Vermont Resilience Implementation Strategy

September 17, 2025

Prepared by: Vermont Agency of Natural Resources Vermont State Treasurer's Office

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Vermont's Resilience Implementation Strategy was developed by a dedicated group of partners from across state government. The individuals on the steering committee for the Strategy devoted their expertise and time to guiding the development of this Strategy, connecting it to initiatives led out of their agencies, and coordinating across their agencies for input and feedback on the recommendations. Thank you to the members of the Resilience Implementation Strategy Steering Committee for their expertise and guidance in developing this Strategy.

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Thank you also to the many state agency staff and other partners who helped craft and provide feedback on the actions included in the Strategy. The work being done to build resilience to the impacts of climate change does not lie with any one agency, and this Strategy demonstrates the coordination and collaboration needed to strengthen Vermont's resilience to the impacts of our changing climate.

Thank you also to the Vermonters who provided feedback, asked questions, and shared their vision for a climate-resilient Vermont.

Opening Statement

On January 3, 2024, we announced an initiative to create a Resilience Implementation Strategy for Vermont. The Strategy builds on work already being done by state government to adapt to the changing climate, evaluate gaps in current services, and identify opportunities to accelerate implementation. We are pleased to be able to share the results of this effort.

The inaugural Resilience Implementation Strategy catalogues current resilience-related work by state government, identifying more than 300 resilience-related efforts. Our teams then organized and prioritized this work while looking for missing elements. This process involved gathering input from the public, municipalities, advocacy groups, and state agencies. The result is a list of 126 actions – some implementation-ready and others requiring additional planning and development. All are presented in the tables at the end of this report.

Preliminary estimates indicate the total cost of these actions to be in the hundreds of millions of dollars. While investing in resilience saves money long-term, implementing the full scope of actions identified in this Strategy in the near term would not be feasible. As a result, we have identified a manageable set of priorities. We believe these actions will have significant risk-mitigation benefits and reduce costs after a major weather event. These key initiatives are:

Flood Resilient Communities Fund: This established, demonstrably effective program will take on increasing importance given the elimination of federal programs like FEMA's Building Infrastructure for Resilient Communities (BRIC) program. Sustained, annual investments in this program would allow towns across the State to work with Vermont Emergency Management to make proactive investments that will reduce damage and costs associated with significant climate events. Identifying a dedicated source of revenue for this work, without increasing taxes or fees paid by Vermonters, is a top priority.

<u>Dam Safety Coordination Exercises</u>: This relatively small investment would expand existing capacity to convene regional tabletop exercises on dam safety and emergency action, and would have potentially significant value if a public or private dam experiences some degree of failure in a future weather event. Expanded capacity to conduct these exercises would support state officials, emergency officials, and utilities in preparing for such an event.

<u>Municipal Climate Resilience Fund</u>: Following the 2023 and 2024 flooding, the Vermont Bond Bank, in partnership with State agencies, the Treasurer's Office, and

other partners, stepped in to help bridge financing costs for towns across Vermont until FEMA dollars arrived. Much of the initial capital used to support these loans is no longer available. Recapitalizing this fund, to be managed by the Bond Bank, will ensure no-cost financing is available to Vermont municipalities immediately following a disaster, reducing the costs towns will bear from climate-related events.

Hydraulic studies: Another small-dollar investment with potentially significant value is a set of hydraulic studies focused on shifting riverbeds near populated areas that have significant future flood risk. Priority reaches would be identified by the Agency of Natural Resources (ANR) – places like the Lamoille River near Hardwick or the Huntington River near Texas Hill – where the river's course has been altered by recent flooding. These studies are important to improving the site-specific understanding of channel processes and in helping identify and evaluate potential interventions, like creating increased storage capacity in the floodplain and targeted dredging, that could reduce future flood risk.

Educational outreach: The Department of Financial Regulation and the Agency of Natural Resources, Department of Environmental Conservation have recommended a targeted outreach campaign to explain the benefits and costs of flood insurance. Increasing the number of active flood insurance policies for property owners in and along the edges of FEMA flood maps, in areas where Vermont data indicates the structure may be at some risk, could meaningfully increase the resources available to property owners in the event of a flood. This step would not have a new cost to the State.

We believe a clear set of affordable, prioritized actions is critical to the successful implementation of this Strategy. That said, we acknowledge that climate work is dynamic and must continuously adapt to changing conditions, evolving science and new technology. Given this reality, the Resilience Implementation Strategy will be updated once every four years with the next version issued by December 1, 2029. The revision will assess progress, evaluate current needs and opportunities, and identify the next set of prioritized actions for improving Vermont's resilience.

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Why Create a State Resilience Strategy?

Rising Climate-Related Risks in Vermont

For many years, Vermont has felt the growing impact of climate change. The state has experienced an increase in the scope and scale of floods, droughts, wildland fires, and heatwaves. These events have created ongoing challenges for our environment, economy, and communities. They continue to pose a serious risk to our future.

Human actions are the main cause of climate change. Burning fossil fuels and changing how we use land release greenhouse gases into the air. These gases act like a blanket, trapping heat and warming our climate. This leads to the changes we see in temperature and weather. Over the last 50 years, global temperatures have increased at a faster rate than at any other time in recorded history.¹

Flooding is a major issue in Vermont. Since 2010, the state has had 22 federal disaster declarations due to flooding. That is almost two per year, a significant increase from the 1960s to the 1980s, when flood-related disasters occurred roughly once every other year. In the single year between July 2023 and July 2024, major floods led to five federal disaster declarations. Taken together, these floods affected all 14 counties in Vermont and over 150 towns, resulting in more than \$1 billion in damage.

Flooding is a very costly climate-related hazard in Vermont. However, other impacts, including changing temperatures and extreme weather swings, also pose serious threats to the State. In May 2023, a sudden frost after a warm spring heavily damaged Vermont's orchards, causing them to lose about 60% of their income for the year, a loss of around \$11 million.

Climate change impacts everyone in Vermont – people, towns, businesses, and natural communities – with the state's frontline and vulnerable communities bearing a disproportionate burden.² These communities often lack capacity and access to the services and financial support needed to handle the effects of climate change.

The Case for Adaptation

Adaptation means taking actions to prepare for, respond to, adjust to, recover from, and reduce risk associated with the impacts of climate change. These actions bring many benefits, including preventing damage from future disasters and creating economic, social, and environmental gains. Good adaptation is also good for our communities. Studies show that the benefits of adaptation projects often go beyond the value of losses they prevent. This means that investing in adaptation is worthwhile even if a future disaster does not occur.³

Examples in Vermont show how this works. Projects that reduce climate risks, like protecting natural lands and restoring floodplains and wetlands, provide direct economic value. For example, restoring the Otter Creek floodplains and wetlands near Middlebury is estimated to deliver at least \$126,000, and possibly as much as \$450,000, in flood protection every year. An analysis of Vermont's investment in land conservation found that for every dollar the state spent, communities received about nine dollars' worth of natural benefits. These include not only flood protection, but also cleaner water, better habitat for wildlife, and other important co-benefits.

Building resilience saves money in the long run. National studies show that every dollar invested in resilience and preparedness saves up to thirteen dollars in avoided costs from damages, repairs, and cleanup.⁶ On the other hand, every dollar not invested today can cost communities up to thirty-three dollars in lost future economic activity.⁷

Vermont has already seen the benefits of building resilience. After Tropical Storm Irene in 2011, 34 new bridges were built to better handle higher water flows and debris. In the July 2023 floods, only two of those bridges were destroyed. Across the state, efforts such as moving homes out of floodplains, preparing communities for hotter summers, and building stronger roads and bridges have already made Vermont safer and more resilient to the impacts of climate change.

Building resilience requires sustained attention and investment over time. Several of the actions identified in this Strategy will require changes to how we live on the Vermont landscape – including where we build, how we size our bridges and culverts, and what systems we put in place to respond to disasters. In addition, many of the actions identified in this Strategy come with upfront costs that will need to be effectively communicated to ensure that they are seen by Vermonters as reasonable and prudent investments.

Scaling up Statewide Action

Since Tropical Storm Irene in 2011, Vermont has put numerous policies and programs in place to build resilience; at the same time, over the last 15 years, climate-related hazards have become more frequent and more severe. In response, Governor Scott and State Treasurer Pieciak created this Resilience Implementation Strategy. Its purpose is to guide state agencies in expanding their resilience work, help policymakers find gaps, and build on existing state efforts in ways that are cost-effective and bring multiple benefits.

This work doesn't start from scratch. Vermont's State Hazard Mitigation Plan (SHMP) identifies natural hazards that affect Vermont, assesses risk and vulnerability to these hazards, and identifies top priority mitigation, state-level actions to create a more resilient Vermont. Vermont's Climate Action Plan, developed and adopted by the Vermont Climate

Council, recommends actions to help protect Vermont communities and landscapes from the greatest risks of climate change. The Resilience Implementation Strategy drew heavily on these plans and others developed by Vermont state agencies to lift up priority recommendations. This Strategy was developed to complement existing Plans by focusing on how State government work can be scaled up and the cost of doing so, in order to arrive at a set of cost-effective priority actions that build resilience to the risks posed by climate change.

The Strategy identifies steps that are ready for state agencies to implement right away, while also recognizing the need for continued and expanded collaboration with regional and local partners. It identifies actions that will strengthen planning and ensure Vermont uses the best available science to prepare for future conditions.

The actions in this Strategy represent near- and medium-term efforts that state government can take to strengthen resilience. They are not a complete list of all the needs across Vermont. Instead, they provide a strong foundation by building on systems and structures that already exist. Taken together, the actions show a coordinated approach that connects communities, natural systems, infrastructure, emergency response, and the economy.

Each Tier 1 action includes a cost estimate. These costs serve two purposes: first, they show the scale of resources needed; second, they show that there are many investments that are both realistic and achievable. Including actions with their associated costs helps prioritize the use of Vermont's available resources for maximum effect.

Often, the actions in this Strategy are not stand-alone. They are connected, and each one strengthens the others. In some cases, one action provides the foundation for others to succeed.

This Strategy is not an endpoint but a building block in the State's long-term resilience strategy. The priorities here offer a roadmap for near- and medium-term actions and investments, while also setting the stage for the broader resilience work Vermont will need to undertake in the years ahead.

Climate Impacts in Vermont

Three major factors make Vermont vulnerable to extreme weather. These are its geography, its history, and the choices people make about where to live and work. The state's mountains and steep valleys play a significant role in determining where climate-related disasters occur and how they affect towns and cities, creating different climate impacts across the state.

Increased Flooding and Extreme Precipitation

A changing climate is causing more intense and frequent rainstorms, making Vermont a wetter state. Since the 1960s, average annual precipitation has increased by nearly 6 inches, with the largest increase occurring in the mountainous regions. The bigger problem is not just the total amount of precipitation, but the way it now falls. Vermont experiences more powerful storms that can drop two or more inches of rain in just a few hours.



More Rain in the Future

Vermont is expected to get an additional 4 to 9 inches of precipitation each year by 2100.

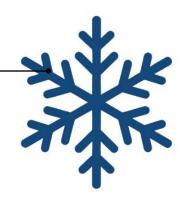
This type of rainfall is especially dangerous in our state. Many Vermont communities lie in steep, V-shaped river valleys. This geography funnels huge amounts of water into rivers, causing the sudden and destructive flash floods that have become an immediate and growing threat to our homes, roads, and communities.⁸

Changing Winters and Reduced Snowpack

Vermont winters are warming faster than any other season. The winter of 2023–2024 was the warmest on record since 1895.8 This warming trend has noticeable effects. For example, Lake Champlain rarely freezes over completely anymore.8 While dangerous cold snaps will still happen, the growing season for plants is now about two weeks longer than it was 40 years ago.9

Warmer, Shorter Winters

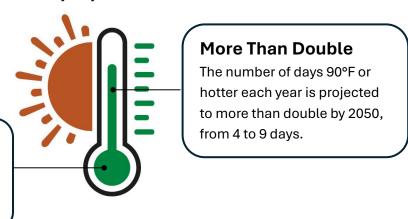
Vermont winters are warming faster than any other season. As a result, Lake Champlain has rarely frozen over completely since 2008, a major shift from its historical patterns.



This shift means more winter rain and less snow, leading to a less reliable and diminished snowpack. When it snows, storms are more likely to produce heavy, wet snow near the freezing point. This wet, heavy snow is a growing danger to our infrastructure, as it can easily damage power lines. As a result, researchers predict the risk of power outages will increase by 5–10% by 2050.

Extreme Heat

Vermont's summers are also getting hotter. Since the 1960s, the average summer temperature has risen by 1.7°F.8 Scientists predict this warming trend will continue, causing more frequent and severe heatwaves. These heat events lead to drier summers and can worsen droughts. The state's average yearly temperature will likely rise by more than 2°F by 2050.8 This warming will more than double the number of days that reach 90°F or hotter, increasing from about four days a year to nine.8



Seeing Warmer Days

The average summer temperature has risen by 1.7°F since the 1960s.

This extreme heat poses a significant health risk, particularly for older adults, children, and individuals without air conditioning. By 2100, Vermont could face 15 to 45 days a year above 90°F, depending on future emissions.⁸

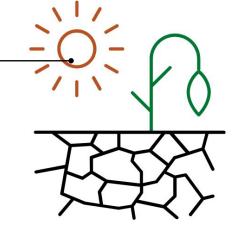
Drought

It seems like a contradiction: Vermont is getting more precipitation, but our risk of drought is still growing. This is happening for two main reasons. First, rainfall patterns have changed. Instead of gentle, soaking rains, we now see more heavy downpours followed by long, dry periods. During a heavy storm, much of the water runs off into streams and rivers before it can be absorbed. That leaves the soil to dry out during the rainless times that follow.

Second, rising temperatures are actively drying out the landscape. Warmer air, especially in the summer, pulls more moisture from the soil and plants through evaporation. This water loss can be powerful enough to offset gains from increased rainfall. This effect, combined with less spring meltwater from a shrinking snowpack, leaves the soil drier and increases the likelihood of droughts.⁸

More Rain, Drier Soil

Even with more total precipitation, rising summer temperatures pull moisture from the ground through evaporation, increasing drought risk.



Wildland Fire and Smoke

Large wildland fires are still rare in Vermont, but the risk is growing as conditions get hotter and drier. A more immediate and familiar problem is the smoke from massive fires burning far away. For example, smoke from recent Canadian wildfires traveled hundreds of miles to Vermont. In 2023, Vermont recorded nine days that exceeded fine particulate matter (PM2.5) from wood smoke, a stark contrast to most previous years, which had zero. This long-range smoke is now a major public health concern. It poses a risk to all Vermonters and is especially dangerous for those with respiratory conditions.

Economic Impacts of Climate Change

Almost every sector of Vermont's economy is affected by the sudden disasters and long-term challenges caused by climate change. These impacts can cause physical damage and increase financial costs. Climate change may also create new market opportunities in areas like agriculture, where Vermont can adopt crops and farming practices that are already common farther south. The interconnectedness of Vermont's climate resilience and sustained economic stability is one impetus for the work contained within this Resilience Implementation Strategy. This Strategy identifies investments in resilience that will save Vermonters money, reduce risk to towns and villages across the state, and allow for more effective response to disasters when they occur.

One clear example of economic damage is in Vermont's farming and forestry sector, which adds about \$580 million annually to the State's Gross Domestic Product (GDP). In 2023 and 2024, Vermont experienced 28 federally declared disasters across all 14 counties, causing \$303.7 million in losses for this sector. Tourism and recreation are also major parts of Vermont's economy, bringing in about \$2.5 billion each year, with three out of the state's 30 largest employers being ski resorts. Shifting weather patterns could put these contributions at risk too.

Sudden climate-related natural disasters can cause severe harm to local economies. After the July 2023 flood, the Central Vermont Economic Development Corporation reported on economic damages in 18 neighboring municipalities. They estimated the flood caused \$300 million in losses, affecting 46.6% of businesses, and resulted in \$147 million of debt accumulation that "compounds the already challenged recovery landscape."

These examples don't fully show the pressure on the State's budget resulting from climate-related disaster recovery and unpredictable weather patterns. Rebuilding transportation and government infrastructure, additional stress to the housing crisis, helping municipalities recover, increased social service needs, and other expenses all add to State budget pressures.

The timing of this Strategy is important because the economic risks from climate change are growing, while federal support for disaster recovery is being reduced for states and local economies. The Treasurer's Task Force on the Federal Transition Report, published in July 2025, details this vulnerability:

The FEMA backstop has been a critical pillar for state or regional-level financial institutions' willingness to lend post-disaster, including the Treasurer's Office. With Vermont now the fourth highest receiving state in the country on a per capita basis

between 2011 and 2024, the loss of that backstop would increase the vulnerability of the state to natural disasters like flood and severe winter storms.

Policy changes under consideration – like changes to the per capita indicators or the balance of State to federal funding percentage requirements – would also increase the threshold for FEMA support and the burden on State funding resources.¹⁰

In June 2025, S&P Global Ratings issued a publication entitled "Federal Disaster Relief Funding Proposals Could Elevate Credit Risks for U.S. Governments." S&P projects that potential changes to individual assistance delivery and aid to states after a disaster could place significant demands and stresses on state-level reserves, require cash flow borrowing, and negatively impact local economic activity. ¹¹ Together, these impacts could hurt the State's credit ratings, which would make borrowing more expensive for both the State and local organizations that depend on the State's credit rating, or receive the State's backing.

Insurance is another way to protect the economy after a disaster. Rising premiums and declining coverage due to climate-related damages are making traditional insurance too expensive for some people, and the changing market is hard to navigate. Without enough federal support and insurance options, municipalities, businesses, and individuals turn to state government for help to cover recovery costs.

Vermont's 2025 Climate Action Plan highlights job opportunities that would result from efforts to address climate change, including a number of the priority actions pulled forward into this Strategy. These include work related to weatherization, switching to cleaner heating, and clean energy. The Department of Public Service reports that about 18,000 people work in Vermont's Clean Energy Economy, making up roughly 6% of the state's workforce.

If state government and our partners can invest in the actions in this strategy, we can strengthen vulnerable parts of our economy, create better tools to prepare for disasters, make communities more resilient to major events, and improve how we recover when disasters happen. All of this will help protect Vermont's economy and lower the costs of recovery.

What is the Resilience Implementation Strategy?

On January 3, 2024, Governor Phil Scott and Treasurer Mike Pieciak announced an initiative to create a Resilience Implementation Strategy. The Strategy was intended to build on the work already being done by Vermont State Government to adapt to our changing climate, evaluate and address gaps in current services and identify strategic funding priorities to accelerate implementation. It involved gathering input from the public, municipalities, non-profits, and State agencies, and suggesting how to prioritize and allocate state support for climate resilience projects.

In addition, the Climate Superfund Act (Act 122, 2024) cites the Strategy as one of the tools to identify and prioritize climate change adaptation projects to be funded through the Climate Superfund Cost Recovery Program Fund. Under the Act, a "climate change adaptation project" means a project designed to respond to, avoid, moderate, repair, or adapt to negative impacts caused by climate change and to assist human and natural communities, households, and businesses in preparing for future climate-change-driven disruptions.

The development of the Strategy began with five core components: Community-Centric Approach, Early Warning Systems and Emergency Response, Economic and Environmental Sustainability, Infrastructure Design and Reinforcement, and Nature-Based Solutions. A sixth core component, Government Systems, was added in recognition that structures that support more efficient use of resources, prioritization of funding, and technical assistance to our communities, while often invisible, act as the critical framing on which many of the recommendations in this Strategy are built.

Each Core Component offers opportunities and actions where state government can lead in strengthening Vermont's ability to respond to the effects of climate change on our communities, infrastructure, economy, and environment.

What are the Core Components?

Core Components are the foundational building blocks of Vermont's Resilience Implementation Strategy.

Each Core Component addresses a vital area where targeted investments, policies, and partnerships can reduce risk and strengthen Vermont. Together, they provide a framework for organizing state-led resilience efforts and guiding action over time. The Core Components are:

Government Systems

- Community-Centric Approach
- Early Warning Systems and Emergency Response
- Economic and Environmental Sustainability
- Infrastructure Design and Reinforcement
- Nature-Based Solutions

What are Opportunities?

Opportunities are specific areas of focus within each Core Component that translate the component's big-picture goals into defined, actionable work. They reflect state government's most promising and impactful leverage points, identifying where targeted investment, innovation, or collaboration can lead to measurable progress. Within each Opportunity is a set of implementable actions.

What are Actions?

Actions are the functional steps to improve climate resilience within each Opportunity.

Each action is designed to be practical, measurable, and specific. Actions use tools available to State Government: policy, funding, programming, collaboration, regulation, and incentives, to build resilience. Actions vary in scale, but all aim to reduce risk, support communities, and build long-term resilience across Vermont.

Actions are prioritized based on urgency, anticipated impact and readiness for implementation. To focus resources where they're most needed and most likely to succeed, actions are grouped into two tiers:

Tier 1: High Urgency, High Readiness

These actions are both critical and ready to move forward. They are the top priorities for near-term investment and coordination. The cost of implementing most of these actions has been estimated by the State Treasurer's Office in partnership with implementors from across State Government. Some Tier 1 actions do not have a cost associated with them because they are focused on regulatory reforms or policy changes and may not require a significant cost to implement; other actions require additional planning before a cost can be estimated.

Tier 2: Important, but Less Urgent or Less Ready

These actions remain important to Vermont's long-term resilience goals, but they require additional planning, collaboration, or capacity-building efforts before they can be implemented. Tier 2 actions will proceed as conditions and resources allow. This tiered approach enables Vermont to address the most pressing needs while building momentum

for broader, long-term resilience. A number of Tier 2 actions have had the cost of implementation assessed by the State Treasurer's Office. These actions were selected based on their focus on funding and financing climate resilience, whether they support immediate response to climate-related disasters, and whether they provide a high value to risk mitigation.

Definition of Climate Resilience

Climate resilience: The ability of interconnected ecological, social, and economic systems to anticipate, adapt, withstand, respond, and thrive in the face of current and future conditions and disasters related to climate change.

These complementary systems form the foundation for thriving communities where ecosystems, economies, and societies support and reinforce one another.

Community resilience: A human community's ability to anticipate, withstand, and adapt to climate-exacerbated disasters and learn from past events to improve response and recovery. Resilient communities rely on systems that support human health and well-being, social and economic equity, sustainable infrastructure, and coordinated communication and planning.

Ecological resilience: A natural community's ability to absorb shocks and recover from disturbances. Ecosystems can maintain their pieces, patterns, and processes, which allow plants, animals, and fungi to thrive, migrate, and move.

Economic resilience: An economic region's ability to endure and sustain stability when faced with economic disruptions or pressures. Resilient economies support essential services, enable diverse livelihoods, and foster equitable and sustainable access to resources that respect environmental limits.

Vision for a Climate Resilient Vermont

A resilient Vermont can anticipate, withstand, respond, adapt, and thrive in the face of current and future conditions and disasters related to climate change. Vermont will take proactive steps to reduce vulnerabilities to the impacts of climate change on the economy, environment, and human health and well-being. It will also improve response and recovery efforts. This will be done in ways that are inclusive, participatory, and culturally appropriate, acknowledging that resilience often depends on access to resources and support structures.

A resilient Vermont incorporates climate adaptation across state government systems to improve our interconnected human and natural communities. A shared sense of responsibility and commitment drives Vermont forward, ensuring that all communities and livelihoods can thrive in the face of climate change, now and for future generations.

Crafting a vision for a resilient Vermont allows us to describe a shared expression of aspirations and values that captures how the things we love most about Vermont can help us be more resilient to the impacts of climate change. It allows us to shift our focus from the negative impacts of storms and droughts to the positive changes we'd like to see in Vermont that help us be more prepared and bounce back faster from the impacts of climate change.

We did not start from scratch in developing this vision. The Resilient Vermont Project, conducted in 2012-2013 following Tropical Storm Irene, was led by the Institute for Sustainable Communities in partnership with Vermont State Government, non-profit organizations, and Vermonters. It resulted in a set of recommendations and a vision and concluded with an acknowledgement that the vision crafted for a resilient Vermont in 2013 will change as we continue to adapt, new collaborations arise, and we are impacted by new disasters. Twelve years following the development of that vision, we used it as a starting point for the Vision for a Climate Resilient Vermont. Vermont has implemented new policies and programs, welcomed new people, so we developed this vision to reflect the values of Vermonters today.

Vision Components

The Resilience Implementation Strategy is made up of six Core Components, which provide a framework for organizing resilience efforts and guiding action over time.

Government Systems: The systems that support the government's role in building resilient communities are often invisible, but they form the foundation for many of the recommendations included in the Resilience Implementation Strategy. Structures that support the efficient use of resources, prioritize funding, and provide technical assistance to our communities serve as the critical framework on which a resilient Vermont is built.

Community-Centric Approach: This core component includes actions that protect and build resilience of human health and well-being, help communities plan for the resilience of their ecological, social, and economic systems, bring local perspectives and needs into climate resilience policy conversations and decision-making processes, and promote community engagement in line with Vermont's Environmental Justice law.

Early Warning Systems, Fast, Effective Response and Recovery: This core component includes actions that enhance Vermont's early warning mechanisms, provide fast, effective responses to ensure Vermonters' safety from climate change impacts, and enable Vermont to anticipate and swiftly respond to climate-related impacts.

Economic and Environmental Sustainability: This core component recognizes the interconnection between climate resilience and economic stability. This component includes actions that support businesses and working lands enterprises in adapting to changing climate conditions.

Infrastructure Design and Reinforcement: This core component looks at the impacts of climate change on Vermont's roads, bridges, drinking water systems, wastewater treatment facilities, power lines, and communication services, and recommends actions to protect, repair, or relocate these critical assets.

Nature-Based Solutions: This core component includes actions that uphold our reciprocal relationship with the land—safeguarding ecosystems, promoting biodiversity, and ensuring that as we receive from nature, we also give back. These solutions buffer the state's communities, lands, and infrastructure from the impact of extreme weather events while fostering a mutual land ethic between people and place.

How Was the Strategy Developed?

Agency of Natural Resources' Climate Action Office staff Marian Wolz, Resilience and Adaptation Coordinator, and Evan Horne, Resilient Lands Coordinator managed the strategy process and development. A steering committee with representatives from 13 different departments and agencies provided support and direction. The following agencies selected a representative to serve on the committee:

- Agency of Agriculture, Food, and Markets
- Agency of Commerce and Community Development
 - Department of Housing and Community Development
- Agency of Human Services
 - Department of Health
- Agency of Natural Resources
 - o Secretary's Office, Climate Action Office
 - Department of Environmental Conservation
 - Department of Forests, Parks, and Recreation
 - Fish and Wildlife Department
- Agency of Transportation
- Department of Public Safety
 - Vermont Emergency Management
- Department of Public Service
- Office of Disaster Recovery
- Office of the State Treasurer
- Vermont State Climate Office

The process began in February 2024. The Climate Action Office held public meetings that spring to help establish a guiding Vision for a Climate Resilient Vermont. A review of existing reports and the public input they contained also informed the development of the vision. This analysis helped identify the priorities of Vermonters and refine broad topics into specific areas of focus.

The vision was developed with input from Vermonters through two public events, an online survey, and a review of public engagement input gathered by other State Agencies.

After establishing a shared Vision for a Climate Resilient Vermont, the next phase was to understand the state's current climate resilience work. The CAO sent a survey to all state agencies and departments asking targeted questions. Agencies reported a total of 330

unique initiatives. These projects spanned 30 different agencies and departments. This inventory provided an overview of the state's ongoing efforts.

The inventory of State Government Climate Resilience Activities was compiled into a publicly accessible database that can be found on www.climatechange.vermont.gov. Use the database to explore what activities State Government does to respond to landslides, see what grant resources are available to mitigate the risk of flooding to buildings, or explore technical assistance programs available to farmers and loggers.

This inventory made it possible to identify strategic opportunities for action, by looking at gaps in current systems or areas where efforts could be adjusted to better

consider the impacts of climate change. These opportunities became the focus of a collaborative workshop. The workshop brought together more than 100 state staff and partners from 50 different organizations and local governments. Attendees brainstormed concrete actions needed to turn each opportunity into a tangible outcome. The session generated hundreds of innovative ideas, forming a pool of potential actions for the final strategy.

The final phase involved combining ideas from the workshop and then working with the steering committee to prioritize actions. They evaluated each one for its practicality, potential impact, and timing. This resulted in a tiered plan to focus finite resources where they will produce the greatest benefits. The final strategy includes Tier 1 actions, which are urgent and ready for implementation. The final strategy also includes Tier 2 actions, which are still critical but need to be more fully developed before being ready for implementation.

Throughout the development of the Strategy, the Climate Action Office met partners such as the Environmental Justice Advisory Council to gather feedback on the vision and the priority opportunities for action. The Climate Action Office also gathered input from Vermonters across the state through attendance at events, public meetings, and focus groups with the goal of speaking directly with Vermonters by meeting them where they live, work, and gather.

This multi-phased process ensured the final Resilience Implementation Strategy became far more than a list of goals. It is a specific, measurable, and prioritized roadmap. It provides the state with a path forward to advance its climate resilience objectives.

To help identify the most important resilience actions for Vermont, a prioritization system based on three criteria was used:

Practicability:

Considered alignment with existing programs and statutes, political and technical/knowledge feasibility, resource needs, and cost savings or avoided losses in relation to investment needed.

Impact: How much resilience value does the action deliver, and to whom?

Considered the scale (who/what benefits), the urgency of climate hazards addressed, and equity outcomes (benefits to frontline or vulnerable groups).

Timing: How soon will the action deliver resilience benefit?

Considered when tangible outcomes will be realized and whether the action addresses immediate vs. long-term resilience needs.

Priority Action Costing Methodology

As is detailed in the preceding sections of this report, the Resilience Implementation Strategy is a joint effort between the State Treasurer's Office and the Executive Branch to develop a comprehensive strategy for state government to accelerate efforts to adapt to the consequences of climate change. The initial phase of work to develop the Strategy was led by the Agency of Natural Resources' Climate Action Office (CAO) which conducted a government-wide inventory of climate resilience activities and stakeholder engagement process to identify a set of priority actions for implementation that incorporate all six of the strategy's core components, including a community centric approach, nature-based solutions, infrastructure design and reinforcement, early warning systems, economic and environmental sustainability, and government systems.

In July, the CAO shared with the Treasurer's Office a consolidated list of over 100 priority actions; 66 of these priority actions were demarcated as "Tier 1" actions, which meant that they were assessed as being closest to implementation. The Treasurer's Office then worked to evaluate, estimate cost, and consider funding approaches for carrying out these actions. The Treasurer's team further identified six key financial categories existing among the actions – these are separate from the subject-matter relevant core components – and sorted the actions among these categories to triage costing investigations given a limited working timeframe. These six categories included:

- Actions that clearly called for a funding or financing source;
- Actions that largely involved regulatory reform or policy changes;
- Actions related to the provision of educational resources or technical assistance;
- Actions that required significant additional planning or preparation steps at the outset or in order to ascertain a scope of costs;
- Actions related to immediate disaster response and recovery; and
- Actions relating to the evaluation of risk and high value mitigation plans.

The Treasurer's team focused on assessing the cost of as many of the Tier 1 actions as possible, as well as, based on the aforementioned analysis, a subset of Tier 2 priority actions that, from the Treasurer's perspective, were relevant to future risks for communities or finances. The additional Tier 2 priorities mostly fell into the categories of actions that clearly called for a funding or financing source, actions related to immediate disaster response and recovery, and actions relating to the evaluation of risk and high value mitigation plans.

The costing methodology varied significantly from action to action based on available information. The Treasurer's team investigated each priority action by asking the

department or agency listed by the CAO as the "implementer," for any information, resources, or background information that could assist in detailing the financial scope, as well as projected or theorized costs associated with each action. The evaluation sought to separate one-time and recurring costs, depending on the initiative. The Treasurer's team did encounter a spectrum of readiness among implementing agencies in terms of both costing information available as well as, in some cases, the identification of an item as a priority amidst other responsibilities or a path forward for carrying out implementation steps.

Of the Tier 1 and accelerated Tier 2 actions, 40 Tier 1 and 8 Tier 2 have associated one-time or recurring costs, as outlined in Tables 1-15. It is important to note that while the actions listed in the table below have costs attributed to them, the numbers presented are not exact at this stage. For example, some of the numbers presented are based on data extrapolated from older projects that may or not be able to be replicated under current economic circumstances. There are also several actions included in the list where it would be possible to scale efforts based on funds available, and it is important not to view these actions as a simple all-or-nothing proposition. The following tables of actions include all 126 priority actions grouped by core component, with estimated implementation cost for actions where cost could be estimated listed in the last column.

Implementation of the subset of 40 Tier 1 and 8 Tier 2 priorities where cost could be estimated by Treasurer's team would require a large investment, about \$270 million in one-time funds and \$95 million in on-going annual needs (in 2025 dollars). Given this magnitude and the finite capacity of Vermonters and state government to support this work, it is impractical to pursue all these initiatives at the same time. The structure of this Strategy, however, allows for multiple investments over time in a way that reflects changing priorities and needs and available resources. This Strategy is meant to be a living document that can guide continued investment over time aligned with a clear set of resilience priorities.

Priority Actions

In the following pages, the actions prioritized for implementation are listed in tables under each Core Component and Opportunity and are categorized into two tiers.

Tier 1: High Urgency, High Readiness

These actions are both critical and ready to move forward. They are the top priorities for near-term investment and coordination. The State Treasurer's Office has estimated the cost of implementing a majority of these actions.

Some Tier 1 actions do not have a cost associated with them because they are focused on regulatory reforms or policy changes and may not require a significant cost to implement; other actions require additional planning before a cost can be estimated.

Tier 2: Important, but Less Urgent or Less Ready

These actions remain important to Vermont's long-term resilience goals, but they require additional planning, collaboration, or capacity-building efforts before they can be implemented. Tier 2 actions will proceed as conditions and resources allow. This tiered approach enables Vermont to address the most pressing needs while building momentum for broader, long-term resilience. A handful of Tier 2 actions have had the cost of implementation assessed by the State Treasurer's Office. These actions were selected based on their focus on funding and financing climate resilience, their support for immediate responses to climate-related disasters, and their ability to provide high value to risk mitigation.

We assigned Agencies, Departments, and other State partners to lead actions. Partners were assigned as implementers when actions:

- Are tied to a specific program, plan, or initiative already being led by that partner, or
- If the partner would be the lead to coordinate with other entities on the implementation of that action based on their areas of expertise.

Tier 1 actions are listed first in each table, followed by Tier 2 actions. Core components and opportunities are not listed in any significant order.

Resilience Implementation Strategy Priority Action Tables 1-15

Government Systems

1: Evaluate and redesign planning and implementation systems around regional geography, not town lines, to ease local burdens and expand the impact of resilience activities.

Action Number	Action	Lead	Tier	Duration	Estimated Cost
1A	Pilot a regional governance structure in an underserved area to test resilience-focused county-level governance functions.	State Recovery Office	1	One-Time	\$250,000
1B	Following the pilot of a regional structure focused on supporting climate resilience, establish entities that offer services comparable to a county government.	State Recovery Office	2		
1C	Establish a structure to incorporate climate resilience into plans at the watershed or other regional scale that aligns with Tactical Basin Plans (TBP) using the recommendations from the Municipal Climate Planning Framework and Guide.	Climate Action Office (CAO)	2		
1D	Secure sustainable funding for Regional Planning Commissions to implement municipal and regional climate resilience projects and planning initiatives that deliver multiple co-benefits and are prioritized based on local community needs, not dictated by the terms of a specific grant.	Climate Action Office (CAO)	2		

2: Advance resilience through investments that prioritize adaptation, while deploying innovative tools to bridge the gap between immediate post-disaster needs and the resources required for resilient rebuilding.

Action Number	Action	Lead	Tier	Duration	Estimated Cost
	Secure sustainable, long-term funding to expand and maintain a				
	permanent Flood Resilient Communities Fund (Community Resilience				
	and Disaster Mitigation Fund) for the design and implementation of	Vormont Emorganov Managament			
2A	local and regional climate change adaptation projects and community	Vermont Emergency Management (VEM)	1	Ongoing	\$5,000,000*
	resilience. Funding may be used as a local match for federally funded	(VEI*I)			
	hazard mitigation programs, as well as for non-FEMA eligible hazard				
	mitigation activities.				*Minimum amount needed
	Develop costed-out "resilient rebuild" templates for common				
	structures (homes, small businesses, mobile homes, etc.) so people	Department of Housing and			
2B	can quickly understand what resilience upgrades would cost, what	Community Development (DHCD)	1	One-Time	\$500,000
	portion is typically covered by aid or insurance, and what funding gap				
-	needs to be addressed.				

2C	Explore and recommend the development of state-backed or public- private programs that offer low- or no-interest loans, bridge grants, or revolving funds for resilient rebuilding, as well as gap coverage between standard recovery funds (e.g., FEMA, insurance) and the cost of building to higher standards.	State Treasurer's Office	1	N/A	Implemented with existing or ongoing resources.
2D	Based on a review of past climate-related emergencies and recent recovery efforts, identify proven permitting flexibilities and efficiencies (e.g., wastewater, stormwater, Act 250, emergency water supply connections, gravel extraction). Use these findings to inform the development of legislation that streamlines or fast-tracks pathways for resilient, post-disaster rebuilding and relocation.	Agency of Natural Resources (ANR)	1	N/A	Implemented with existing or ongoing resources.
2E	To address the significant flood insurance gap in Vermont, launch a joint public education campaign, co-led by the Department of Financial Regulation (DFR) and the Department of Environmental Conservation (DEC), on the importance of flood insurance. Building on the resources available on FloodReady.Vermont.gov, this campaign will consolidate and enhance existing state resources into a single source for homeowners to evaluate their flood risk and insurance needs.	Department of Financial Regulation (DFR); Department of Environmental Conservation (DEC)	1	N/A	Implemented with existing or ongoing resources.
2F	To ensure resources are available for rapid deployment after a disaster, secure dedicated funding to expand a pre-positioned recovery fund, such as the Municipal Climate Recovery Fund (MCRF), for immediate community needs that bridge the gap between standard recovery and the cost of building to a more resilient standard.	State Treasurer's Office	1	One-Time	\$5,000,000
2G	Explore and recommend structures to support pooled funds for flexible, gap-filling capital to facilitate short-term recovery, particularly for low-income, rural, or marginalized households.	State Treasurer's Office	2		
2H	Select and fund a portfolio of high-priority water and wastewater capital infrastructure projects that showcase best practices in resilience.	Department of Environmental Conservation (DEC); Climate Action Office (CAO)	2		
21	As funding allows, fund repair and recovery efforts following disasters, complementing federal assistance, and ensuring timely support for restoring homes, businesses, infrastructure, ecosystems, and community services.	Climate Action Office (CAO)	2		

See legend of the table fields on page 43

Community Centric Approach

3: Establish cross-agency processes to collaboratively plan, align, and deploy financial and technical assistance resources to support community resilience needs tailored to community priorities.

Action Number	Action	Lead	Tier	Duration	Estimated Cost
3A	Expand technical assistance to support municipalities in creating annexes for hazard-specific events that include volunteer and donation management.	Vermont Emergency Management (VEM)	1	N/A	Implemented with existing or ongoing resources.
3B	Enhance relevant training programs, such as Vermont Local Roads (VLR) and Rivers and Roads, to help municipal highway departments and town governments better understand the connections between Transportation Best Management Practices (BMPs) and climate resilience.	Agency of Transportation (AOT)	1	One-Time Ongoing	\$40,000 \$10,000
3C	Develop a user-friendly guide for municipalities detailing which disaster recovery and resilience programs are eligible for pre-approved match sources, how match can be used (planning, design, construction), and pre-approved cost categories.	State Recovery Office	1	One-Time	\$30,000
3D	Expand the capacity of the Office of the Vermont State Climatologist to conduct climate hazard research, develop hazard-specific plans, and provide climate data and education to Vermonters.	Climate Action Office (CAO)	1	One-Time	\$320,000
3E	Leverage existing State Agencies' community partner inventories to explore how they can be scaled to support coordination across State Agencies on climate resilience-focused community outreach.	Climate Action Office (CAO)	2		
3F	Improve the design and execution of transportation resilience projects at both the state and municipal levels by establishing a collaboration framework that includes a formal process for construction professionals to provide constructability input during project design, joint training for designers and contractors on best practices for resilient infrastructure, and on-call engineering support to help field crews address challenges during construction.	Agency of Transportation (AOT)	2		
3G	Coordinate across State agencies to develop unified messaging at the municipal level on climate resilience planning, engagement, and implementation.	Climate Action Office (CAO)	2		

^{4:} Empower municipalities to develop and implement plans that incorporate climate resilience best practices, foster cross-sectoral and regional implementation, and maximize the impact of planning.

Action Number	Action	Lead	Tier	Duration	Estimated Cost

4A	Identify best practices for climate resilience and match them to existing State programs (e.g., waste heat recovery for wastewater projects; housing built outside the floodplain incorporated into ACCD Designation Programs).	Climate Action Office (CAO)	1	N/A	Implemented with existing or ongoing resources.
4B	Amend the Municipal Energy Resilience Program (MERP) grant decision criteria to give greater weight to applications that align with shelter locations identified in Local Emergency Management Plans, ensuring that municipal shelter locations have sustainable energy backup systems.	Department of Buildings and General Services (BGS)	1	N/A	Implemented with existing or ongoing resources.
4C	Secure funding to support municipalities in utilizing the Municipal Climate Planning Framework and Guide to incorporate climate resilience into their municipal plans.	Climate Action Office (CAO)	2	One-Time Ongoing	\$300,000 \$100,000
4D	Coordinate with state agencies that fund planning and project implementation to amend their funding decision criteria to give preference to projects that incorporate climate resilience best practices.	Climate Action Office (CAO)	2		
4E	Tie implementation funding, additional capacity support, and cohort model support to completion of existing planning processes that incorporate climate resilience at the municipal level.	Climate Action Office (CAO)	2		

5: Enhance state capacity to identify climate change impacts on human health, implement adaptation strategies, and support individual, community, and organizational resilience.

Action Number	Action	Lead	Tier	Duration	Estimated Cost
	Allocate state funding to ensure the Department of Health (VDH) and				
	the Agency of Human Services (AHS) retain the necessary capacity,				
5A	including dedicated staff, to plan for, prepare for, and respond to	Department of Health (VDH)	Department of Health (VDH) 1 Ongoing	1	\$492,500
	climate-related health hazards, with a specific focus on				
	disproportionately affected populations.				
	Provide guidance, funding, and technical assistance to Regional				
5B	Planning Commissions, municipalities, health and residential care	Department of Health (VDH)	1	Ongoing	\$670,000
36	facilities, and other organizational partners to prepare for and respond	Department of Heatti (VDH)	1	Oligonig	\$670,000
	to climate hazards affecting human health.				
	Provide training, guidance, and resources to community health	Department of Health (VDH)			
5C	workers, case managers, and other organizational partners that can		2		
50	support individuals and households in building pre-disaster resilience		2		
	and addressing post-disaster needs.				

See legend of the table fields on page 43

Early Warning Systems and Fast, Effective Response

6: Strengthen cross-government structures for rapid, coordinated emergency response and recovery that align local, regional, state, and federal efforts and mobilize Vermont's volunteer spirit.

Action Number	Action	Lead	Tier	Duration	Estimated Cost
6A	Develop and implement a targeted outreach campaign to increase VT- Alert subscriptions among key community partners, local organizations, and underserved populations.	Vermont Emergency Management (VEM)	1	N/A	Implemented with existing or ongoing resources.
6B	In partnership with the Department of Health (VDH), Department of Children and Families (DCF), and other State Agencies and Departments, build and support a network of local organizational and community contacts to receive time-sensitive alerts and relay them through their trusted channels.	Vermont Emergency Management (VEM)	1	N/A	Implemented with existing or ongoing resources.
6C	Conduct a comprehensive, cross-agency review of the Citizens Assistance Registry for Emergencies (CARE) to identify user barriers, resource constraints for expansion, and potential technology upgrades. Use the findings to relaunch and expand the program with improved community partnerships, clearer messaging, stronger operational integration, and a modern data management solution.	Enhanced 911 (E911)	1	One-Time	Costing for this action is ongoing
6D	Provide wildland fire training for local fire departments with the goal of having at least one person trained in wildland fire response at each department.	Department of Forests, Parks and Recreation (FPR)	1	Ongoing	\$250,000
6E	Expand capacity to convene regional tabletop exercises on dam safety and emergency action plans in partnership with electricity utilities and municipal emergency management directors.	Department of Environmental Conservation (DEC)	1	Ongoing	\$175,000
6F	Establish and fund a permanent State Voluntary Agency Liaison (VAL) role to foster and maintain relationships among government, voluntary, faith-based, and community partners to support the delivery of services to address unmet needs for individuals, and maintain a system for the coordination of volunteers in times of disaster.	Agency of Human Services (AHS)	1	Ongoing	150,000
6G	Explore the feasibility of establishing a Vermont Corps modeled after AmeriCorps that supports year-round resilience work and can be rapidly activated as a disaster response and recovery resource during climate-related emergencies.	SerVermont	2	Ongoing	\$1,500,000
6Н	Provide funding to support long-term recovery and mutual aid groups in operating during and outside times of disaster, as well as to develop and maintain systems for disaster response and recovery, so that community volunteers do not have to establish new disaster recovery processes for every new disaster.	Agency of Human Services (AHS)	2		
61	Through implementation of the Voluntary Organizations Active in Disaster (VOAD) strategic plan, develop a Volunteer Deployment Playbook that includes step-by-step guidance on activation protocols, safety procedures, site management and demobilization, and communication and reporting structures to be used by municipalities and community-based organizations supporting volunteer coordination after disasters.	SerVermont	2		

6J	Establish a statewide system that includes dedicated funding across Agencies and Departments in base budgets for translating emergency communications, including pre-scripted messages and capacity for near-real-time translation during events.	Administration, Agency of (AOA)	2	
6K	Educate municipalities on the process for communicating and using 511 to display transportation infrastructure closures and reopenings, and develop a simple, visual guide to incorporate into municipal Local Emergency Management Plans that explains the process.	Agency of Transportation (AOT)	2	
6L	Revise the methodology for identifying State transportation resilience projects to align with shelter locations identified by municipalities in Local Emergency Management Plans.	Agency of Transportation (AOT)	2	
6M	Evaluate and pilot the use of alternative platforms (e.g., WhatsApp, Facebook Messenger, SMS groups, community radio) to deliver emergency alerts to populations unlikely to enroll in VT-Alert.	Vermont Emergency Management (VEM)	2	
6N	Building on existing FEMA training, develop an anytime learning opportunity available in the Learning Management System on volunteer and donations management best practices, in partnership with SerVermont, Voluntary Organizations Active in Disasters (VOAD), and the Department of Buildings and General Services (BGS).	Vermont Emergency Management (VEM)	2	

7: Equip Vermonters, especially those most at risk, to prepare for, respond to, and recover from climate-driven disasters by delivering tools, information, and support that are culturally relevant, linguistically inclusive, and accessible to people of all abilities, backgrounds, and income levels.

Action Number	Action	Lead	Tier	Duration	Estimated Cost
	Develop and implement a standardized climate equity and justice				
	training for Vermont's resilience and emergency management				
	personnel. This training program will be co-developed with community				
	leaders and organizations representing frontline communities,				
	including BIPOC, low-income, disabled, older adult, and rural			One-Time	\$80,000
7A	Vermonters, so that these communities benefit from improved,	Climate Action Office (CAO)	1		
	equitable service. The training will provide personnel with the			Ongoing	\$10,000
	information needed to ensure equitable outcomes, including				
	understanding structural inequities, practicing culturally competent				
	crisis communication, facilitating inclusive planning processes, and				
	applying trauma-informed response techniques.				
	Expand capacity for disaster case managers at the Agency of Human				
7B	Services to continuously support individuals in accessing critical	Agency of Human Services (AHS)	1	Ongoing	\$150,000
	resources regardless of Federal Disaster Declarations.				
	Develop a Statewide Individual Assistance Plan that outlines how				
	Vermont will administer FEMA Individual Assistance, support				
7C	Vermonters in recovery from disaster, and clarifies the roles and	Agency of Human Services (AHS)	1	N/A	Implemented with existing or
70	responsibilities of Long-Term Recovery Groups and other recovery	Agency of Haman Services (Ario)	-	IWA	ongoing resources.
	partners to ensure coordinated, equitable support for disaster				
	survivors.				

7D	Establish a peer-to-peer support structure under disaster case managers through avenues like office hours. Here, individuals, case managers, and Long Term Recovery Groups that have successfully navigated disaster case management resources can provide guidance to others looking to navigate or support those resources.	Agency of Human Services (AHS)	2	
7E	Identify funding sources that can be used to augment those available through the Individual Assistance (IA) program following a Federal Disaster Declaration.	State Recovery Office	2	
7F	Identify funding sources to provide direct financial assistance to individuals and households that are impacted by disasters that do not rise to the level of receiving an Individual Assistance Declaration.	State Recovery Office	2	
7G	Designate mobile outreach teams to attend events and increase understanding of floodproofing strategies, especially in underserved communities.	Department of Environmental Conservation (DEC)	2	

8: Enhance Vermont's ability to anticipate and respond to climate-driven hazards by modernizing and integrating statewide monitoring, modeling, mapping, and risk assessment systems that reflect future climate risks and guide targeted resilience investments.

Action Number	Action	Lead	Tier	Duration	Estimated Cost
8A	Building on existing risk assessments and inventories, create a comprehensive inventory of vulnerable State facilities by identifying and mapping locations at risk from climate-related impacts, such as flooding, landslides, and wildfires.	Department of Buildings and General Services (BGS); Vermont Center for Geographic Information (VCGI)	1	One-Time	Costing for this action is ongoing
8B	Update Statewide landslide inventory and develop a landslide risk model using the updated inventory.	Vermont Geological Survey (VGS)	1	One-Time Ongoing	\$300,000 \$150,000
8C	Develop landslide forecasting by integrating the landslide risk model with precipitation forecasting to predict and issue landslide risk alerts.	Vermont Geological Survey (VGS)	1	One-Time	\$20,000
8D	Explore and identify viable, affordable products, in addition to US Geological Survey (USGS) gauges, that enable early warning and alert systems on rivers tied to flood stages.	Department of Environmental Conservation (DEC)	1	N/A	Implemented with existing or ongoing resources.
8E	Adopt and institutionalize a consistent global climate model framework across state government to inform long-term planning, investment, and policy decisions, ensuring that agencies are working from a shared understanding of Vermont's projected climate-related hazards and impacts.	Climate Action Office (CAO)	1	One-Time	\$200,000
8F	Secure funding to complete the statewide 3D Hydrography Program (3DHP), which provides a modern and precise digital map of Vermont's surface waters. This foundational data is critical for accurately modeling flood risks and designing resilient infrastructure, such as bridges and culverts, and will advance resilience priorities across State agencies.	Vermont Center for Geographic Information (VCGI)	1	One-Time	\$1,026,130
8G	Identify priority areas to supplement statewide flood risk maps with future climate conditions, such as increased precipitation and storm intensity, so that planning and investments reflect projected flood vulnerabilities, not just historical ones.	Department of Environmental Conservation (DEC)	1	One-Time	Costing for this action is ongoing

	Establish structure for shared data and project coordination on				
8H	hydrological mapping and risk modeling between the Agency of Transportation (AOT), VT Center for Geographic Information (VCGI), and the Department of Environmental Conservation (DEC) Functioning Floodplains Initiative.	Agency of Transportation (AOT)	1	N/A	Implemented with existing ongoing resources.
81	Use the Municipal Vulnerability Indicators Tool and other relevant tools and datasets to identify the drinking water and wastewater assets most vulnerable to climate-related hazards. Develop a multi-year plan to fund upgrades needed to mitigate vulnerabilities.	Department of Environmental Conservation (DEC)	1	N/A	Implemented with existing ongoing resources.
8J	Conduct hydraulic studies to improve understanding of river channel dynamics in locations where recent flooding has shifted riverbeds near populated areas. These studies will support the evaluation of interventions that can reduce long-term flood damage.	Department of Environmental Conservation (DEC)	1	Ongoing	\$50,000-150,000 / study
8K	Establish a structure to track the vulnerable sites inventory during times of disaster, informing the rapid deployment and prioritization of recovery resources.	Vermont Emergency Management (VEM)	2		
8L	Integrate asset inventories and landslide risk modeling in the Municipal Climate Change Vulnerability Indicators Tool, enabling agencies and municipalities to monitor risk, prioritize maintenance, and plan for resilience investments in real-time.	Vermont Geological Survey (VGS)	2		
8M	Conduct an assessment to identify priority locations for installing new air quality monitoring stations to improve data collection in underserved areas and better under the long-term impacts of poor air quality on human health, and support modeling for public health advisories.	Department of Environmental Conservation (DEC)	2		
8N	Use high spatial and temporal resolution Synthetic Aperture Radar (SAR) as a cost-effective remote sensing tool to monitor geophysical changes, such as land movement, soil saturation, and deformation, in areas at high risk of landslides, flooding, and other climate-related hazards.	Vermont Geological Survey (VGS)	2		
80	Update Vermont's hydrologic modeling standards by incorporating the latest global climate models and future precipitation projections. Using these updated standards, conduct a robust, 75-year simulation of the state's hydrological cycle to inform future infrastructure design, land use planning, and ecosystem management.	Department of Environmental Conservation (DEC)	2		
8P	Identify a process to integrate updated modeling into existing hydraulic flood models for future planning and mapping needs.	Department of Environmental Conservation (DEC)	2		

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Economic and Environmental Sustainability

9: Support Vermont businesses, especially small and underserved businesses, in building capacity to prepare for, respond to, and recover from climate-driven disasters, while also advancing economic diversification and adoption of climate-resilient business practices.

Action Number	Action	Lead	Tier	Duration	Estimated Cost
9A	Identify long-term, sustainable funding for the Business Emergency Gap Assistance Program (BEGAP) to provide both proactive resilience support, such as coaching and disaster preparedness, and post- disaster recovery grants to businesses and nonprofits.	Department of Economic Development (DED)	1	One-Time	\$32,000,000* total allocated dollars to the program for 2023 and 2024 flooding
9В	Launch the Climate Outdoors Workforce Initiative in partnership with the Department of Labor and the Vermont Outdoor Business Alliance (VOBA). This project will define climate-resilient jobs, skills, and career pathways specifically within Vermont's outdoor economy. Activities of the project include surveying businesses to identify needs, developing training curricula, and creating marketing materials to attract job seekers to these roles.	Climate Action Office (CAO); Department of Labor (DOL)	1	One-Time	\$100,000
9C	Identify long-term sustainable funding for the Farm and Forestry Operations Security Special Fund to provide grants to farms and forestry operations to cover losses resulting from climate disasters.	Agency Agriculture, Food & Markets (AAFM)	1	One-Time	\$7,500,000
9D	Provide financial assistance for upgrading logging equipment for efficiency and AMP compliance, and providing loggers with equipment linked with improving water quality (e.g., portable bridges, crane mats).	Department of Forests, Parks and Recreation (FPR)	1	Ongoing	\$500,000
9E	Conduct a business climate change needs assessment, partnering with business support organizations, to determine resource and tool needs and gaps for small businesses, focusing on those that are underserved, to prepare for and recover from climate-related hazards and withstand seasonality and extreme weather events.	Department of Economic Development (DED); Vermont Outdoor Recreation Economic Collaborative (VOREC)	1	One-Time	Costing for this action is ongoing
9F	Leveraging the framework and findings from the Climate Outdoors Workforce Initiative, develop a comprehensive, five-year statewide resilient workforce development plan. This plan will align with the USCA Climate Resilience Workforce Framework and relevant National Governors Association projects to expand the initial framework to other sectors and identify the full programmatic and financial resources required for statewide implementation.	Climate Action Office (CAO); Department of Labor (DOL)	2		
9G	Launch and fund peer-learning networks for businesses actively implementing climate adaptation measures.	Climate Action Office (CAO); Department of Economic Development (DED)	2		

6 1 (Based on the findings of the business climate change needs assessment, develop technical resources and tools to help businessed diversify and prepare for, as well as recover from, climate-related hazards, with a focus on small businesses owned by women, BIPOC, and minority communities.	Department of Economic Development (DED); Vermont Outdoor Recreation Economic Collaborative (VOREC)	
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10: Advance the resilience and long-term viability of Vermont's working lands, both agriculture and forestry, by expanding equitable access, promoting sustainable practices, and strengthening support systems to ensure they remain productive, adaptive, and central to Vermont's climate and economic resilience.

Action Number	Action	Lead	Tier	Duration	Estimated Cost
10A	Develop and launch a statewide self-evaluation tool for farm-level climate resilience and recovery, with aggregate results used to inform state planning, funding, and technical assistance efforts.	Agency Agriculture, Food & Markets (AAFM); Climate Action Office (CAO)	1	One-Time	\$6,500,000
10B	Work with federal partners to update and revise crop insurance programs to better support Vermont farmers and explicitly cover diversified farms.	Agency Agriculture, Food & Markets (AAFM)	1	N/A	Implemented with existing or ongoing resources.
10C	Expand the Farm and Forest Viability Program at the Vermont Housing and Conservation Board (VHCB), offering specialized business planning and risk management assistance tailored to climate-resilient and diversified agricultural operations.	Vermont Housing and Conservation Board (VHCB)	1	Ongoing	Costing for this action is ongoing
10D	Expand the Vermont Housing and Conservation Board's (VHCB) farmland acquisition fund, prioritizing historically underserved, newentry, and small-scale farmers.	Vermont Housing and Conservation Board (VHCB)	1	One-Time Ongoing	\$10,000,000 \$350,000
10E	Develop a new communications campaign for working lands succession programs, such as Vermont Land Link, to directly match retiring farmers and forestland owners with a new generation of producers and land stewards.	Agency Agriculture, Food & Markets (AAFM)	2		

11: Strengthen the resilience and security of Vermont's food system through integrated planning, expanded access to processing infrastructure, and systems that enable equitable access to healthy, affordable, and culturally relevant foods, especially for underserved communities.

Action Number	Action	Lead	Tier	Duration	Estimated Cost
	Allocate sustainable, long-term funding to develop regional food				
111	system infrastructure, such as hubs for aggregation, processing, and	Agency Agriculture, Food & Markets (AAFM)	1	One-Time	\$175,800,000
11A	cold storage, to strengthen the resilience of Vermont's food supply and				
	ensure equitable food access.				
	Building on the Agriculture Recovery Task Force and the Agriculture				
11B	Task Force Final Report, form an agricultural emergency response	Agency Agriculture, Food & Markets	1	Ongoing	\$110.000-140.000
	team trained to coordinate agricultural recovery during climate-related	(AAFM)	1	Oligoliig	\$110,000-140,000
	disasters.				

11C	Building on the Agriculture Recovery Task Force and the Agriculture Task Force Final Report, grow and enhance investments in agricultural resilience and adaptation to address loss of agricultural topsoil, crop loss, and other climate-driven ecosystem threats to farms and food systems.	Agency Agriculture, Food & Markets (AAFM)	1	Ongoing	Costing for this action is ongoing
11D	Establish formal agreements linking regional food hubs directly with emergency food distribution systems.	Agency Agriculture, Food & Markets (AAFM)	1	N/A	Implemented with existing or ongoing resources.
11E	Address farmworker housing and safety in state and local emergency management planning and disaster response protocols.	Vermont Emergency Management (VEM)	2		

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Infrastructure Design and Reinforcement

12: Develop and implement climate-resilient infrastructure systems that are designed for long-term adaptability to climate-related hazards.

Action Number	Action	Lead	Tier	Duration	Estimated Cost
12A	Identify and work with municipalities to pre-approve safe relocation sites for housing post-disaster aligned with State Land Use Goals.	Department of Housing and Community Development (DHCD)	1	N/A	Implemented with existing or ongoing resources.
12B	Enhance the Agency of Transportation's (AOT) Hydraulic Assistance Program through the improvement of existing tools and enhanced technical assistance to municipalities to support more efficient and accurate design of climate-resilient infrastructure projects.	Agency of Transportation (AOT)	1	One-Time	\$340,000
12C	Accelerate the implementation of resilience improvements for the top five high-risk state routes in the Transportation Resilience Improvement Plan, which will enhance the transportation system's resilience for residents, businesses, and tourism.	Agency of Transportation (AOT)	1	One-Time	\$25,000,000
12D	Explore new funding opportunities and enhance existing sources for climate change adaptation projects related to transportation infrastructure, including roads, bridges, railroads, and transit systems.	Agency of Transportation (AOT)	1	One-Time	\$150,000
12E	Complete a review and evaluation of building codes from other jurisdictions (to include residential and energy codes) to determine what codes could be best suited to Vermont, including standards for new construction, best practices for existing building, and consideration of changing climate and hazard risk profile (e.g., building retrofit in flood hazard area, new construction in wildland/urban interface, considering of overheating or extreme heat).	Division of Fire Safety (DFS)	2		
12F	Build on utility efforts and outcomes of the grid resilience proceeding to help utilities develop capabilities to identify vulnerabilities to climate-related hazards, quantify risks, analyze costs and benefits of mitigation alternatives, prioritize investments, and measure the benefits of interventions.	Department of Public Service (PSD)	2		
12G	Initiate a process to ensure recreational infrastructure on State lands can withstand future climate-related events. Assess all assets against the Vermont Trail System standards once finalized (July 2026), and implement a capital plan to systematically upgrade all non-compliant infrastructure.	Department of Forests, Parks and Recreation (FPR)	2		

asset inventory, condition assessment, and project phasing
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13: Align infrastructure planning and investment with climate resilience priorities to support a transparent, data-informed foundation for valuing, identifying, prioritizing, and institutionalizing investments in climate-resilient infrastructure.

Action Number	Action	Lead	Tier	Duration	Estimated Cost
13A	Modernize and streamline state permitting processes to remove barriers and create predictable pathways for climate resilience projects. Priority should be given to initiatives that either relocate essential infrastructure out of vulnerable areas or support compact housing development in designated growth centers (e.g., Act 250 Tier 1A and 1B areas).	Department of Environmental Conservation (DEC); Department of Public Service (PSD)	1	Ongoing	Costing for this action is ongoing
13B	Provide grant funding to municipal and cooperative utilities to assist in the acquisition of software and hardware systems to enable real-time system and device visibility, communication, and control in support of demand management, including during periods of capacity or energy shortfalls.	Department of Public Service (PSD)	1	One-Time Ongoing	\$3,500,000 \$200,000
13C	Increase funding for building weatherization, with an emphasis on low- and middle-income households, using sources that do not increase electricity bills, to improve energy efficiency, reduce heating and cooling demands, and ease the load on utilities during extreme weather.	Department of Public Service (PSD)	1	Ongoing	\$26,500,000
13D	Develop a prioritized clearinghouse for State transportation projects to most effectively implement available funding and build climate resilience.	Agency of Transportation (AOT)	1	One-Time Ongoing	\$250,000 \$50,000
13E	Establish a framework to evaluate and quantify qualitative and quantitative resilience co-benefits, such as avoided outages, cost savings, and emissions reductions, within the electricity and telecommunications sectors.	Agency of Natural Resources (ANR); Department of Public Service (PSD)	2		
13F	Explore potential funding and financing pathways, such as state programs, grant access, or pooled resources, to help municipal electric utilities and electricity co-ops fund major projects when third-party revenue is unavailable. Based on identified funding pathways, fund grid upgrades and other projects that increase stability and resilience.	Department of Public Service (PSD)	2		

If recommended as an outcome of the Public Utility Commission Resilience Proceeding, update utility grid reliability targets to include climate resilience and electrification, based on benefit-cost analysis, and create a mechanism for periodic review of these targets.	2
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Nature-Based Solutions

14: Accelerate the protection and restoration of natural and working lands by strengthening and scaling up conservation efforts and land acquisition programs.

Action Number	Action	Lead	Tier	Duration	Estimated Cost
14A	To accelerate the pace of high-priority land conservation, revise Vermont Housing and Conservation Board (VHCB) easement and coholder policies to reduce administrative burdens. Streamlining these requirements will increase the capacity of VHCB and its partners, leading to the faster acquisition of more lands critical for climate resilience.	Vermont Housing and Conservation Board (VHCB)	1	N/A	Implemented with existing or ongoing resources.
14B	Develop rapid ecological assessment and recovery protocols for state lands in response to post-disaster events (e.g., floods, fires) to support habitat restoration and minimize biodiversity loss, serving as a model for private lands.	Department of Forests, Parks and Recreation (FPR); Fish and Wildlife Department (FWD)	1	One-Time Ongoing	Implemented with existing or ongoing resources.
14C	Formalize and scale a unified statewide technical assistance initiative targeting small landowners (generally less than 25 acres) to promote climate resilience, biodiversity, and forest health. Modeled after programs like Coverts, LakeWise, and StreamWise, this program would train and support local staff and volunteers, such as conservation commissioners or peer landowners, to deliver place-based guidance on stewardship practices, introduced invasive species management, and ecological forestry.	Fish and Wildlife Department (FWD); Department of Forests, Parks and Recreation (FPR)	1	One-Time Ongoing	\$125,000 \$115,000
14D	Create a Vermont Conservation Fund, housed at the Vermont Community Foundation, funded by private donations, endowments, and charitable giving that supports the recovery of rare, threatened, and endangered species and their habitats.	State Treasurer's Office	1	N/A	Implemented with existing or ongoing resources.
14E	Secure additional funding to expand the implementation of Supporting Loggers to Comply with Acceptable Management Practices (SLoCAMP), intended to assist logger contractors to ensure implementation of proactive and preventative water quality protection and climate adaptation practices on harvest sites through the water quality assistance program.	Department of Forests, Parks and Recreation (FPR)	1	Ongoing	\$1,000,000
14F	Secure a dedicated pot of funding for the Vermont Housing and Conservation Board (VHCB) to complement and add wetland and floodplain restoration on farmland conservation projects.	Agency Agriculture, Food & Markets (AAFM); Vermont Housing and Conservation Board (VHCB)	1	One-Time Ongoing	\$50,000 \$4,100,000
14G	Expand Fish and Wildlife's Environmental Protection Agency Program dedicated to wetland and floodplain restoration and acquisition in the Lake Champlain Basin, to work statewide.	Fish and Wildlife Department (FWD)	1	Ongoing	\$115,000

14H	Evaluate feasibility of a more equitable user fee system for access to state lands (i.e., conservation license) to expand resources available for land stewardship, public access, and species management on lands prioritized for their benefits to resiliency and biodiversity.	Agency of Natural Resources (ANR)	1	Ongoing	\$400,000
141	Establish or expand the use of impact fees in Act 250, Section 248 and other regulatory proceedings, and the opportunity to pool those fees in a mitigation bank held by the Department of Fish and Wildlife (FWD), as a means to magnify the benefit of those impact fees at scale on land conservation, biodiversity protection, and resilience. Some portion of the fees should be directed to support FWD staff directly involved in this work.	Fish and Wildlife Department (FWD)	2	Ongoing	\$60,000
1 4J	Establish a state tax credit for landowners who donate a permanent conservation easement to a qualified land trust or state agency. This incentive would be prioritized for lands that support climate resilience and biodiversity in statewide plans, such as Vermont Conservation Design.	Department of Taxes (TAX); Department of Forests, Parks and Recreation (FPR)	2	One-Time	\$50,000
14K	Support holistic biodiversity protection for resilient ecosystems on public and private lands at a watershed scale with secure, dedicated, sustainable funding for species most at risk via the Nongame Wildlife Fund.	Fish and Wildlife Department (FWD)	2	Ongoing	\$115,000
14L	Increase the Department of Fish and Wildlife's capacity to provide technical assistance to landowners, supporting them in the enrollment and management of ecologically significant treatment areas under the Use Value Appraisal (UVA) program to maximize biodiversity and climate resilience benefits.	Fish and Wildlife Department (FWD); Department of Forests, Parks and Recreation (FPR)	2	Ongoing	\$57,500
14M	Building on the Community Wildlife Program, train technical service providers, realtors, and local leaders to better communicate available conservation resources to new landowners.	Fish and Wildlife Department (FWD)	2	Ongoing	\$115,000
14N	Establish sustainable funding for continuation of Department of Forests, Parks, and Recreation Growing Vermont's Forest Resilience: A Collaborative Strategy which will link management of forest products with increased forest resilience enabling markets for forest products to become markets for resilience.	Department of Forests, Parks and Recreation (FPR)	2	Ongoing	\$2,000,000
140	Revise tactical basin plan templates to prioritize ecological climate resilience outcomes, such as those advanced by protecting biodiversity.	Department of Environmental Conservation (DEC)	2		
14P	Review and revise Agency of Natural Resources (ANR) statutes related to land acquisition to streamline processes, noting the difference between FWD, FPR, and DEC.	Agency of Natural Resources (ANR)	2		
14Q	Pilot a Payment for Ecosystem Services (PES) program with a focus on small and mid-sized landowners to expand beyond traditional agricultural conservation to include forestland owners.	Department of Forests, Parks and Recreation (FPR)	2		

14R	Expand the River Corridor Easement Program by expanding the existing Rivers Program ecosystem calculator to include biodiversity, carbon storage, and habitat quality metrics; revisiting the administrative model for holding easements to increase the program's scale and scope; and expanding funding for easement acquisition in coordination with partners like the Regional Conservation Partnership Program (RCPP) to	Department of Environmental Conservation (DEC)	2	
	deliver greater flood resilience and habitat restoration benefits. Strengthen existing statewide coordination between introduced invasive species management actors, including the Forest Pest Advisory Committee, FPR/AAFM MOU, and the Invasives and Exotic Plant Advisory Committee (VIEPAC) to establish a statewide introduced			
14\$	invasive species strategy with a specific focus on biodiversity and prioritization for resilience that clarifies jurisdictional roles and prioritizes regional coordination with Cooperative Invasive Species Management Areas (CISMAs), other states, Canadian provinces, and private landowners for early detection rapid response, and long-term management of introduced invasive species impacting biodiversity and habitat health.	Department of Forests, Parks and Recreation (FPR); Fish and Wildlife Department (FWD)	2	
14T	Streamline and align Vermont's participation in multi-state and regional conservation initiatives (e.g., Staying Connected Initiative, RISCC, Lake Champlain Basin Program) to advance landscape-scale biodiversity protection and climate resilience efforts by incorporating Vermont landscape-level analysis and tools such as Vermont Conservation Design into multi-state and regional initiatives.	Fish and Wildlife Department (FWD)	2	
14U	Building on existing resources, launch a unified and joint communications strategy across state agencies and conservation organizations to present consistent, coordinated messaging that resonates with diverse audiences about climate resilience, biodiversity conservation, and clean water. This messaging promotes the idea that protecting intact systems is cheaper and more resilient than restoration after a disaster.	Climate Action Office (CAO)	2	
14V	Develop metrics for access to public outdoor spaces for communities across Vermont to understand where to prioritize funding for open space and recreation-based conservation.	Department of Forests, Parks and Recreation (FPR)	2	

^{15:} Integrate resilience objectives into the planning, funding, and implementation of water quality projects to deliver co-benefits such as flood safety, habitat connectivity, and climate adaptation.

Action Number	Antinu	Load	Tion	Duration	Fatimated Coat
Action Number	Action	Leau	Tier	Duration	Estimated Cost

\$57,5	Ongoing	1	Department of Forests, Parks and Recreation (FPR)	Expand the Community Canopy tree giveaway program by partnering with Vermont nurseries to increase the supply of locally grown seedlings and saplings, prioritizing native and climate-resilient species.	15A
\$710,0 first five yea \$510,0 per year af	Ongoing	1	Department of Environmental Conservation (DEC)	Leverage existing funding to prioritize water quality projects that deliver climate resilience co-benefits. Acknowledging current measurement challenges, this effort will focus on creating practical, effective metrics that integrate co-benefits, such as flood resilience and biodiversity impacts, into project selection and scoring.	15B
Costing for this action is ongoing	Ongoing	1	Department of Environmental Conservation (DEC)	Develop and implement a comprehensive strategy to expand the use of the Water Infrastructure Sponsorship Program (WISPr). This strategy should include marketing to Clean Water State Revolving Fund (CWSRF) applicants, providing technical assistance to help them navigate the program, and establishing a system for identifying and pairing traditional infrastructure projects with nature-based solutions.	15C
		2	Department of Environmental Conservation (DEC)	Revise the project selection and scoring criteria for Vermont's clean water funding programs to explicitly prioritize prevention-focused projects, such as conserving intact wetlands, floodplains, and river corridors, that build climate resilience.	15D
		2	Department of Environmental Conservation (DEC)	Expand the use of Clean Water Project Surveys and Flood Damage Verification efforts to evaluate resilience outcomes of water quality investments.	15E
		2	Department of Environmental Conservation (DEC)	Evaluate climate risks to infrastructure longevity when considering feasibility constraints on infrastructure projects that are required to occur as part of operational permits (e.g., stormwater controls in flood-prone areas).	15F

See legend of the table fields on page 43

	Legend of Table Fields				
Field Name	Description				
Opportunity	Listed at the top of each table, this is the climate resilience objective the actions address.				
Action Number	A unique identifier assigned to each resilience action.				
Action	The proposed measure.				
Lead	The primary agency or organization responsible for implementation. The lead is identified based on initiative and/or subject matter expertise and will often need to coordinate with other partners to carry out the action effectively.				
Tier	The priority ranking of the action, reflecting its relative importance or readiness for implementation.				
Duration	If investment is needed for implementation, this indicates whether the investment is a one-time cost or an ongoing need over time. For actions where investment is not needed, N/A is used. Tier 2 actions where cost was not estimated have this field grayed out.				
Estimated Cost	The estimated financial resources required to implement the action, expressed in 2025 dollars or cost ranges. Actions that can be carried out with existing resources are noted as "Implemented with existing or ongoing resources." Actions requiring additional time and coordination to develop cost estimates are marked in blue as "Costing for this action is ongoing." Tier 2 actions where cost was not estimated have this field grayed out.				

Implementation Considerations and Measuring Progress

Federal Funding and Policy Shifts

Since early 2025, the new federal administration has affected major changes in federal policy, a number of which have impacted federal funding being delivered to Vermont. These changes affect both Vermont's economy and the State's financial stability. Vermont receives about 36% more federal funding per person than the average U.S. state, and federal dollars make up about 35% of the state budget. In Fiscal Year 2025, climate-related investments in Vermont, for both greenhouse gas emissions reduction and resilience projects, totaled over \$524 million – about three-quarters of that came from the federal government.

Cuts in federal funding create serious challenges for Vermonters. They reduce access to healthcare, create uncertainty for businesses, and shrink programs that have long supported the State's ability to respond to disasters. One example is the elimination of the Building Resilience and Infrastructure in Communities (BRIC) program, which helped Vermonters complete projects that lowered risks from climate hazards.

The federal landscape is still shifting and much remains unclear. If states are required to pay a larger share of disaster recovery costs, Vermont's ability to both recover from disasters and prepare for future ones could be significantly challenged.

Because of these uncertainties, this Strategy is designed to evolve. It will adapt as new funding opportunities emerge, programs are curtailed, and as federal policy continues to change. Stable and predictable federal support is essential for Vermont to build resilience, recover from disasters, and protect communities in the long term.

Measuring Outcomes

The Climate Action Office is currently developing a tool for monitoring and evaluating progress on key strategies and activities intended to drive emissions reductions and improve resilience in line with the Global Warming Solutions Act (GWSA) requirements. Specifically, the GWSA requires that the state track key components of its climate action, including:

- The State's greenhouse gas emissions and progress towards reducing emissions;
- The effectiveness of the initiatives, programs, and strategies set forth in the Climate Action Plan;
- The effects of climate change on the State's climate, wildlife, and natural resources;
 and
- Progress towards improving the existing resilience of the State's communities,
 infrastructure, and economy to current and anticipated effects of climate change.

The four primary goals for the tool are the following:

- **Policy-Decision Support Tool:** Support the State and its partners in making climate policy decisions with best available information.
- Sustainable Data Management: Create a data governance plan, flexibly accommodate future data needs, and coordinate relevant data and reporting across multiple private and public entities.
- **Open and Accessible Data:** Provide access to key data sources to organizations and members of the public engaged in climate action that wish to utilize Vermont's data to support their work.
- Public Education: Inform the public about progress on achieving GWSA commitments, including GHG emissions, emissions reductions, sequestration, adaptation, resilience, and equity.

This work will occur largely between now and 2026, and metrics developed to track resilience will support our overall understanding of how implementation of actions in this Strategy is helping us achieve the Vision and outcomes that guide this Strategy.

Implementation

The Resilience Implementation Strategy lays out a set of priority actions that State Government can move forward, based on a review of programs completed in 2024. As federal and state funding and policy decisions change, these recommendations may also shift. This Strategy sets clear but flexible actions, maintaining ability to adjust as new priorities emerge.

The recommendations seek to enhance and expand Vermont's climate resilience work across State Government, as funding allows. Much of the work will also depend on partners across Vermont who have close ties to their communities. The recommendations were not fully vetted with these partners before the Strategy was finalized, so the first phase of implementation will include reviewing the priority actions with them. This will ensure that the intended outcomes align with on-the-ground experience. Strong collaboration, both within State Government and with outside partners, will be key to making sure actions deliver the greatest resilience benefits.

Many of the actions identified will require additional funding. The Agency of Natural Resources' Climate Action Office will work across State Government to support the implementation of the priority actions identified in the Strategy. The success of this Strategy depends on partnership, flexibility, and sustained investment to turn priorities into real results for Vermont communities.

Future Updates

Building from the list of key actions identified in this Strategy, the Climate Superfund Act (Act 122, 2024), directs the development of criteria and procedures for "prioritizing climate change adaptation projects eligible to receive monies from the Climate Superfund Cost Recovery Program." Following the release of this Strategy, the Agency of Natural Resources' Climate Action Office will be collaborating with partners to establish metrics and criteria for the prioritization of specific climate change adaptation projects. This work is expected to begin early in 2026.

The Agency of Natural Resources and the Treasurer's Office will revisit the top priorities outlined in this Strategy no less than once every two years ensuring they remain responsive to emerging priorities, new funding opportunities, and evolving science. An updated version of the Strategy will be released by October 1, 2029, to assess progress made and identify the next set of actions that should be prioritized for maximum impact in improving Vermont's resilience. This process will be undertaken in collaboration with state agencies, municipalities, and other partners as needed, recognizing that building resilience requires shared commitment and coordination across Vermont. Through regular updates, the

Strategy will continue to provide a clear and adaptive framework for guiding Vermont's investments in resilience.		

References

t.pdf.

¹ Eyring, V.; Gillett, N.; Achuta Rao, K.; Barimalala, R.; Barreiro Parrillo, M.; Bellouin, N.; Cassou, C.; Durack, P.; Kosaka, Y.; McGregor, S.; Min, S.-K.; Morgenstern, O.; Sun, Y. *Human Influence on the Climate System*; Cambridge University Press: Cambridge, United Kingdom and New York, NY, USA, 2021. https://doi.org/10.1017/9781009157896.005.

² Vermont Climate Council. *Vermont Climate Action Plan 2025*. Montpelier, VT, 2025. https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/Vermont_Climate_Council/CAP2025_ChapterDrafts/ClimateActionPlanUpdate_Final.pdf

³ Brandon, C.; Kratzer, B.; Aggarwal, A.; Heubaum, H. *Strengthening the Investment Case for Climate Adaptation: A Triple Dividend Approach*; World Resources Institute, 2025. https://doi.org/10.46830/wriwp.25.00019.

⁴ Watson, K. B.; Ricketts, T.; Galford, G.; Polasky, S.; O'Niel-Dunne, J. Quantifying Flood Mitigation Services: The Economic Value of Otter Creek Wetlands and Floodplains to Middlebury, VT. *Ecological Economics* 2016, *130*, 16–24. https://doi.org/10.1016/j.ecolecon.2016.05.015.

⁵ The Trust for Public Land. *Vermont's Return on Investment in Land Conservation*; 2018. https://www.tpl.org/wp-content/uploads/2018/09/Vt.ROI_.8_16_18final.digital.pdf.

⁶ U.S. Chamber of Commerce; Allstate; U.S. Chamber of Commerce Foundation. *The Preparedness Payoff: The Economic Benefits of Investing in Climate Resilience*; United States Chamber of Commerce: Washington, D.C., 2024.

https://www.uschamber.com/assets/documents/USCC_2024_Allstate_Climate_Resiliency_Repor

⁷ U.S. Chamber of Commerce; Allstate; U.S. Chamber of Commerce Foundation. *Beyond the Payoff: How Investments in Resilience and Disaster Preparedness Protect Communities*; United States Chamber of Commerce, 2025. https://www.uschamber.com/assets/documents/2025-Resilience-Report_BeyondThePayoff.pdf (accessed 2025-09-17).

⁸ Dupigny-Giroux, L.-A. L.; Shafer, J.; Kulkani, T.; Bowden, B.; Dow, J.; Paske, C.; Dejong, B.; Kim, J.; Myrick, E. *Climate and Climate Change in Vermont*; Vermont Climate Council. *Vermont Climate Action Plan 2025*. Montpelier, VT, 2025.

https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/Vermont_Climate_ Council/CAP2025_ChapterDrafts/Climate_Climate_Change.pdf

⁹ Runkle, J.; Kunkel, K. E.; Champion, S. M.; Dupigny-Giroux, L.-A.; Spaccio, J. *Vermont State Climate Summary 2022*; NOAA/NESDIS,: Silver Spring, MD, 2022. https://statesummaries.ncics.org/chapter/vt/.

¹⁰ Office of the State Treasurer. *Treasurer's Task Force on the Federal Transition: Final Report*; 2025.

https://www.vermonttreasurer.gov/sites/treasurer/files/documents/Task%20Force%20on%20the %20Federal%20Transition%20-%20Final%20Report-2.pdf.

¹¹ S&P Global Ratings. Federal Disaster Relief Funding Proposals Could Elevate Credit Risks for U.S. Governments; Ratings Direct, 2025.