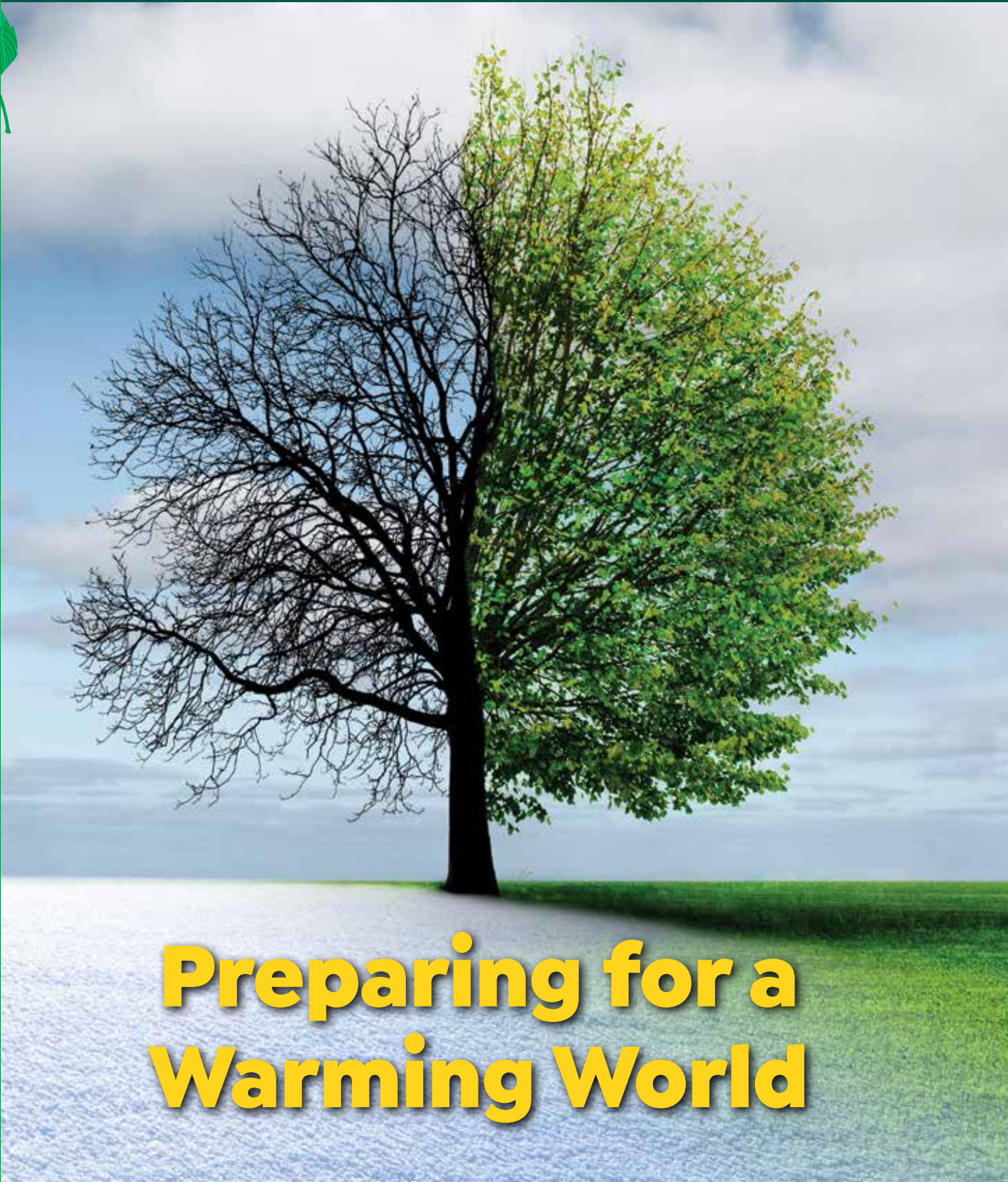


CELEBRATING **60** YEARS



Vermont

Environmental Report



Preparing for a Warming World

Spring
2023

Member Profile

Interview with Maisie Anrod, VNRC's New Youth Board Member

Maisie Anrod is a pre-service teacher who is passionate about place-based, social justice education in Vermont, with a focus on how we relate with the land and each other. Currently, Maisie is working towards a middle-level Master's in Teaching at UVM, and previously served three schools in the Northeast Kingdom as an AmeriCorps Farm-to-School Coordinator with Green Mountain Farm-to-School in Newport. She is also currently a Master Gardener Intern through UVM Extension and continuing an education around climate change. In 2020 Maisie was a Postgraduate Education Fellow at Shelburne Farms, and before that was a student at Middlebury College.



water quality, or that there is a lot of agricultural runoff in their watershed. The local scale of this learning also makes taking action and engaging in advocacy more accessible—students might attend a town hall meeting about infrastructure, or do a research project on ways to mitigate runoff, such as planting riparian buffers. Underpinning all of this learning is the idea that there are relationships connecting every being, and we need to learn to see them to understand our world and ourselves.

How do you envision the role of young people in the environmental movement?

How did you become a board member for VNRC?


I was introduced to VNRC by Megan Camp—a longtime VNRC supporter and current board member. I met Megan when I worked at Shelburne Farms, and I met Judy Dow—scholar, educator, VNRC board member, and executive director of Gedakina, a multigenerational organization that supports Indigenous youth, women and families across New England—around the same time. They thought I might be a good fit for the board and I'm so glad that they nominated me! I've wanted to contribute to an organization that's part of the movement to mitigate climate change and protect our shared environment and land for a long time, and this was the perfect opportunity.

Can you talk a bit about your passion for place-based, social justice education in Vermont?

This is such a big question! I believe in place-based education because it starts with what is most relevant, our immediate surroundings, and works outwards. In this way, learners' consciousness of what's going on in the world around them can be grounded in what they can see, hear, and feel. For example, a class might do a project about their own watershed, and could map where their streams and rivers come from, how drinking water gets to their house, and where the water goes after it runs through their home or neighborhood. Studying a tangible part of their environment makes larger concepts, such as the global water cycle, more accessible. Relatedly, place-based education is inherently tied to social justice education because students will inevitably come across injustices in the world around them. Sticking with the water example, students might learn that some neighborhoods have older infrastructure and lower

I believe that young people, like my students, are the most imaginative part of the environmental movement. This is powerful, but to be agents of change they need opportunities to learn and to be supported. They need opportunities to learn both the skills to care for each other and our ecological communities, and the knowledge to understand complex systems such as the climate. They need supportive communities because the moment we're in is often isolating, painful, and confusing. It's also by turns joyful, gorgeous, and connected. To borrow from David Sobel, we need to learn to love the world, "before being asked to heal its wounds." Mutual support is needed (for all of us, not just young people) to feel whole and not paralyzed in the face of this. I've seen first-hand that when these conditions are met, young people can create wondrous ideas and remarkable change.

What do you hope for Vermont, in terms of creating a culture of reciprocity with our ecological and human communities?

I hope that we can collectively face past and ongoing injustices, such as the eugenics movement that targeted Abenaki people, and extremely inequitable land access for BIPOC Vermonters, and start to remediate them through state-level policy action. Such action can't erase harm, but it's one step towards creating an anti-racist culture of reciprocity. Many of the same policy actions that are socially just would also benefit our environment, and ecological communities (all of our animal, plant, fungi, and microbe neighbors). There are already some amazing nonprofit organizations doing this work (Gedakina, Inc., Vermont Releaf Collective, and NEFOC Land Trust), and their reach would be amplified by statewide policy. 



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Through research, education, collaboration and advocacy, VNRC protects and enhances Vermont's natural environments, vibrant communities, productive working landscapes, rural character and unique sense of place, and prepares the state for future challenges and opportunities.

VNRC is the Vermont affiliate of the
National Wildlife Federation.

**VNRC membership includes a subscription to
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Join VNRC in protecting Vermont
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The Inside Word

Pursuing a More Resilient Vermont

By Brian Shupe, *Executive Director*



This version of the *Vermont Environmental Report* (VER) comes after a brief hiatus in publication while we examined how we communicate with our members, partners and the general public. We've made a few changes (maybe you noticed the updated logo?), including changing our digital "e-newsletter" to be more frequent but shorter than the monthly version we used to publish, and exploring new digital tools to reach more Vermonters. We also asked our members for advice on how best to engage with you through an online survey. We are looking

forward to reviewing the results.

While our efforts to more effectively communicate about our work is ongoing, it has not slowed our work to address the challenges facing Vermont. I'm writing this at the midway point in the 2023 Vermont legislative session. Much of our advocacy is focused on policies that will both help mitigate Vermont's contribution to climate change — such as establishing an Affordable Heat Standard to help transition Vermonters away from needing to heat their homes and businesses with fossil fuels — as well as those needed to adapt to the climate changes that are already occurring, and that will intensify because of too many years of global inaction.

We have written in prior VERs about building resilience to help our communities cope with the changing weather patterns that are already wreaking havoc in so many parts of the world. The increase in frequency of extreme storm events is among the most common, and most challenging, changes facing Vermont. Building greater resilience to flooding by protecting our natural infrastructure — wetlands, river corridors, stream buffers, and intact, upland forests — is critical to building the resilience needed to prepare for a hotter, wetter future.

One of our greatest assets in terms both of long-term resilience, in addition to our ability to store carbon and maintain the ecological, cultural and economic resources that define the state's character, are the extensive forests that still cover over 70% of Vermont. These forests are being lost to subdivision and poorly planned development, which threatens our ability to meet our climate goals. We are strongly advocating that the Legislature passes legislation that will put Vermont onto a path of more strategic conservation planning to meet our climate needs.

Climate migration into Vermont is exacerbating the forest fragmentation crisis — just as it is fueling the housing crisis. Early indication is that many recent migrants into Vermont are people with resources, coming from high-cost metropolitan and west coast communities, who are more able to import their jobs into the state in the new world of remote-work. This influx of migrants-with-means not only raises environmental concerns, but concerns around equity, as lower-income Vermonters can't compete for high housing costs, nor people from out of state who are equally in need of a safe haven.

Remember — intact forests and protected wetlands are some of our best forms of flood insurance — and we need this insurance more than ever. Reducing the need for frequent automobile trips, and reducing the distance people need to travel for work, groceries, and school is all possible with smart growth housing strategies and is an additional hedge toward greater climate resilience. This benefits people's pocketbooks, and also keeps our greenhouse gas emissions down.





Preparing for a Warming World

Vermont is better positioned than many states to prepare for an uncertain future, even as we continue to address the many issues impacting our environment, from toxic PFAS pollution to improving our flood resilience. The state's northern latitude, distance from the coasts, relatively low population densities, historic settlement patterns, abundant water supplies, and healthy forests all contribute to Vermont's resilience. Hard work over the years has protected our natural resources and limited overdevelopment—smart planning that we must reinforce as we face the growing impacts of the climate crisis. We have faced tough questions around housing head-on, seeking lasting solutions for more compact downtowns, and have maintained intact forests that continue to store and sequester carbon and make it possible for us to breathe fresh air while making smart design decisions for increased population density. We have worked for viable alternative energy solutions to transition away from fossil fuels and make clean energy and transportation accessible for all Vermonters. This is a critical moment as we expand on this legacy while continuing to ask ourselves, how does real, lasting change occur?

First, lasting change is a mindset, which often means holding two truths in our mind at the same time, even if they seem to contradict. We have to be able to understand that a clean energy economy is crucial for Vermont's future, while at the same time acknowledging affordability is an issue for many Vermonters. We must consider the need for

accessible, affordable housing as inseparable from the need to maintain a resilient state—and create viable, smart growth solutions that provide people greater access to downtowns, so they can easily walk to the grocery store, the school, or the doctor. The answer to the housing crisis is not to continue to sprawl in our rural and intact forests, but to seek solutions from within the towns as they are, strengthening and investing in them from the inside out.

Brian Shupe, VNRC's Executive Director says, "While transitioning off of fossil fuels is imperative, it won't accomplish all that we need to do to meet the challenges of a drastically warming world. Too many governments, businesses, and individuals have ignored climate policy for far too long, and we are now living with, and need to adapt to, the consequences."

VNRC has been working to protect Vermont's natural resources and communities since 1963, and we are committed to supporting the state as we adapt to an increasingly warming world. During these last 60 years, Vermont has remained a beacon of hope and relief for those who seek the beauty and

bounty of nature. With an increased influx of landowners purchasing property in the state, and more displaced people seeking shelter after losing their homes and livelihoods, this presents another paradox: how can Vermont continue to provide shelter for those fleeing fire, wind,



*Apartments along the
Winooski Riverfront.*



flood, and drought while at the same time ensuring it can protect a resilient ecosystem that resists the patterns of collapse? Without people from all backgrounds and beginnings, Vermont would not be Vermont.

Vermont's forests are at risk, as we face unprecedented threats due to forest loss and fragmentation from a dramatic escalation of development pressure that is not in line with smart growth systems. According to the Forest Service, an estimated 12,469 acres are being converted on an annual basis to development. An integrated strategy to protect Vermont's natural areas and working lands is tantamount, which means connecting our biologists and foresters, landowners, and lumber mills in a conversation about what it means to work and live within these green mountains, and how to maintain our forest resource. Again, we cannot see it as an either/or conversation—without our forests, Vermont would not be Vermont. Our farmers need more structural support, too, as they seek clarity on inconsistent systems around the protection of water quality while at the same time try to stay economically viable in an increasingly globalized commodity market. Without small farms and resilient agricultural systems, Vermont would not be Vermont.

Unstable fuel prices make home heating and transportation—the largest sources of greenhouse gas emissions in the state—more expensive and unpredictable than ever. This reality is an incredibly unpredictable and vulnerable place to be,



Paul Moody

creating an economic imperative to wean off of fossil fuels, which is also essential to meeting the state's legally binding pollution reduction requirements, as outlined in the Climate Action Plan. We need our legislators to enact bold policies to reduce our emissions, or the conditions of the climate crisis will continue to worsen, with increasing speed.

While Vermont is facing multiple social and ecological turning points, Vermonters have every reason to remain hopeful. Transformative change is possible. And the call for taking active measures to fight for a resilient Vermont is resoundingly clear.

But what does resilience even mean?

Every spring, when the snowdrops emerge, when the wood frogs begin croaking, and the brooks rush loudly once again—it's a reminder of nature's inherent resilience. Vermont has always been a place where people generally respect the land, whether it's fishing, hunting, skiing, or swimming—we know how to make the most of our short summers and long winters. But what happens when the water is no longer safe to drink or swim in, when rainfall continues its decline during the growing season, when the low winter snowpack and increased heat threatens the integrity of our permafrost, and the tourists stop coming, because there's no snow to ski on?

Resilience in the face of the climate crisis can be hard to conceptualize when the present feels so dire and the risks so immediate, especially for Vermonters who work two and three jobs just to keep food on the table. For that reason, resilience means working to protect those Vermonters most at risk, first and foremost. Increased flooding, polluted water, disrupted supply chains, and skyrocketing fuel costs fall hardest on lower income, BIPOC, and other historically disenfranchised communities. So when we say resilience, we also mean environmental justice.

We must build toward a resilient future dependent on both a combination of immediate action (reducing our emissions and meeting our targets now), and forward-thinking strategy (a strategic plan for a resilient future). But mitigation cannot just be on the individual. It's true we make choices, but for most Vermonters, making a choice is not even an option. VNRC works at the policy level where these choices are made by our elected representatives in the State House.

We can't be a resilient state if we don't have clean water, clean air, and healthy soil—these are the reserves upon which everything rests. And all of these depend on pro-environment legislation that considers very seriously the mandate of Vermont's Global Warming Solutions Act, requiring the state to lower our climate-damaging emissions while creating jobs, improving community and landscape resilience, and reducing burdens for rural and marginalized communities to access clean energy, transportation, heating, and housing.

We cannot approach these as a series of siloed issues, and our work must act like the mycorrhizae in the soil, extending out

in networks. This means affecting change at both the legislative level—getting our lawmakers to center climate resilience in the bedrock of Vermont’s legal system—and at the grassroots level. Intersectionality and community building are integral to the work of climate resilience.

Smart Growth and Forest Conservation

Supporting and creating more affordable housing in thriving, walkable communities is key to strengthening Vermont’s climate resilience. And, housing development and forest conservation must be considered, and planned for, in tandem to maintain a resilient Vermont. Protecting Vermont’s intact forests not only maintains critical wildlife habitat, but also serves as an essential carbon sink, and helps to absorb runoff and protect communities from flooding as a result of more intense storms and our regional climate growing wetter. All of this remains crucial, while at the same time, the need for affordable housing has increased exponentially. But rural sprawl cannot continue to be the default for our housing —maintaining compact downtowns surrounded by forests and farms is good for our rural economy, and also provides transportation options to help reduce vehicular pollution. Maintaining forests is also critical to meet our greenhouse gas emission reduction goals, since the current rate at which we are losing forestland is making it harder to meet our net zero targets due to loss of carbon sequestration and storage.

Jamey Fidel, Forests and Wildlife Program Director says, “It is crucial to understand that forest conservation is a smart growth strategy; we can house people in Vermont and at the same time consider intact forests as a crucial resource we must protect. When Vermonters think of smart-growth communities at the same time we consider forest conservation, we’re working for a more resilient future.” Fidel adds, “Smart growth and intact

“We adopt this initial Climate Action Plan under the Vermont Global Warming Solutions Act (GWSA) with feelings of both urgency and responsibility to do our part to mitigate climate change through transformation of how we use and source energy; to adapt our communities and built environment to the warming planet; to protect our natural and working lands from the damage created by climate change; and to support and enhance the resilience of Vermont’s landscape and communities. Climate change represents an existential threat for people and the natural systems upon which we depend for our health and well-being. It is critical that we act to become more resilient and adaptive to climate change already underway and that we do more to reduce the emissions that have brought us to this point, in order to create a habitable future.”

—Excerpt from *Vermont’s Climate Action Plan*

forests must depend on each other in a resilient Vermont, if we are going to meet our climate and biodiversity conservation goals and maintain the rural economy of our state. Integration of land use and conservation is a cornerstone of resilience.”

Kati Gallagher, VNRC’s Sustainable Communities Program Director, adds: “Where we build new housing to meet Vermonters’ needs is inextricably linked to making our communities more equitable, affordable, and climate resilient.”

Protecting Vermont’s Water

Vermont’s water resources are irreplaceable elements of the state’s landscape and natural heritage, and the water we drink is directly connected to the water in our lakes and rivers. Caring for our watersheds and understanding how they intersect is



increasingly important to encourage Vermont's resilience in a changing climate and amid the threat posed by toxic chemicals, including PFAS and pesticides, to our drinking water. It is imperative to address Vermont's water as an interconnected network of watersheds, tributaries, and riparian corridors that all lead back to the same source—nothing is separate when it comes to our water. The increase in frequency of extreme storm events is among the most common, and most challenging, implications of a changing climate facing Vermont.

Jon Groveman, VNRC's Policy and Water Program Director, states, "Building greater resilience to flooding by protecting our natural infrastructure—through wetlands, protected river corridors, riparian stream buffers, and intact, upland forests—is critical to preparing for a hotter, wetter, future." Karina Dailey, VNRC's Restoration Ecologist, adds, "Wetlands, healthy riparian areas and headwater forests slow the flow of flood water and filter stormwater. Intact forests and protected wetlands are some of our best forms of flood insurance—we need this insurance more than ever."

Investing in our Transportation

Transportation is Vermont's largest source of climate pollution, emitting 40% of our total greenhouse gasses, which means reducing emissions from within this sector is critical. Identifying and advancing sustainable, long-term investments for clean, active and shared transportation is critical for climate action. Last spring, the Vermont House Committee on Transportation unanimously passed the FY23 Transportation Bill with a suite of investments that are essential to meeting Vermont's climate pollution reduction requirements while also creating more clean, accessible, and affordable transportation options for Vermonters.

We're working to ensure that the FY23 Transportation Bill includes investments to help lower- and moderate-income Vermonters purchase electric or highly efficient cars, invests in electric vehicle charging equipment, safer walking and biking infrastructure, zero-fare transit, and the Mobility and Transportation Innovations Grant Program to move toward a clean transportation system. This kind of government investment is a crucial part of building a resilient Vermont.

Affordable and Clean Heat

The second highest source of climate pollution in Vermont is found in the thermal sector—responsible for 34% of Vermont's greenhouse gas emissions—which means, the energy we heat our homes and buildings with is putting us at great risk, harming public health and the planet. Each year that we don't act to reduce this number, we continue to lock Vermonters into polluting, price-volatile fossil fuels that harm our health and our environment. It is crucial to significantly ratchet down our reliance on combusting anything to stay warm, which means prioritizing investments and infrastructure to install heat pumps, increasing efforts to weatherize drafty Vermont homes, and ramping up our commitment to beneficial electrification for other thermal uses too, like for hot water and cooking. A resilient Vermont means modernizing our energy systems to maximize additional, local renewable generation, and provide for

The Power of Young People


One of the key factors in promoting a resilient Vermont is listening and responding to our youth. Last year, members of the Youth Lobby met at the Vermont State House for their Rally for the Planet. The focus of the event was Jobs, Climate, Justice, and Future. Hundreds of students took to the State House lawn to push for climate action while the Vermont Legislature continued to work hard on a range of environmental priorities in the final days of the legislative session.



These courageous, intelligent, and committed young change makers shared the reasons they were personally motivated to act on climate change, and what brought them to their work with Youth Lobby organizing the rally. It is this kind of leadership—led by Vermont's younger communities—that proves resilience is not just a dream, but is already happening. We must encourage and support our younger communities and ensure they are offered platforms to make their voices heard.

As Vermont continues to implement the Climate Action Plan and many of its recommendations form the foundation of key bills moving through the legislature, it is critical that we continue to build momentum and enthusiasm around the work of rallying young people around environmentalism and climate justice. We must support young activists as they call on Vermont to create a more equitable and just transition into a resilient future, invest in a clean energy workforce, reduce greenhouse gas emissions through support for clean, renewable energy systems, and stand up for justice!

an affordable and equitable clean energy transition.

Johanna Miller, VNRC's Energy and Climate Program Director states, "It is imperative that the Legislature do what's required policy-wise to chart the course for an equitable transition away from fossil fuels, especially in the transportation and heating sectors, including advancing the Affordable Heat Act. In policy design and ensuing implementation efforts, we can and must craft solutions that not only reduce climate pollution—prioritizing benefits for low-income Vermonters in particular—but that deliver better health outcomes, good paying jobs and do our part to ensure a habitable planet into the future." Greta Hasler, Energy and Climate Program Associate adds, "Our current energy system is deeply inequitable. We're working hard to enact policies that support Vermont in building a climate-accountable, clean energy future that prioritizes equitable access and affordability for everyone." 

Recent Highlights of Our Work

Energy and Climate Action

Advances conservation, efficiency, renewable energy, and transportation solutions that reduce fossil fuel usage and save Vermonters money.



- We are continuing to collaborate with and help convene the ActOnClimateVT coalition to advance solutions that reduce Vermonters reliance on imported, price volatile fossil fuels and, instead, create a more clean, local and equitable energy system.
- From our seat on the Vermont Climate Council, we are co-leading the Transportation Task Group, and, in broader coalition, we have been working to implement elements of the adopted Climate Action Plan. A significant piece of this work has been working to advance a performance standard for the thermal sector – the Affordable Heat Act – that delivers significant and true greenhouse gas reductions, cost savings and more affordable heat, and creates a pathway for a just transition for fuel providers and energy-overburdened Vermonters.
- We are continuing to coordinate the Vermont Energy & Climate Action Network (VECAN); partnering with and working to support town energy committees across Vermont. This included hosting another successful, multi-day annual conference where we engaged almost 400 local energy leaders, organizing a Winter Webinar series covering timely topics and important clean energy and climate innovations twice monthly and collaborating with VECAN partners and regional planning commission leaders.

- We are helping support the rollout of the Municipal Energy Resilience Program with Buildings and General Services, Regional Planning Commissions and other partners. This is an exciting new program designed to help communities identify strategic cost- and carbon-cutting strategies through enhanced public engagement, direct technical assistance and up to \$500,000 in grant support in resilience-enhancing municipal investments.

Forests and Wildlife

Maintains and enhances the ecological and economic vitality of Vermont's forests, including promoting healthy wildlife populations.



- In 2022, we published a new report *Wildlife Considerations in Local Planning* which includes an evaluation of twenty of years of progress at the municipal level for addressing wildlife and natural resource conservation. In partnership with the Vermont Fish and Wildlife Department, we shared the results of the report through a series of webinars and published the final report at vnrc.org.
- With funding from the Forest Service's Landscape Scale Restoration Program, we launched a new outreach and education initiative with partners to identify new forestland owners in Vermont, and develop a comprehensive technical assistance program to help them make informed decisions about the conservation and stewardship of their forestland.
- We advocated for the passage of three bills last year in the Vermont Legislature

to elevate the conservation forests. A bill to advance a planning process to accelerate land conservation in Vermont (H.606) was vetoed by Governor Scott, and another to update Act 250 (S.234), which included a provision to minimize the fragmentation of forests through proactive site design, was also vetoed by Governor Scott. A third bill to add a new category to Vermont's Current Use Program to encourage the conservation and management of forests to promote old growth characteristics was signed into law (H.697).

Sustainable Communities

Promotes and protects Vermont's smart growth development pattern of compact settlements – with options for transportation, housing, and employment – surrounded by farms, forests, and natural areas.



- The Transportation for Vermonters (T4VT) coalition, which VNRC coordinates, is making moves! You can now find them on their new website www.t4vt.org and on Instagram @transportation4vt. The People, Places & Transportation blog has also migrated to T4VT's site, to help us share more stories of transportation experiences across the state. T4VT hosted its first Coffee & Lobby Day on Feb. 22nd at the State House—and had a great turnout!
- We collaborated with Rep. Bongartz, affordable housing developers, planners, and others to draft H. 68, a bill to reduce exclusionary zoning regulations and support smart growth housing. Much of the bill is being discussed as part of the housing omnibus bill, currently in the Senate Economic Development Committee.



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- We organized a stakeholder meeting to discuss land value taxation (LVT), in partnership with the Department of Housing and Community Development. Governor Scott's budget includes funding for a LVT feasibility study, and the House Ways & Means Committee continued this discussion in early February.
- We participated in VTrans' Smart Growth Research Project Technical Advisory Committee, which is working to assess the impact of smart growth land use on transportation. A final report is due this spring.

Clean Water

Protects and enhances the quality of Vermont's streams, rivers, lakes and ponds, wetlands, and groundwater.




- VNRC is working hard on our campaign focusing on the importance of healthy, functioning, intact river and wetland systems for climate resilience. The Vermont Climate Action Plan adopted by the Vermont Climate Council identifies protection wetlands, riparian areas and river corridors as key to helping Vermont adapt to the impacts of climate change. These natural resources help mitigate the impact of increased flooding and water pollution that is being exacerbated by climate change. We are working concurrently to advocate for bills in the Vermont Legislature and state regulations to improve protections for wetlands, riparian areas and river corridors and at the grass roots and level to support these nature based solutions to climate change.
- Last summer, VNRC filed an appeal of the Clean Water Act (CWA) wastewater discharge permit issued to the City of Rutland. VNRC's appeal alleges that the permit

violates the CWA in how it addresses Combined Sewer Overflows (CSOs). CSOs occur when during significant rain events stormwater combines with wastewater at a wastewater treatment plant to overwhelm the plant's capacity to treat wastewater. The result is that raw and partially treated sewage is discharged into Vermont's waters. The Rutland plant has some of the worst CSO discharges in Vermont. The permit does not contain specific conditions to require actions necessary to work towards elimination of CSOs as required by the CWA. VNRC is fighting to have these conditions included in the permit.

- In 2022, VNRC Ecological Restoration work included removal of the Pelletier Dam, on North Breton Brook in Castleton, VT, which reconnected 37 miles of river, and reconnected almost 2 acres of floodplain. Additionally, through our work with the VT Dam Task Force we have helped support over 15 active dam removal projects, identified 18 new (ghost dams) and worked hard to reach out to new audiences and invite all voices to the table to collaborate together on the goals of clean water and healthy rivers for VT. Learn more at FreeVermontRivers.org
- We are advocating for a bill in the Legislature to reduce chloride pollution in Vermont. Chloride pollution has emerged as a significant threat to water quality in Vermont, and is associated mostly with the salting of roads and parking lots during the winter.
- We are working to ensure that a new proposed Agency of Natural Resources (ANR) rule protects Vermont's most ecologically significant waters. The rule is called the Antidegradation Rule, named after a required policy in the CWA. The purpose of the rule is in its name - to prevent high quality, ecologically significant waters from being degraded. The rule has been decades in the making as the

Antidegradation Policy has been in existence since the CWA was enacted more than 50 years ago and the policy has never been meaningfully implemented in Vermont.

- We are involved with several cases aimed at ensuring that hydroelectric facilities do not harm water quality and fisheries habitat. While VNRC won our battle to ensure that the permit for Morrisville Water & Light (MWL) hydroelectric facility ensures that water quality is protected, MWL is still resisting complying with its permit. VNRC is engaged in several actions to force MW&L to follow its permit. In addition, VNRC is working on issues related to the permitting of the Highgate Falls hydroelectric facilities. 

Are you interested in leaving a gift in your will?

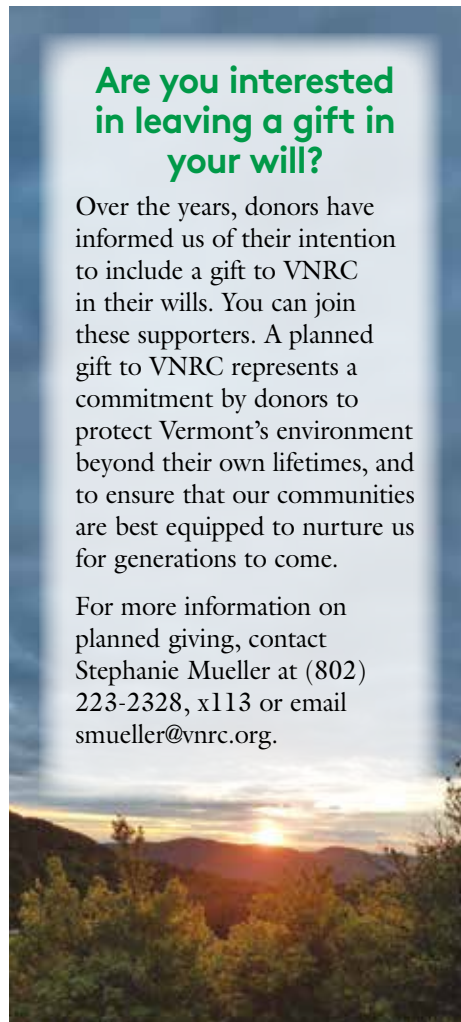
Over the years, donors have informed us of their intention to include a gift to VNRC in their wills. You can join these supporters. A planned gift to VNRC represents a commitment by donors to protect Vermont's environment beyond their own lifetimes, and to ensure that our communities are best equipped to nurture us for generations to come.

For more information on planned giving, contact Stephanie Mueller at (802) 223-2328, x113 or email smueller@vnrc.org.



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wastewater discharge permit issued to the City of Rutland. VNRC's appeal alleges that the permit



News & Notes

Staff News

There have been a lot of changes over the past year. We are so grateful for our interns: VNRC's Legal and Policy Intern, Kristen McEnroe and our Mollie Beattie intern Kayla Patel. We wished farewell to Bekah Kuster who left VNRC last spring, into a new role as Community Engagement Manager with Efficiency Vermont. Bekah did excellent work to lift up and promote the critical work Vermonters do in local communities to ensure Vermont meets its GHG emissions reduction requirements and transforms its energy system. We welcomed ECO AmeriCorps Restoration Associate Mary Perchlik, who is already an invaluable member of the team, as is Sarah Bayer, our new VHCBC AmeriCorps Community Energy Coordinator. Our new Communications Intern, Sarah Plaut, jumped right into action at the start of the 2023 legislative session, as did Legislative Intern Kerry Brosnan.

In 2022 we wished farewell to Nancy Davila, who served as VNRC's Finance and Operations Director for nearly nine years, and left last May to take a position with the Washington D.C. based League of Conservation Voters. "Nancy has really gone all out for us over the past eight plus years, keeping our finances, human resources and administration in excellent shape – she will certainly be missed, but we are glad she'll remain in Vermont, working remotely, and continue to be a good friend of VNRC," said VNRC's Executive Director Brian Shupe. We also wished a fond farewell to Shelden Goodwin, Political Outreach Director at our partner organization, Vermont Conservation Voters, who is now working with the Democratic Party of Vermont. Shupe added, "Shelden was a tremendous asset to our organizing team and we wish her much success in her new career."

In Memoriam

This year we lost a great Vermont leader, Will Raap, a dear friend to VNRC who served on the Advisory Committee for fourteen years since its formation in 2009, as well as on the board from 1999-2004. Will helped in many significant ways to guide the organization using thoughtful, broad brush strokes. VNRC staff and board especially appreciated Will's vast knowledge of the issues facing our natural resources both in Vermont and from a more global perspective. Will Raap founded the Gardener's Supply family of companies in 1983, and was also the founder and past Chairman of the Intervale Center, whose mission is to develop farm- and land-based enterprises that generate economic and social opportunity while protecting natural resources. Will's commitment to build linked enterprises guided by social missions extended to Costa Rica, where he was founder of Greening Paraiso, a watershed restoration initiative; founding partner in El Centro Verde, a sustainable agriculture and agroforestry education and demonstration center; founding partner of Finca Lagunita, the first organic CSA membership farm in Central



America; and partner in two conservation developments. Will recently focused on two new environmental restoration enterprises: Earth Partners, which works with degraded and vulnerable ecosystems to develop and implement science-based, investment-optimizing restoration projects; and Carbon Harvest Energy, which builds landfill gas-to-energy projects that create renewable distributed energy, run greenhouses and aquaculture from the waste heat, and filter and capture all remaining gas and waste to produce algae for feed and biodiesel. Will lived in Shelburne, Vermont.

This year also marked the passing of Mark Schroeder of Belvidere, VT and more recently, South Burlington. Mark wore many different hats in life, and worked as a farmer and planner both in Vermont and in Nepal. At VNRC, he volunteered for many years as our Board Treasurer, and, with a total of 16 years under his belt, served on VNRC's board on separate occasions for more years than any other board member in our 60 year history. While on our board, Mark worked closely with our finance committee to completely revamp our financial practices, and we know Mark played a big role in helping us be on the solid footing we are on today. Mark's agricultural and land use knowledge helped VNRC navigate some challenging times. He understood the nuances with Act 250, and worked hard to champion family farms. Mark also had a great sense of humor, and was a very kind and generous person. We are so grateful that we were able to have Mark in our VNRC family for these past 40 plus years as a board member, generous donor, and friend.



Art Exhibits at VNRC

VNRC is excited to present a series of rotating quarterly exhibits from local artists whose work connects with or complements our mission. Featured artists have included Linda Mirabile (Berlin), who captured the natural beauty and personality of Vermont's birds, Jill Madden (Weybridge), who explored the unique wilderness areas of the Green Mountains, Karen Schaefer (Essex), who reflected on the liminal season between late season sunflowers and early snowfall, and Jay Hudson (Glover), who depicted scenes of winter in the Northeast

Kingdom. Between April and June 2023, VNRC will present "Fantastic Floodplains", by river ecologist Gretchen Alexander (Jericho). Bridging art and natural science, her watercolor and acrylic paintings highlight the importance and beauty of Vermont's natural floodplains.



Our Better Nature

The Vermont Alliance for Half-Earth, a groundswell conservation awareness organization that bases its approach on the work of Professor EO Wilson, is proud to present **Our Better Nature**. The book, a collection of essays about humans' relationship with the natural world in Vermont, has been in the making for the past eighteen months. **Lavishly illustrated with photographs and drawings, the book tells the story of one group's commitment to act on behalf of ecological balance—to deliberately and consciously act to share the planet with the non-human species that live alongside us.** The book is jointly published by Northeast Wilderness Trust, Vermont Natural Resources Council, Vermont Alliance for Half-Earth, and the Lintilhac Foundation. Curt Lindberg, one of the group's founders, co-edited the book with Eric Hagen, who wrote a series of stories about six Vermonters who took Dr. Wilson's teachings to heart on their farms, forests and yards to protect and restore biodiversity. "Eric's stories," says Lindberg, "led the Alliance to adopt the mantra half-yard, half-school, half-town, half-valley, half-state—to emphasize that everyone can play a part in addressing the biodiversity crisis." This call for action led to other outcomes, including the book, the Alliance website, a variety of community education programs, and efforts to encourage even greater collaboration among Vermont conservation organizations around biodiversity restoration. "It's a big effort, but our hope is these small actions will spur some big changes, like those that happen in nature."

"This book could not be more timely, more charming, more useful, or more needed! Anyone who cares about our small and lovely state will want to spend time with it—its impact will spread beyond Vermont's borders."

—**Bill McKibben**, Author of *Wandering Home*,
Founder 350.org

"What a rare and lovely treat, to get to read such interesting and thoughtful essays written about nature, by people who have dedicated their lives to living close to and understanding the land of green hills and silver waters of Vermont. Through the eyes of these great writers and thinkers (and doers!), we get a bird-eye view of the beautiful and complex quilt of life in the Green Mountain state. Providing lessons that apply far beyond Vermont's borders, these writers give us both a clear warning that this quilt is unraveling and invite us to join in celebrating, and saving, our natural world."

—**David K. Mears**, Executive Director, Audubon Vermont

"At a time when many key habitats and species are



declining in Vermont and throughout the world, *Our Better Nature* serves as a well-crafted and timely reminder of the critical importance of redoubling efforts to enhance working and wild landscapes. A must read for anyone interested in learning more about the nature of Vermont and many of the efforts to protect it for future generations."

—**Anthony D'amato**, Professor,
Director of Forestry Program, University Of Vermont

Our Better Nature is available in fine bookstores in Vermont, including Norwich Bookstore, Bear Pond Books, Vermont Bookshop, Northshire Bookstore, Phoenix Books, Stowe Books, Sandy's Books and Bakery, and Tempest Book Shop. It is also available on Amazon.



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Celebrating Patrick Leahy's Decades of Leadership

On October 6, 2022 VNRC and our partners gathered at Shelburne Farms, with over 500 people in attendance, to thank Senator Patrick Leahy for the decades of leadership and support that he has given towards protecting and enhancing Vermont's natural resources and vibrant communities. His commitment to clean water, healthy and strong wildlife habitat, green energy sources and efficiency measures, and support for strong downtowns and communities has shaped the Vermont we love today. Thank you, Senator Leahy, from all of us.



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