To: House Committee on Environment & Energy

From: Lauren Hierl, Executive Director of Vermont Conservation Voters

Re: Testimony in Support of S.259 to Create a Climate Superfund

Thank you for the opportunity to testify today in strong support of S.259, a bill to create a Climate Superfund and hold large fossil fuel extracting and refining companies accountable for helping pay for the damage their activities and products are causing in Vermont.

My name is Lauren Hierl, and I'm the Executive Director of Vermont Conservation Voters. VCV is a statewide non-partisan, non-profit organization that advocates for strong environmental policies and educates voters using tools like our Environmental Scorecard.

One of our annual projects is the Environmental Common Agenda, which we provided to you all in January. We work with a range of environmental organizations - nineteen organizations participated this year - to identify our key legislative priorities. The Climate Superfund Act, S.259, was identified as a top priority for the environmental community this year.

First and foremost, I want to make clear that the costs of climate change are being borne by Vermonters right now. This bill simply asks the largest fossil fuel extraction and refining companies, who put these products on the market all while knowing that they would result in damage to our communities, to help pay for these costs.

To give you some examples of what those costs look like – in addition to wearing my VCV hat today, I'm also a Montpelier City Councilor. With last summer's climate-change-driven extreme rainfall flooding event, I've seen firsthand how our city finances were decimated. This was due to lost revenue from our local options tax from our businesses who were shuttered for months, plus our parking fund was zeroed out for many months, plus we had to issue numerous tax abatements for flood-impacted properties.

We also had direct impacts and costs, including massive flood damage at City Hall. At a meeting tonight, we're finally looking at proposals to rebuild - and will need to figure out if we can afford to make the building more resilient, such as by moving the utilities to higher ground, or if we need to rebuild in a cheaper way that will leave us more vulnerable to future climate impacts because our community is still struggling so much financially. We still have a hiring freeze in place and had to cut a number of critical infrastructure and other projects. In addition to rebuilding City Hall, we need to make our fire station more resilient to future floods which are nearly certain to occur on an overheated planet, or decide if we need to build a new one on higher ground for many millions of dollars - and hope that higher ground will remain out of the flood zone of the warmer and wetter future that climate scientists have warned us to expect.

We already know that we also need to take steps to protect our wastewater treatment facility from the levels of future flooding anticipated in a changed climate. We need to upgrade our stormwater system

to handle the heavier volumes of rain that climate change is bringing. We are seeing notable increases in water main breaks, which cost money and time to fix, and result in boil water notices where our residents can't drink the water out of their taps - meaning it's becoming harder for us to provide this basic human need to our residents.

The climate science is very clear. In a warmer world, flooding is anticipated to be more common and more severe in the coming years. Communities like mine and those you represent are facing numerous decisions and investment challenges as we grapple with how the climate has already changed and will continue to change - in large part thanks to the burning of fossil fuels. And we are massively under-resourced as we try to take on these challenging issues alone.

We are getting some reimbursement from the federal and state government, but we will not be made whole – and those funding sources are of course coming from taxpayers.

Our local business community has been incredibly resilient, and walking downtown it can be easy to forget what the devastation looked like. If you came downtown last summer, it was a ghost town. Every single downtown business was damaged, and there was a sickening chemical-laced smell from the contaminated water and mud that had soaked our town. It was heartbreaking to see our small local businesses with their entire inventories out on the street, destroyed. These businesses had already been hammered by the pandemic, and were now facing this massive hit. To reopen, many of them have had to take on large new loans, and the trauma and financial hits are significant and ongoing.

Our local homeowners were also impacted. There are people who lost their homes altogether. Montpelier has already approved several buyouts, meaning the people who were living there lost their homes, this is exacerbating our housing shortage, and also means these neighbors often can't stay in town because there's nowhere to rent or buy. Those houses will be torn down, reducing our housing stock and taking those properties off our community tax roles permanently. There are still people living in shells of houses, trying to figure out if or how to rebuild. And many residents had many thousands of dollars of damage that they've been fighting with FEMA and insurance companies, and struggling to figure out how to pay for it all.

I was appointed a member of the Montpelier Commission on Recovery and Resilience that formed after last summer's devastating floods. We are working on a range of projects, looking at things like how to better manage the land along our rivers in town, could we build flood storage in downtown, what upstream and downstream restoration projects can we pursue to protect our community? How can we floodproof the many buildings that will inevitably remain in harm's way?

So Vermont communities are right now being put in the position of having to figure out these hard and expensive questions because of the climate crisis. We need help, and we need funding.

As a parent, I'm also seeing the impacts of climate in numerous ways. Forest fire smoke last summer meant we had to keep our kids inside and had to cancel numerous planned activities. Summer camp - which we need for child care - was canceled because of the flooding. School has been closed

numerous times this year due to water main breaks. Every time my kids play outside, we need to check for ticks and nonetheless have had to get them treated for numerous tick bites. That's time, stress, and money coming right out of our pockets, and collectively, means increased costs for our health care system that we all pay in ever-rising health care costs.

I could keep going - but these are just some examples of what communities and individuals are going through already because of climate change, and impacts are only expected to worsen in the coming years.

We cannot afford to pay for these wide-ranging and significant costs alone – and we shouldn't have to, knowing that these large fossil fuel companies chose to continue selling products long after scientists had made clear how these products would cause exactly the type of costly damage that communities all across Vermont are now facing. They should help pay for communities to rebuild and take steps to make sure we're resilient to the evolving climatic conditions that increase our risk for ongoing and future damage.

Either we continue with the status quo and have to pay for it ourselves, as individuals, and small businesses, and as local, state, and federal taxpayers. Or, we pass this bill and ask the fossil fuel companies to help pay their fair share for the costs that their products and activities have caused.

This flood is the kind of thing that climate science says is going to happen more frequently and more intensely in the future - so having resources to respond and prepare our communities is absolutely essential. Last fall, VCV co-hosted community conversations in Ludlow, Plainfield, and Johnson to hear from other flood-impacted residents, and it was really staggering to hear how many urgent needs people were identifying around the state.

Another issue VCV has worked on for many years is cleaning up Lake Champlain and ensuring clean water for all - and we know that the warming climate is making toxic cyanobacteria blooms worse, making our lakes and ponds unsafe for swimming during some of the hottest periods of the summer. We also know that just one event like the July flood dumped a massive amount of phosphorus into our lake. This is a compounding tragedy considering how important our lakes and ponds can be as cooling resources in Vermont, where each summer we see high temperature records shattered.

I wanted to submit for the record the <u>Vermont Atlas of Disaster</u>, which I sent to the committee assistant. The authors are Rebuild by Design, a group formed with federal funds following Hurricane Sandy. <u>They analyzed the costs of climate change in Vermont, and found that Vermont has the 5th highest per capita costs of climate change. The study looked at the timeframe of <u>2011-2021</u>, and found that every single county had experienced at least four climate-related <u>disasters during that time</u>.</u>

The Atlas references a 2021 study by the University of Vermont which predicted \$5.29 billion in climate-change related flood damages along the Winooski River in the next century, affecting over 140,000 Vermonters. Of course, we just had a single \$1 billion flood event, so that now seems likely to be a massive underestimation of costs.

As a local elected official, one thing I probably hear about more than any other is potholes. In the Atlas of Disaster report, the authors identified that global warming exacerbates Vermont's historical, seasonal freeze/thaw cycle, making potholes worse, more numerous, and more expensive to address. The report also highlighted, for example, a \$27 million federal disaster declaration from estimated crop losses in 10 counties of Vermont in 2020 due to severe drought conditions that climate scientists also link to global warming.

As the state undertakes the Resilience and Adaptation strategic planning process laid out in the bill, we are fortunate to not be starting from a blank page. Beyond externally produced resources like the Atlas of Disaster, the state will also be able to incorporate and build on the extensive work undertaken by the Vermont Climate Council to develop the state's Climate Action Plan. Through that iterative planning process, we have already identified a range of essential resilience and adaptation strategies. Further, that plan will be getting updated, with a new version due in July 2025 - so that work will be underway and can help inform the effort needed to implement S.259.

Similarly, the state is actively working on the <u>Vermont Hazard Mitigation Plan</u>, which is supposed to be approved by FEMA this month. This plan underscores that climate change is increasing the threat from nearly all hazard types, including:

Inundation flooding & fluvial erosion

"The anticipated increases in both frequency and magnitude of precipitation in Vermont will lead to alterations of hydrology and water availability. Increased flood inundation, fluvial erosion, and subsequent landslide hazards (see: Landslides) will result in impacts to ecological and geomorphic integrity of river and floodplain systems, and to the built environment. Vermont's historic settlement pattern, in association with the widespread channelization of rivers and loss of functioning floodplains due to encroachments and fill, make Vermont particularly vulnerable to climate change-related increases in flood frequency and magnitude."

Extreme heat

"Considering the already-observed increase in average annual temperature, the projected rise between 3°F and 10°F by the 2080s, and the impacts of extreme heat or prolonged hot weather, the Steering Committee considered the probability of a plausibly significant extreme heat or prolonged hot weather event to be Highly Likely, with major impacts to people."

Wind

 "However, it is likely that as climate change accelerates, we will see exacerbation of wind events such as hurricanes, tropical storms, and thunderstorms."

Drought

"At the same time Vermont is seeing an increase in average annual maximum and minimum temperature (see: Extreme Heat, Extreme Cold), which is contributing to an increased likelihood of drought. Higher temperatures lead to increased rates of evaporation, combined with dry periods between intense precipitation events will lead to increased dry conditions. The wet and dry extremes are expected to increase over time in Vermont."

Infectious disease

- "Climate change can increase the range of diseases and their vectors and increase rates of infection. Warmer temperatures allow more diseases and their vectors to venture further north where harsh winters temperatures previously inhibited expansion."
- See also Table 38, which details seven "Diseases already present in Vermont that may be exacerbated by climate change," five "Diseases that may spread to Vermont even without contribution of climate change, whose spread to and transmission of Vermont could be exacerbated by climate change" and two "Diseases with vectors that may spread to Vermont by the end of the century under a higher emission scenario."

Invasive species

- "Additionally, the changing climate will allow for greater survival and reproduction of forest pest species, as trees that are stressed due to lower water availability reduce their ability to maintain sufficient defense mechanisms, making them more vulnerable to pest invasion and disease. As trees die at an increasing rate, concerns regarding wildfire susceptibility also rise (see: Wildfire)."
- "As the global climate continues to shift at a rapid rate, species better adapted for warmer climates will continue to proliferate, with changes in ecosystem composition threatening to destabilize basic ecosystem functions. Costs associated with the disturbances invasives cause will continue to mount, with mitigation costs also rising as it becomes increasingly difficult to manage for abundant pests with no major predator."

Landslides

(from Inundation Flooding & Fluvial Erosion chapter) "The anticipated increases in both frequency and magnitude of precipitation in Vermont will lead to alterations of hydrology and water availability. Increased flood inundation, fluvial erosion, and subsequent landslide hazards (see: Landslides) will result in impacts to ecological and geomorphic integrity of river and floodplain systems, and to the built environment. Vermont's historic settlement pattern, in association with the widespread channelization of rivers and loss of functioning floodplains due to encroachments and fill, make Vermont particularly vulnerable to climate change-related increases in flood frequency and magnitude."

Wildfire

"Although wildfires are currently uncommon in Vermont, the Steering Committee acknowledged that extended periods of warming due to climate change have the potential to increase the occurrence of wildfire events, thus ranking Wildfire with a probability score of Occasional. Vermont is seeing an increase in average annual maximum and minimum temperature (see: Extreme Heat), which is also contributing to an increased likelihood of drought (see: Drought) and wildfire risk, though an increase in precipitation events (see: Inundation Flooding & Fluvial Erosion) may limit that risk during certain times of the year. Furthermore, due to a lack of wildfires

in recent history, there may be more fuel available for a large-scale wildfire. Unhealthy wildfire smoke from out-of-state wildfires is also expected to affect Vermont more frequently and severely in the future, as climate change is already increasing wildfire risks in the western United States and Canada."

To conclude, Vermont is already experiencing damage from climate change, and extensive research shows that these impacts are only expected to increase over time. The state has a lot of resources to build on to do the work outlined in S.259, and will have the support of entities like the Vermont Climate Council. Meanwhile, our communities will be facing more frequent and more intense disasters, and will need to be investing in infrastructure that can be more resilient to these changing conditions - even as our local budgets are struggling.

Seeing what this means firsthand in my own community, it's incredibly frustrating, challenging, and expensive. We know these large fossil fuel extracting and refining companies chose to sell their products and in fact increase production over time, despite knowing the impacts that would be caused by using their products. They are continuing to reap massive profits while Vermonters are left paying for the consequences. Asking them to pay their fair share for the damage their activities and products are causing is a commonsense, rational, and essential step for Vermont to take.

Thank you for your consideration, and I'd be happy to answer any questions.