

Backed by Deb Markowitz, ANR Secretary, the climate change team is working to facilitate enhancements to existing programs in order to promote sustainability, reduce greenhouse gas emissions, improve waste reduction, implement adaptation and mitigation methods, provide education and outreach and advance related economic opportunities.

# THE CLIMATE CONNECTION

THE VERMONT AGENCY OF NATURAL RESOURCES - CLIMATE CHANGE TEAM NEWSLETTER

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## Warmer Temperatures Bring New Invasive Species to Vermont – *Jacob Ebersole*

Historically, Vermont's long and cold winters have prevented many invasive species from taking hold in the state. However, in the past 50 years winter temperatures in Vermont have increased by more than 4.5°F ([Alan Betts, Atmospheric Research](#)). This is almost twice the change observed in summer temperatures over the same period. At the same time the length of our growing season is expanding. This has allowed the expansion of some invasive species across Vermont's landscape for the first time. The State of Vermont is taking these concerns very seriously and is engaged in many activities to monitor and prepare for future invasive threats.



Pennsylvania Department of Conservation and Natural Resources - Forestry Archive, Bugwood.org

**Hemlock Woolly Adelgid** – Native to East Asia, this insect was first identified in the southern United States in the 1950s. As a consequence of a warming climate, the species has gradually shifted its range northwards. It was first identified in Vermont in 2007. The insect feeds off of young hemlock twigs and generally kills infested trees within 4-6 years. Vermont is taking deliberate steps to monitor the distribution of this insect, limit its further spread, and exterminate existing populations. To learn more on how to identify the Hemlock Woolly Adelgid, please visit: <http://www.vtinvasives.org/tree-pests/report-it/#HWA>.

**Blacklegged Tick (Deer Tick)** – A warming climate, combined with the spread of the invasive shrub Barberry, has allowed this pest to expand its range to the entirety of Vermont. This invasive is of particular concern as it is responsible for the spread of Lyme disease throughout New England. Lyme disease can cause numbness and pain in the arms and legs, paralysis of the facial muscles, and severe headaches. To learn more about Lyme disease prevention and treatment, please visit: [http://healthvermont.gov/prevent/lyme/basics\\_qa.aspx#whatis](http://healthvermont.gov/prevent/lyme/basics_qa.aspx#whatis).



U.S. Center for Disease Control



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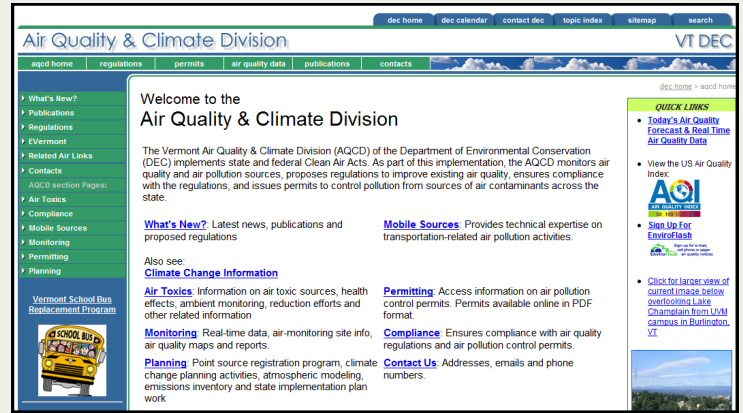


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## DEC Establishes the Air Quality and Climate Division - Brian Woods

In August, the Department of Environmental Conservation formally recognized the important climate work being performed in the former Air Pollution Control Division by renaming it the Air Quality and Climate Division. Under the leadership of Dick Valentinetti for the past 25 years, the division has incorporated significant climate-related activities and projects into its mission, including publication of the state's greenhouse gas emissions inventory. Earlier this year, Director Valentinetti announced his pending retirement after over 40 years of state service. He will serve as a special advisor to ANR Secretary Markowitz on climate change issues until his retirement. Leadership of the Air Quality and Climate Division has been assumed by Elaine O'Grady, who for the past 8 years has been the division's attorney and who has worked closely with Mr. Valentinetti on several climate initiatives, including the state's Low Emission/Zero Emission Vehicle program and the Regional Greenhouse Gas Initiative. Previously Ms. O'Grady worked on a variety of environmental issues at the Environmental Law Institute, EPA's Office of General Counsel, and a small biotech company.

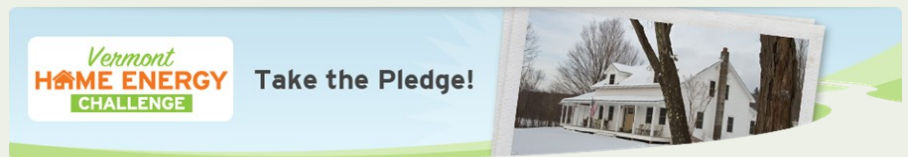


<http://www.anr.state.vt.us/air/>

"I'm excited at the opportunities that this new role provides, and proud to be able to build on the remarkable legacy that Dick so ably built during his tenure" said Ms. O'Grady. "At the same time I am sobered by the new challenges that we face, particularly related to a changing climate. However, I'm confident that the Air Quality and Climate Division will be more than ready to meet the challenges to come as the agency and the state develop and implement our climate strategies."

## Vermont Home Energy Challenge – Ann Hoogenboom

Efficiency Vermont and the Vermont Energy and Climate Action Network ([VECAN](#)) launched a year-long campaign in January 2013 aimed at increasing the number of



homes in Vermont participating in energy efficiency improvements. The campaign boosts morale through an interactive competition between towns within particular regions around the state. Towns are challenged to hit a target of 3% weatherization of homes within their community during the one-year campaign.

Top towns in each region will be rewarded for their efforts and collectively, the initiative aims to support the state's goal of 25% energy savings in 80,000 homes by 2020. Participation requires 5 basic steps: a town registers with Efficiency Vermont, forms a committee, develops a plan, attends trainings and then implements projects. Visit the [Home Energy Challenge](#) website and keep an eye on how communities are performing throughout the state. An ongoing log of completed projects and individual pledges is reported. This log measures progress by number of pledge cards submitted (pledges are made when residents commit to improve efficiency in their homes) and actual home weatherization projects completed. To date, over 1,200 pledges have been made by residents in the 80 participating towns, and over 300 projects have been reported as completed.

While each town committee may promote the campaign differently, some towns have developed creative strategies for encouraging involvement. This winter for example, both the Jericho Energy Task Force and the Shelburne Energy Committee hosted icicle contests. The contests increased attention for the campaign but also created awareness around the existence of icicle formation off of homeowners' rooftops and the associated signal of heat loss. In both towns, the home owners who could present the committee with the 'longest' or 'best' icicle from their home won a free energy audit. Other committees have held large energy fairs; take the Waterbury community member created energy committee, LEAP ([Local Energy Action Partnership](#)). This group holds one of the largest energy fairs in Vermont, and with its 7<sup>th</sup> annual event this spring, it drew community members and increased education on the steps people can take towards increasing energy efficiency in their homes. Furthermore, this group has worked hard to

**Reduce your carbon footprint by composting!**

Did you know that composting food waste in your backyard, as opposed to throwing it into your trash, emits 4 times less methane? This is because a backyard composter allows food to break down in an oxygen rich environment. Also, composting creates healthy, organically rich soils that greatly reduce water pollution by reducing runoff and the need for manufactured fertilizer.

See The Composting Association of Vermont's web site <http://compostingvermont.org/soil.htm>

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## Vermont Home Energy Challenge (cont...)

 Vermont  
HOME ENERGY  
CHALLENGE

### Take the Pledge!



encourage neighbors through hosting home energy parties. Homeowners who want to make efficiency updates, with the support of the energy committee, volunteer to host gatherings which serve as forums for education and outreach of the program. As a reward, the Home Energy Challenge graciously offers a free full-scale energy audit.

Arguably, the most intriguing aspect of this campaign, and a big part of its success, is that it's not a 'one size fits all' type of solution to energy efficiency. The challenge has spurred enthusiastic participation from various towns in all shapes and sizes to address the same issue. Whether it is icicle contests, community energy fairs, monthly community potlucks or home energy parties, towns across the state are making great strides to help Vermont in meeting its progressive and honorable energy savings goal.

[http://www.encyvermont.com/for\\_our\\_partners/community\\_partners/residential/town-participation.aspx](http://www.encyvermont.com/for_our_partners/community_partners/residential/town-participation.aspx)

Participate in the Vermont Home Energy Challenge!

Contribute to your town's effort by pledging to improve the energy efficiency of your home!

[www.encyvermont.com/for\\_our\\_partners/community\\_partners/residential/home-energy-challenge-pledge.aspx](http://www.encyvermont.com/for_our_partners/community_partners/residential/home-energy-challenge-pledge.aspx)

## Taking Stock of Vermont's Resilience – *Institute for Sustainable Communities (ISC)*

The Institute for Sustainable Communities, a nonprofit organization focused on helping communities around the world address environmental, economic and social challenges, held a Solutions Summit at Sugarbush Resort on May 20-21<sup>st</sup>. Stakeholders involved in the Resilient Vermont project shared ideas, policies and programs for 'Preparing for Natural Disasters and the Effects of Climate Change in the Green Mountain State'.

The Resilient Vermont project, organized by ISC and supported by the High Meadows Fund, the Waterwheel Foundation, Jane's Trust, Lintilhac Foundation, and generous donors to ISC's Climate Fund, has partnered with the State of Vermont, the Vermont Natural Resources Council and the Vermont League of Cities and Towns to work towards making Vermont a model of community, economic and environmental resilience. The idea of this project is to provide decision-makers and stakeholders from across state and local governments, businesses and nonprofits with information on strategies to mitigate risks of climate change and future hazards to our environment and economy. The project has relied on and continues to engage citizens and communities concerned with the growing challenges of extreme weather events and the vulnerabilities we currently experience in the face of damaging natural disasters. Strategies and priorities for actions towards creating a more resilient landscape focus on strengthening our ability to adapt to changes and to reduce negative impacts on our environment, economy and communities.

ISC started the work on this project in October 2012 by convening the first of three multi-stakeholder events held at Sugarbush Resort in Waitsfield, VT. ISC collected information on work going on around the state relating to preparedness for changes in weather events, like Tropical Storm Irene of August, 2011. For the second convening, held in May, 2013, the organization provided a resource guide, giving stakeholders a comprehensive report of how Vermonters view weather extremes to be impacting our economic and natural resources. Additionally it outlined, by sector, specific vulnerabilities and directed attention to priority areas for building resilience. In September, the last of the three workshops will take place, again at Sugarbush resort, where ISC will be presenting its Resilience Roadmap. The Roadmap will present recommendations to the Resilient Vermont stakeholders for building resilience across the state, presenting solutions and strategies for building capacity of Vermont organizations and state agencies to engage in a long-term sustainable plan for a stronger more resilient Vermont. ISC has fervently worked to put together the most complete compilation of work going on around the state and glean from this body

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## Taking Stock of Vermont's Resilience (cont...)

of knowledge both a current assessment of vulnerabilities facing Vermont by sector and an outline of opportunities for action moving forward. More information on the Resilient Vermont project can be found at: [http://www.iscvt.org/where\\_we\\_work/usa/article/resilient-vermont/](http://www.iscvt.org/where_we_work/usa/article/resilient-vermont/)

### Resilient Communities Scorecard – Vermont Natural Resources Council (VNRC)

In February of 2013, Vermont Natural Resources Council released a tool for towns to use in building more resilient communities; a scorecard where planners, community members, selectboards and conservation and planning commissions can ask questions about their town. Using the guidance from VNRC's scorecard, users can ascertain a score that distinguishes a town's level of resilience into three categories: *Smart Growth*, *In Transition*, *Needs Your Attention*.

The scorecard document is framed by its 12 checklists that cover topics ranging from energy conservation to land use planning for flood zoning to effective, smart business development.

Each section starts with a help box that outlines tips to help assure accurate scoring. These boxes give specific information on how to consider the questions being asked in that particular section. After reading the list of questions and selecting the response that best fits the town's current state, the user can add up their points to

receive a certain score of resilience. The success of this tool is in large part attributed to the clear and direct action steps it provides for communities to take in response to their scores based off of their unique needs or characteristics. The box to the right gives the example action steps suggested to promote vibrant communities by directing business and housing development toward compact, mixed-use town centers, at a scale of growth that fits the community and the region.

Scoring	Suggested Steps for Building Resilience
31-36 Resilient Community	<ul style="list-style-type: none"> <li>Contact your RPC about <b>brownfields</b> assessment and redevelopment.</li> <li>Ensure that planned <b>public buildings</b> are located in or adjacent to the town center.</li> </ul>
22-30 In Transition	<ul style="list-style-type: none"> <li>Look into <b>state designation programs</b>.</li> <li>Make sure <b>zoning</b> actual creates a distinct, compact town center surrounded by countryside.</li> </ul>
12-21 Needs Your Attention!	<ul style="list-style-type: none"> <li>Define a <b>town center</b> in your town plan and/or zoning.</li> <li>Revisit policies on <b>sewer and water service areas</b> (definitions and extensions).</li> </ul>

Throughout the report there are additional text boxes that provide definitions of resilience 'buzz' words such as 'open space': a term used to describe land that is not occupied by structures, buildings, roads, rights-of way, and parking lots, and which has been designated, either through an easement or permit restriction, to remain undeveloped. You might also find the difference defined between inundation hazards and erosion hazards. Furthermore, inspiring photos and quotes from influential planners and leaders of sectors pertaining to the various scorecard sections fill the margins.

"At its most basic level resilience is about building relationships, getting people talking, connecting and creating something bigger than an individual might be able to do on his or her own. A resilient community is an empowered and collaborative network of people that organically adapts to the needs of its parts through the strength of the whole."

-- *Joshua Schwartz, Mad River  
Planning District Director*

The scorecard shows tremendous potential in its ability to help Vermont's local decision makers address the emerging challenges of incremental and scattered development, rising energy costs, and climate change. By evaluating our strengths and weaknesses VNRC hopes to help communities promote vitality of downtowns and villages, address rising energy costs, build community resilience, reduce transportation costs, improve public health and adapt to climate change.

More information on VNRC's Resilient Communities Scorecard and the full document can be found at: <http://vnrc.org/resources/community-planning-toolbox/tools/vermont-smart-growth-score-card/>



Want to learn more about your personal carbon footprint?

Use this interactive carbon calculator tool so you can see how much your daily activities impact climate change.

<http://www.turnbackthetide.ca/carbon-calculator.html>



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## Secretary Markowitz Reports Achievements of 2012-2013 Legislative Session

Agency of Natural Resources Secretary Deb Markowitz reported a successful year in the legislature and expressed thanks to the ANR staff for their hard work. Markowitz also expressed gratitude for the support ANR received from the legislature. Below is a summary of some of the accomplishments from the last session.



**Municipal and Regional Planning and Flood Resilience** – H.401 was signed by the Governor on May 6. This bill mandates that municipalities and regional planning commissions address flood resiliency as an element of town and regional plans. The Department of Environmental Conservation is currently working to provide municipalities with the necessary resources and technical assistance for meeting the requirements of this new bill under Act No. 16. For a detailed summary of the legislation please [click here](#).

**Motor Vehicle Law Amendments including Anti-Idling** -S.150 – Generally prohibits idling of vehicles for more than five minutes in any hour while the vehicle is stationary. There are certain exemptions to the rule, including for example, public safety and emergency vehicles, because of traffic, or for the health or safety of a vehicle occupant, or to operate safety equipment.

**Shorelands protection** - H.526 – Strongly supported in the House, but held in the Senate until next session, this bill would authorize ANR to regulate development in lake shorelands for the purpose of protecting the functions and values of the state's lakes and ponds, while still allowing reasonable, lake-friendly development. The Agency will continue to work with the legislature on this bill over the summer and fall, participating in public sessions to discuss what the rules would look like and to address public concerns. For additional information on the Lake Shoreland Protection Commission and the meeting schedule click [here](#).

**Thermal Efficiency** - H.520 – This bill, signed into law on June 17, includes two important air quality provisions: a clarification to existing law that deletes an existing prohibition against mandating the sale of battery powered vehicles, which helps the state to move forward with plans for adoption of California Zero Emission Vehicle regulations; and a provision addressing Vermont's future participation in the 2005 Regional Greenhouse Gas Initiative memorandum of understanding.

**Timber Harvesting Guidelines and Procurement Standards** - H.131 –this bill clarifies and makes technical corrections to Act 170, the energy bill of 2012. It removes any reference to Use Value Appraisal; and requires the Department of Forest Parks and Recreation to develop voluntary timber harvesting guidelines through a public process (due Jan 2015); It requires FPR to ensure that any timber harvests on state lands are consistent with the purposes of the guidelines (protecting forest health and sustainability); and requires the development of standards for all state agencies procuring wood products from whole-tree harvests in Vermont. It also requires the agency to work with regional governmental organizations to develop regional voluntary harvesting guidelines.

### A Special Thanks...

To Ann Hoogenboom for interning with ANR to produce this issue of our newsletter and helping with other aspects of the Climate Change Team. We were continually impressed with your creativity, professionalism, and the experience you brought to our group. We wish you the best of luck in all your future endeavors.

Sincerely,

*Brian and Alex*



**Get Started  
on fighting  
climate  
change  
now!**

Follow the link below to learn 10 simple climate protection steps you can get started on right away.

[www.seattle.gov/environment/documents/Sea-CAN\\_GetStartGuide\\_0828.pdf](http://www.seattle.gov/environment/documents/Sea-CAN_GetStartGuide_0828.pdf)



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