

TO: Vermont Pesticide Advisory Council
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Thank you for this opportunity to speak to you. I have recently observed encouraging developments in this council's work:

- * increased care in oversight of ROW permits;
- * efforts in developing the FTC site to increase accessibility and accountability;
- * collaboration on challenging issues; and
- * engagement with revision of Pesticide Regulations.

We can no longer assume that “the dose makes the poison” because endocrine disrupting compounds (EDCs) act subtly on hormonal systems at very low concentrations, thus presenting new regulatory challenges. Standards set for biocides before the recognition of endocrine disruption will no longer be adequate to protect humans and wildlife. The effects are not immediate but are manifested in serious health disorders including cancers, reproductive disorders, immune system disorders, learning disabilities, autism, asthma, and obesity. (1) Glyphosate and Roundup have endocrine-disrupting capabilities at less than 10 ppb (2); its MCL in water is 700 ppb.

Researchers find that glyphosate is toxic to stomach microbiota necessary for digesting food, and toxic to enzymes needed to detoxify toxins in the body, increasing the adverse health effects of toxins. I see this as a warning about other herbicides with supposed low toxicity for animals and humans. (3) In light of the above factors, it appears that a stricter standard for glyphosate is needed. Glyphosate may be a factor in increased algae in lakes. I urge you to work toward strengthening this standard.

Two reports of monitoring pesticides in waters in the last 12 years (2001 and 2007) indicate that currently used buffers are not sufficient to protect waters of the State.

Our citizens' coalition expects to work proactively with you in the revision of the Pesticide Regulations and rulemaking. We live in watersheds needing protection from cumulative impacts of multiple uses of toxins permitted without consideration of the communities and waters affected. (See other side for more detail.) We will work for increased accountability in several aspects of pesticide regulation, including but not limited to herbicides used near waters, at substations, in landscaping and more effective buffers. Supported by existing state and federal law, I believe that we can achieve greater accountability in the regulation of biocides in Vermont. If new legislation is indicated, we will consider that option as well.

References

- 1) The Endocrine Disruption Exchange. www.endocrinedisruption.com
- 2) Richards, Sophie et al (2005). Differential effects of glyphosate and Roundup on human placental cells and aromatase. Environmental Health Perspectives 113: 6; 716-720.
- 3) Samsel, Anthony and Stephanie Seneff (2013). Glyphosate's Suppression of Cytochrome P450 Enzymes and Amino Acid Biosynthesis by the Gut Microbiome: Pathways to Modern Diseases. Entropy 15, 1416-1463; doi:10.3390/e15041416

ROW Permits, Cumulative Impacts, & Streams in Lake Champlain Basin

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PROBLEM STATEMENT

Railroads, electric utilities and VT Agency of Transportation (VTrans) seek permits from the VT Pesticide Advisory Council (VPAC) to use herbicide mixtures and additives to control weeds on rights-of-way (ROWs). Granted by Agency of Agriculture, such permits allow multiple herbicide uses parallel to or across streams with minimal buffers without considering cumulative impacts on stream communities or watersheds. Our ability to use chemicals greatly surpasses our ability to monitor and understand their cumulative impacts on the community of life.

PESTICIDE CONTAMINATION OF STREAMS

According to two state-generated reports on water contamination, railroad, golf course and landscape pesticides have entered waters of the State (Shambaugh, 2007; VT DEC et al, 2001), indicating that currently required buffers for ROW permits may not be adequate for their purpose. Six streams in Charlotte, Ferrisburgh & New Haven are at risk from multiple ROW herbicide uses and are listed below.

<u>Streams in Charlotte, Ferrisburgh, New Haven at risk from</u>	<u>pesticide uses:</u>
Little Otter Creek (New Haven, Ferrisburgh)	Farms VT Railway VELCO transmission VTrans highway
Lewis Creek (Starksboro, Hinesburg, Charlotte & Ferrisburgh)	Farms Lampricides VT Railway VELCO transmission VTrans highway
Kimball Brook (Charlotte & North Ferrisburgh)	Farms in Charlotte, Ferrisburgh VT Railway VELCO transmission VTrans highway
Kimball Brook wetland (North Ferrisburgh)	VELCO substation
Thorp Brook (Charlotte)	Farms VT Railway VELCO transmission
Pringle Brook (Charlotte)	Horsford Nursery VT Railway VTrans highway

Pringle Brook wetland (Charlotte)

Holmes Creek (Charlotte)

VELCO substation
VT Railway

VT Railway
VELCO transmission