iv. Updating its governance, staffing, public engagement, and the role of State Agency permits in the Act 250 process to create the enterprise capacity necessary to implement new climate related criteria and respond to future land use pressure from climate change and in-migration of climate refugees. v. Removing Act 250 jurisdictional thresholds for housing development within and immediately adjacent to certain state designated centers to incentivize compact, dense settlement in areas with adequate local land use laws and existing infrastructure, reducing development pressures on open spaces such as greenfields and forested locations. These centers should grow in a manner by which walking and biking are preferred means of mobility, and mobility infrastructure should be designed for universal accessibility.	High	x
h	Amend Neighborhood Development Area (NDA) enabling statute to allow the inclusion of river corridors upon local adoption of River Corridor bylaws.	High	x
i	Create an office of Strategic Investment and Coordination that supports achievement of land use planning goals by aligning and resolving conflicts in state and local regulations and funding and provides a permitting platform from both the customer and policy objective perspective.	High	x
j	Align development regulations and remove financial barriers to compact development in and around downtowns and village centers (i.e., Act 250, local zoning, aging infrastructure, etc.). Provide statewide guidance and incentivize housing in built up areas to encourage development away from open fields and forests, and river corridors.	High	x
k	Hire a consultant to lead a process to combine and simplify the programs to designate Vermont's settlement areas.	Medium	
l	Reduce the cost and time to permit housing by eliminating the duplicative state and local permitting for water and wastewater connections	Medium	
m	Modify Act 250 jurisdiction to review projects that have a high probability of fragmenting forests. Options include reinstating the road rule, applying jurisdiction in intact or high-ranking forest blocks, or lowering the threshold of subdivision lots that trigger review in intact forest blocks.	Low	
p	Require consideration of river corridors in the State permitting process for water and wastewater facility siting or improvement.		
q	Identify Neighborhood Development Areas (NDAs) as second priority (behind downtowns and village centers) for all state funding programs/grants.	Medium	
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.			
a	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.	High	x
b	Pilot a land value taxation study in five communities to evaluate grand list shifts and incentivize smart growth as taxes are levied based only on the value of the underlying land and not on the value of any buildings or other improvements to the site	High	Action tabled
c	Expand ongoing efforts to document where housing is built to ensure it is meeting state and local goals	Medium	

Pathway 5: Ensure that all people have access to safe, accessible, energy efficient, and affordable housing.

ID	Strategy + Action	Overall Priority Ranking	Included in CAP
Update state and local land-use governance, regulations, practices, and investments to eliminate barriers to housing development.			
a	Increase manufactured housing tax credits to replace older and inefficient manufactured homes.	High	x
b	Expand the existing program to relocate mobile home park homes and residents outside of flood vulnerable locations.	High	x
c	Create a rental registry and inspection program to locate all of Vermont's rental housing and improve their quality and safety.	High	x
d	Expand pilot program to train a network of local builders in the design and building of small and mid-sized and accessory dwelling units (mother-in-law apartments) and fund homes starts within communities planning and investing in development-ready infrastructure, building development partnerships, and updating zoning bylaws to welcome new homes.	High	x
e	Convene a statewide conversation on the Vermont Municipal and Regional Planning and Development Act's (24 VSA, Chapter 117) provisions on land use and housing to outline amendments and strategies that will expand housing choice, opportunity, and improve community resilience.	High	x
Increase investments in the preservation and development of both private-market and nonprofit-owned affordable housing.			
a	Continue to fund housing investments that leverage private initiative and funding to cost-effectively create housing units under models like the Re-Housing Recovery Program funding and the proposed Vermont Housing Investment Program.	High	x
b	Create programs to assist prospective homebuyers to purchase and make improvements to homes that are energy inefficient and otherwise in need of immediate investment.	High	x
c	Increase support for mission-driven, non-profit housing developers to maintain their ability to produce high-quality, energy- and location-efficient housing.	High	x
Increase access to fair and affordable housing for Vermonters who are housing instable.			
a	Implement the recommendations of the Analysis of Impediments to Fair Housing.	High	x
b	Increase funding for community-based homelessness prevention and rapid re-housing.	High	x
<i>The recommendation below was moved to the building codes section under Cross-Cutting Pathways section of the CAP</i>			
Cross-Cutting Pathways: Building Codes			
	Audit existing residential building codes to ensure that standards account for anticipated climate change impacts to Vermont, including but not limited to increased temperatures extremes and precipitation (combine into a single building code action)	High	x