

Subcommittee Leads

Broad Topic Areas	Subcommittee	Description
Emissions Reductions	Cross-Sector Mitigation	Overlap with Agriculture and Ecosystems which will develop recommendations on agriculture emissions to be incorporated into CSM recommendations.
Sequestration	Agriculture and Ecosystems	Supported by technical analyses overseen by Science and Data
Resilience of the Built Landscape	Rural Resilience and Adaptation	Overlaps with Agriculture and Ecosystems on ecological resiliency and role of natural infrastructure in protecting built communities.
Resilience in Vermont’s natural and working lands	Agriculture and Ecosystems	Overlaps with Rural Resilience and Adaptation.
Public engagement	Just Transitions	Overlaps with all Subcommittees on role of engagement to support the development of recommendations.
Technical Analyses	Science and Data	<ul style="list-style-type: none"> • Overlaps with Agriculture and Ecosystems on agricultural emission reductions and carbon budget; • Overlaps with Cross-Sector Mitigation on all modeling; and • Overlaps with other Subcommittees as technical analysis needs are further refined.

Sub-Committee Descriptions

Cross-Sector Mitigation Subcommittee

The Cross-Sector Mitigation Sub-committee will focus on comprehensively “identifying the most scientifically and technologically feasible strategies and programs” to achieve the GHG emissions reduction requirements of the GWSA. It should be noted that local and regional land use planning and decision-making has long-term impacts on GHG emissions that should be incorporated into the work of this Subcommittee. Initiatives, strategies, and programs found to be feasible will then be evaluated through economic analyses to determine the equity considerations, economic case, and relative cost-effectiveness of each strategy or program.

The Cross-Sector Mitigation Sub-committee will establish a framework for consistently evaluating initiatives, strategies, and programs, with support from the Science and Data Subcommittee. The framework should include, but is not necessarily limited to, the following:

- GHG mitigation potential;
- Cost-effectiveness;
- Affordability and impacts on vulnerable populations;
- Ability to identify and track measurable outcomes;
- Demonstrated/proven effectiveness;

- Legal authority (existing or needed) to support implementation;
- Co-benefits

In service of this effort, it is anticipated that the Cross-Sector Mitigation Subcommittee will need to establish sector-specific task leads to ensure the capacity and expertise needed in order to identify and evaluate a full range of sector-specific initiatives, strategies and programs. Because of the scope of this Subcommittee, the membership may need to be somewhat larger than the other Subcommittees.

In preparing its annual GHG emissions inventory, the State of Vermont currently tracks emissions from the following sectors: agriculture; buildings (residential/commercial/industrial); electricity (consumption); fossil fuel; industrial processes; transportation; and waste. The GWSA also specifically calls for strategies that limit the use of chemicals and substances or products that contribute to climate change. It is anticipated that the Cross-Sector Mitigation Subcommittee's work will be organized consistent with these sectors, with particular attention given to the building and transportation sectors given the outsized role these sectors play in Vermont's GHG emissions profile. The Cross-Sector Mitigation Subcommittee will require early coordination with the Agriculture and Ecosystems Subcommittee to establish the roles of each subcommittee related to the agriculture sector, including where strategies related to agricultural emissions will be taken up. Once formed, this Subcommittee will determine a workstructure regarding sectors to be reviewed and approved by the Council at its March meeting.

[Agriculture and Ecosystems Subcommittee](#)

Context (language from the Global Warming Solutions Act): Agriculture and Ecosystems Subcommittee. This subcommittee shall focus on the role Vermont's natural and working lands play in carbon sequestration and storage, climate adaptation, and ecosystem and community resilience. This subcommittee will seek to understand current initiatives in the agricultural and forestry sectors and the businesses that depend on them and to develop actions and policies that restore wetlands; increase carbon stored on agricultural and forest land and in forest products; and support healthy agricultural soils and local food systems.

1. Carbon Budget: Develop a current carbon budget for the State of Vermont that quantifies existing carbon storage in soils and biomass and carbon fluxes (emissions and sequestration) associated with natural and working lands, including biomass growth, management and utilization, and natural processes, in support of the GWSA requirement to achieve net zero emissions by 2050 across all sectors.
2. Emissions reductions: Identify and develop initiatives, programs and strategies that reduce gross and net annual greenhouse gas emissions from Vermont's natural and working lands, including land-use conversion. This includes strategies to maintain or increase carbon sequestration in Vermont's natural and working lands.
3. Assessment of co-benefits and impacts: As emission reduction initiatives, programs and strategies are identified and developed, assess their co-benefits for such factors as water quality, soil health, quality of life, food security, and impacts on economic and ecological resilience and sustainability.
4. Nature-based solutions for Adaptation/Resilience: Identify and develop initiatives,

programs and strategies to improve adaptation and build resilience in Vermont's natural and working lands. This work should also consider nature-based solutions – and human impediments to those solutions – that build resilience in Vermont's communities. 'Resilience' means the capacity of individuals, communities, and natural and built systems to withstand and recover from climatic events, trends, and disruptions.

5. Food and forest systems/security: Identify and develop climate change mitigation and adaptation initiatives, programs and strategies that promote Vermont's local agricultural and forest economy, improve healthy soils, create greater access to healthy, local foods for all Vermonters, and improve water quality.
6. Land use planning: Advise other subcommittees on land use issues and opportunities, including nature-based solutions to reduce vulnerability to our built environment and siting of new renewable energy generation.

Just Transitions Sub-committee

The Just Transitions Sub-committee will develop principles to guide and evaluate the work of the other Sub-committees to ensure that the initiatives, programs and strategies necessary to achieve the State's GHG emission reduction requirements and build resilience and climate adaptation of Vermont communities and natural systems support all residents of the State fairly and equitably. The Sub-committee will review the SOV Equity Impact Assessment as a starting place to inform the principles to guide this work, and will further consider job, economic and demographic impacts of various proposed recommendations set forth by other Sub-committees to establish equitable policies free from any form of discrimination or bias.

The Just Transitions Sub-committee will further rely upon an environmental justice framework to ensure the fair treatment and meaningful involvement of all Vermonters, while working to uncover any underlying assumptions that may have historically contributed to and produced differential exposure and unequal protection of the State's climate policies. Future policy decisions must acknowledge past harms done and seek a path forward which is reparative and restorative. Through the environmental justice framework, the Sub-committee will promote tools and strategies to eliminate unfair, unjust and inequitable conditions and policy decisions.

The Just Transitions Sub-committee will be of service to all VCC Sub-committees. In particular, it will work in close, ongoing coordination with the Science & Data Sub-committee to: i) identify and evaluate the State's most vulnerable and at-risk communities, including the use of vulnerability indices and mapping, with an intention to make data more inclusive and fill historical gaps; and ii) promote the State's sound investments in low-emission, job-rich sectors and technologies. Here, joint Sub-committee efforts will ensure that all equity principles remain need-based and data-driven.

It is anticipated that, once the set of principles that will be used to guide Vermont's climate have been established, members of the Just Transitions Sub-committee will:

- offer tools or processes for evaluating both existing and recommended programs and strategies through a just transitions filter or lens;
- to the extent they are able, join and participate in the other Sub-committees to ensure

that these principles are fully integrated into the more technical components of this work; and

- review recommendations from other Sub-committees for their just transition impacts.

This approach will help ensure that the initiatives, programs and strategies consider the disproportionate impact of climate change on rural, low-income, black, indigenous and people of color, and marginalized communities and that programs and incentives for building resilience

are accessible to all Vermonters and do not unfairly burden any groups, communities, geographic locations or economic sectors.

The Just Transitions Sub-committee will also have a leading role in designing and guiding a public participation plan that facilitates broad and ongoing engagement to gain input from all residents of the State, paying particular attention to creating opportunities for rural, low-income and marginalized communities to engage meaningful and with voice and influence. The Just Transitions Sub-committee will develop tool(s) that can be used to assess the efficacy of community engagement efforts related to the development of the Climate Action Plan.

Rural Resilience and Adaptation Sub-committee

The Rural Resilience and Adaptation Sub-committee will focus on pressures climate change will place on Vermont's transportation, electricity, housing, emergency services, and communications infrastructure, with particular attention to the challenges faced by rural communities across the state in addressing these pressures. The Sub-committee will also assess how individual and community preparedness impact resilience to climate change.

The Rural Resilience and Adaptation Sub-committee shall identify, evaluate and analyze existing and new strategies and programs that build resilience and prepare the State's communities, infrastructure, and economy to adapt to the current and anticipated effects of climate change. This work is anticipated to emphasize reducing Vermonters' energy burden and seeking opportunities for nature-based solutions within the built environment.

The Rural Resilience and Adaptation Sub-committee shall (by statute):

1. Develop a "municipal vulnerability index" to identify those communities that may be most adversely affected by climate change;
2. Develop best practice recommendations specific to rural communities for reducing municipal, school district, and residential fossil fuel consumption; fortifying critical transportation, electricity, and community infrastructure; and creating a distributed, redundant, storage-supported local electrical system;
3. Recommend a means of securely sharing self-identified vulnerable residents' information with State and local emergency responders and utilities;
4. Recommend tools for municipalities to assess their climate emergency preparedness, consider land use changes that reduce vulnerabilities, evaluate their financial capacity to address infrastructure resilience, and prioritize investment in that infrastructure;
5. Review existing planning efforts, including local and regional land use planning, transportation planning, energy planning and operations planning, and identify opportunities to better integrate and support these efforts in service of GHG emissions reductions, building resilience and designing a resilient future.
6. Utilize Vermont Emergency Management biennial reports to recommend program, policy, and legislative changes that will enhance municipal resilience to increased hazards presented by climate change.

In addition to these statutory mandates, it is anticipated that the sub-committee will consider additional areas of work including, but not necessarily limited to, the role of nature-based solutions in enhancing landscape resilience in the built environment. Work around nature-based solutions will require early and close coordination with the Agriculture and Ecosystems

Sub-committee committee to establish the roles of each sub-committee related to adaptation and community resilience.

Science and Data Sub-committee

The Science and Data Sub-committee is responsible for incorporating the most recent and highest quality data and information available about climate change, mitigation, adaptation, and resilience into the Vermont Climate Action Plan. Our commitment is to be guided by evidence and peer-reviewed science, while employing credible, consistent, and transparent methods of assessment and analysis for Vermont. Additionally, because weather, climate, climate change and greenhouse gas emissions do not stop at state boundaries, a regional approach shall be used to complement the state-specific analysis of this subcommittee in order to address the full scope of data being explored and to set Vermont within the context of the climate change work taking place in neighboring states across the Northeast. The subcommittee will identify any critical scientific information, monitoring and/or evaluation gaps that currently exist, both for statewide and sub-state analyses. One of the main deliverables of this subcommittee will be establishing an energy use and emissions baseline, including reviewing the suitability of Vermont's current GHG emissions inventory for assessing progress toward meeting the requirements of the GWSA.

Specifically, the Science and Data Sub-committee shall:

1. Work in partnership with the other sub-committees in an iterative manner to advise on the best available science on which to frame their work, and to learn from their analyses whether key sectors and populations have been omitted from data analyses and/or modeling and should be included.
2. Establish an energy use and emissions baseline based on current state and regional policies, as well as an assessment of options for meeting Vermont's energy needs through 2050, including appropriate allowances for efficiency and growth, while reducing greenhouse gas emissions in an economically viable and just manner.
 - a. Review the State of Vermont's approach to preparing the existing GHG emissions inventory and recommend modifications or adjustments, if needed, so that the inventory can serve as the basis for measuring progress toward meeting the GHG reductions requirements established in the GWSA.
 - b. Identify critical gaps in availability of and/or access to energy use, emissions, and climate science data that would be ideally used to provide recommendations on how to develop the datasets to support future modeling, monitoring, and/or evaluation work at a statewide and sub-state level.
3. Build scenarios based on the work of the Cross-Sector Mitigation Sub-committee and in concert with the technical contractors as appropriate including:
 - a. The cost to the State of doing nothing in response to climate change; an emissions analysis of draft greenhouse gas reductions strategies proposed by the Cross-Sector Mitigation Sub-committee; and an economic analysis of the draft emissions- and adaptation-related strategies proposed by the sub-committees.

- b. Reflection of the relative contribution of each sector or category of source of emissions.
- 4. With the other subcommittees, develop the most appropriate recommendations for evaluating, tracking, and monitoring the progress of the implemented Climate Action Plan in the areas of mitigation, adaptation, community and landscape resilience to climate change.