

Testimony to the House Agriculture, Food Resiliency & Forestry Committee

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Joe Bossen, Cloudwater Farm

Hello and thank you for your time. I am here to advocate for the farmers of Vermont in general, and for the passage of the Farm Security Special Fund in particular.

I am a resident of Montpelier who runs a small diversified farm in Warren where my fifteen-year-old food manufacturing business, Vermont Bean Crafters operates. VBC serves as a conduit between local organic farms and the broader markets of the Northeast. We turn beans, grains and vegetables into products like bean burgers that get served in restaurants, universities, grocery stores, hospitals, and K-12 schools around New England.

Our farm hosts a multi-farm CSA, connecting three other organic farms in VT to over 150 families in the Mad River Valley. We also host willow weaving and plant propagation workshops, and community events like Butterfest: a celebration of the fat of the land and the richness of being together.

We named the farm Cloud Water Farm to reflect the hydrological cycles that have defined this rich flood plain from time immemorial. Standing in our fields you'll see the most gorgeous assortment of clouds arching over the Green Mountains, as the sandy loam wicks the not-too-distant water table into verdant plants underfoot, and the mountain-fed Mad River channels coolly past all along the western edge of the farm. Everything that defines this place and all the crops that leave this place are shaped by and contain cloud water. It's a beautiful and profound thing. And yet with both climate change and shifts in land use uphill and upstream of our farm, it also portends humbling risks.

This video shows the aftermath of a flash flood event that happened in August 9th of 2023, after and before some other less-intense but still-consequential flood events and another bizarre season of surges of precipitation amidst fully-saturated soils.

While rains increase, the uphill forest canopy diminishes as more private roads and residences chip away at the hillsides of our watershed. Soils get saturated and loosened more easily, and all those acres of sediment have nowhere to go but through this bottleneck of a culvert that serves to raise the height of the water and focus its force so that it enters our fields with an impressive velocity carrying surprisingly large stones and logs much further into our fields than I would have ever thought possible.

After the flood waters raged over their bank, what had been a 2'x2' rivulet I could easily stride across became a meters-wide field of gravel and tree limbs with only mature willow, pine, and alder holding in place. We lost several plums, grapes, and spans of annual fields, and for the 2nd time in three years, an important tractor bridge that allows us to more safely and efficiently move between fields. The high water mark flattened the grass on either side of a fresh planting

of cherry trees that were part of an agroforestry demonstration planting that has been established with climate change in mind.

After that event I knew that I needed to re-berm the streambed as soon as possible or else every subsequent rain event was going to rage into our production fields. A spur of the stream was now running into one of the fields, pooling and returning to the aquifer there. I knew I needed to move a lot of earth fast, but I wasn't clear if I was allowed to.

- was I allowed to touch a stream of this scale under any circumstances?
- did I need a permit signed off on by an engineer to make the Town and/or State happy?
- did I need to put things back the way they were, or could I 'improve' the stream to make it better for our farm as well as better for reducing sedimentation in the Mad River?
- who had expertise to guide the process?
- how was I going to pay for this?
- what sort of documentation would I need to provide?
- what are my rights in the context of VLT easements and NRCS contracts?

In the end, I reached out to the Town of Warren, Agency of Transportation, NRCS, FSA, UVM Extension, Mad River Water Protectors, other farmers, construction and earth moving professionals, and Meg at Interlace Commons who has applied expertise in managing water through landscapes.

No one party could give me concrete answers, and I quickly realized how badly there needs to be a [dedicated resource page](#) with a flow chart of questions and answers to help farmers in particular, but landowners in general, navigate what to do when Nature rearranges one's homeplace.

We ultimately were able to have our NRCS rep tell us that we would not need permits to do the excavator work we needed to. The following Spring, after gathering insights from a range of professionals, we were able to use a NOFA Emergency Fund grant to pay our neighbor to help us deal with this and put it back better than before, a bit more like a beaver would design a stream. This coming season we'll be partnering with NRCS and Interlace Commons to establish more robust vegetation in this and our other riparian corridors with the needs of wildlife, rivers, and people all in mind.

We have a lot of work to do. Individually and collectively. Our story is one of hundreds across this State. Listen to the stories of Foote Brook, Burnt Rock Farm and others...

We need more and better information sharing, in situ demonstration, and nimble funding mechanisms to keep our agricultural sector intact, and hopefully thriving, amidst climate uncertainties. The creation of the Farm Security Special Fund won't solve our problems in one go, but it can hopefully help buy farmers some time to heal from and adapt to this new normal. The return on investment for the People of Vermont is clear. Not only do we all need to eat, we need stories and examples of how we can come together to solve these problems. And we need

to acknowledge that the farsighted management of the 1.2M acres of agricultural lands in VT is likely the best investment we can make for our collective future.