Dear Senator Bray:

My name is Justin Rich and I run Burnt Rock Farm in Huntington, where we primarily grow winter storage vegetables. I am also the Vice President of the Vermont Vegetable and Berry Growers' Association (VVBGA), which has over 400 active farmer members.

I and others in the horticultural community are very concerned with the recently passed H.466 bill ("Conservation and development; regulation of stream flow; surface water withdrawal; interbasin transfer"), and its potential effects on the use of surface waters for irrigating crops. In its current form, we view this bill as highly problematic to our vibrant and growing piece of Vermont's rural economy, and we ask that it not be passed by the Senate.

To give a brief outline, our concerns fall along 3 main themes: Process, Stated Goals, and Scale:

1.) Process: This bill was passed very rapidly, and with no input from the fruit and vegetable farming community. Withdrawal of surface water for irrigation is a crucial practice for fruit and vegetable farms in our state, and regulations already exist to regulate the volume of water used for irrigating crops. Irrigation is a relatively infrequent - but absolutely necessary - tool in the toolbox of horticultural growers trying to make a living in this era of extreme climate variability. This bill stands to change how growers irrigate and yet sought no input from this group.

2.) Stated Goals: Vermont is a very wet state, and farmers typically are battling excess rainfall, not drought. There is great effort being made at the state level to diversify our agricultural economy beyond dairy, and this bill – with its exemptions for watering livestock but not watering crops - does nothing to further that goal, and in fact hampers it by adding an additional level of paperwork to the vast majority of fruit and vegetable farms. Very few dairy farms irrigate crops, but nearly all fruit and vegetable farms do.

The bill states the existence of a problem (namely the potential for withdrawals to impair surface waters), but then mandates data-gathering by farmers and other users so as to be able to determine the scope of the potential problem. The bill also mandates a permitting process for water withdrawals, regardless of statistics assembled during the data-gathering stage. This does not appear to be a sound policy-making process. Issues may exist in certain watersheds, but the approach taken by H.466 will not help to identify areas at risk, since it focuses on identifying water withdrawals from *all* waterways in the state, independent of whether or not those surface waters are in peril. It also does not clearly address how artificial ponds are to be defined for regulation. Ponds are a common water source on many upland farms, and most ponds have outlets connecting them to other surface waters.

As a farm community we *want* to protect vulnerable, smaller waterways which may be impaired by excess water withdrawals. Those waterways should be identified, and can be identified by more scientific means than measuring current levels of infrequent, intermittent, and relatively small water withdrawals by hundreds-to-thousands of individuals operating in hundreds of watersheds. USGS has reams of reports on this topic; data-gathering by farmers will not materially add to this body of knowledge. Aggregating reported withdrawal data from such disparate sources as a small mountain brook and the lower Winooski river does not produce a statistically nor ecologically useful snapshot of water use and the effects of withdrawals. Additionally, from a scientific perspective, it seems very optimistic to assume reporting compliance by homeowners, landscapers, golf courses, and small farmers to a level that would generate a solid statistical framework for future regulation and permitting.

Farms currently engaged in irrigation have an incentive in coming years to have their irrigation use "on the record," as proof of prior use could help to establish rights to such use in the future. A *voluntary* system – rather than a legislated reporting mandate capturing very small users - would likely capture most of the large users of irrigation water in the state, inasmuch as it would be in a farmer's best interest to establish a recorded history of use. This would also reduce the commensurate administrative costs of a mandated and enforced reporting and permitting process.

3.) Scale and Implementation: The action levels in this bill will capture tens of thousands of very low-level withdrawal events, all accompanied by paperwork performed by mostly small-scale farmers during the height of their busy summer season. The withdrawal reporting threshold begins at 5,000 gallons of water per 24 hour period, which is an extremely small amount of water. For example, a lawn sprinkler left on for 24 hours could use 5,000 gallons of water. At a farm scale, and employing the most water-efficient drip irrigation (developed in Israel, and now very common in Vermont), watering one acre of crops will trigger a reporting requirement in *1.5 hours*. And for farms hitting the 50,000 gal/day threshold for metering, meters will need to be fitted at each pump station, to the tune of roughly \$5,000 per station. Vermont is a state of small fields; on our small farm I would require meters on 6 different pump stations, to the tune of roughly \$30,000.

Despite the volume of water used for irrigation, the flows of most rivers and streams are massive in comparison. Even in July, with seasonally low water levels, the Winooski River's average discharge at Montpelier is *209,000,000* gallons per day, and that rate increases as it flows towards Lake Champlain.

Many states require reporting of water withdrawals, but in our region their reporting requirements begin at a withdrawal rate 10-20 times higher than the 5000 gal/day mandated for the data-gathering phase of H.466. This vast difference in scale, coupled

with the open-ended regulatory and permitting outcomes specific to the bill's language leads us to oppose it as currently written.

Thank you very much for your time.

Justin W. Rich, Vice President, VVBGA Burnt Rock Farm Huntington, VT