



A resilient Vermont can anticipate, withstand, respond, adapt, and thrive in the face of current and future conditions and disasters made worse by 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.

## 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 made worse by climate change.

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

**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.

**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.

**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 Components and Key Themes

The Resilience Implementation Strategy includes six **components**, which group and build on considerable work done to date to make Vermont more resilient in the face of climate change. One overarching component—Government Systems—encompasses foundational activities that will connect and strengthen resilience strategies across all others.

Government Systems form the essential framework that supports and strengthens the core components of the Resilience Implementation Strategy (RIS). This component ensures that climate resilience is integrated across all sectors and State agencies and enables the State to support and empower communities, particularly those most vulnerable to climate impacts. Now, more than ever, this foundational component is necessary to build trust, address systemic inequities, and coordinate a comprehensive and unified approach to building resilience to the impacts of climate change.

A resilient Vermont requires meaningful engagement with Vermonters through two-way communication channels that empower public participation, elevate diverse voices, and drive solutions to complex problems. Ensuring that climate resilience efforts center Vermont's most marginalized and socially and economically vulnerable populations is critical to achieving just and equitable outcomes. From strategy development to decision-making and funding allocation, resilience efforts must be shaped by and for those most affected, strengthening both community structures and statewide systems to withstand climate disruptions.

Through a review of public comments, described in more detail under Process, *Themes* were identified and associated with the six components of the Resilience Implementation Strategy. Themes are nested below the six components. Outcome-based priorities were developed to reflect the key themes and the intended impact of resilience-building efforts, capturing the sentiments expressed in the public comments reviewed.



1. **Community-Centric Approach:** This core component includes actions that protect and build resilience in human health and wellbeing; help communities plan for the resilience of their ecological, social, and economic systems; bring local perspectives and needs to climate resilience conversations and decision-making processes; and promote community engagement in line with Vermont’s Environmental Justice law.
  - *Health and Wellbeing:*
    - Public and mental health support to Vermonters yields a better quality of life in the face of climate change impacts, greater understanding of the effects of climate change on human health, and better long-term outcomes for Vermonters.
  - *Identity and Empowerment:*
    - Community support systems—groups of individuals and organizations that work together to support community members in times of need— are adaptable to climate change impacts and help build trust between governmental entities, community partners, and individuals. Engagement with Vermonters works with those community support systems and produces equitable outcomes that center the most vulnerable, empower public participation and input, and solve complex problems.
  - *Urban, Community, and Regional Planning:*
    - Sustainable planning and development — for compact settlements, infill development, safe and affordable housing for all, and improved transportation access — support communities’ ability to withstand and thrive amidst the impacts of climate change.



2. **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.
  - *Land Conservation and Biodiversity:*
    - Conservation, habitat restoration, and biodiversity protection activities enable the long-term sustainability and health of natural lands in the face of climate change.
  - *Sustainable Land Practices:*
    - Sustainable land management practices that integrate ecological principles, traditional ecological knowledge, and recreational opportunities support the resilience of agricultural and forestry practices, promote soil health, and remove carbon from the atmosphere.
  - *Water Resources and Quality:*
    - Stewarding Vermont’s waters through watershed restoration and pollution control ensures clean water, reduces the risk of flooding, and enhances the resilience of aquatic ecosystems.

## Infrastructure Design and Reinforcement



3. **Infrastructure Design and Reinforcement:** This core component includes actions that protect, repair, or relocate Vermont’s critical assets, such as roads, bridges, wastewater treatment facilities, power lines, and communications services due to the impacts of climate change.
  - *Energy Delivery and Telecommunications Resilience:*
    - Diversifying and expanding the fleet of renewable resources within and interconnected to New England can reduce greenhouse gas emissions and increase resilience to large disruptions to energy supplies. Strategically and cost-effectively deploying storage and grid controls and relocating and hardening grid and telecommunications infrastructure bolsters the resilience of delivery of those energy supplies and telecommunications services to Vermonters. In addition, improving grid planning and locational incentives and disincentives can better identify and site renewables and storage where they add benefits – including resilience – and/or impose minimal grid burdens.
  - *Infrastructure Hardening, Repair, and Relocation:*
    - Updated infrastructure codes and design standards, comprehensive flood insurance programs, and strategic retrofitting ensure that Vermont’s infrastructure network — including bridges, roads, buildings, and utilities — can withstand extreme weather events and adapt to changing climate conditions.



## Early Warning Systems and Fast, Effective Response

4. **Early Warning Systems and Fast, Effective Response:** 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.
  - *Early Warning Systems:*
    - Accessible and comprehensive emergency warning systems and increased understanding of climate change vulnerabilities enhance Vermonters' ability to plan for and swiftly respond to climate-related hazards.
  - *Emergency Preparedness, Response and Recovery:*
    - Preparing for climate-exacerbated hazards aids in rapid emergency response and recovery, uses resources efficiently, supports the most vulnerable, and ensures that essential services can continue despite climate-related disruptions. Long-term disaster recovery activities begin during and after response and include activities focused on restoring the built, economic, social, cultural, and natural environment to prevent or reduce impacts from future climate-exacerbated disasters.
  - *Sustaining Community Essential Services:*
    - Fundamental community services such as food, water, and shelter; health and medical systems; energy and communications infrastructure; and transportation systems enable all aspects of society to function. There are systems in place to ensure the continuation of rapid, short-term recovery of those services in the face of climate-related disruptions.

- *Future Risk Mitigation:*
  - Local, regional, and state-level plans, policies, and projects incorporate climate change science. Plans and implementation actions lay out a path to a future where Vermonters thrive amidst the challenges exacerbated by climate change.





# Economic and Environmental Sustainability

- 5. **Economic and Environmental Sustainability:** This core component acknowledges the interconnectedness of climate resilience and economic stability, and the impact climate change has on Vermont’s economy. This component includes actions that support businesses and working lands enterprises in adapting to changing climate conditions.
  - *Economic Development and Stability:*
    - Economic initiatives that foster workforce growth and expand economic opportunities integrate climate resilience, prioritize affordability for current and future generations, and reduce economic disparity so that all Vermonters can thrive in the face of climate change.
  - *Agriculture and Food Systems:*
    - Sustainable farming practices and local food systems supports soil health, water quality, and climate resilience while strengthening Vermont’s agricultural economy and food security.

## Vision Development Process

To take a community-centric approach to the development of the Vision for a Resilient Vermont and key themes for the Resilience Implementation Strategy, the Climate Action Office (CAO) reviewed prior community engagement with a connection to climate resilience that has occurred over the past five years by various organizations (State, non-profit). The CAO selected 18 engagement reports to review, prioritizing those that were strongly relevant to issues related to climate change, clearly demonstrated direct input from Vermonters, and represented a diverse range of sectors (e.g. agriculture, electricity, emergency response). Across the selected reports, the CAO reviewed 420 comments - inclusive of direct feedback and input, comment summaries, and responses to poll questions – and categorized comments by theme. Major themes were grouped according to the Resilience Implementation Strategy’s Components, and outcome-based priorities were drafted for each theme that capture the sentiment and desired impact of resilience-building activities reflected in the comments reviewed. A list of community engagement reports reviewed can be found in table 1 below.

This process has a few benefits:

- Including a broad range of voices, including members of frontline communities (those who are disproportionately harmed by climate change, and often have less access to resources that aid in recovery and response).
- Minimizing the burdens of engagement by using existing knowledge and resources.
- In some cases, the engagement was run by or co-led by trusted community partners who have direct relationships at the local level, allowing for more direct community dialogue about climate related issues.

The development of the Vision for a Resilient Vermont did not start from scratch, but began with the vision laid out in [Vermont’s Roadmap to Resilience](#), developed by the Institute for Sustainable Communities in close partnership with key stakeholders following the devastating flooding impacts of Tropical Storm Irene in 2011. The Roadmap to Resilience acknowledged that resilience begins with the ability to adapt, and recommendations should evolve as conditions change, strategies are implemented, and new opportunities for collaboration arise. Recognizing that Vermont has experienced many climate change impacts over the 13 years since Tropical Storm Irene, this vision was developed by updating the vision from the Roadmap to Resilience to reflect the key climate change issues, challenges, and opportunities that Vermonters raised, captured through the review of community engagement reports done for this initiative.

Public comments on the draft vision were incorporated into the final version. The vision, and the key themes will be used in prioritizing gaps and measures identified through the Resilience Implementation Strategy.

Table 1: Prior Community Engagement Reports Reviewed for the Resilience Implementation Strategy

<b>Report or Initiative</b>
<a href="#">Resilience Implementation Strategy Kick-Off Events</a>
Input gathered by Consensus Building Institute & Climate Action Office to date
<a href="#">The Vermont Proposition - Vermont Council on Rural Development</a>
<a href="#">Designation 2050: Design the Future of Vermont</a>
<a href="#">Vermont Weighs In: Public Opinion on Renewable Electricity (PSD)</a>
<a href="#">VT Transportation Equity Framework Stakeholder Engagement Summary (VTrans)</a>
<a href="#">Amplifying Vermont's Economic Resilience (UVM's Office of Engagement and Center for Rural Studies)</a>
<a href="#">Vermont Manufactured Home Communities Flood Risk Assessment</a>
<a href="#">Barre Up Flood Recovery Report</a>
<a href="#">Ludlow Flood Recovery Forum</a>
<a href="#">Vermont Farm to Plate - Roadmap to Food Security</a>
<a href="#">Connecting People to Power: Environmental Justice Community Engagement Report</a>
<a href="#">Vermont Forest Futures Strategic Roadmap</a>
<a href="#">VT Agency of Agriculture Statewide Listening Sessions</a>
<a href="#">Bennington County Conservation District's Sept. 2023 Community Resilience Forum polling results</a>
<a href="#">Public Engagement Findings from 2021 Climate Action Plan</a>
<a href="#">State Recreation Plan (SCORP)</a>
<a href="#">Wildlife Action Plan</a>

