

My name is Andy Jones, and I am the Farm Manager at Intervale Community Farm in Burlington. Thank you for the opportunity to testify on Senate bill 259, an Act Relating to Climate Change Recovery.

Intervale Community Farm grows about 22 acres of mixed vegetables in Burlington. Founded in 1990, we are one of six independently owned and operated farms leasing land from the non-profit Intervale Center. Peak season we employ about 14 people, growing and selling vegetables from arugula to zucchini for 11 months of the year. I have managed Intervale Community Farm since 1994. I am a past president and board member of the Northeast Organic Farming Association of Vermont (NOFA-VT) and a past president and current board treasurer of the Vermont Vegetable & Berry Growers Association (VVBGA). These comments represent only my personal opinion.

The entirety of our farm, as well as those of our neighbors, lies within the 100-year floodplain of the Winooski River. We expect floods, and have managed around them for decades. But the magnitude of the floods are changing.

On July 12 2023, 99% of Intervale Community Farm and all of our farm neighbors were flooded, wiping out about \$200,000 worth of our crops and around \$500,000 of our neighbors' crops. The Agency of Agriculture received reports of losses on 264 farms of all types, spanning 27,000 acres and tallying \$16.1 million dollars, representing an average loss of annual income by farm of 28%. There is good reason to believe the Agency's figure is an underestimate, as it relies primarily on self-reported data.

Tropical Storm Irene had been our high water mark, hugely exceeding 20 years of prior flooding and covering about 97% of our farm. After Irene, I contacted the Burlington National Weather Service office, which estimated that Irene was likely a 50-75 year flood at our location, i.e. a 1.5-2% annual recurrence likelihood. Maybe they were wrong or we're just unlucky that 2023 came 12 years later, but evidence points to climate change.

Like many in Vermont, we learned from and changed after Irene. We altered our crop mixes, moved to more raised beds, and planted to optimize small variations in topography. We elevated electrical services and HVAC mechanicals above the 100-year level, selected the very highest sites for our greenhouses and structures, chose flood-resilient building materials, and the list goes on. These measures reduced our infrastructure and crop losses from the July 2023 flood, but they came at a cost: of the nearly \$500,000 we've spent on infrastructure since Irene, around \$100,000 of that is money we might not have spent had the increased threat presented by climate change been absent. With annual sales of \$750,000-\$800,000 and capital expenses averaging \$30,000-\$40,000 that is real money for a farm our size

Floods are the most damaging of the threats presented by the warming climate, but others are consequential also. Rainfall exceeding 2" per storm has increased dramatically since 1990. That much rain makes it nearly impossible to get equipment into the field to plant, weed, or harvest, it stalls growth, and it pushes plant diseases off the charts.

While too much rain is a problem, we also face increasingly frequent droughts. The five lowest measured water levels on the lower Winooski River date from 2009 to now. While many vegetable farmers outside of the Champlain and Connecticut valleys had little need for irrigation throughout the twentieth century, it is now nearly a requirement throughout the state. Intervale Community Farm depends on irrigation every year.

Money alone will not solve climate change, but it can help to blunt the worst effects. We have more electrical systems we should elevate, greenhouses we should relocate to higher sections, and irrigation investments it would be wise to make. But we also need to replace two 40 year old tractors, expand a cooler, and pay our workers more so they can afford to live near Burlington.

In the aftermath of flooding, we destroy any edible crops touched by floodwaters. We also test our soil after major floods like Irene & last

summer, in order to make sure that heavy metals, hydrocarbon compounds, and microbes will not present a risk in future crops. Though the long-term risks presented by floodwaters are very low, we are careful and cautious because we do not want to cause harm. Furthermore, if our vegetables did make someone sick, I have no doubt that Intervale Community Farm would be financially accountable through our insurance and likely the legal system as well.

The tobacco industry knew the risks of smoking, the pharmaceutical industry knew the risks presented by opioids, the chemical industry recognized the damages from PFAS and PCBs, and they have, to a small degree, been forced to contribute toward fixing some of what their denials and actions wrought.

The oil companies knew decades ago the central role their products played in changing the climate. They can and should help shoulder the cost of fixing the problems they have exacerbated through their deception.

Farmers and communities around the state would benefit from funding to move assets out of harm's way, relocate to higher ground, install irrigation systems, and many other capital improvements, as well as from large scale rapid response funding that could help farmers purchase feed for their livestock, make payroll to keep employees and stabilize cash flow in the face of major losses.

Thank you for the opportunity to testify on this important bill.